

**PETROLEUM AND NATURAL GAS REGULATORY BOARD****NOTIFICATION**

New Delhi, the 5th July, 2012

**F. No. M(C)/2009.**—In exercise of the powers conferred by section 61 of the Petroleum and Natural Gas Regulatory Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely:—

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Guiding Principles for Declaring or Authorizing Petroleum and Petroleum Products Pipelines as Common Carrier or Contract Carrier) Regulations, 2012.
- (2) They shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

- (1) In these regulations, unless the context otherwise requires,—
  - (a) “Act” means the Petroleum and Natural Gas Regulatory Board Act, 2006;
  - (b) “appointed day” means the date of October 1, 2007 when the Central Government notified the establishment of the Petroleum and Natural Gas Regulatory Board;
  - (c) “affiliate” means a person in relation to the entity—

- (i) who participates, directly or indirectly or through one or more intermediaries, in the management or control or capital of the entity;
  - (ii) who holds, directly or indirectly, shares carrying not less than twenty-six per cent. of the voting power in the entity;
  - (iii) who appoints more than half of the Board of directors or members of the governing board or one or more executive directors or executive members of the governing board of the entity; or
  - (iv) who guarantees not less than ten per cent. of the total borrowings of the entity.
- (d) "Board" means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of section 3 of the Act;
- (e) "Petroleum and petroleum products pipeline" means any pipeline as defined in the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipelines) Regulations, 2010.
- (2) Words and expressions used and not defined in these regulations, but defined in the Act or in the rules or regulations made thereunder, shall have the meanings respectively assigned to them in the Act or in the rules or regulations, as the case may be.

### 3. Scope.

These regulations shall apply to an entity-

- (a) which proposes to lay, build, operate or expand a petroleum and petroleum products pipeline and has been authorized to do so under

2488 GI/12-3

the relevant regulations for authorizing entities to lay, build, operate or expand petroleum and petroleum products pipelines;

- (b) which has been laying, building, operating or expanding petroleum and petroleum products pipeline before the appointed day and has been authorized under the relevant regulations for authorizing entities to lay, build, operate or expand petroleum and petroleum products pipelines; or
- (c) which has been authorized by the Central Government before the appointed day and accepted by the Board for laying, building, operating or expanding petroleum and petroleum products pipeline under the relevant regulations for authorizing entities to lay, build, operate or expand petroleum and petroleum products pipelines.

**4. Objectives for declaring petroleum and petroleum products pipeline as common carrier or contract carrier.**

- (a) Petroleum and Petroleum products Pipelines are an efficient, economical and safe mode of bulk transportation of petroleum and petroleum products from a refinery or an installation to a demand centre over a particular route. Therefore, consumer interest is best served by promoting competition, compliance with environmental and safety statutes and avoiding infructuous investments by optimum utilization of infrastructure of petroleum and petroleum products pipelines.
- (b) The concept of allowing capacity in a petroleum and petroleum products pipeline to be utilized by any entity on a non-discriminatory basis through contract carrier or common carrier arrangements with entities laying, building, operating or expanding petroleum and petroleum products pipelines shall lead to development of competitive markets.

**5. Contract carrier system for petroleum and petroleum products pipelines.**

- (a) A contract carrier system implies that the capacity in petroleum and petroleum products pipeline, over and above the entity's own requirement, shall be available to any other entity subject to the latter entering into a contract for transportation of quantity of petroleum and petroleum products of a mutually agreed quality for a period of minimum one year on such other terms and conditions as may be mutually agreed subject to the provisions of regulations notified from time to time under the Act and on payment of petroleum and petroleum products pipeline tariff as authorized under the Petroleum and Natural Gas Regulatory Board (Determination of Petroleum and Petroleum Products Pipeline Transportation Tariff) Regulations, 2010.
- (b) The contract for transportation of petroleum and petroleum products in petroleum and petroleum products pipeline shall be independent of the activity of marketing of petroleum and petroleum products.

**6. Common carrier system for petroleum and petroleum products pipelines.**

- (a) A common carrier system implies that the capacity in a petroleum and petroleum products pipeline, over and above the entity's own requirement, shall be available to an entity subject to the latter entering into a contract for transporting quantity of petroleum and petroleum products of a mutually agreed quality for a period of less than one year, on such other terms and conditions as may be mutually agreed, and subject to the provisions of regulations notified from time to time under the Act and on payment of petroleum and petroleum products pipeline transportation tariff as authorized under the Petroleum and Natural Gas Regulatory Board (Determination of

Petroleum and Petroleum Products Pipeline Transportation Tariff) Regulations, 2010:

Provided that if the common carrier capacity is not fully utilized, the entity may contract the same for a period of one year or more, subject to the stipulation that in case another entity seeks booking of the same for a period of less than one year, the request shall be accommodated after pro-rating the same from the common carrier capacity already contracted to other entities for a period of one year or more:

Provided further that pro-rating the common carrier capacity shall not exceed ten per cent of the total common carrier capacity.

*Explanation.*- For the purpose of these regulations, entity laying, building, operating or expanding a common carrier or contract carrier petroleum and petroleum products pipeline shall have right of first use for its own and its affiliates' requirement and shall be limited to the right of first use. Such right of first use shall not be deemed to be preferential access.

- (b) The contract for transportation of petroleum and petroleum products in a petroleum and petroleum products pipeline shall be independent of the activity of marketing of petroleum and petroleum products;
- (c) Common carrier capacity available in petroleum and petroleum products pipeline at any given point in time shall be allocated to any other entity seeking booking of the same on a non-discriminatory "first-come-first-served" basis.
- (d) When the extra capacity in a petroleum and petroleum products pipeline to be provided on a common carrier basis is less than twenty five percent of the sum of the capacity requirements of the entity and the firmed up contracted

capacity with other entities, the same will be made available - (i) on expiry of firm contracts, or (ii) by way of expansion of capacity in the petroleum and petroleum products pipeline:

Provided that when the common carrier capacity is less than ten percent of the sum of the capacity requirements of the entity and the firmed up contracted capacity with other entities, the Board may on a *suo motu* basis and after following the due process of public consultation require an entity to build extra capacity on such time lines and other terms and conditions as may be specified by the Board.

**7. General principles for common or contract carrier capacity.**

- (a) Entity laying, building, operating or expanding petroleum and petroleum products pipeline shall publish the common or contract carrier capacity available in the petroleum and petroleum products pipeline on its website and follow the procedure specified in the relevant regulations on access conditions for petroleum and petroleum products pipeline.
- (b) Entity laying, building, operating or expanding petroleum and petroleum products pipeline shall allocate the common or contract carrier capacity available on a transparent basis by maintaining a record of the applications received and the basis of allocation and also publish the information on its website as per Annexure-1.

**8. Verification of own requirement and capacity allocated on a contract carrier basis.**

The entity shall specify the details of its own requirement and the capacity allocated on a contract carrier basis which shall be verified from time to time by the Board as required.

2488 GI/12-4

**9. Determination of contract carrier or common carrier capacity in petroleum and petroleum products pipeline.**

The common carrier or contract carrier capacity in respect of petroleum and petroleum products pipeline covered under,-

- (a) clause (a) of regulation 3 shall be determined as per the basis provided under the relevant regulations for authorizing entities to lay, build, operate or expand petroleum and petroleum products pipelines and as approved by the Board as per the basis specified in the relevant regulations for determining the capacity of the petroleum and petroleum products pipeline;
- (b) clause (b) of regulation 3 shall be as approved by the Board as per the relevant regulations for determining the capacity of the petroleum and petroleum products pipeline and clause (c) of regulation 3 shall be as authorized by the Central Government or as approved by the Board as per the relevant regulations for determining the capacity of the petroleum and petroleum products pipeline.

**10. Declaring of existing pipeline for transportation of petroleum and petroleum products as a common or contract carrier.**

(1) If the Board is of the opinion that it is necessary or expedient to declare an existing pipeline for transportation of petroleum and petroleum products as a common or contract carrier,-

- a) it may give wide publicity of its intention to do so by inviting objections and suggestions within a period of not less than one month from the date of invitation;
- b) the Board shall also provide the entity owning the petroleum and petroleum products pipeline an opportunity of being heard within a minimum notice period of twenty one days from the close of the invitation for objections and suggestions.

- (2) After considering the objections and suggestions received and after hearing the entity owning the petroleum and petroleum products pipeline under sub-regulation (1), the Board may declare the pipeline as a common or contract carrier subject to such terms and conditions as it may fix.
- (3) Notwithstanding anything in sub-regulation (1) and sub-regulation (2), the entity may, on a *suo motu* basis, apply to the Board seeking declaration of a petroleum and petroleum products pipeline as a common or contract carrier and the Board after giving an opportunity of hearing to the entity, shall, within a period of fifteen days from the receipt of such an application, declare the relevant petroleum and petroleum products pipeline as a common or contract carrier on such terms and conditions as it deems fit.

11. **Miscellaneous.**

- (a) The Board shall endeavour to complete the process of declaring or authorizing a petroleum and petroleum products pipeline as common or contract carrier along-with the process for authorizing a petroleum and petroleum products pipeline or accepting Central Government authorization for petroleum and petroleum products pipeline under the relevant regulations for authorizing entities to lay, build, operate or expand petroleum and petroleum products pipelines.
- (b) Entity laying, building, operating or expanding petroleum and petroleum products pipeline and entity booking capacity in petroleum and petroleum products pipeline shall abide by the provisions specified under relevant regulations on access conditions for petroleum and petroleum products pipeline and other relevant regulations.
- (c) The Board may issue guidelines from time to time relating to the implementation of various provisions of these regulations.

(d) If any dispute arises with regards to the implementation of any of the provisions of these regulations, the decision of the Board shall be final.

RATAN P. WATAL, Secy.

[ADVT. III/4/Exty./188/2012-13]

### Annexure-1

**Format for maintaining records of applications for booking and allocation of capacity in petroleum and petroleum products pipeline by entity laying, building, operating or expanding petroleum and petroleum products pipeline.**

(See regulation 7 (b))

1	Docket number allotted to application for booking of capacity in petroleum and petroleum products pipeline
2	Date and time of receipt of application
3	Mode of receipt of application and date of confirmation issued by the entity
4	Total capacity in petroleum and petroleum products pipeline at each of the tap-off/ delivery point (in MMTPA)
5	Own capacity requirements of the entity laying, building, operating or expanding petroleum and petroleum products pipeline (in MMTPA) as declared by the entity before the commencement of the financial year and communicated to the Board
6	Common carrier or contract carrier capacity available in petroleum and petroleum products pipeline (in MMTPA) at all tap-off/ delivery point (s) before the date of receipt of the application for booking of capacity
7	Pipeline capacity allocated to the applicant entity (in MMT) over the time period at each of the tap-off/ delivery point in the petroleum and petroleum products pipeline along with the details of the point of injection of petroleum and petroleum products. In case the capacity allotted is lower than the capacity requested, specific reasons for the same to be recorded
8	Date of sending the notice of acceptance of applicant entity's request for booking of capacity (in case of part allocation of capacity, with a disclosure of the specific reasons) and the date of acknowledgement of receipt of the notice
9	Date of entering into a contract for booking of capacity in the petroleum and petroleum products pipeline
10	Capacity available in petroleum and petroleum products pipeline after each capacity contracted
11	Actual quantity delivered against the capacity contracted

- (i) who participates, directly or indirectly or through one or more intermediaries, in the management or control or capital of the entity;
- (ii) who holds, directly or indirectly, shares carrying not less than twenty-six per cent. of the voting power in the entity;
- (iii) who appoints more than half of the Board of directors or members of the governing board or one or more executive directors or executive members of the governing board of the entity; or
- (iv) who guarantees not less than ten per cent. of the total borrowings of the entity.

(d) "Board" means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of section 3 of the Act;

(e) "Petroleum and petroleum products pipeline" means any pipeline as defined in the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipelines) Regulations, 2010.

(2) Words and expressions used and not defined in these regulations, but defined in the Act or in the rules or regulations made thereunder, shall have the meanings respectively assigned to them in the Act or in the rules or regulations, as the case may be.

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2488 GI/12-3

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- (b) which has been laying, building, operating or expanding petroleum and petroleum products pipeline before the appointed day and has been authorized under the relevant regulations for authorizing entities to lay, build, operate or expand petroleum and petroleum products pipelines; or
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- (b) The concept of allowing capacity in a petroleum and petroleum products pipeline to be utilized by any entity on a non-discriminatory basis through contract carrier or common carrier arrangements with entities laying, building, operating or expanding petroleum and petroleum products pipelines shall lead to development of competitive markets.

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Provided that if the common carrier capacity is not fully utilized, the entity may contract the same for a period of one year or more, subject to the stipulation that in case another entity seeks booking of the same for a period of less than one year, the request shall be accommodated after pro-rating the same from the common carrier capacity already contracted to other entities for a period of one year or more:

Provided further that pro-rating the common carrier capacity shall not exceed ten per cent of the total common carrier capacity.

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capacity with other entities, the same will be made available - (i) on expiry of firm contracts, or (ii) by way of expansion of capacity in the petroleum and petroleum products pipeline:

Provided that when the common carrier capacity is less than ten percent of the sum of the capacity requirements of the entity and the firmed up contracted capacity with other entities, the Board may on a *suo motu* basis and after following the due process of public consultation require an entity to build extra capacity on such time lines and other terms and conditions as may be specified by the Board.

**7. General principles for common or contract carrier capacity.**

- (a) Entity laying, building, operating or expanding petroleum and petroleum products pipeline shall publish the common or contract carrier capacity available in the petroleum and petroleum products pipeline on its website and follow the procedure specified in the relevant regulations on access conditions for petroleum and petroleum products pipeline.
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**8. Verification of own requirement and capacity allocated on a contract carrier basis.**

The entity shall specify the details of its own requirement and the capacity allocated on a contract carrier basis which shall be verified from time to time by the Board as required.

2488 GI/12-4

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- (b) clause (b) of regulation 3 shall be as approved by the Board as per the relevant regulations for determining the capacity of the petroleum and petroleum products pipeline and clause (c) of regulation 3 shall be as authorized by the Central Government or as approved by the Board as per the relevant regulations for determining the capacity of the petroleum and petroleum products pipeline.

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- (1) If the Board is of the opinion that it is necessary or expedient to declare an existing pipeline for transportation of petroleum and petroleum products as a common or contract carrier,-
  - a) it may give wide publicity of its intention to do so by inviting objections and suggestions within a period of not less than one month from the date of invitation;
  - b) the Board shall also provide the entity owning the petroleum and petroleum products pipeline an opportunity of being heard within a minimum notice period of twenty one days from the close of the invitation for objections and suggestions.

- (2) After considering the objections and suggestions received and after hearing the entity owning the petroleum and petroleum products pipeline under sub-regulation (1), the Board may declare the pipeline as a common or contract carrier subject to such terms and conditions as it may fix.
- (3) Notwithstanding anything in sub-regulation (1) and sub-regulation (2), the entity may, on a *suo motu* basis, apply to the Board seeking declaration of a petroleum and petroleum products pipeline as a common or contract carrier and the Board after giving an opportunity of hearing to the entity, shall, within a period of fifteen days from the receipt of such an application, declare the relevant petroleum and petroleum products pipeline as a common or contract carrier on such terms and conditions as it deems fit.

#### 11. **Miscellaneous.**

- (a) The Board shall endeavour to complete the process of declaring or authorizing a petroleum and petroleum products pipeline as common or contract carrier along-with the process for authorizing a petroleum and petroleum products pipeline or accepting Central Government authorization for petroleum and petroleum products pipeline under the relevant regulations for authorizing entities to lay, build, operate or expand petroleum and petroleum products pipelines.
- (b) Entity laying, building, operating or expanding petroleum and petroleum products pipeline and entity booking capacity in petroleum and petroleum products pipeline shall abide by the provisions specified under relevant regulations on access conditions for petroleum and petroleum products pipeline and other relevant regulations.
- (c) The Board may issue guidelines from time to time relating to the implementation of various provisions of these regulations.

- (d) If any dispute arises with regards to the implementation of any of the provisions of these regulations, the decision of the Board shall be final.

RATAN P. WATAL, Secy.

[ADVT. III/4/Exty./188/2012-13]

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5	Own capacity requirements of the entity laying, building, operating or expanding petroleum and petroleum products pipeline (in MMTPA) as declared by the entity before the commencement of the financial year and communicated to the Board
6	Common carrier or contract carrier capacity available in petroleum and petroleum products pipeline (in MMTPA) at all tap-off/ delivery point (s) before the date of receipt of the application for booking of capacity
7	Pipeline capacity allocated to the applicant entity (in MMT) over the time period at each of the tap-off/ delivery point in the petroleum and petroleum products pipeline along with the details of the point of injection of petroleum and petroleum products. In case the capacity allotted is lower than the capacity requested, specific reasons for the same to be recorded
8	Date of sending the notice of acceptance of applicant entity's request for booking of capacity (in case of part allocation of capacity, with a disclosure of the specific reasons) and the date of acknowledgement of receipt of the notice
9	Date of entering into a contract for booking of capacity in the petroleum and petroleum products pipeline
10	Capacity available in petroleum and petroleum products pipeline after each capacity contracted
11	Actual quantity delivered against the capacity contracted

# PETROLEUM AND NATURAL GAS REGULATORY BOARD

## NOTIFICATION

New Delhi, the 20th December, 2010

**G.S.R. 987(E).**— In exercise of the powers conferred by Section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely:—

### 1. Short title and commencement

(1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Determination of Petroleum and Petroleum Products Pipeline Transportation Tariff) Regulations, 2010.

(2) These shall come into force on the date of their publication in the Official Gazette.

### 2. Definitions

(1) In these regulations, unless the context otherwise requires,—

(a) “Act” means the Petroleum and Natural Gas Regulatory Board Act, 2006;

(b) “appointed day” means the date of October 1, 2007;

(c) “Board” means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of Section 3 of the Act;

(d) “Petroleum and petroleum products pipeline” means any pipeline as defined in the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipelines) Regulations, 2010;

(e) "Petroleum and Petroleum products pipeline transportation tariff" means the unit rate of tariff for petroleum and petroleum products pipeline (excluding statutory taxes and levies) in rupees per metric ton or in rupees per kilo litre per kilo meter for transport of petroleum and petroleum products including the impact of storage facilities essential for operating a petroleum and petroleum product pipeline system as common or contract carrier;

(f) "tap off point (TOP)" means a facility on the pipeline from where the petroleum products are diverted into a delivery terminal or into a spur line or another pipeline which may also be called the intermediate delivery station.

(2) Words and expressions used and not defined in these regulations, but defined in the Act or in the rules or regulations made thereunder, shall have the meanings respectively assigned to them in the Act or in the rules or regulations, as the case may be.

### 3. Application

These regulations shall apply to an entity—

(1) authorized by the Central Government and accepted by the Board for laying, building, operating or expanding a petroleum and petroleum products pipeline before the appointed day under the relevant regulations for authorizing entities to lay, build, operate or expand petroleum and petroleum product pipelines;

(2) laying, building, operating or expanding a petroleum and petroleum products pipeline before the appointed day and authorized by the Board for such activities under the relevant regulations for authorizing entities to lay, build, operate or expand petroleum and petroleum product pipelines; and

(3) laying, building, operating or expanding a dedicated pipeline which is converted into a petroleum and petroleum products pipeline under the provisions of the relevant regulations for authorizing entities to lay, build, operate or expand petroleum and petroleum product pipelines.

### 4. Determination of petroleum and petroleum products pipeline transportation tariff

Petroleum and petroleum products pipeline tariff in respect of an entity covered under clause (1), clause (2) or clause (3) of regulation 3 shall be determined for different TOP's as per the procedure specified in regulation 5 which shall be charged on a non-discriminatory basis:

Provided that the petroleum and petroleum product pipeline tariff determined in accordance with the procedure specified as per regulation 5 shall be applicable as a transitional measure for a period of two years or such earlier time as the Board may decide for valid reasons to be given in writing.

### 5. Procedure for determination of petroleum and petroleum products pipeline transportation tariff

Petroleum and petroleum products pipeline transportation tariff shall be determined by benchmarking against alternate mode of transport, that is, rail at a level of seventy-five per cent except LPG where it will be one hundred per cent on a train load basis for equivalent rail distance along the petroleum and petroleum product pipeline route.

### 6. Miscellaneous

If any dispute arises with regards to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final.

[F. No. S-Admn/II/8/2009-Vol. I]

RATAN P. WATAL, Secy.

PETROLEUM AND NATURAL GAS REGULATORY BOARD  
NOTIFICATION

New Delhi, the 22nd July, 2016

F. No. Infra/AC/PPPL/1/13.—In exercise of the powers conferred by section 61 of the Petroleum and Natural

Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely:-

1. Short title and commencement.
  - (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Access Code for Common Carrier or Contract Carrier Petroleum and Petroleum Products Pipelines) Regulations, 2016.
  - (2) They shall come into force on the date of their publication in the Official Gazette.
2. Definitions.
  - (1) In these regulations, unless the context otherwise requires, -
    - (a) “access arrangement” means a contract document between the authorized entity and the shipper specifically defining terms and conditions for the access to the petroleum and petroleum products pipeline and placed on the web site of the authorized entity;
    - (b) “Act” means the Petroleum and Natural Gas Regulatory Board Act, 2006”;
    - (c) “appointed day” means the date of October 1, 2007 when the Central Government notified the establishment of the Petroleum and Natural Gas Regulatory Board;
    - (d) “batch” means a quantity of petroleum product of like specifications moved through the pipeline as an identifiable unit;
    - (e) “Board” means the Petroleum and Natural Gas Regulatory Board established under the Petroleum and Natural Gas Regulatory Board Act, 2006;
    - (f) ”capacity”:-
      - i. “booked capacity” means maximum daily quantity (MDQ) of petroleum and petroleum products on any day to be delivered at an entry point or off taken at an exit point as per the access arrangement between the shipper and the transporter;
      - ii. “contracted capacity” means the petroleum and petroleum products quantity contracted for transportation through a pipeline system on daily, monthly or yearly basis;
    - (g) “custody transfer meter” means a device or a set of devices which measures the quantity of petroleum and petroleum products for transfer of custody from one entity to another;
    - (h) “dispute” means any conflict or difference arising between the entities under or in connection with these regulations or the access arrangement or with regard to specifications of the products;
    - (i) “entry point” means the point at which the petroleum and petroleum product delivered by shipper is injected into the petroleum and petroleum products pipeline;
    - (j) “exit point” means the point at which the petroleum and petroleum product is withdrawn from the petroleum products pipeline for delivery to the shipper as per the access arrangement;
    - (k) “grade” means the classification of petroleum and petroleum product according to its chemical composition and characteristics such as its Research Octane Number (RON), sulphur content, additive content, freezing point and the quantity or proportion thereof;
    - (l) “grade band” means the range of minimum and maximum acceptable composition, characteristics, quantity or proportion thereof for petroleum and petroleum product;
    - (m) “interface” means the mixture which occurs in normal pipeline operations between batches of petroleum products having different specifications;
    - (n) “transmix” means the product removed from the pipeline system between two separate product batches that cannot be blended with the first or second product;
    - (o) “maximum daily quantity” means the maximum volume of petroleum and petroleum products contracted, booked or scheduled for delivery in a particular day within twenty four hours of the day;
    - (p) "petroleum and petroleum products pipeline" means any pipeline including a branch or spur lines for transport of petroleum and petroleum products and includes all connected infrastructure such as pumps, metering units, storage facilities at originating, delivery, tap off points or terminal stations and the like connected to the common carriers or contract carriers including line balancing tanks and tankage required for unabsorbed interface, essential for operating a pipeline system but excluding pipelines, which are dedicated for supply of petroleum products to a specific consumer which are not for resale :

Provided that the transporter may own, hire, outsource or use on hospitality basis such connected facilities on non discriminatory basis.

Note: For the purpose of access, the facilities declared by the authorized entity for operating a petroleum and petroleum project pipeline system shall be considered as common carrier or contract carrier;

- (q) “petroleum and petroleum products pipeline section” means a part of petroleum and petroleum products pipeline between an entry point and an exit point or between two exit points or between two entry points;
- (r) “shipper” means an entity and also includes a consumer who intends to utilize the capacity in the pipeline for transmission of petroleum and petroleum products;
- (s) “transportation loss” (TL) means the unaccounted quantity of petroleum and petroleum products resulting due to inaccuracy of custody meter, leakages or releases during regular operation and maintenance of the pipeline system but not occurring due to any third party damage;
- (t) “transporter” means an entity authorized by the Board or authorized by the Central Government prior to the appointed date for laying, building, operating or expanding petroleum and petroleum products pipeline;
- (u) “unit of measurement” means unit for measurement of quantity of petroleum and petroleum products excluding LPG and shall be in kilo liter corrected as per American Society for Testing and Materials (ASTM) table 53B for density of the product at 15 degree Celsius and table 54B for volume to 15 degree Celsius or shall be Metric Tonne as the case may be. For LPG the “unit of measurement” shall be Metric Ton:

Provided that this measurement should be corrected by density over 24 hours to get the mass of petroleum product for the purpose of accounting.

- (2) Words and expressions used in these regulations, but defined in the Act or in the rules or regulations made there under, shall have the meanings respectively assigned to them in the Act or in the rules or regulations, as the case may be.

### 3. Application.

These regulations shall apply to all entities operating or proposing to operate petroleum and petroleum products pipeline and shipper who engage or intend to engage in transportation service for petroleum and petroleum products pipeline.

### 4. Declaration of capacity.

- (1) The capacity of a petroleum and petroleum products pipeline shall be as determined by the Board as specified in the Petroleum and Natural Gas Regulatory Board (Determining Capacity of Petroleum, Petroleum Products and Natural Gas Pipeline) Regulations, 2010.
- (2) The transporter shall declare capacity for petroleum and petroleum products pipeline system including entry and exit point-wise section capacity, and available capacity and host the same on its web site on the 1st of every month in the prescribed manner as per format specified at Schedule-I and shall send the information to the Board and the same shall also be hosted by the Board on its website.
- (3) The available capacity declared by the transporter under sub-regulation (2) shall be available for use on common carrier or contract carrier basis or both and shall be allocated in line with the provisions under regulation 13.

### 5. Petroleum and Petroleum Products parameters.

- (1) The petroleum and petroleum products to be transported shall be in accordance with the following products specification:
  - (a) Motor Spirit (MS) - As per the latest version of Bureau of Indian Standards (BIS)- IS2796;
  - (b) High Speed Diesel (HSD) - As per the latest version of Bureau of Indian Standards (BIS)- IS1460;
  - (c) Superior Kerosene Oil (SKO) - As per the latest version of Bureau of Indian Standards (BIS)- IS1459;
  - (d) Naptha: As per the latest version of Industry Quality Control Manual (IQCM);
  - (e) Liquefied Petroleum Gas (LPG): As per the latest version of Bureau of Indian Standards (BIS)- IS4576; and
  - (f) Aviation Turbine Fuel (ATF): As per the latest version of Bureau of Indian Standards (BIS)-

## IS1571.

Note: Petroleum and Petroleum Products specifications as above shall be applicable at exit points of petroleum and petroleum products pipeline. Entry point specifications shall compensate for deterioration during storage or transit.

- (2) The authorized entity shall formulate the grade band for the petroleum and petroleum products to be transported through petroleum and petroleum products pipeline keeping in view the following parameters, namely:-
- (a) grade of its own petroleum and petroleum products proposed to be transported;
  - (b) grade of firm up contracted capacity of petroleum and petroleum products;
  - (c) requirements of downstream consumers of petroleum and petroleum products on the pipeline;
  - (d) technical requirement of the pipe line system; and
  - (e) grade of the inter-state pipelines either supplying petroleum and petroleum products into the pipeline system or receiving petroleum and petroleum products from this pipeline system.

- (3) The transporter shall publish grade band referred to in sub-regulation (2) on its website within a period of one month of authorization by the Board, as referred to in sub-regulation (2) of regulation 4, under intimation to the Board in the format as provided in Schedule-II:

Provided that the entities authorized before the publication of these regulations shall publish the grade band within a period of one month of the date of publication of these regulations.

- (4) Grade band referred to in sub-regulation (2) shall be applicable to all shippers on non-discriminatory basis.
- (5) The transporter may review the Grade band for petroleum and petroleum products from time to time taking into account changes, if any, in the Industry Quality Control Manual (IQCM) / Bureau of Indian Standards (BIS) and accordingly would update the grade band details on its web site:

Provided that transporter shall immediately inform the Board as and when such updation is carried out by the transporter besides putting the same on its web site.

- (6) The threshold limits for elements in petroleum and petroleum products viz. specific gravity, viscosity, vapour pressure, permissible contamination level shall be as given in Schedule II.
- (7) The transporter shall define the petroleum and petroleum products parameters at entry points in terms of petroleum and petroleum products hydraulics specifying the acceptable range of pressure and temperature and the same shall be hosted on the website of the transporter. In addition, minimum required batch size for different products, estimated transmix generation and pipeline loss allowance etc. shall also be hosted on the website of transporter as well as it will become part of "Access Arrangement".
- (8) Shipper shall supply petroleum and petroleum products conforming to product specifications as published by the transporter under sub-regulation (3) and given in Schedule II and the transporter shall deliver petroleum and petroleum product at exit point conforming to product specifications as per sub-regulation (3).

**6. Acceptance of Petroleum and Petroleum products.**

- (1) Petroleum and petroleum product shall be accepted by the transporter for transportation -
- (a) only if it meets required quality and specifications as published by the transporter under sub-regulation (3) of regulation 5 and in Schedule II;
  - (b) only when product is free from any water, non-hydrocarbon blending elements and other impurities;
  - (c) only if any additives and inhibitors, including Drag Reducing Agent ("DRA") and corrosion inhibitor compound, to be included in shipper's petroleum products have been accepted by the shipper. Shippers will be given 30 days notice stating any changes in additive or inhibitor to be injected (generic and trade name), the maximum quantity, the petroleum and petroleum products into which it will be injected, and the date, the injection shall begin;
  - (d) only when petroleum and petroleum product are delivered by shipper or made available to the transporter at the time mutually agreed by shipper and transporter to meet transporter's shipment schedule. If such petroleum and petroleum products are not delivered by shipper in time to meet said schedule, transporter reserves the right to cancel, bypass or delay said shipment. Transporter reserves the right to require petroleum and petroleum product to be available for shipment at entry

point 24 hours prior to the time scheduled for shipment from entry point;

- (e) only if the shipper assures the availability of tankage or storage at the exit point at expected delivery time in case the tankage or storage is owned by the shipper.
- (2) Transporter may sample and test any batch for the specifications of petroleum and petroleum products received prior to acceptance or during receipt of batch, and, in the event of variance between shipper's Quality Certification and transporter's test, transporter's test shall prevail.
  - (3) In case of any dispute in test results, the testing or certification shall be carried out by an accredited third party as mutually agreed.
  - (4) In case of any fault in the test of transporter, the expenses on this account shall be borne by the transporter and in case no fault is found in the test, the expenses shall be borne by the shipper.
  - (5) Transporter's acceptance and delivery of petroleum and petroleum products to any facility provided by shipper shall not evidence transporter's approval of the adequacy of such facilities or the competency of shipper's personnel responsibility for such facilities and personnel shall be exclusively that of the shipper.
  - (6) In the event the transporter has accepted petroleum and petroleum products for transportation in reliance upon shipper's representations as to acceptance at exit points, and there is failure to accept such petroleum and petroleum products at exit points within mutually agreed time frame, transporter shall have the right to divert, re-consign or make whatever arrangements for disposal of the petroleum and petroleum products as it deems appropriate to clear the pipeline facilities including levy of pipeline idling charges as per the access arrangement.
  - (7) Transporter shall have the right to reject any petroleum and petroleum products offered for transportation which may be involved in litigation or the title of which may be in dispute, or which may be encumbered by a lien or charge of any kind. Transporter may seek the satisfactory evidence of shipper's perfect and unencumbered title and satisfactory bond indemnifying transporter against any losses as per the access arrangement.

#### 7. Transmix and Transmix handling.

- (1) Wherever interface is being absorbed by the transporter during the transportation of the petroleum and petroleum products, suitable provision shall be duly incorporated in the access arrangement between shipper and transporter.
- (2) Wherever interface absorption is not feasible, transmix generated between two petroleum and petroleum products in case of multi-product pipeline will be stored in a separate tank owned by transporter, where it may mix with other transmix.
- (3) Transporter shall allocate transmix to shippers that have shipped the petroleum and petroleum products on the pipeline section in proportion to each shipper's volume of petroleum and petroleum products transported in that pipeline section.
- (4) Transporter will physically distribute transmix to the shippers as it becomes available to assure that over time each shipper receives its proportionate share.
- (5) Shipper shall ensure to lift transmix share within mutually agreed time it is made available to shipper.
- (6) Shipper will have sole responsibility for the disposition of its allocated transmix within mutually agreed period
- (7) The quantity of transmix given to shipper will be part of the petroleum and petroleum products delivered to shipper and shall be accounted in total products delivered to shipper at exit points.
- (8) Transporter may agree to lift transmix with suitable techno-commercial provisions mutually agreed and detailed as part of access arrangement.

#### 8. Demurrage.

- (1) If petroleum and petroleum products are delivered in transporter owned tank, then, transporter shall have the right to clear tankage for incoming deliveries by advising shipper to withdraw the petroleum and petroleum products within mutually agreed time as per the access arrangement.
- (2) Petroleum and petroleum products including transmix, not removed at the time period provided in sub-regulation (1) is subject to a daily demurrage charge as mentioned in the access arrangement. Demurrage charge shall continue until the shipper's product including transmix has been removed from transporter's tank.
- (3) Third party agreements, if any, by shipper for intermediate or additional storage shall not form part of

access arrangement.

**9. Pipeline transportation loss.**

- (1) Transporter shall account to each shipper for all petroleum and petroleum products received. The pipeline transportation loss resulting from shrinkage, evaporation, sampling, dormant during storage and measurement error etc., which will be on shipper's account. This will be calculated for each batch of transportation and will be adjusted or settled to each shipper's account in accordance with access arrangement:

Provided that the pipeline transportation loss shall be limited to 0.015% of the total volume of the petroleum and petroleum products transported in the pipeline on annual basis or limit prescribed by Central Board of Excise and Customs, or the actual whichever be the lowest.

- (2) All other product losses not resulting from the transporter's negligence will be on the account of the concerned shipper. However, accounting of product loss due to pilferage shall be as per mutually agreed terms and conditions specified in access arrangement.

**10. Measurement and Accounting of petroleum and petroleum products.**

- (1) The transporter shall ensure provision of necessary equipment including requisite infrastructure and arrangements at both the entry and exit points to measure petroleum and petroleum products quantity, composition, grade, pressure and temperature as specified in regulation 12 and API Manual for Petroleum Measurement Standards.
- (2) Provision of necessary equipment including infrastructure and arrangements to measure petroleum and petroleum products composition and grade shall be mandatory for cases of custody transfer in terms of mass(e.g. LPG).
- (3) Measurement of petroleum and petroleum products quantity shall be as per sub-regulation (1) either by usage of flow measuring equipment or, in case shipper's product is placed in transporter's tankages inside the transporter's premises as per Access Arrangement, then, by measurement of relevant tank dips. Services of a third party surveyor shall be used at the cost of the shipper as per the Access Arrangement.
- (4) Measurement of grade and petroleum and petroleum products parameter as provided in sub-regulations (1) and sub-regulation (3) shall be sufficient for billing and other contractual purposes for all exit points.
- (5) Total error limit, accuracy and repeatability of the measuring equipment shall be as per the technical specifications of the Original Equipment Manufacturers (OEMs).
- (6) The transporter shall carry out verification, calibration or proving of measuring equipment as per the relevant codes, standards and statutory requirements.
- (7) The shipper may install check meters at requisite points with a pre-condition so as not to interfere with the measurement equipment installed by the transporter for custody transfer purpose.
- (8) In case of any dispute in metering, the meter proving or certification shall be carried out by an accredited third party as mutually agreed.
- (9) In case of any fault in the meter of transporter, the expenses on this account shall be borne by the transporter and in case no fault is found in the meter, the expenses shall be borne by the shipper.
- (10) Petroleum and petroleum products accounting shall be done on daily basis or as per mutually agreed billing cycle and the stipulations of Central Excise and Customs department of Government of India and the petroleum and petroleum products reconciliation, billing and other terms shall be as decided between the transporter and shipper in accordance with access arrangement.

**11. Obligations at entry point and exit point.**

- (1) At the entry point, shipper shall furnish certified laboratory reports of the petroleum and petroleum products offered for transportation from the accredited party as mutually agreed.
- (2) At the entry point, when the shipper places the petroleum and petroleum products that does not meet the requirements as specified in sub-regulation (3) of regulation 5 and Schedule II, in respect of grade band and threshold level of other elements of petroleum and petroleum products, the transporter may-
  - (a) refuse to accept it and in such cases shipper shall be liable to pay liquidated damages to the transporter as per the access arrangement; or
  - (b) accept any petroleum and petroleum products that does not meet the requirements of petroleum and petroleum products in terms of parameters-

- (i) as specified in Schedule II:

Provided that transporter may charge reasonable cost of service from the shipper, as may be mutually agreed, for any additional facilities or treatment for cleaning up or integrity requirements of the pipeline and to upgrade petroleum and petroleum products to pipeline specifications:

Provided further that such grade of petroleum and petroleum products do not adversely affect the existing shippers' quality specifications committed by the transporter at the exit points;

- (ii) as specified in sub-regulation (3) of regulation 5:

Provided that the transporter may charge reasonable cost of service for the capacity adjustment from the shipper for transportation of such petroleum and petroleum products and for capacity constraints in the system:

Provided further that such grade of petroleum and petroleum products do not adversely affect the existing shippers' quality specifications committed by the transporter at the exit points.

- (3) At the exit point, when the transporter delivers petroleum and petroleum products that does not meet the quality requirements as specified in sub-regulation (8) of regulation 5, the shipper may -
- (a) refuse to accept delivery and in such a case the transporter shall be liable to pay liquidated damages to the shipper as per the access arrangement; or
- (b) accept the petroleum and petroleum products provided that shipper may charge reasonable cost of service from the transporter, as may be mutually agreed, for any additional facilities or treatment to upgrade petroleum and petroleum products.
- (4) The transmix generated and absorbed between batches of different products during the pipeline transportation will be as specified in the sub-regulation (1) to (7) of the regulation 7.
- (5) Any entity authorized by the Board to lay, build, operate or expand a petroleum and petroleum products pipeline under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipelines) Regulations, 2010 or authorized to do so by the Central Government before the appointed day, can add new entry and exit point or abandon any existing entry and exit point on the pipeline on techno-economic considerations provided that the existing consumers or shippers on the pipeline are not adversely affected by the decision of the entity.

## 12. Facilities at entry point and exit point.

- (1) Shipper shall arrange to deliver petroleum and petroleum products at entry point on the petroleum and petroleum products pipeline or storage facilities of the transporter as per the access arrangement and shall provide the requisite facilities, for custody transfer and delivery of petroleum and petroleum products to the transporter unless otherwise agreed to between shipper and transporter.
- (2) Transporter may execute hooking up facility of shipper to the entry point at the cost of shipper.
- (3) Shipper or his authorized nominee shall make their own arrangements to operate and maintain facilities upstream of entry points at his own cost and risk unless the facilities are provided by the transporter under a separate contract.
- (4) The transporter shall own and operate facilities and measuring equipment at exit point for custody transfer and delivery of petroleum product to the shipper unless otherwise agreed to between shipper and transporter. The transporter may also offer storage facilities at the exit point in case the shipper requires on mutually agreed terms and conditions.
- (5) The transporter may execute, at the cost of shipper, the facility of hooking up of shipper facility with that of transporter at exit point.
- (6) The shipper shall provide space and cooperate with the transporter in installing, operating, maintaining and modifying any specific exit point facilities when such exit point facilities are provided in the premises of the shipper on mutually agreed terms and conditions.
- (7) The shipper may provide check meter, conforming to the applicable standard and specifications, at the exit point in petroleum and petroleum products pipeline:

Provided that in case of any variation in the readings in the meter of transporter and shipper, the reading of the transporter meter shall be taken as final.

- (8) In case of any dispute in metering, the meter proving or certification shall be carried out by an accredited third party as mutually agreed.
- (9) In case of any fault in the meter of transporter, the expenses on this account shall be borne by the transporter and in case no fault is found in the meter, the expenses shall be borne by the shipper.

**13. Pipeline capacity booking.**

- (1) More than one shipper can hold capacity at any entry or exit point.
- (2) The booked capacity shall be through a contract between shipper and transporter under the access arrangement.
- (3) When a transporter receives a request for access from a shipper it shall respond within ten days from the date of receipt of request from the shipper-
  - (a) confirming that spare capacity exists to satisfy the request and specifying the charges and terms and conditions upon which it will make the service available; or
  - (b) advising that spare capacity does not exist to satisfy the request; or
  - (c) advising that the data provided by the shipper require technical study to accommodate his request and such study shall be completed within seven days; or
  - (d) advising that it is not technically or operationally feasible to provide access.
- (4) The shipper may release the capacity in favour of other shippers to the extent of the capacity booked under intimation to the transporter.
- (5) The nomination of petroleum and petroleum products for transportation shall contain the expected petroleum and petroleum products flow details of one or more day's daily-nominated quantities as per the agreed schedule between the shipper and the transporter.

**14. Interconnection of common carrier and contract carrier petroleum and petroleum products pipelines.**

- (1) The interconnection of common carrier and contract carrier pipeline systems may be necessitated by either a transporter or a shipper and such interconnection shall be allowed subject to capacity available in the receiving common carrier pipeline provided it is operationally and technically feasible.
- (2) The petroleum and petroleum products specifications for interconnecting pipelines should be compatible and as per regulation 5.
- (3) The cost of such interconnection including the infrastructure to facilitate access shall be borne by the entity that has triggered such requirement for interconnection provided it is executed by the transporter.
- (4) The execution of the interconnection facilities may also be carried out by the shipper and transporter may facilitate such interconnection.
- (5) The interconnection point shall be mutually agreed between transporter and the shipper.
- (6) Interconnection of pipeline network is like adding an exit point to the existing pipeline and all such provisions shall be applicable for such interconnection.
- (7) The entity denying the interconnection shall inform the Board within a week with the reasons thereof.

**15. Methodology for providing access.**

- (1) The contracted capacity between shipper and transporter shall be in accordance to the provisions of sub-regulation 5 (6) (i) of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipelines) Regulations, 2010 and regulation 6 of Petroleum and Natural Gas Regulatory Board (Guiding Principles for Declaring or Authorizing Petroleum and Petroleum Products Pipelines as Common Carrier or Contract Carrier) Regulations, 2012.
- (2) The extra capacity for use as common carrier by any third party on open access and non-discriminatory basis shall be allocated on first come first serve basis

**16. Planned maintenance.**

- (1) The transporter is required to draw up and publish a maintenance plan well ahead of time for a defined period identifying those entry and exit points where petroleum and petroleum products flows may be restricted by maintenance works, the extent of the restrictions and the time of occurrence and the transporter shall plan such maintenance so as to minimize disruption to affected parties and can request information from shippers on their survival flows at entry and exit points to assist the transporter for such maintenance schedule.

- (2) Dates for scheduled maintenance shall be informed well in advance which can be adjusted on thirty days advance notice to and from affected shippers.
- (3) The planned maintenance period shall not exceed ten days in a year but in no case more than five continuous days per event.
- (4) Transporter and shipper may further mutually agree upon the time and extent of the scheduled planned maintenance for the shipper's facilities not affecting the time limits provided for transporter's maintenance plan at sub-regulation (3).

17. Information about force majeure.

- (1) The affected party shall on occurrence of any force majeure-
  - a) as soon as reasonably practicable notify each of the other parties of the occurrence and nature of the force majeure, the expected duration thereof insofar as the same can reasonably be assessed and the obligations of the affected party performance of which is affected thereby; and
  - b) from time to time thereafter provide to each other party reasonable details of the following, namely:
    - (i) developments in the matters notified under clause (a);
    - (ii) the steps being taken by the affected party to overcome the force majeure occurrence or its effects and to resume performance of its relevant obligations.
- (2) The entities shall be relieved of their respective obligations in the event of force majeure except for the obligation to pay when due.

18. Operational planning.

- (1) Shipper shall make daily, weekly or monthly nominations to the transporter for the quantities of petroleum and petroleum products that it wishes to deliver to at a particular entry point and off-take at a particular exit point from the pipeline system in line with the provisions under these regulations.
- (2) (a) Transporter shall schedule the quantities of petroleum and petroleum products for transportation based on the nominations received and capacity available in the pipeline system.
  - (b) Transporter may schedule the nomination for quantities of petroleum, and petroleum products over and above the booked capacity subject to a maximum of ten per cent of the declared pipeline capacity.
- (3) (a) Transporter shall allocate quantity of petroleum and petroleum products to various shippers as determined under clause (b) of sub-regulation (2) and as per the scheduling exercise.
  - (b) Allocation scheduled shall be delivered to the shippers as per the destination wise (exit point wise) schedule prepared.

19. Emergencies.

The procedures to be followed by shipper and the transporter in the event of an emergency shall be included in the access arrangement by shipper and transporter on mutually agreed terms.

20. Confidentiality of information.

All documentation, information, data, submissions and comments disclosed or delivered whether in writing or otherwise by any entity to the transporter, shipper or to any other party either in connection with or in consequence of the requirements of these regulations shall be regarded and treated as confidential and shall not be disclosed either in full or part of any or all of the documentation, information, data, submissions and comments including the contents and copies thereof in any form except in connection with any proceedings in any court.

21. Miscellaneous.

- (1) The Board may issue guidelines from time to time relating to Access Code for Common Carrier or Contract Carrier Petroleum and Petroleum Products Pipelines.
- (2) If any question arises as to the interpretation of these regulations, the same shall be decided by the Board.

**SCHEDULE – I**

Format for declaring capacity of Pipeline

(See regulation 4(2))

1. Name of entity:
2. Name of pipeline:
3. Details of capacity of Pipeline (as per table below):

Name of Section	Capacity approved by PNGRB		Break up of capacity for period ..... (MMT)				
	Total Including Common carrier (MMT)	Common Carrier (MMT)	Own Requirement	Firmed-up contracted capacity with other entities for a period of at least one year		Common Carrier Capacity with other entities for a period of less than one year	
				Contracted	Available	Contracted	Available

4. Number of entry points on the pipeline route:
5. Location of entry points:
6. Number of exit points:
7. Location of exit points:
8. Technical parameters:
  - (a) Inlet pressure at entry point:
  - (b) Grade band at entry point:
  - (c) Temperature:
  - (d) Other elements as per Schedule - II:
9. Any demand pending with the transporter for common carrier usage of the pipeline along with duration of such pendency:
10. Preference on entry and exit points:

**SCHEDULE – II**

(See Regulations 5(6), 5(8), 11(2)(b)(i))

Petroleum Product Physical Characteristics Specifications

(A) For Motor Spirit (EURO-IV)			(B) For High Speed Diesel (EURO-IV)	
Parameter	Limit		Parameter	Limit
Sulphur (Maximum ppmw)	As per latest IS:2796		DENSITY @ 150C, KG/M3	As per latest IS:1460
Research Octane Number (RON) (Minimum)			SULPHUR, PPM (Maximum)	
Benzene, Vol % (Maximum)			DISTILLATION 95% Recovery oC (Maximum)	
Aromatics, Vol% (Maximum)			CETANE NO. (Minimum)	
Olefins, Vol%			WATER CONTENT (% by Vol)	

(Maximum)			(Maximum)	
Motor Octane Number (MoN) (Minimum)			Polycyclic Aromatic Hydrocarbon (PAH) wt (%)	
Reid Vapour Pressure (RVP) (kPa)(Maximum)			Any other parameter (limits as per IS standards)	
Any other parameter (limits as per IS standards)				

(C) For other Petroleum Products			
Products	Specific Gravity (at 15°C)	Viscosity (CST)	Vapour Pressure (Kg/sq.cm)
Liquefied Petroleum Gas (LPG)	As per latest IS:4576		
Superior Kerosene Oil (SKO)	As per latest IS:1459		
Aviation Turbine Fuel (ATF)	As per latest IS:1571		
NAPTHA	As per latest Industry Quality Control Manual (IQCM)		

K. RAJESWARA RAO, OSD (R)

[ADV.T.-III/4/Exty./188 (166)]

**PETROLEUM AND NATURAL GAS REGULATORY BOARD****NOTIFICATION**

New Delhi, the 29th March, 2011

**F. No. S-Admn./II/8/2010.**—In exercise of the powers conferred by Section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely:—

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Access Code for City or Local Natural Gas Distribution Networks) Regulations, 2011.
- (2) These regulations shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

- (1) In these regulations, unless the context otherwise requires,—

- (a) **"access arrangement"** means a contract between the authorised entity and the shipper defining the terms and conditions for access to entry point capacity, exit point capacity and CNG exit point capacity on the city or local natural gas distribution network and placed on the website of authorised entity:

Provided that access arrangement shall be based on access arrangement guidelines issued by the Board:

Provided further that the capacity webhosted shall be the available capacity;

- (b) **"Act"** means the Petroleum and Natural Gas Regulatory Board Act, 2006;

- (c) **"allocated capacity"** means the scheduled maximum daily capacity in MMBTU at entry point agreed between the authorised

entity and the shipper for delivery at exit point.

- (d) **"appointed day"** means the date of October 1, 2007 when the Central Government notified the establishment of the Petroleum and Natural Gas Regulatory Board;
- (e) **"authorised entity"** means an entity that is authorised to lay, build, operate or expand a city or local natural gas distribution network in a geographical area under the Petroleum and Natural Gas Regulatory Board Act, 2006 and the relevant regulations made thereunder;
- (f) **"Board"** means the Petroleum and Natural Gas Regulatory Board established under the Petroleum and Natural Gas Regulatory Board Act, 2006;
- (g) **"CNG exit point"** means the point at which the CNG is off taken from a CNG compressor outlet point for delivery to the shipper with proper arrangement for metering at outlet of the CNG compressor by the authorised entity;

Provided that the CNG exit point shall terminate at tubing connection or union where compressor exit is connected to dispenser and at filling nozzle in case it is connected to CNG cascade of the shipper;

- (h) **"CNG exit point capacity"** means the maximum quantity of CNG, measured in kilograms (Kgs), which the authorised entity shall deliver to the shipper at the relevant CNG exit point in a day:

Provided that the CNG mass shall be converted into energy value by applying the conversion formula as specified in Schedule-I:

Provided further that a homogenous zone has to be defined by the authorised entity upfront from time to time and the same has to be informed to the shipper;

- (i) **"CNG exit point maximum daily quantity" ("CNG exit point MDQ")** means the maximum quantity of natural gas, measured in kilogram (kgs), which can be off-taken by the shipper at the relevant CNG exit point in a day;
- (j) **"compression charge for CNG"** means a charge (excluding statutory taxes and levies) in Rs./Kg for online compression of natural gas into compressed natural gas for subsequent dispensing

to customers in a CNG station, as determined and approved by the Board;

- (k) **"day"** means a period of twenty-four consecutive hours beginning at 0600 hours on a day and ending before the start of 0600 hours on the following day;
- (l) **"designated exit point"** means the exit point for which gas delivery has been mutually agreed between the shipper and the authorised entity;
- (m) **"delivered quantity"** means the quantity of gas in MMBTU delivered by the authorised entity at designated exit point of the shipper;
- (n) **"dispute"** means any dispute or difference arising between the entity under or in connection with these regulations or the access arrangement;
- (o) **"distant connection"** means a connection to a shipper desirous of having a connectivity in any charge area of the geographic area beyond the provisions of regulation 9 of the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Network) Regulations, 2008;
- (p) **"entry point"** means the point at which the natural gas delivered by a shipper is injected into the city or local natural gas distribution network and the gas receipt for city or local natural gas distribution network should preferably be at the city gate station;

Provided that receipt at any other point on network shall be as mutually agreed between the authorised entity and the shipper in the access arrangement.

Provided further that the gas required for a new geographical area or for expansion of existing CGD networks shall preferably be from transmission or sub transmission pipeline and not from the existing geographical area.

- (q) **"entry point capacity"** means the maximum quantity of natural gas in MMBTU, at a specified Gross Calorific Value, which the authorised entity shall receive from shipper at the relevant entry point in a day so as to deliver at designated exit point;
- (r) **"entry point maximum daily quantity" ("entry point MDQ")** means

the maximum quantity of natural gas in MMBTU at a specified gross calorific value for which capacity has been allocated to the shipper and the authorised entity shall receive from the shipper at the relevant entry point in a day as agreed in the access arrangement;

- (s) "**exclusivity period**" means the period allowed by the Board under the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Network) Regulations, 2008 from the purview of common carrier or contract carrier;
- (t) "**exit point**" means the point at which the natural gas is off taken from city or local natural gas distribution network by the shipper as agreed between the authorised entity and the shipper in the access arrangement and such exit point shall be at all the metering stations, CNG exit point and all such other points mutually agreed between the shipper and authorised entity in the access arrangement:

Provided that-

- (i) for domestic piped natural gas (PNG), the exit point shall be the concerned DPRS. This point shall be considered for aggregating the offtake for domestic use of gas;
- (ii) any new exit point shall be decided mutually on technical and safety ground.
- (u) "**exit point capacity**" means the maximum quantity of natural gas in MMBTU, at a specified Gross Calorific Value, which the authorised entity shall deliver to the shipper at the relevant exit point in a day;
- (v) "**exit point maximum daily quantity**" ("**exit point MDQ**") means the maximum quantity of natural gas in MMBTU, at a specified Gross Calorific Value, which can be off taken by the shipper at specific metering station and CNG exit point in a day;
- (w) "**imbalance quantity**" on a day means the positive imbalance quantity or the negative imbalance quantity on that day as specified in regulation 15;
- (x) "**line pack**" ("**LP**") means the volume of gas that must be maintained in the city or local natural gas distribution network at all times in order to maintain pressure and enable uninterrupted transportation and supply of natural gas through the network;

- (y) **"lost and unaccounted for gas" ("LUAG")** means the quantity of natural gas which is unaccounted for whatsoever reason including, but not limited to blow downs, venting or release during regular operation or maintenance of the city or local natural gas distribution network and mismatch of meter readings at the entry and exit point;
- (z) **"marketer"** means an entity dealing with marketing or trading for natural gas;
- (za) **"maximum daily quantity" ("MDQ")** means the maximum volume of natural gas contracted, booked, scheduled for delivery or delivered in a particular day within twenty four hours of the day;
- (zb) **"maximum delivery rate" ("MDR")** means the maximum rate, in MMBTU per hour, up to which rate of delivery, the authorised entity shall deliver natural gas to the shipper at the relevant exit point as specified in the access arrangement;
- (zc) **"maximum off-take rate" ("MOR")** means the maximum rate, in MMBTU per hour, at which the shipper shall off-take natural gas at the relevant exit point as specified in the access arrangement and MOR shall be the same in value as the MDR;
- (zd) **"maximum receipt rate" ("MRR")** means the maximum rate, in MMBTU per hour, at which the authorised entity shall receive natural gas at the relevant entry point as specified in the access arrangement;
- (ze) **"MMBTU"** means Million British Thermal Units and shall be the unit for energy content of gas based on gross calorific value as defined in ISO 6976-1:1983(E) and as amended or modified from time to time;
- (zf) **"network tariff"** means the unit rate of tariff (excluding statutory taxes and levies) in rupees per million British Thermal Units (Rs./MMBTU) for all the categories of customers of natural gas in a CGD network as determined and approved by the Board;
- (zg) **"nominated quantity"** means the quantity of natural gas in MMBTU, confirmed by the shipper to the authorised entity for delivery at the designated entry point with details of off takes at the relevant exit point on daily basis for distribution or for consumption;
- Provided that no nomination shall be required for MDQ less than 0.5 MMBTU;
- (zh) **"off-spec gas"** means the natural gas delivered by the shipper

at the entry point or delivered by the a authorised entity at the exit point which does not conform to the gas parameters referred to in sub-regulation (1) of regulation 7:

- (zi) **"operating pressure"** means the pressure corresponding to a particular flow rate at which the relevant section of the city or local natural gas distribution network is operated:

Provided that at no point of time the operating pressure for the network shall exceed design pressure or maximum allowable operating pressure(MAOP) as specified in relevant technical standards and specifications including safety standards regulations;

- (zj) **"scheduled quantity"** means the quantity of natural gas, in MMBTU, scheduled for the specific shipper by the authorised entity at the designated entry point or exit point for distribution or self-use based on the nominated capacity and in accordance with the provisions of the access arrangement;

- (zk) **"shipper"** means a consumer, a marketer or any authorised entity who intends to utilize the capacity in the CGD Network:

Provided that the shipper shall be -

- (i) an existing consumer in the network of the entity;
- (ii) a body corporate with the positive net worth and be in the business for at least one year with physical business set up within the geographical area having been assessed for income tax;
- (iii) a consumer registered with the entity or with a marketer;
- (iv) a new commercial or industrial consumer with physical presence in the business; or
- (v) an entity having plan to do the business with DFR financially appraised and approved by the bank.

NOTE: In case the existing shipper has defaulted on payments or any other contractual obligation with the authorised entity, the shipper shall take No Objection Certificate (NOC) from the authorised entity before being qualified as "shipper";

- (zl) **"Standard Cubic Metre" ("SCM")** means the volume of gas which occupies one cubic meter of space when such gas is at a temperature of 15.56 degrees centigrade (60° F) and at a pressure of 1013.25 milli Bar (14.696 psia);

- (zm) **"Standard Temperature and Pressure" ("STP")** means temperature

and pressure as defined by IUPAC (International Union of Pure and Applied Chemistry) as air at 0°C (273.15 K, 32 °F) and 10<sup>5</sup> Pascal.

(zn) **"system use gas" ("SUG")** means the quantity of natural gas, in MMBTU, used by the authorised entity for operation and maintenance of the city or local natural gas distribution network including, but not limited to, general use of gas for compressor, prime movers, gas heaters and venting or flaring for safety requirements;

(zo) **"Unit of Measurement"** means unit for measurement of quantity of gas and shall be in million British Thermal Units (MMBTU) gross for all consumers and CNG exit point quantity shall be measured in kilograms but shall be converted to MMBTU for natural gas quantity reconciliation purpose;

(2) Words and expressions used and not defined in these regulations, but defined in the Act or in the rules or regulations made thereunder, shall have the meanings respectively assigned to them in the Act or in the rules or regulations, as the case may be.

### 3. Application.

(1) These regulations shall apply to an entity authorised to lay, build operate or expand a city or local natural gas distribution network in a geographic area under the Petroleum and Natural Gas Regulatory Board Act, 2006, immediately at the end of its exclusivity period, if any, allowed by the Board under the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Network) Regulations, 2008 from the purview of common carrier or contract carrier, and to any entity or shipper who wants access to entry point capacity, exit point capacity and delivery at CNG exit point capacity on such city or local natural gas distribution network for supply of natural gas to domestic, commercial or industrial consumers:

Provided that-

(a) the authorised entity shall allow access to shipper on non-discriminatory basis to a city or local natural gas distribution network in a geographic area subject to the threshold limits mentioned in regulation 5 at the end of the exclusivity period, if any, allowed by the Board;

(b) the development of the infrastructure shall be governed by the

Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008 and the shippers shall get their gas transported or delivered by the authorised entity-

- (i) up to the suraksha hose connecting to the burner of the domestic connections;
- (ii) up to the metering point in case of commercial and industrial connections;
- (iii) up to compressor exit point in case of CNG station.

Note: (i) The authorised entity shall maintain its entire asset upto suraksha hose for all times in conformity with the Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications Including Safety Standards for City or Local Natural Gas Distribution Networks) Regulations, 2008.

(ii) The metering point means the location where gas measurement is carried out which will include metering device, equipment and pressure reduction upto desired pressure at exit point.

(iii) Compressor exit point shall include the filling nozzle and CNG measurement facilities.

Provided further that-

(a) the charges for transportation for distant connections shall be as agreed between the authorised entity and the shipper in the access arrangement till the time when connection is covered under regulation 9 of the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008;

(b) the authorised entity shall provide connectivity for distant connection for the shipper on his request subject to techno-safety considerations and cost on that account shall be borne by the authorised entity or shall be adjusted in the tariff in case the cost is borne by the shipper as mutually agreed between the shipper and the authorised entity;

(c) the authorised entity may refuse access to distant connections on techno-safety considerations and in such cases the authorised entity shall intimate the shipper and the Board the reasons for the same within thirty days of receiving such request from the shipper.

#### 4. Capacity declaration.

(1) For the first time, the authorised entity shall declare 180 days before the end of its exclusivity period the entry point capacity, the exit point capacity and the CNG exit point capacity, for open access at all entry points and exit points on its city or local natural gas distribution network and web host the same in their website accordance with the provisions of these regulations and the authorised entity may declare or web host capacity at DPRS level for PNG and capacity at mother stations (Cascade filling capacity) for CNG:

Provided that -

- (a) the capacity in a CGD network for open access on cumulative basis at all entry points shall be twenty percent of the capacity of the CGD network or the quantity of gas flowing in the CGD network whichever is higher and when such extra capacity in a CGD network touches ten percent limit, then, the authorised entity shall raise this capacity to twenty percent. The Board may on a suo motu basis and after following the due process of public consultation may ask an authorised entity to build extra capacity on such time lines and other terms and conditions as may be specified by the Board.
  - (b) a consumer or shipper who is getting gas through the authorised entity during the exclusivity period shall have the right to reserve such capacity after the end of exclusivity period and in case the shipper is willing to relinquish the capacity, then, the shipper shall inform the authorised entity sixty days in advance.
- (2) The successive capacity declaration shall be done by the third week of every month.
- (3) The capacity of the CGD network system for entry or exit points on city or local natural gas distribution network shall be determined as per the relevant regulations.
- (4) The authorised entity can add or abandon any existing entry points or exit points on the CGD network on techno-economic considerations:

Provided that any existing customer on the network is not adversely affected by the decision of the authorised entity:

Provided further that the authorised entity shall give a notice of at least sixty days and seek comments of the shippers in case of abandoning any of the existing entry or exit points.

### 5. Capacity booking.

- (1) The authorised entity shall publish for public consultation an information memorandum, in the format specified in Schedule-II on its website as well as in a national daily and a vernacular daily newspaper, seeking capacity booking for the entry points and exit points capacity on its city or local natural gas distribution network while CGD network is opened for access to the shippers.
- (2) For the first time, public consultation shall commence at least 180 days prior to end of the exclusivity period of the authorised entity from the purview of common or contract carrier.
- (3) Interested shippers shall submit in format specified in Schedule-III their offers to the authorised entity for nominating the capacity booking within ninety days from the date of commencement of the public notice for capacity booking.
- (4) The sum of the requested entry points MDQ shall be greater than or equal to 10000 standard cubic meter per day (scmd), and the sum of cumulative off take at relevant exit point shall be greater than or equal to 100 scmd for domestic segment. The shipper can start gas sales after booking capacity in any of the domestic, industrial or commercial customers but second such supply shall be considered once they have achieved 100 scmd supplies to domestic consumers:  
  
Provided that these units shall be achieved within the period as agreed between the shipper and the authorised entity in the access arrangement.
- (5) The capacity booking shall be decided by the authorised entity in a transparent manner based on the highness of the product of the sum of the entry points MDQ and the period of capacity booking. The scheduled quantity to each shipper shall be declared and webhosted by the authorised entity.
- (6) Capacity booking shall be finalized within thirty days of the end of the period as specified under sub-regulation 3 at all entry points and exit points and other relevant terms and conditions through an access arrangement.
- (7) The authorised entity shall publish information on the capacity booking at the entry points capacity, exit points capacity and CNG exit points capacity on the city or local natural gas distribution network in

1133-2011-5

the format specified in Schedule-II, on its website by third week of each month on a continuous basis and schedule the capacity in such a manner that the capacity can be utilized effectively from the first working day of every month.

- (8) Capacity booking shall be finalized in terms of entry points MDQ and exit points MDQ and other relevant terms and conditions through an access arrangement.

#### **6. Obligation of shippers and entity.**

- (1) The authorised entity shall be responsible for compliance with all the applicable regulations for the system from gas receipt to delivery point.
- (2) Shipper shall be responsible for compliance with all the applicable regulations for the system before the gas receipt by the authorised entity and after gas is delivered to the shipper.
- (3) Both authorised entity and shipper shall comply with the Petroleum and Natural Gas Regulatory Board (Code of Practice for Quality of Service for City or Local Natural Gas Distribution Networks) Regulations, 2010.

#### **7. Gas parameters.**

- (1) The authorised entity shall define in the access arrangement the threshold limits for gas parameters on non-discriminatory basis at entry points such as the acceptable range of pressure and temperature, the acceptable CV band and the acceptable threshold limits for other elements in natural gas like CO<sub>2</sub>, N<sub>2</sub>, O<sub>2</sub> etc.:

Provided that the threshold limit for such elements shall be as specified in Schedule-IV. However, in case the CGD network has been established exclusively based on Coal Bed Methane (CBM) gas, Liquefied Natural gas (LNG) or Coal Mine Methane (CMM) from open cast mining, when the gas specifications do not conform to specification under Schedule-IV, a specific approval shall be obtained from the Board. Threshold limits for various parameters of natural gas shall be specified in the access arrangement.

- (2) If the natural gas delivered at the entry points by the shipper does not meet the requirements of natural gas in terms of gas parameters as specified in the access arrangement and as specified in these regulations, the authorised entity may:-

(a) refuse to accept it; or

(b) accept it; and charge a cost of service ("off-spec gas charges") from the shipper, as mutually agreed in the access arrangement, for any additional facilities or treatment for upgrading the natural gas to network requirements and capacity adjustment for transportation of such natural gas;

Provided that such off-spec gas does not adversely affect the quality specifications committed by the authorised entity at the exit points to the existing customers.

- (3) The authorised entity may deliver commingled gas at the exit points, and the quality of gas at the exit points shall be within the acceptable band agreed in the access arrangement.
- (4) The authorised entity shall odourise the entire gas as per the provisions of relevant standards notified by the Petroleum and Natural Gas Regulatory Board before delivering to any users.

#### **8. Facilities at the entry points and exit points.**

- (1) The shipper shall arrange to deliver metered natural gas at the entry points at his cost unless agreed otherwise between the shipper and the authorised entity.
- (2) The authorised entity shall provide facilities for transfer of custody and delivery of natural gas at the entry points at the cost of the shipper or as agreed in the access arrangement, including measuring equipment or any other system as agreed between the authorised entity and the shipper.

Provided that the authorised entity may install its check meter at the entry points at his own cost in case it desires so.

- (3) The shipper shall ensure that the authorised entity has ready access to the measuring equipment installed in his premise.
- (4) The shipper or its transporter upstream of its city gate station shall own, operate and maintain facilities upstream of the entry points at his own cost and risk unless the facilities are provided by the authorised entity under a separate contract.
- (5) Connectivity to the authorised entity from measuring points within shipper scope shall be provided and cost shall be borne by the one who

triggers such requirement.

- (6) The authorised entity shall provide facilities, including measuring equipment, pressure reduction and control facilities, odourisation facilities, gas chromatography or any other system as agreed between the authorised entity and the shipper, required for transfer of custody and delivery of natural gas to the shipper at the exit points at the cost of the authorised entity except for industrial and commercial consumers where the cost shall be borne by the shipper as agreed in the access arrangement. All domestic customers shall be connected through suitable meters.
- (7) The shipper shall ensure that the authorised entity has ready access at the relevant exit points to the measuring equipment or any other system as agreed between the authorised entity and the shipper.
- (8) At any time, if the entity intends to upgrade meters of its consumers and shippers, then, it can do so on non-discriminatory basis. In case, the shippers want to upgrade the meters of its consumers, it can do so and cost of up-gradation shall be borne by the shippers.
- (9) The maintenance of the facilities at the entry points and exit points shall be carried out as agreed in the access arrangement.

#### **9. Nomination, scheduling, metering, allocation and billing.**

- (1) The nomination, scheduling, metering, allocation and billing procedure shall be specified in the access arrangement and the
  - (a) shipper shall nominate the quantity for the following day and the week and inform the authorised entity twenty-four hours prior to commencement of the following day. The nomination and scheduling for the entry points and exit points shall be made for each hour of the following day on a best endeavor basis for system operation purpose;
  - (b) the shipper shall submit the re-nomination to the authorised entity within the time specified in the access arrangement.
- (2) In case the shipper do not have dedicated metering at the entry and exit points, natural gas quantities shall be allocated to the shippers on pro-rata basis to their respective delivered quantities based on the scheduled quantities.

- (3) The authorised entity shall regularly measure the quality of gas by the gas chromatograph unless otherwise agreed between the authorised entity and the shipper in the access arrangement.
- (4) Total error limit and accuracy of the measuring equipment shall be as agreed to between the authorised entity and the shipper subject to any mandatory specifications, if any, laid down by the Board through regulations.
- (5) The authorised entity shall carry out verification, calibration or proving of measuring equipment as per relevant codes and standards.

#### **10. Gas accounting and reconciliation.**

- (1) Gas accounting shall be done on a daily basis in energy terms, in MMBTU, and shall be based on Gross Calorific Value as defined in ISO 6976-1:1983(E) and as amended or modified from time to time:

Provided that -

- (a) the daily gas delivered at the relevant entry points shall be directly measured through system as agreed between the authorised entity and the shipper;
  - (b) for industrial and commercial customers, the daily off take at the relevant exit points shall be measured through system as agreed between the authorised entity and the shipper;
  - (c) for domestic customers, the daily off-take for gas accounting shall be assumed based on the average consumption of gas by the relevant domestic customers and reconciliation shall be done within seven days of the end of every billing cycle as per the methodology agreed in access arrangement;
  - (d) for CNG, the daily off take of gas shall be measured in kilogram (kg) on the meter at the outlet of the online compressor and shall be converted to MMBTU for gas accounting based on the average quality parameters of the gas in the network on the relevant day, measured at CGS in the event gas quality measurement are not available at CNG station. For this purpose, a homogenous zone has to be defined by the authorised entity upfront from time to time and the same has to be informed to the shipper.
- (2) The detailed measurement and gas accounting procedure shall be

specified in the access arrangement.

### 11. Charges.

(1) The shipper shall pay to the authorised entity the following charges for using its city or local natural gas distribution network as specified on the invoice generated by the authorised entity, namely: -

- (a) network tariff which includes gas transportation in CGD network, odourisation, gas metering, gas reconciliation and system use gas;
- (b) compression charges;
- (c) overrun charges, if applicable;
- (d) system imbalance charges, if applicable;
- (e) off-spec gas charges, as agreed in access arrangement;
- (f) applicable taxes;
- (g) any other charges mutually agreed in the access arrangement such as -

- (i) ship or pay;
- (ii) transport or pay;
- (iii) technical up gradation of system;
- (iv) R&D;
- (v) any other charges with the approval of the Board.

### 12. Network tariff and compression charges.

(1) The network tariff charges for each day shall be equal to the product of the network tariff and the sum of the relevant exit points delivered quantity:

Provided that this quantity does not attract any other charge in terms of the provisions contained in access code:

Provided further that the shippers delivery or pay provision shall be applied as per the contractual arrangement between the shippers and the authorised entity for consumer more than 0.5 MMBTU daily capacity.

(2) The compression charges for each day shall be equal to the product of the compression charge and the sum of the relevant CNG exit points delivered quantity:

Provided that this quantity does not attract any other charge in terms of the provisions contained in access code:

Provided further that the shippers deliver or pay provision shall be applied as per the contractual arrangement between the shippers and the authorised entity for consumer more than 0.5 MMBTU daily capacities.

### 13. Authorised entity's shortfall charges.

- (1) The authorised entity shall have an obligation to provide capacity up to the scheduled quantity unless there is a planned maintenance as specified in regulation 19 or there is a force majeure as specified in regulation 20 or there is an emergency as specified in regulation 21.
- (2) The authorised entity shall pay charges to the shipper, as agreed in the access arrangement, in case the authorised entity is unable to provide capacity up to the scheduled quantity unless there is a planned maintenance as specified in regulation 19 or there is a force majeure as specified in regulation 20 or there is an emergency as specified in regulation 21.

### 14. Overrun charges.

- (1) The methodology for calculation of the overrun quantity for a shipper at each entry point, in MMBTU, on a day shall be specified in the access arrangement on non-discriminatory manner.
- (2) The shippers shall not have to pay any overrun charges for overruns up to 5 % of the scheduled quantity. Overruns beyond 5 % of the scheduled quantity shall attract overrun charges.
- (3) The overrun charges for overruns greater than 5% of the scheduled quantity shall be reasonable, transparent and non-discriminatory and shall be specified in the access arrangement.
- (4) The overrun charges payable by the shipper for any particular entry point in respect of a day shall be equal to the product of the overrun quantity calculated as stipulated in sub-regulation (1) of this regulation and the overrun rate as specified in the access arrangement on non-discriminatory basis.
- (5) The overrun charges payable by the shipper in respect of a day shall be equal to the sum of the overrun charges payable in respect of each entry point on that day.

**15. System imbalance charges.**

- (1) Positive imbalance quantity on a day, in MMBTU, shall be the excess of the aggregate of the shipper's quantities delivered at the entry points over the aggregate of the shipper's quantities off taken at the exit points.
- (2) Negative imbalance quantity on a day, in MMBTU, shall be the excess of the aggregate of the shipper's off taken quantities at the exit points over the aggregate of the shipper's delivered quantities at the entry points.
- (3) The cumulative imbalance at the start of a day shall be equal to the cumulative imbalance at the end of the previous day. At the start of the first day when natural gas is delivered by the shipper, the cumulative imbalance shall be zero.
- (4) The cumulative imbalance at the end of a day shall be equal to the sum of the cumulative imbalance at the start of the day and the imbalance for the day.
- (5) The shipper shall not have to pay any imbalance charges upto a cumulative positive imbalance of 5% and cumulative negative imbalance of 3% of the sum of the relevant entry points MDQ. Authorised entity shall notify the imbalance quantity to shipper on daily basis so as to provide an opportunity to shipper to cure imbalances while submitting nominated quantity for subsequent period. In case the shipper is unable to cure such imbalances in a period of fifteen days, then, the authorised entity shall have the right to adjust daily nomination at the entry points and exit points to cure such imbalances to ensure safety and integrity of the city or local natural gas distribution network. Imbalance rates for cumulative positive imbalance and cumulative negative imbalance over and above these limits shall be reasonable, transparent and non-discriminatory.
- (6) The imbalance charges payable by the shipper for any particular day shall be equal to the product of the cumulative imbalance quantity calculated as stipulated in sub-regulation 4 of this regulation and the imbalance rates specified in the access arrangement.
- (7) The daily imbalance gas quantities shall be settled between the shipper and the authorised entity every fortnight considering actual daily metered amounts for industrial, commercial and CNG segments and assuming a mutually agreed daily consumption quantity of gas for domestic segment; the methodology for the

settlement shall be specified in the access arrangement. The reconciliation with actual metered quantity for the domestic segment shall be as agreed in the access arrangement between the shipper and the authorised entity.

- (8) There shall be established an escrow account to be maintained by the authorised entity which shall be credited with all charges received by the authorised entity on account of imbalances and overruns under these regulations and the authorised entity shall be eligible to withdraw from the escrow account the payment towards his contractual obligations with reference to supply or pay and extra efforts to compress gas in case of negative imbalance and for management of the CGD network due to such imbalances created by the shippers.
- (9) The authorised entity shall submit audited statement of the escrow account referred to in sub-regulation 8 on an annual basis to the Board.
- (10) The balance amount available in the escrow account, after the eligible withdrawal by the authorised entity, under sub regulation (8) may be utilized in such a manner and for such purposes as may be specified by the Board.

#### **16. Hourly delivery, off take and receipt rates.**

- (1) The MDR, MOR and the MRR, as well as the authorised deviations from the hourly scheduled rates for which the shipper shall not have to pay any charges, shall be specified in the access arrangement so as to ensure the safety and integrity of the city or local natural gas distribution network.

- (2) The charges for deviations in hourly delivery and off take rates that exceed these limits shall be specified in the access arrangement:

Provided that the shipper shall not be required to pay any charges for deviations in hourly delivery and off take rates that exceed the limits specified in the access arrangement for the first sixty days of commencement of its access to the entry and exit points capacity on the city or local natural gas distribution network if the shipper has booked capacity under regulation 5.

#### **17. System Use Gas (SUG), Lost and Unaccounted for Gas (LUAG).**

The authorised entity shall absorb SUG and LUAG, if any, and shall not

pass on liability on this account to any shipper:

Provided that the authorised entity shall be free to arrange this natural gas from any other source.

**18. Line Pack (LP).**

The authorised entity shall arrange for LP gas at all time and no charges shall be passed on to the shipper. For the purpose of tariff fixation, this shall form non-depreciable capex at original filling price.

**19. Planned maintenance.**

(1) The authorised entity shall intimate the shipper on non-discriminatory basis of its maintenance plan for a defined period well ahead of time, as agreed in the access arrangement, identifying those entry and exit points where natural gas flows may be restricted by maintenance works, the extent of the restrictions and the time of occurrence. The authorised entity shall plan such maintenance so as to minimize disruption to affected parties.

(2) The planned maintenance shut down period for any customer, in all the segments, except domestic, shall not exceed ten days in a year. For domestic customers, the service obligations specified in the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008 and other relevant regulations shall prevail.

**20. Force majeure.**

(1) The affected party shall on occurrence of any *force majeure* -

(a) as soon as reasonably practicable notify each of the other parties of the occurrence and nature of the *force majeure*, the expected duration thereof insofar as the same can reasonably be assessed and the obligations of the affected party performance of which is affected thereby; and

(b) from time to time thereafter provide to each other party reasonable details of the following, namely: -

(i) developments in the matters notified under sub-regulation (a) of this regulation;

(ii) the steps being taken by the affected party to overcome the force majeure occurrence or its effects and to resume performance of its relevant obligations.

(2) The authorised entity and the shipper shall be relieved of their respective obligations arising out of and in the course of force majeure.

## 21. Operating procedures and emergencies.

(1) The operating procedures to be followed by the authorised entity and the shipper during regular operations as well as in the event of an emergency shall be included in the access arrangement.

(2) An emergency may exist -

(a) by reason of a leakage, or suspected leakage, of gas; or

(b) in following circumstances, namely: -

(i) the safety of the network is at risk;

(ii) the safe conveyance of gas through the network is at risk;

(iii) gas conveyed by the network is at such a pressure or of such a quality as to constitute, when supplied to the customer's premises, a danger to life or property; or

(iv) any other circumstances reasonably believed by the authorised entity to constitute an emergency (which, for the avoidance of doubt, may include circumstances upstream of an entry point), and, where the context requires, a reference to an emergency includes the event or circumstance which gives rise to such emergency.

(3) The authorised entity shall take steps to restore normal operation of the network as soon as reasonably possible after an emergency and the restoration of services to the various customer segments in case of emergencies or disruptions or interruptions in the city or local natural gas distribution network shall be carried out in the following order of priority, namely: -

(a) domestic PNG customers;

- (b) essential services (hospitals, clinics, milk supplies, etc);
- (c) CNG customers;
- (d) Others.

## 22. Confidentiality of information.

- (1) All documentation, information, data, submissions and comments disclosed or delivered whether in writing or otherwise by any entity to the authorised entity, shipper or to any other party either in connection with or in consequence of the requirements of these regulations shall be regarded and treated as confidential and shall not be disclosed either in full or part of any or all of the documentation, information, data, submissions and comments including the contents and copies thereof in any form except in connection with any proceedings in any court.

## 23. Miscellaneous.

- (1) The Board shall have power to issue clarifications with regard to these regulations and in case of any dispute, the clarification given by the Board shall be final and binding.
- (2) If any dispute arises with regards to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final.

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### Schedule-I

(see regulation 2(T) (i))

#### **Conversion formula for converting mass of CNG into energy value**

$$\text{Natural Gas (MMBTU)} = \text{Mass of CNG (Kg)} \times \text{GCV} \times \frac{3.96828 \times 10^{-6}}{\rho}$$

Where,

1.  $\rho$  = Density of Natural Gas at STP ( $\text{kg}/\text{Sm}^3$ ).
2. STP = Standard Temperature and Pressure – as defined by IUPAC (International Union of Pure and Applied Chemistry) as air at  $0^\circ\text{C}$  ( $273.15\text{ K}$ ,  $32^\circ\text{F}$ ) and  $10^5$  Pascal  
 $(1\text{ Pa} = 10^{-6}\text{N}/\text{mm}^2 = 10^{-5}\text{ bar} = 0.1020\text{ kp}/\text{m}^2 = 1.02 \times 10^{-4}\text{ m H}_2\text{O} = 9.869 \times 10^{-6}\text{ atm} = 1.45 \times 10^{-4}\text{ psi (lbf}/\text{in}^2))$
3. GCV = Gross Calorific Value in ( $\text{Kcal}/\text{Sm}^3$ )
3. GCV and  $\rho$  shall be from homogenous zone to be defined by the authorised entity upfront from time to time.

**Schedule - II**

(see regulation 5(1) and 5(7))

**Format for public consultation for capacity booking on city or local natural gas distribution network**

1. Name of entity :
2. Name of City or Local Natural Gas Distribution Network:
3. Name of entry points and entry points capacity (in MMBTU at specified GCV) at each point:
4. Name of exit points, exit point capacity (in MMBTU at specified GCV) at each point and CNG exit point capacity (in kgs) at each point:
5. Required Gas parameters at entry points:
  - (a) acceptable range of pressure and temperature:
  - (b) acceptable range of the CV band:
  - (c) acceptable limits for other elements in natural gas like CO<sub>2</sub>, N<sub>2</sub>, O<sub>2</sub>, etc.

**Schedule - III**

(see regulation 5(3) )

**Format for requesting capacity on city or local natural gas distribution network**

1. Name of entity:
2. Name of City or Local Natural Gas Distribution Network:
3. Name of entry points and entry point capacity requirement (in MMBTU) at each point:
4. Name of exit points, exit point capacity requirement (in MMBTU) at each point and CNG exit point capacity requirement (in Kgs) at each point:
5. Gas parameters at entry points (to be specified separately for each entry point):
  - (a) range of pressure and temperature
  - (b) the CV band
  - (c) estimated limits for other elements in natural gas like CO<sub>2</sub>, N<sub>2</sub>, O<sub>2</sub> etc.

6. Required gas parameters at exit points (to be specified separately for each exit point):

- (a) acceptable range of pressure and temperature
- (b) acceptable range of the CV band
- (c) acceptable limits for other elements in natural gas like CO<sub>2</sub>, N<sub>2</sub>, O<sub>2</sub> etc.

7. Start date and tenure (in number of days) for which access to capacity is required:

#### **Schedule - IV**

(see regulation 7(1))

#### **Threshold limit for gas parameters on City or Local Natural Gas Distribution Network**

<b>Parameters</b>	<b>Limit</b>
Hydrocarbons dew pt (Degree Celsius, max.)	0
Water dew point (Degree Celsius, max )	0
Hydrogen Sulphide (ppm by wt. max.)	5
Total Sulphur (ppm by wt. max.)	10
Carbon dioxide (mole % max.)	6
Total inerts (mole % )	8
Temperature (Degree Celsius, max.)	55
Temperature (Degree Celsius, min.)	10-20
Oxygen( % mole vol. max.)	0.2
Wobbe Index ( for domestic consumers)	39-53*

Note : \* based on MJ/SCM

RATAN P. WATAL, Secy.

[ADVT. III/4/188/10-Exty.]

  
**भारत का राजपत्र**  
**The Gazette of India**

असाधारण  
EXTRAORDINARY  
भाग III—खण्ड 4

PART III—Section 4  
प्राधिकार से प्रकाशित

PUBLISHED BY AUTHORITY

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नई दिल्ली, सोमवार, मई 25, 2015/ज्येष्ठ 4, 1937

No. 182]

NEW DELHI, MONDAY, MAY 25, 2015/JYAISTHA 4, 1937

**THE PETROLEUM AND NATURAL GAS REGULATORY BOARD**

**CORRIGENDUM NOTIFICATION**

New Delhi, the 22nd May, 2015

**F. No. PNGRB/NGPL/REGULATIONS/AMEND-2015.**— In the notification of the Petroleum and Natural Gas Regulatory Board, F. No. L-MISC/VII/2007 dated 1<sup>st</sup> January 2015 published in the Gazette of India, Part III, Section 4, Extraordinary,—

- (i) In clause (1) of para 1, “*the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Second Amendment Regulations, 2014*” may be read as the “*the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Amendment Regulations, 2015*”.
- (ii) In para 2, “*Regulation 21*” may be read as “*Regulation 22*” in both places.

UPAMANYU CHATTERJEE, Secy.

[ADVT.-III/4/Exty./188/15(69)]

**Foot Note:** Principal regulations were notified vide No. G.S.R. 340 (E) dated 6<sup>th</sup> May 2008 and subsequently amended vide G.S.R. 802(E) dated 19<sup>th</sup> November 2008, G.S.R. 769(E) dated 20<sup>th</sup> October 2009, G.S.R. 38 (E) dated 18<sup>th</sup> January 2010, G.S.R. 480(E) dated 7<sup>th</sup> June 2010, G.S.R. 594(E) dated 9<sup>th</sup> July 2010, F. No. PNGRB/M(C)/48 dated 17<sup>th</sup> February 2014, F. No. PNGRB/NGPL/REGULATIONS/AMEND-2014 dated 8<sup>th</sup> August 2014 and F. No. L-MISC/VII/2007 dated 1<sup>st</sup> January 2015.



**भारत का राजपत्र**  
**The Gazette of India**

असाधारण

EXTRAORDINARY

भाग III—खण्ड 4

PART III—Section 4

प्राधिकार से प्रकाशित

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NEW DELHI, TUESDAY, MAY 19, 2015/VAISAKHA 29, 1937

**PETROLEUM AND NATURAL GAS REGULATORY BOARD****NOTIFICATION**

New Delhi, the 19th May 2015

**F. No. Infra/PNGRB/Capdet/CGD/02/2015.**—In exercise of the powers conferred by section 61 of the Petroleum and Natural Gas Regulatory Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely:—

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Determining Capacity of City or Local Natural Gas Distribution Network) Regulations, 2015.
- (2) They shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

- (1) In these regulations, unless the context otherwise requires,-
  - (a) “Act” means the Petroleum and Natural Gas Regulatory Board Act, 2006;
  - (b) “appointed day” means the date of October 1, 2007 when the Central Government notified the establishment of the Petroleum and Natural Gas Regulatory Board;
  - (c) “authorized area” means the area as defined under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008;
  - (d) "authorised entity" means an entity that is authorised to lay, build, operate or expand a city or local natural gas distribution network in a geographical area (GA) under the Act and the relevant regulations made thereunder;
  - (e) “Board” means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of section 3 of the Act;
  - (f) "capacity assessment group" means a group comprising representatives of two authorised entities other than the entity of which the CGD network capacity is to be certified and a representative of the Board as decided by the Board on case to case basis or any agency or entity or authorized person or any approved third party authorized by the Board for determining the capacity of the CGD network;
  - (g) “CGD network capacity” means the maximum quantity in standard cubic metres per hour (SCMH) of natural gas that can be injected into or off taken from the steel pipeline network at specific points, meeting all the technical and operational parameters fixed in steel network at steady state conditions, that is, all parameters like flow, pressure, temperature, are in harmony and vary only along the steel network but not with time or the aggregate rated capacity (in SCMH) of all City Gate Stations (CGS) connected to steel network, whichever is lower. For cases, where any entry points (CGS/DPRS/custody metering systems) are connected directly to the medium density poly ethylene (MDPE) network without involvement of any steel network, the rated capacity of such entry points shall be considered;

- (h) “CGD declared capacity” means the capacity (in SCMH) that the steel pipeline network is capable of distributing under the steady state operating conditions determined based on the approved flow equation and the selected software package or the aggregate rated capacity (in SCMH) of all City Gate Stations connected to steel network, whichever is lower. For cases, where any entry points (CGS/DPRS/custody metering systems) are connected directly to the MDPE network without involvement of any steel network, the rated capacity of such entry points shall also be declared;
- (i) “city or local natural gas distribution network” (hereinafter referred to as CGD network) means a pipeline network as defined under clause (i) of section 2 of the Act;
- (j) “CNG Station Capacity” shall be the maximum rated capacity of running compressors at respective stations or the maximum capacity determined at the inlet flange of the compressors whichever is lower;
- (k) consumer” means consumer as defined under clause (d), (e), (f) or (g) of sub- regulation 1 of regulation 2 of the Petroleum and Natural Gas Regulatory Board (Code of Practice for Quality of Service for City or Local Natural Gas Distribution Networks) Regulations, 2010;
- (l) “operator” means an entity that operates CGD network with authorization of the Board;
- (m) “selected software package” means the software package used by the entity for determination of capacity of the CGD network;
- (n) “steady state condition” means calculation carried out based on time-invariant pressure, temperature and flow profiles throughout a steel pipeline network using specified boundary conditions and network element set points that are entered. In other words, the steady-state run calculates the hydraulic state of a network operating at equilibrium;
- (o) “steel pipeline network” means the steel pipeline laid and commissioned originating from the source (primarily at tap-off point from any transportation / transmission /primary network or city gate station) up to the Distribution Pressure Regulating Station or District Regulating Station (DPRS or DRS), Metering and Regulating Station (MRS) and inlet flange of CNG compressor station;
- (p) “third party contracted capacity” means the quantity (in SCMH) of natural gas contracted with any third party for transportation through a pipeline system;
- (2) Words and expressions used and not defined in these regulations, but defined in the Act or in the rules or regulations made thereunder, shall have the meanings respectively assigned to them in the Act or in the rules or regulations, as the case may be.

### 3. Applicability

- (1) These regulations shall apply to an entity which is laying, building, operating or expanding or which proposes to lay, build, operate or expand a city or local natural gas distribution network.
- (2) These regulations cover the procedure, parameters both constant and variable and frequency of declaration of CGD network capacity in SCMH for CGD network.
- (3) These regulations shall not be applicable to sub-transmission pipelines, MDPE network system downstream of DPRS/DRS and service lines, including GI/copper piping of CGD network.

**Note:** In case, any sub-transmission pipeline has been laid by the authorised entity, the details of the same upto CGS or upto connectivity with primary network in the authorized GA shall be provided by the entity as per Annexure-3. The capacity of sub-transmission pipeline from Custody Transfer Flange downstream of connectivity from transmission pipeline upto CGS or upto connectivity with primary network in the authorized GA shall also be determined.

### 4. Objective.

- (1) It is intended to apply these regulations to all CGD networks for the purpose of declaration of CGD network capacity.
- (2) The capacity of the CGD network so determined shall be used for providing access to shipper on non-discriminatory basis under the Petroleum and Natural Gas Regulatory Board (Access Code for City or Local Natural Gas Distribution Networks) Regulations, 2011.

### 5. Determining capacity of a City or Local Natural Gas Distribution Network.

- (1) The determination of capacity for the CGD network shall be based on selected software package and flow equation approved by the Board under these regulations. It is not necessary for the entities to buy and install any specific software package. The entities may continue to use or operate the system based on the previously installed software but shall have to determine the capacity of the system based on the flow equation approved by the Board in any of the selected software package for the purpose of these regulations.
- (2) The entity while submitting the capacity of the CGD network to the Board, shall furnish a declaration that the capacity has been calculated using the approved flow equation. The entity shall also submit the detailed report of the capacity and indicate the software used for the purpose within ninety days of the notification of these regulations and thereafter as per the periodicity for determining capacity of CGD network defined in regulation 7.
- (3) The parameters for running the steady state simulation for determining the CGD network capacity shall be considered as given below, namely:-
- (a) **Constant parameters** in the unit as specified in the approved flow equation as per sub-clause (v) of this clause.
- (i) **Internal diameter (ID)** – The internal diameter shall be determined by deducting twice the thickness from outer diameter of steel pipes used in the CGD network. Further, the internal diameter shall be determined based on weighted average of internal diameters based on different pipe thicknesses used in different sections in the pipeline system.
- (ii) **Length** – The actual length (for already installed pipeline) or proposed length (for yet to be installed pipeline) of the pipe in the pipeline system.
- (iii) **Roughness** – This is a fixed value for a pipe which determines the unevenness inside a pipe. Depending on the pipe material, the below given value for roughness factor shall be used :

Type of Material	Roughness (micron)
Steel – New Pipe (up to ten years old)	
- With internal coating	10-15
- Without internal coating	25-45
Steel–Old Pipe (more than ten years old)	
- With internal coating	15-20
- Without internal coating	45-100

For old pipelines already operating, roughness factor shall be determined by duly calibrating actual field data in the approved flow equation. These factors shall be assessed by the capacity assessment group. For new pipelines, roughness factor used shall be decided keeping in view the operating conditions and pipeline feature like bends, valves, or any other restrictions present in the system:

Provided that the entity shall declare in advance the roughness factor considered for the pipes with relevant operating data to support the value chosen.

(iv) **Efficiency factor –**

**Steel Pipeline** – Efficiency factor within the range of 0.85 to 1.0 shall be used. For old pipelines already operating, efficiency factor shall be determined by duly calibrating actual field data in the approved flow equation. These factors shall be assessed by the capacity assessment group. For new pipelines efficiency factor used shall be decided keeping in view the operating conditions and pipeline feature like bends, valves, life of pipeline or any other restrictions present in the system:

Provided that the entity shall declare in advance the efficiency factor considered for the pipes with relevant operating data to support the value chosen giving complete analysis. The Board may direct the entity to improve upon such design.

(v) **Formula** – For determination of flow rate and pressure drop in the pipeline, the following flow equation shall be used:

Type of Network	Name of Flow equation
Steel Network	Colebrook White / Fundamental pipe equation with flow dependent (Colebrook White) friction factor

(vi) **Velocity** – The maximum allowable velocity of the gas in the steel pipeline section of CGD network shall be 30 m/s.

(vii) The steel pipeline network capacity shall be determined at maximum operating pressure (MOP) for the CGD network and with the following standard Pressure and Temperature conditions:

Standard pressure	– 1.01325 bar (a).
Standard temperature	– 15.56 degree C

**(b) Variable parameters-**

(i) **Operating temperature** – For the purpose of determining the capacity and for annual capacity declaration to the Board, the summer temperature of 30 °C shall be considered by all the entities.

(ii) **Inlet temperature** – This is the actual inlet temperature (° C) of the gas from the source into the CGD network.

(iii) **Outlet temperature**- This is the actual outlet temperature (° C) of the gas at the delivery point.

(iv) **Inlet pressure** – The maximum pressure (in barg) that is available at the entry point to the CGD network and shall be declared by the CGD entity during capacity declaration.

(v) **Outlet pressure** – The minimum pressure (in barg) that is required by the consumer at the delivery or exit point as per access arrangement entered into by the shipper and the authorised entity.

(vi) **Maximum operating pressure (MOP)** – This is the highest pressure (in barg) at which a CGD Network operates during normal operating cycle and shall be declared by the CGD entity for capacity determination. However, in case an entity is operating the CGD network at certain pressure which is at variance from above for more than or equal to five years, need to submit calculation carried in line with the Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for City or Local Natural Gas Distribution Networks) Regulations, 2008 and ASME B31.8 (Latest edition) supporting the revised MOP considered in determination of CGD network capacity. For the purpose of determining MOP, the Board shall be guided by incoming pressure at city gate station or custody transfer point.

**Note:** In case, any sub-transmission pipeline has been laid by the CGD entity, the details of the same upto the connectivity with primary network in the authorized GA shall be provided by the entity as per Annexure-3 for the purpose of arriving at the incoming pressure at the entry of primary network in the authorized GA.

(vii) **Minimum committed pressure (MCP)** – This is the minimum pressure (in barg) at the exit points and shall be declared by the CGD entity during capacity declaration.

(viii) **Source supply flow** – This is the maximum flow (in SCMh) that can be available from the source (primarily a Tap-off point from any Transportation / Transmission / Sub-Transmission Pipeline or City Gate Station).

(ix) **Delivery flow** – This is the maximum flow (in SCMh) that is required by the consumers at the exit point as per access arrangement entered into by the shipper and the operator.

(x) **Elevation difference** – Depending on the terrain of the ground profile, this factor will be considered from the mean sea level of the area.

(xi) **Gas composition** – The gas composition indicating all components totaling 100% by volume is to be given with the level of impurities as per the Petroleum and Natural Gas Regulatory Board (Access Code for City or Local Natural Gas Distribution Networks) Regulations, 2011. From this, necessary input to the flow equation shall be worked out.

In case of more than one source, the weighted average composition of commingled natural gas beyond the second source of entry point shall be considered.

(xii) In case of CGD network, the gas quality at exit point shall be as per the Petroleum and Natural Gas Regulatory Board (Access Code for City or Local Natural Gas Distribution Networks) Regulations, 2011.

- (4) All entities shall declare to the Board the constant parameters and the variable parameters for the CGD network -
- (i) on first working day of October every year; and
  - (ii) whenever there is any addition or deletion of the supply source of natural gas.

The entities shall also provide on first working day of October the network diagram superimposed on the authorized area map for the CGD network.

- (5) The methodology for calculation of CGD network capacity shall be as under:
- (i) The entire steel pipeline network shall be configured in the selected software package operating offline. The steady state condition of the pipeline hydraulics with variable parameters (pressure, temperature and flow) at entry that is downstream flange of City Gate Station and declared exit points shall be simulated in the selected software package.
  - (ii) Assuming gas at the entry point (single source or multiple source of gas) is unlimited, the selected software shall be run till inlet flange of any industrial PRS, DRS and CNG Compressor connected to the system till it reaches limiting condition of pressure required at any exit point or limiting velocity in steel pipeline network as calculated by software or maximum flow capacity is reached at exit points.
  - (iii) After satisfactory completion of simulation, add dummy load at the farthest exit points of steel network, considering the minimum committed pressure.
  - (iv) Now, simulate the steel pipeline network till inlet flange of any industrial PRS, DRS, CNG Compressor and dummy load connected to the system reaches limiting condition of pressure required or limiting velocity in pipeline as calculated by software or maximum flow capacity is reached at exit points.
  - (v) The sum of flow (in SCMh) at each exit point (i.e. Inlet flanges of Industrial PRS, DRS and CNG compressor) and dummy load in all the charge areas is the total steel network capacity.
  - (vi) The entity shall submit the details of maximum achievable steel network capacity so derived, under the steady state simulation with the details of variable and constant parameters, to the Board in the specified format at Schedule A along with the hydraulic gradient and system flow diagram for the steel network system. The entity shall submit the details of rated capacity of all entry points (CGS/DPRS/custody metering systems) including entry points, if any, connected directly to the MDPE network without any steel pipeline in between along with details of rated capacity of exit points like DRS/IPRS/CNG station etc. in Annexure-1.
  - (vii) The capacity of CGD network shall be as per the operation days specified in the Petroleum and Natural Gas Regulatory Board (Access Code for City or Local Natural Gas Distribution Networks) Regulations, 2011 for respective system.
  - (viii) If the aggregate CGS capacity is less than the determined steel network capacity, then, the aggregate CGS capacity shall be considered as the steel network capacity.
  - (ix) The steel network capacity so determined shall be the CGD network capacity provided that if any entry point (CGS/DPRS/custody metering systems) is connected directly to the MDPE network without involvement of any steel network, the rated capacity of such entry point shall also be considered for the purpose of capacity declaration.

**6. Declaring capacity of a City or Local Natural Gas Distribution Network by the Board.**

- (a) The Board, after having analyzed the report submitted by the entity regarding capacity of the CGD network with respect to the provisions of these regulations, shall decide-
  - (i) to reject the capacity so determined and direct the entity to revise the capacity calculations based on the revised parameters; or
  - (ii) to go ahead with the proposal with or without modification.
- (b) The capacity so determined shall be declared by the Board as the capacity of the CGD network. The Board shall declare the capacity of the CGD network in the format specified at Schedule B.
- (c) The entity, after declaring the CGD network capacity by the Board, shall publish the same in line with the provisions of the relevant Regulations on the Petroleum and Natural Gas Regulatory Board (Access Code for City or Local Natural Gas Distribution Networks) Regulations, 2011, on their website.

**7. Periodicity for determining capacity of city or local natural gas distribution networks.**

(i) The capacity of a CGD network shall be determined on first working day of October every year or whenever there is a change in quantity of natural gas plus or minus 10% of previous declared capacity due to any of the following :

- (a) change in quality of gas,
- (b) modification, upgradation, addition or deletion of entry or exit points,
- (c) addition or deletion of loop lines, compressor etc.

(ii) The entity shall submit the details of the so re-determined capacity of the pipeline to the Board in line with the provisions of these regulations for the purpose of declaration of capacity.

**8. Miscellaneous.**

- (1) If any dispute arises with regard to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final.
- (2) The Board may, either suo moto or on a complaint, refer the issue of determination of the capacity of a CGD network, to any external consultant or expert. Cost in this regard shall be borne by the entity or the complainant or as deemed fit by the Board on a case specific basis. However, the recommendation of the consultant or expert shall be advisory in nature to the Board and shall not be binding.
- (3) The Board may validate the computed capacity with actual capacity as per the flow regime of the pipeline with actual flow conditions as and when desired.

**SCHEDULE A**

[see regulation 5(5) (vi)]

**Format for furnishing information regarding determination of CGD network capacity**

Date of submission of capacity to the Board: .....

Applicable for the period: \_\_\_\_\_

1	Name of entity	
2	Address and contact details of entity	
3	Name of CGD network	
4	Length and diameter of steel pipeline network (attach complete details with diagram)	
5	Name of software package used	
6	Confirm Colebrook White equation / Fundamental pipe equation with flow dependent (Colebrook White) friction factor is used	Yes/ No
7	Details of injection/entry points, delivery or exit points (Location, diameter, pressure, temperature, rated capacity, actual flow rate etc.) and charge areas in CGD networks. Details to be given as per Annexure 1.	
8	Composition of natural gas. Details to be given for each entry point as per Annexure 2.	
9	Entity agrees to have complied with the technical standards, specifications and safety standards as specified by the Board	Yes/ No
10	Entity agrees to have complied with the provisions of other relevant Petroleum and Natural Gas Regulatory Board Regulations	Yes/ No
11	Constant and variable parameters used under steady state conditions for determining capacity of the steel network in CGD networks as per Annexure 2 .	
12	Maximum achievable capacity of the steel network under steady state conditions as determined under regulation 5 of these regulations	
13	Aggregate of rated capacity of all entry points connected to steel network (Details of	

	each CGS/entry point to be provided separately in Annexure 1)	
14	Rated capacity of entry points (CGS, PRS and Custody Metering Systems), if any, connected directly to MDPE network (Details of each entry point to be provided separately in Annexure 1)	
15	Maximum achievable capacity of the steel network (lower of Sl. No. 12 or 13)	

**Note:** Submit network diagram superimposed on the authorized area map for the CGD network along with the hydraulic gradient and system flow diagram for the steel network.

[Sign. & Stamp of Authorized Signatory of the Entity]

### SCHEDULE B

[see regulation 6(b)]

#### Format for declaring capacity of City or Local Natural Gas Distribution Networks

Date of declaration of capacity by the Board: .....

Applicable for the period: \_\_\_\_\_

1	Name of entity	
2	Address and contact details of entity	
3	Name of CGD network	
4	Details of injection or entry points and delivery or exit points connected to steel networks (location, diameter, pressure, temperature, rated capacity etc.) and charge areas in CGD networks (details enclosed)	
5	Details of rated capacity, location, pressure etc. of each injection or entry point connected directly to MDPE network without any steel network in between	
6	Name of the software package used by the entity	
7	Flow equation used for the purpose	
8	Gas composition considered for the purpose of capacity determination of steel network in CGD.	
9	Maximum achievable capacity of the CGD steel network under steady state conditions.	
10	Maximum achievable capacity of sub-transmission pipeline laid, if any.	
11	Aggregate of rated capacity of all entry points connected to steel network	
12	Maximum capacity of the steel network (lowest of Sl. No. 9,10 or 11 above)	
13	Rated capacity of entry points (CGS, DPRS and Custody Metering Systems), if any, connected directly to MDPE network (Details of each entry point enclosed)	

Dated:

Secretary  
Petroleum and Natural Gas Regulatory Board  
K. Rajeswara Rao, OSD (R)  
[ADVT-III/4/EXTY./188/15(62)]

**Annexure-1**

[see regulation 5 (5)(vi)]

**Format for furnishing Details of Injection/ Entry points and Delivery/ Exit points**

1.	Name of entity	
2.	Address and contact details of entity	
3.	Name of CGD Network	
4.	Details of Entry and Exit Points on Steel Network	
a)	<p><b><u>Entry Point 1:</u></b></p> <ul style="list-style-type: none"> <li>➤ Name:</li> <li>➤ Location:</li> <li>➤ Internal Diameter of Pipe (after entry point):</li> <li>➤ Length of Steel Pipe (give details with diagram):</li> <li>➤ Class/Thickness of Pipe:</li> <li>➤ MOP as per Class of Pipe:</li> <li>➤ Revised MOP, if any (enclose technical justification and supporting calculation in terms of these Regulations):</li> <li>➤ Pressure:</li> </ul> <p>i) at upstream of Entry Point ii) at downstream of Entry point</p> <ul style="list-style-type: none"> <li>➤ Inlet temperature:</li> <li>➤ Maximum Rated Capacity (in SCMh) of Entry Point (enclose certified Technical Documents):</li> </ul> <p>[<b>Note:</b> Provide similar details for all other entry points. Also, provide relevant details for entry points connected directly to MDPE network]</p>	
b)	<p><b><u>Exit Point 2:</u></b></p> <ul style="list-style-type: none"> <li>➤ Name:</li> <li>➤ Location including name of Charge Area:</li> <li>➤ Internal Diameter of Steel Pipe (before exit point):</li> <li>➤ Length of Steel Pipe till upstream of Exit Point:</li> <li>➤ Class/Thickness of Pipe:</li> <li>➤ MOP as per Class of Pipe:</li> <li>➤ Revised MOP, if any (enclose technical justification and supporting calculation in terms of these Regulations):</li> <li>➤ Pressure:</li> </ul> <p>i) at upstream of Exit Point ii) at downstream of Exit Point</p> <ul style="list-style-type: none"> <li>➤ Temperature:</li> <li>➤ Maximum Rated Capacity (in SCMh) of Exit Point (enclose certified Technical Documents):</li> </ul> <p>[<b>Note:</b> Provide similar details for all other exit points]</p>	

**Annexure-2**

[see schedule A (8) and (11)]

**Format for furnishing Details of Constant and Variable parameters of Steel Network and Gas Composition at Injection or Entry points and Delivery or Exit points****a) Constant parameters:**

<b>Parameter</b>	<b>Details</b>
Name of Steel Pipe/ Section:	
Internal Diameter (mm/inch)	
Length (Km)	
Pipeline Roughness (micron) [Enclose Technical Justification]	
Efficiency Factor/Pipeline Efficiency (%) [Enclose Technical Justification]	
Formula/ Gas Flow Equation Used	
Velocity (m/s)	
STP	Standard pressure: 1.01325 bar (a) Standard temperature : 15.56 deg C

**Note:** i) Similar Details for all steel pipes/ sections, size changes etc. may be provided.

ii) Pressure drop at Rated Capacity pertaining to each entry point may be provided (enclose Technical document)

**a) Variable parameters:**

<b>Parameter</b>	<b>Details</b>
Name of Steel Pipe/ Section:	
Operating Temperature (30 deg C)	
Inlet Temperature (deg C)	
Inlet Pressure (kg/cm <sup>2</sup> g or barg)	
Outlet Pressure (kg/cm <sup>2</sup> g or barg)	
Maximum Operating Pressure (kg/cm <sup>2</sup> g or barg) [Enclose Justification]	
Minimum Committed Pressure (kg/cm <sup>2</sup> g or barg) (Enclose relevant documents)	
Velocity (m/s)	
Supply Source Flow (MMSCMD)	
Delivery Flow (MMSCMD)	
Elevation Difference	
Gas Composition (Mole Percent) Methane: Ethane: Propane: Isobutene: Isopentene: Hexane: Nitrogen: Sp. Gravity: GCV:           Kcal/SCM NCV:           Kcal/SCM	GCV:           Kcal/SCM NCV:           Kcal/SCM

**Annexure-3**

[see regulations 3 and 5]

Format for furnishing Details of Constant and Variable parameters of Sub-Transmission Pipeline (STPL)

## a) Constant parameters:

<b>Parameter</b>	<b>Details</b>
Name of steel pipeline/section:	
Name and Location (with longitude/latitude) of inlet and outlet of STPL i.e. from custody transfer point to connectivity with primary network	
Internal Diameter (mm/inch)	
Length (Km)	
Pipeline Roughness (micron) [Enclose Technical Justification]	
Efficiency Factor/Pipeline Efficiency (%) [Enclose Technical Justification]	
STP	Standard pressure – 1.01325 bar (a) Standard temperature –15.56 degree C

## a) Variable parameters:

<b>Parameter</b>	<b>Details</b>
Name of Steel Pipe/ Section:	
Operating Temperature (30 deg C)	
Inlet Temperature (deg C)	
Inlet Pressure (kg/cm <sup>2</sup> g or barg)	
Outlet Pressure (kg/cm <sup>2</sup> g or barg)	
Maximum & Minimum Committed Pressure (kg/cm <sup>2</sup> g or barg)	
Elevation Difference	
Gas Composition (Mole Percent) Methane: Ethane: Propane: Isobutene: Isopentene: Hexane: Nitrogen: Sp. Gravity: GCV: Kcal/SCM NCV: Kcal/SCM	GCV: Kcal/SCM NCV: Kcal/SCM

**Note:** Copies of agreement/tie-in agreement with transporter/transmission entity indicating agreed/ committed delivery pressure, temperature etc to be provided.

**PETROLEUM AND NATURAL GAS REGULATORY BOARD  
NOTIFICATION**

New Delhi, the 5th November, 2012

**F. No. Infra/IM/NGPL/1/2010.**—In exercise of the powers conferred by Section 61 of the Petroleum and Natural Gas Regulatory Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely :—

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Integrity Management System for Natural gas pipelines) Regulations, 2012.
- (2) They shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

- (1) In these regulations, unless the context otherwise requires,—
  - (a) "Act" means the Petroleum and Natural Gas Regulatory Board Act, 2006;
  - (b) "Board" means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of section 3 of the Act;
  - (c) "natural gas pipeline" means the pipeline as defined under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural gas pipelines) Regulations, 2008;
  - (d) "operator" means an entity that operates natural gas pipeline network with the authorization of the Board;
  - (e) "risk" means the risk as defined under the Petroleum and Natural Gas Regulatory Board (Codes of Practices for Emergency Response and Disaster Management Plan (ERDMP) Regulations, 2010;
  - (f) "risk analysis" means the risk analysis as defined under the Petroleum and Natural Gas Regulatory Board (Codes of Practices for Emergency Response and Disaster Management Plan (ERDMP) Regulations, 2010;

- (g) "risk assessment" means the risk assessment analysis as defined under the Petroleum and Natural Gas Regulatory Board (Codes of Practices for Emergency Response and Disaster Management Plan (ERDMP) Regulations, 2010;
- (h) "risk management" means the risk management as defined under the Petroleum and Natural Gas Regulatory Board (Codes of Practices for Emergency Response and Disaster Management Plan (ERDMP) Regulations, 2010;
- (i) "spur-line" means a pipeline as defined in the Petroleum and Natural Gas Regulatory Board (Determining Capacity of Petroleum and Petroleum Products and Natural Gas Pipeline) Regulations, 2010;
- (j) "Subject Matter Expert (SME)" means an individual who possesses knowledge and experience in the process or discipline he represents as per ASME B 31Q;
- (k) "right of use (ROU) or right of way (ROW)" means the area or portion of land within which the pipeline operator or owner has acquired the right through the relevant provisions of law or in accordance with the agreement with the land owner or agency having jurisdiction over the land to lay and operate the natural gas pipelines;
- (l) "integrated surveillance system" means the pipeline surveillance for third party encroachment activities along ROU. This may use optical fiber cable, microwaves and satellite as communication systems and could be integrated with SCADA's data;
- (2) Words and expressions used and not defined in these regulations, but defined in the Act or in the rules or regulations made thereunder, shall have the meanings respectively assigned to them in the Act or in the rules or regulations, as the case may be;

### **3. Applicability.**

These regulations shall apply to all the entities laying, building, operating or expanding natural gas pipelines.

### **4. Scope.**

These regulations shall cover all the existing and new natural gas transmission pipelines, spur lines, sub-transmission pipelines (STPL) and dedicated pipelines. This includes the associated facilities required for transportation of natural gas

through pipelines that is terminals, intermediate pigging facilities, compressor stations, sectionalizing valves etc.

The materials and specifications followed shall be in accordance with Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for Natural gas pipeline) Regulations, 2009.

### **5. Objective.**

(1) These regulations outline the basic features and requirements for developing and implementing an effective and efficient integrity management plan for natural gas pipeline system.

(2) These regulations are intended to-

- (a) evaluate the risk associated with natural gas pipelines and effectively allocate resources for prevention, detection and mitigation activities;
- (b) improve the safety of natural gas pipelines so as to protect the personnel, property, public and environment;
- (c) have streamlined and effective operations to minimize the probability of Natural gas pipeline failure.

### **6. Integrity Management System.**

The development and implementation of Integrity Management System for the natural gas pipelines shall be as described in SCHEDULE-1 to SCHEDULE-10 of these regulations.

### **7. Default and consequences.**

(1) Compliance to the provisions of these regulations shall be done through implementation schedule as described in these regulations at Schedule-7 and Schedule-8 in conjunction with Appendix-II.

(2) In case of any shortfall in achieving the implementation schedule of Integrity Management System as specified in these regulations, the entities shall be liable to face the following consequences, namely:-

- (i) the entity shall be required to complete each activity within the specified time limit and if there is any deficiency in achieving in one or more of the activities, the entity shall submit a mitigation plan within the time limit for acceptance of the Board and make good all short comings within the time agreed by the Board. If the

entity fails to complete activities within the specified time limit by the Board, relevant penal provisions of the Act shall apply;

- (ii) in case the entity fails to implement the approved Integrity Management System, the Board may issue a notice to defaulting entity allowing it a reasonable time to implement the provisions of Integrity Management System. In case the entity fails to comply within the specified time, the relevant provisions of the Act and regulations shall apply.

#### **8. Requirement under other laws.**

It shall be necessary to comply with all statutory rules, regulations and Acts in force as applicable and obtain requisite approvals from the relevant competent authorities for the natural gas pipeline.

#### **9. Miscellaneous.**

- (1) Through these regulations the uniform application of Integrity Management System is to be ensured for all natural gas pipelines.
- (2) Entity operating and maintaining natural gas pipelines shall have the qualified manpower as per three tier structure as indicated in Appendix-IV.
- (3) These regulations either on suo-motu basis or on the recommendation of concerned sub-committee of natural gas pipelines shall be reviewed by the Board.

#### **10. Power to remove difficulties.**

In the event of the problem faced by the entity in implementing the provisions contained in these regulations, the entity may approach Board for necessary dispensation.

### **SCHEDULES** **(see regulation 6)**

#### **SCHEDULE-1**

#### **OBJECTIVE**

The objective of Pipeline Integrity Management System is to maintain integrity of natural gas pipelines at all times to ensure public safety, protect environment and ensure availability of pipeline to transport gas without interruptions and also minimize business risks associated with accidents and losses. The availability of the Integrity Management System will allow professionals and technicians engaged in integrity tasks to have clearly established work aims and targets in the short, medium and long term, which undoubtedly will enhance their efficiency and satisfaction to attain them.

The Integrity Management System will enable the natural gas pipeline transporter to select an identified system for implementation such that the Integrity Management System will be uniform for all natural gas pipeline entities within the country.

An effective Integrity Management System shall be:

- Ensuring the quality of natural gas pipeline integrity in all areas which have potential for adverse consequences.
- Promoting a more rigorous and systematic management of natural gas pipeline integrity and mitigating the risk;
- Increasing the general confidence of the public in the operation of natural gas pipeline.
- Optimizing the life of the natural gas pipeline with the inbuilt incident investigation and data collection including review by the entity.

## **SCHEDULE-2**

### **INTRODUCTION TO THE INTEGRITY MANAGEMENT SYSTEM (IMS)**

- 2.1 Every natural gas pipeline operator's primary focus shall be on operation and maintenance of natural gas pipeline in such a way that it would continuously provide un-interrupted services to customers with utmost reliability and safety without any untoward incident which can adversely impact the environment.
- 2.2 A pipeline Integrity Management System shall provide a comprehensive and structured framework for assessment of pipeline condition, likely threats, risks assessment and mitigation actions to ensure safe and incident free operation of the pipeline system.
- 2.3 Such a comprehensive integrity management system shall essentially comprise the following elements:
  - **Integrity Management Plan (IMP):** This encompasses collection and validation of data, assessment of spectrum of risks, risk ranking, assessment of integrity with respect to risks, risks mitigation, updation of data and reassessment of risk.
  - **Performance evaluation of IMP:** This is a mechanism to monitor the effectiveness of integrity management plan adopted and for further improvement.
  - **Communication Plan:** This covers a structured plan to regulate information and data exchange within and amongst the internal and external environment.

- **Management of Change:** This is the process to incorporate the system changes (technical, physical, procedural and organization changes) into integrity management plan to update the integrity management plan.
- **Quality Control:** This is the process to establish the requirements of quality in execution of the processes defined in the integrity management plan.

Note: These elements have further been detailed in Schedule-6.

### **SCHEDULE-3**

#### **DESCRIPTION OF NATURAL GAS PIPELINE SYSTEM**

- 3.1 **PHYSICAL DESCRIPTION:** Description of natural gas pipeline should include specific description of the pipelines, compressors, valves with respect to design specifications, length, major installations details such as:

- 3.1.1 Trunk Pipeline
- 3.1.2 Spur-pipelines
- 3.1.3 Sectionalizing Valve Stations
- 3.1.4 Intermediate Pigging Stations
- 3.1.5 Tap-Off Stations
- 3.1.6 Compressor Stations
- 3.1.7 Control Stations
- 3.1.8 Electrical System depending upon Captive power generation or Grid-power.
- 3.1.9 Cathodic Protection System
- 3.1.10 SCADA
- 3.1.11 Safety Equipments
- 3.1.12 Delivery Stations

3.2 **OTHER DESCRIPTION:**

- 3.2.1 ROU Details-ROU width and constraints, if any
- 3.2.2 Intertaces with other operators' facilities or pipelines, if any;
- 3.2.3 Historical background of the natural gas pipeline and major modifications and additions carried out in the system, if any;
- 3.2.4 List of the consumers served by the pipelines;
- 3.2.5 Inspection updates;

- 3.2.6 Incident reporting;
- 3.2.7 Statement of compliance with Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for Natural Gas Pipeline) Regulations, 2009;
- 3.2.8 Statutory compliances.

#### **SCHEDULE-4**

#### **SELECTION OF APPROPRIATE INTEGRITY MANAGEMENT SYSTEM**

- 4.1 Integrity Management System for natural gas pipelines could employ either a performance based Integrity Management System or a prescriptive type Integrity Management System. Whereas, natural gas pipeline industry has gathered a reasonably good experience of pipeline operations and as such pipeline industry is fairly mature, a performance based Integrity Management System are appreciated globally. However, where pipeline systems are in developing stage, a prescriptive type Integrity Management System is recommended. Whereas, the performance based Integrity Management System recognizes the experience of the entity which has been operating the pipeline but the prescriptive type Integrity Management System is more rigorous as it considers the worst case scenario of the failures in the pipeline systems and, therefore, worst case scenario for mitigation.
- 4.2 Though subsequent schedule in these regulations apply to both prescriptive and performance based type of Integrity Management System, present regulations mainly focus on prescriptive aspects in absence of adequate historical Integrity Management System data.
- 4.3 A prescriptive type of Integrity Management System mandates the implementation of an established process for addressing the risks, their consequences and proven methods for mitigation. It also mandates the in-house development of Integrity Management Plan and Management of Change pertaining to technical aspects. Based on the development of gas pipeline industry in India till date, the preparation of prescriptive type Integrity Management System has been considered for implementation to all natural gas pipelines in India. Further, as the natural gas pipeline industry matures and gathers sufficient records or data as per the requirements prescribed in the Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications Including Safety Standards for Natural gas pipelines) Regulations, 2009, a review mechanism may be considered by the Board for recommending a Performance Based Integrity Management System for Natural gas pipeline.

**SCHEDULE-5****INTEGRITY ASSESSMENT TOOLS**

Some of the tools for Integrity assessment are provided below. The operator should use as many tools necessary to achieve the IMS for natural gas pipeline. It may be noted that the baseline data for specific measurement should be available with the operator as a ready-reckoner:

**5.1 In-Line Inspection**

In-line inspection (ILI) is an integrity assessment method used to locate and preliminarily characterize indications, such as, metal loss or deformation, as well as external and internal corrosion in a pipeline. ASME B31.8 S "Managing System Integrity for Natural gas pipelines" provides additional guidance on pipeline in-line inspection.

Internal inspection tools shall have capability of detecting corrosion and deformation anomalies viz. dents, gouges, grooves, etc. Instrumented Pigging (Intelligent Pigging) or any other technology that can provide a level of integrity assessment equivalent to In-line Inspection in accordance with provisions of Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for Natural gas pipelines) Regulations, 2009 may be employed as Integrity Assessment Method.

**5.2 Cathodic Protection (CP) Monitoring**

Following cathodic protection monitoring methods are available:

- (i) Pipe to Soil Potential Survey / Closed Interval Potential Logging Survey.
- (ii) Transformer Rectifier Unit / Cathodic Protection Power Supply Module - current and voltage monitoring method
- (iii) Coating Health Surveys (Current Attenuation Test, Direct Current Voltage Gradient survey and Pearson)
- (iv) Pipeline Interference Survey

**5.3 Surveillance**

Various effective surveillance methods are being used as direct integrity assessment tools. Based upon the experience and resource management, one or multiple tools may be followed by the operator; some of them are detailed as under:

- I. **Patrolling / Ground Survey** of the Right of Use which includes Line Walk for ensuring clear visibility of Right of Way/Right of Use, access to maintenance crew along the Right of Way/Right of Use, valve locations

and other pipeline facilities. This also helps to observe surface conditions, leakage, construction activity performed by external agencies, encroachments, washouts and any other factors affecting the safety and operation of the pipeline. Also, patrolling ground survey may be done for maintenance of all pipeline markers, kilometer posts and other specific indication marks along the pipeline. This may also include:

- (i) Night patrolling by Line walkers or alternative security surveillance system where the pipeline location is vulnerable from security point of view
- (ii) Right of Use tracking through satellite imaging methods for critical stretches of natural gas pipeline system
- (iii) Aerial survey of Right of Use at critical and in-accessible stretches e.g. hilly regions and Ghat sections etc.

## **II. Integrated Surveillance System for critical stretches :**

The above system may use various types of detection systems which may be employed for cross country pipelines based on the system requirements. The general details on such detection system are given below:-

1. Fiber Optics system: This detection system works on seismic vibration principle which may be employed for any kind of terrain and soil and is useful for pipelines crossings. This system is primarily used for buried pipelines.
2. Ground Sensor System: This detection system also works on seismic vibration principle and may also be used for any kind of terrain and soil. Ground sensor system may be used for buried pipelines as well as above ground pipelines.
3. Radar based detection system: This system works on the principle of micro wave reflection. It is applicable for pipeline terrain where large undulation is restricted. However, this may be useful for any kind of soil and preferably used for above ground pipelines.
4. Fence secure data access system: This system works on the principle of violation of boundary and is useful in installation along the pipeline system. The other use of this system could be for pipeline corridor securing pipeline in very sensitive area where there are attacks by terrorists or otherwise.

## **III. Awareness Programme:**

Villagers and general public along the right of way shall be made aware of the possible consequences of natural gas leaks by providing a list of Do's and Don'ts. Safety awareness among the administration and local

public may be created as per the disaster management plan in accordance with the provisions of Petroleum and Natural Gas Regulatory Board (Codes of Practices for Emergency Response and Disaster Management Plan), Regulations, 2010.

#### 5.4 HYDROTESTING

Hydro testing is appropriate for integrity assessment when addressing certain threats at the pre-commissioning stage itself at test pressure specified in the Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for Natural gas pipelines) Regulations, 2009.

#### 5.5 DIRECT ASSESSMENT AND EVALUATION

Direct assessment methods that include visual Non-Destructive Testing (NDT) examination to reinforce and validate findings from in-line inspection and other incidental findings, like during incidental pipeline exposure, pipeline damages and other maintenance activities may also be employed as an Integrity Assessment tools. External Corrosion Direct Assessment (ECDA), Internal Corrosion Direct Assessment (ICDA) and Stress Corrosion Cracking Direct Assessment (SCCDA) are the available tools for direct assessment and evaluation.

**5.5.1 External Corrosion Direct Assessment (ECDA)** can be used for determining integrity for the external corrosion threat on pipeline segments. The ECDA process has the following four components:

- (a) *Pre assessment*- incorporating various data gathering, database integration and analysis
- (b) *Identification* - using either tools or calculations to flag possible corrosion sites, or calls, based on the evaluation or extrapolation of the database
- (c) *Examinations and evaluations* - excavation and direct assessment to confirm corrosion at the identified sites and remediation as provided in Schedule 6 of these regulations.
- (d) *Post-assessment* - to determine if dig call decision are taken on a pipeline segment. However, Call decisions are driven by various tools, technologies, or engineering evaluations, but are highly dependent on the level of experience and expertise utilized.

While implementing External Corrosion Direct Assessment if the pipe is exposed, the operator is advised to conduct examinations for threats other than that for external corrosion also (like mechanical and coating damages).

**5.5.2 Internal Corrosion Direct Assessment (ICDA)** can be used for determining integrity for the internal corrosion threat on pipeline segments. The ICDA process has the following four components.

- (a) Pre-assessment
- (b) Identifications
- (c) Examinations and evaluations
- (d) Post-assessment

**5.5.3 Stress Corrosion Cracking Direct Assessment (SCCDA)** can be used for determining integrity for the stress corrosion threat on pipeline segments. The SCCDA process has the following four components.

- a) Pre-assessment
- b) Identification
- c) Examinations and evaluations
- d) Post-assessment

## **5.6 Thickness assessment and periodic review against baseline values**

For all sections of the pipelines above ground, all pipeline skids and pressure vessels, a periodic thickness assessment and comparison with baseline values may be done and employed as Integrity Assessment tool.

The operator of a pipeline system shall develop a chart of most suited integrity assessment tool or method and assessment interval for each threat/risk and further develop appropriate specifications and quality control plan for such assessment. After establishing effectiveness of assessment, the interval of assessment may be further modified subject to any other code requirement such as Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for natural gas pipelines) Regulations, 2009. A suggested chart is placed at APPENDIX –III

## **5.7 Pipeline equipment Health Monitoring**

Pipeline equipment such as main line sectionalizing valves, other valves, pig launching and receiving facilities etc. may be checked periodically for their operation.

## **5.8 Review of existing pipeline Class Locations:**

ii class location changes are perceived due to demographic changes along the existing pipelines, population density survey may be carried out to ascertain the changes in class location.

To address the changes in class location of a pipeline from lower to higher class, the provisions mentioned in Technical Standards and Specifications including Safety Standards /ASME B31.8 shall be considered. The one or multiple following mitigation measures may also be considered till same is mitigated as per Technical Standards and Specifications including Safety Standards /ASME B 31.8 requirements -

- a) Section to be declared as vulnerable and frequency of patrolling to be increased as per new class location.
- b) Intelligent pigging/ Direct Assessment frequencies to be increased.
- c) CP monitoring frequencies to be increased including provision of continuous data/PSP logging at the location.
- d) Corrosion monitoring probes to be installed to monitor the corrosion rate.
- e) Provision of carbon fiber wrapping/ composite sleeves/ concrete slabs.

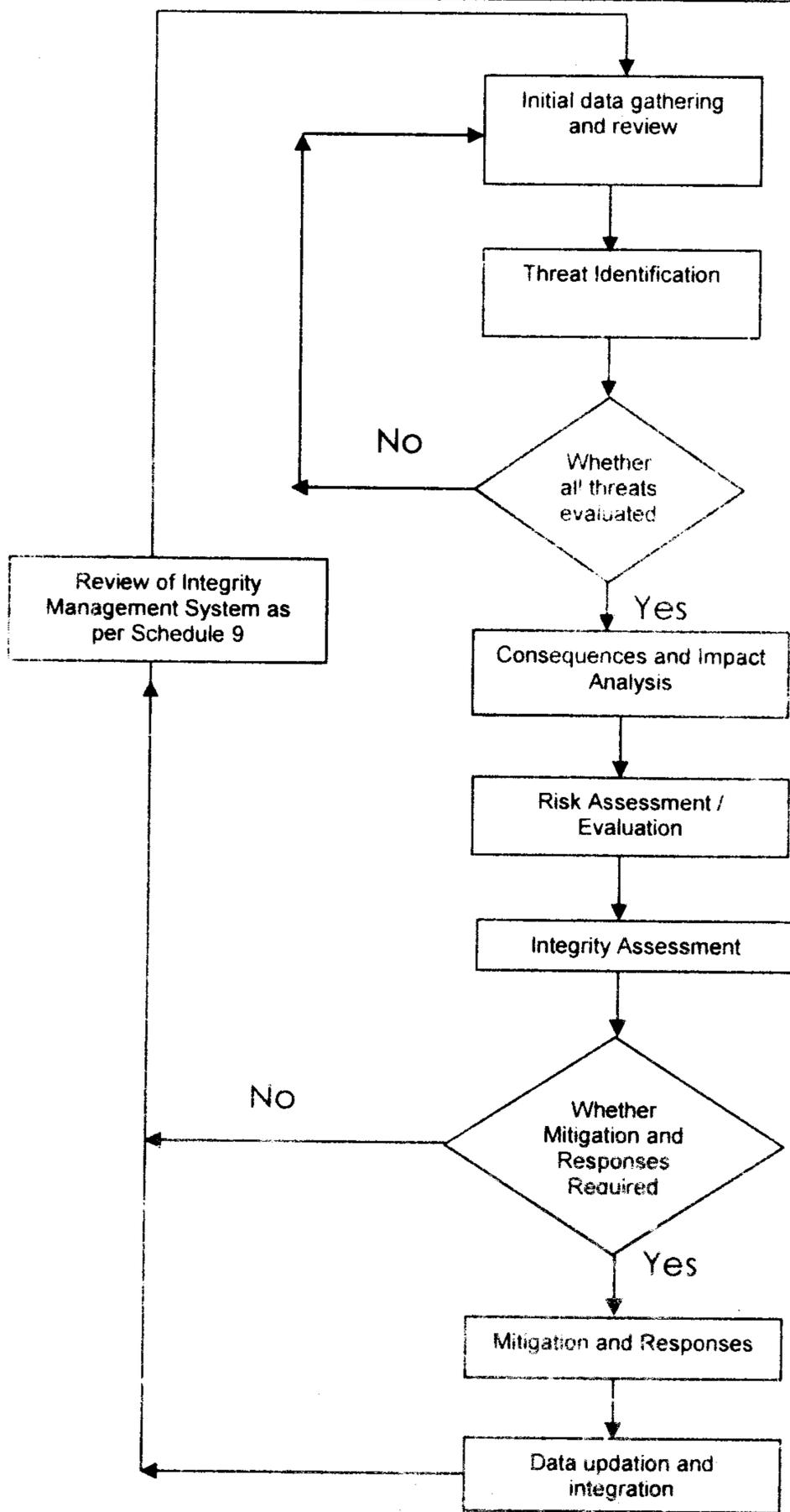
#### **SCHEDULE-6**

#### **DESIGNING APPLICABLE INTEGRITY MANAGEMENT SYSTEM FOR THE NATURAL GAS PIPELINE:**

All operators of existing and new natural gas transmission and distribution pipelines shall develop an integrity management programme comprising the necessary plans, implementation schedule and assessment of its effectiveness in order to ensure safe and reliable operation of the pipelines. It is recognized that the comprehensive pipeline integrity management programme is based on continuous exercise of extensive data collection, assimilation and analysis. Further, an integrity management programme can be devised on specified methods, procedures and time intervals for assessment and analysis or on the basis of performance of the programme with regard to efficacy of integrity assessment plan, its results and mitigation efforts. For operators implementing an integrity management programme in the absence of base line and performance data, it may become imperative to adopt a prescriptive integrity management programme initially.

#### **6.1 Pipeline integrity management Plan**

All natural gas pipelines and associated facilities installed as a part of pipeline shall be covered in pipeline integrity management plan. The cycle of basic processes of integrity management Plan is illustrated in Figure 1 and further detailed hereunder:



**Figure-1: Pipeline Integrity Management Plan - Flow Diagram**

### 6.1.1 Initial Data gathering, review and integration:

Data related to design and engineering, construction, pre-commissioning and commissioning of pipeline assets, operation and maintenance shall

be gathered and reviewed along with post-construction operational and integrity assessment data gathered to identify the potential threats along the pipeline system. Operational and integrity assessment data will be continuously updated while performing various activities along the pipeline such as patrolling, aerial surveillance, Cathodic Protection (CP) monitoring, monthly maintenance of equipments etc. and records maintained either hard or soft options.

### **6.1.2 Threat Identification:**

Gas pipeline incident data analyzed and classified by Pipeline Research Committee International (PRCI) represents 22 root causes for threat to pipeline integrity. One of the causes reported by the operator is "unknown". The remaining 21 threats have been classified into three groups based on time dependency and further in to nine categories of related failure types according to their nature and growth characteristic as below:

#### **(I) Time Dependent Threats:**

##### **1) External Corrosion**

##### **2) Internal Corrosion**

- **Internal corrosion due to off spec. gas\* also to be considered**

##### **3) Stress Corrosion Cracking**

*\*Refer the Petroleum and Natural Gas Regulatory Board (Access Code for Common Carrier or Contract Carrier Natural gas pipelines) Regulations, 2008.*

#### **(II) Stable Threats:**

##### **4) Manufacturing related defects**

- Defective pipe seam
- Defective pipe

##### **5) Welding /fabrication related**

- Defective pipe girth weld
- Defective fabrication weld
- Wrinkle bend or buckle
- Stripped threads /broken pipe /coupling failure

##### **6) Equipment**

- Gasket O-ring failure
- Control/relief equipment malfunction

iii. Seal pump packing failure

iv. Miscellaneous

**(III) Time independent Threats:**

**7) Third party /mechanical damage:**

i. Damage inflicted by first, second or third party (instantaneous /immediate failure)

ii. Previously damaged pipe (delayed failure mode)

iii. Vandalism

**8) Incorrect operational procedure**

**9) Weather related and outside force:**

i. *Weather related*

ii. *Lightening*

iii. *Heavy Rains or Floods*

iv. *Earth Movements*

**Besides the above, certain other threats may be applicable based upon the land pattern:**

i. *Creek area effects*

ii. *Muddy land effects*

iii. *River bed movements*

**6.1.3 Consequence and Impact Analysis:**

Once the hazardous events are identified, the next step in the risk analysis is to analyse their consequences, that is, estimate the magnitude of damage to the public, property and environment of all the identified threats. These consequence may include leak, fire, explosion, gas cloud etc. Consequence estimation can be accomplished by using mathematical models e.g. consequence modelling.

**Identification of High-consequence area (HCA):** Locations along the pipeline system meeting the criteria for High-Consequence Areas are identified. Generally, these are high-population-density areas, difficult-to-evacuate facilities (such as hospitals or schools), and locations where people congregate (such as places of worship, office buildings, or fields). Clause no. 3.2 of ASME B 31.8 S may be referred for detailed information regarding potential impact area.

**6.1.4 Risk assessment specific to pipeline system**

**6.1.4.1 Developing a Risk Assessment Model:** Risk assessment process identifies the location-specific events or conditions, or combination of events and conditions that could lead to loss of pipeline integrity, and

provides an understanding of the likelihood and consequences of these events.

The risk assessment has the following objectives:

- Prioritization of pipeline sections/segments for scheduling integrity assessment and mitigation plan
- Assessment of the benefits derived from mitigation actions
- Determination of the most effective mitigation measures for the identified threats
- Assessment of the integrity impact from modified inspection intervals
- Assessment of the use of or need for alternative inspection methodology
- More effective resource allocation

Pipeline sections may be prioritized for integrity assessment based on severity of composite risk due to all threats. The composite risk value for particular pipeline section is product of relative likelihood of failure and consequences altogether due to all applicable threats. Risk priority shall be established for pipeline sections observed with high risk to organize the integrity assessment. The risk may simply be categorized as high, medium, low (or 1, 2, 3) or larger range, to differentiate the priorities among various sections.

Following approaches for risk assessment and prioritization may be adopted as deemed suitable to the Operators:

- a) Utilizing the services of Subject Matter Experts (SMEs)
- b) Relative Assessment Model
- c) Scenario –Based Model
- d) Probabilistic Models

The risk assessment models mentioned above have following common features:

- (a) They identify potential events or conditions that could threaten system integrity;
- (b) They evaluate likelihood of failure and consequences;
- (c) They permit risk ranking and identification of specific threats that primarily influence or drive the risk;
- (d) They lead to the identification of integrity assessment and/or mitigation option;
- (e) They provide for a data feedback loop mechanism;
- (f) They provide a structure and continuous updating for risk reassessments

Risk assessment considering the likelihood and consequences through risk assessment approaches may not consider the extent of failure that is leak or rupture. If failure cannot be identified as leak or rupture while assessing the risk through any of the above models, a worst case scenario may be considered.

#### **6.1.4.2 Risk Assessment for the pipeline system:**

The risk assessment is continuous and repetitive process. System wide risk assessment shall be carried out at least every year by pipeline operators through any of the methodology mentioned above after incorporating and updating the recently captured data in risk model such as :

- Increase in Operating Pressure, average temperature/dew point of gas, water content in gas beyond acceptable limits.
- Changes in Right of Use conditions like development of encroachments, increase in third party activities/ population density, major washouts.
- Pipeline Leak/rupture history.
- Addition of new /expansion of the existing railway/road/waterway crossings.
- Changes to pipeline cathodic protection levels due to external interference problems.
- Any other issues which may affect the integrity of pipeline.
- The results of previous integrity assessments.

The risk assessment may be performed earlier if any new threat is perceived. The risk assessment process and method shall be reviewed and updated periodically to achieve the objective of pipeline integrity management plan consistently.

The result of risk assessment shall be arranged in descending order for each section for prioritizing the section for conducting integrity assessment after selecting the appropriate integrity assessment method based on most significant threats to particular section.

#### **6.1.5 Integrity Assessment:**

A plan shall be developed to address the most significant threats and risks as per previous section and determine appropriate integrity assessment methods to assess the integrity of the pipeline segment. The following methods can be used for Integrity Assessment:

- Hydro testing before commissioning at test pressure as per T4S standard
- Inline inspection (ILI)
- External & Internal Corrosion Direct Assessment (ECDA/ICDA)
- Various forms of pipeline surveillance and monitoring e.g. patrolling Integrated Surveillance System (ISS) etc.

Brief description of various Integrity Assessment methods has also been provided in Schedule-5 of these regulations.

Selection of appropriate integrity assessment method shall be based on most significant threats to which particular segment are susceptible. One or more integrity assessment methods can be used depending upon the threats to particular segment of pipeline.

The operator of a pipeline system shall develop a chart of most suited integrity assessment method and assessment interval for each threat and risk. The operator shall further develop appropriate specifications and quality control plan for such assessment. After establishing effectiveness of assessment, the interval of assessment may be further modified subject to the requirements under the Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for Natural gas pipeline) Regulations, 2009 and other relevant Regulations. A suggestive chart is placed at Appendix -III.

#### **6.1.6 Mitigation and Response (Repair and Prevention)**

After the completion of assessment like inline inspection and coating health surveys, the results shall be evaluated and the necessary repairs and preventive actions shall be undertaken to eliminate the threat to pipeline integrity.

Immediately upon completion of integrity assessment, a comprehensive schedule of repair shall be prepared. All anomalous conditions discovered through the integrity assessment shall be evaluated and classified under the following three categories based on severity of defect. Mitigation action (repair and prevention) shall be undertaken to eliminate an unsafe condition to the integrity of a pipeline or to ensure that the condition is unlikely to pose a threat to the integrity of the pipeline until the next reassessment.

##### **(A) Mitigation through Repair Actions:**

At the time of establishing schedules, responses shall be divided into three groups and repair actions shall be as follows:

##### **(a) Immediate repair conditions:**

Such indication shows that defect is at failure point. This shall include but not limited to any corroded area having -

- i) Metal loss equal to or more than 80% of wall thickness.
- ii) Predicted failure pressure less than equal to 1.1 times the maximum allowable operating pressure (MAOP) as determined by ASME B31G or equivalent.
- iii) Metal loss indication affecting a detected longitudinal seam, if that seam was formed by direct current or low frequency electric resistance welding or by electric flash welding.

- iv) Any indication of adverse impact on the pipeline expected to cause immediate or near term leaks or ruptures based on their known or perceived effects on the strength of pipeline which include dents with gouges.
- v) Any near term failure indication.

**(b) Scheduled conditions:**

Such indication shows that defect is significant but not at failure point. Following indications shall be examined within one year of discovery:

- i) A plain dent that exceeds 6% of nominal pipeline diameter for pipeline operating at or above 30% of Specified Minimum Yield Strength (SMYS).
- ii) Mechanical damage with or without concurrent visible indentation of the pipe.
- iii) Dent with cracks.
- iv) Dent that affect ductile girth or seam welds if the depth is in excess of 2% of the nominal pipe diameter.
- v) Dents of any depth that affect non ductile welds.

\* For more information on scheduled conditions," *Repair Procedures for Steel Pipelines*" paragraph 851.4 of ASME 31.8 may be referred.

**(c) Monitored conditions:**

Monitored conditions show that defect will not fail before next inspection. Such indications are the least severe and will not require examination and evaluation until next scheduled integrity assessment interval provided that they are not expected to grow to critical level prior to the next scheduled assessment.

**(B) Mitigation through Preventive Actions:**

The pipeline operator shall develop scheduled programme for monitoring the integrity of the pipeline to prevent from time dependent and independent threats to support the integrity assessment and mitigation plan.

The monitoring scheme and frequency should be decided by the pipeline operator subject to compliance of Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for Natural gas pipeline) Regulations, 2009. The few schemes are as follows:

- (a) Patrolling of pipelines and associated facilities
- (b) Maintenance of Right of Use and inspection of Crossings

- (c) Pipeline Cleaning / Pigging
- (d) Inspection of cathodic protection system
- (e) Coating Survey (Closed Potential Logging / Direct Current Voltage Gradient / Pearson/Current Attenuation Test)

#### **6.1.7 Update, integrate and review data:**

After the initial integrity assessments are completed, the results shall be maintained in soft, hard or both versions which will be used for future risk and integrity assessments in addition to operational information that is recorded on continuous basis for assessments and implementing risk mitigation plan.

#### **6.2 Performance Evaluation Plan:**

Every pipeline operator shall define suitable performance indicators which can be monitored to give a picture of the integrity levels of various aspects of the operator's pipeline assets. Refer ASME B 31.8S table no 8 and 9 for finalizing performance measures and performance matrix respectively. Monitoring of these indicators on a periodic basis against pre-defined targets helps to assess the effectiveness of Integrity Management programme. Performance indicator measures should be selected carefully to ensure that they can reasonably indicate the effectiveness of programme and health of the assets.

An operator can evaluate a system's integrity management programme performance within their own system and also by comparison with other systems on an industry-wide basis.

Such performance evaluation should consider both threat-specific and aggregate improvements. Threat-specific evaluations may apply to a particular area of concern, while overall measures apply to all pipelines under the integrity management programme.

Performance indicator measures may measure either or all of the below as applicable:

- (i) Process measures e.g. number of damages per excavation notification received.
- (ii) Operational measures e.g. number of significant In-line Inspection anomalies.
- (iii) Direct integrity measures e.g. number of damages per km. of pipeline length.

A performance indicator may be either leading or lagging indicator. Lagging measures are reactive in that they provide an indication of past integrity management programme performance. Leading measures are proactive in that they provide an indication of how the plan may be expected to perform.

### 6.2.1 Performance Measures

Performance measures serve as a tool for evaluating the success of the pipeline Integrity Management System. The performance measures have been developed as a method to gauge the extent to which the pipeline Integrity Management System goals have been met. Performance results demonstrate whether integrity management activities are appropriate or require improvements. The results may be evaluated annually by the pipeline operators, at which time the appropriateness of each performance measure will be assessed. Some of the goals as part of performance measures are illustrated below for reference. The operator may set their own goals depending on priorities and specific problems.

Goals	Performance Measure
To maintain pipeline Pipe-to-Soil Potential (PSP) within acceptable limits	PSP Level
Execution of In-line Inspection pigging	As applicable
Leakage and ruptures	Number
Development, Training and Awareness programmes	Number of training and awareness programmes conducted in a year
No Right of Use encroachments	Number of encroachments

In addition to the above performance measures, the pipeline Integrity System Monitoring Report includes the following:

- Patrolling Inspected vs. Planned.
- Key Integrity issues such as encroachments, restoration, constructional deficiencies, mitigation plan and any operational issues.
- The number of Integrity Management System required activities completed.
- The number of defects found requiring repair or mitigation.
- The number of leaks reported.

For performance measures relating to damage events, the following points are documented in the Operator's Damage Prevention Report:

- The number of third party damage events and near misses.
- The number of pipeline hits by third parties due to lack of notification.
- Aerial surveillance and patrolling reports.

### 6.2.2 Continuous Improvement

The Integrity Management System shall be continuously evaluated and modified to accommodate changes in pipeline design and operation changes in both the physical and regulatory environment in which the system operates and new operating data or other integrity related information. Continuous evaluation is required to make sure that the programme takes appropriate advantage of improved technology and that the programme remains integrated with the operator's business practices and effectively supports the operator's integrity goals.

Integrity Management System shall be evaluated and reviewed as per the frequency described in Schedule-9 of these regulations. Issues that would typically be reviewed may include, but are not limited to:

- Performance measures.
- Testing and inspection successes and failures.
- New threat identification.
- Root cause analysis of pipeline breakdowns and accidents.
- Process enhancement / changes (Management of Change).
- Recommended changes for the Integrity Management System.
- Additional training requirements necessary to support Integrity Management System.
- Public awareness programme.
- Inspection tool performance (whenever applicable).
- Inspection tool vendor performance.
- Alternative repair methods.
- Staffing for inspections, testing and repairs.
- Past and present assessment results.
- Data integration and risk assessment information.
- Additional preventive and mitigating actions.
- Training needs of O&M personnel.
- Additional items as necessary to aid in the success of the IMP programme.

Based on results of the internal reviews, integrity assessment and mitigation programme shall be improved and documented.

### **6.3 Communication Plan:**

This provides a framework for developing and implementing a written internal and external communication programme for operators of natural gas transmission lines and distribution pipelines. All pipeline operators shall develop and implement a communication plan to disseminate the integrity management efforts undertaken by pipeline operator and also to receive internal and external information or input. This programme must address intended audiences, message content, communication, frequencies and methods and programme evaluation. The information received through external/internal communication should be considered for risk assessment, integrity assessment and mitigation. The communication plan typically comprises, establishment of external and internal communication system as follows:

#### **6.3.1 External Communication:**

This should cover the communication plan with external agencies, which are not directly related with operator's business, for propagating information regarding presence of pipeline location, damage preventing actions, company contact information for reporting leakage and informing before carrying out any excavation etc. The various means such as web site, warning boards, pamphlet distribution, street plays etc. can be utilized by operators for this purpose. The following external agencies may be targeted:

- (I) Land owner and tenants along the Right of Use.
- (II) General Public near pipeline route.
- (III) Public officials and statutory bodies other than emergency responders.
- (IV) Local and regional emergency responders.

#### **6.3.2 Internal Communications:**

This should cover the dissemination of the information to employees and persons involved in operation and maintenance of pipeline system regarding integrity management programme to understand and comply with the programme objectives and requirements. Such a plan is also expected to fully cover the flow of information and controls in response to emergencies.

### **6.4 Management of Change:**

Pipeline systems and the surrounding environment in which pipelines operate are often dynamic and need changes depending upon operational or any other requirement. Prior to implementation of any changes to pipeline system, a systematic process shall be adopted to ensure that prospective changes

(such as design, operation, or maintenance) are evaluated for their potential risk impacts to pipeline integrity including impact on environment. All natural gas pipeline operators shall define a management of change plan in integrity management programme to at least address the following:

- (i) Reason for Changes
- (ii) Authority to approve changes
- (iii) Analysis of implications (threat and risk analysis)
- (iv) Documentation
- (v) Communication of changes to affected parties

After implementation of changes, they shall be incorporated, as appropriate, into future risk assessment to ensure that the risk assessment process addresses the systems as currently configured, operated, and maintained. The results of the Integrity Management Plan's mitigation activities should be used as feedback for systems and facilities design and operation.

Changes to the pipelines could affect the priorities of the pipeline Integrity Management Plan and the risk mitigation measures employed. Any change in design basis, process or operational issue that can affect the risk rating has to be routed through Management of Change.

### **6.5 Quality Control**

All the entities shall prepare and maintain documented procedure and records as per the requirement of this standard which can also be made part of existing quality programme (e.g. ISO-9001-2001) maintained by the entities. The following activities shall be made part of quality control programme:

- (i) Identifying and maintaining the documents required for Integrity management plan, procedures and records. This includes both controlled and uncontrolled documents.
- (ii) Defining roles and responsibilities for implementation of programme, documentation etc.
- (iii) Reviewing of Integrity Management Plan and implementation of recommendation at predefined interval.
- (iv) Training and awareness of persons implementing the Integrity management plan.
- (v) Periodic internal Audit of integrity management plan and quality plan.
- (vi) Documentation of corrective actions taken or required to be taken to improve the integrity management plan or quality plan.

Internal Audits of the Pipeline Integrity Management System shall be performed on a regular basis. The purpose of the audits is to ensure compliance with the policies and procedures as outlined in these regulations. Recommendations and corrective actions taken shall be documented and incorporated into the Pipeline Integrity Management System.

Internal audits are conducted by the audit group nominated by Head of the Operations Team of the entity at least once in a year. Internal audits aim to ensure that the Integrity Management System's framework is being followed.

The following essential items will be focused for any internal and external audit of the entire Integrity Management System:

- Ensure that the Baseline Plan is being updated and followed and that the baseline inspections are carried out.
- Verify qualifications of O&M personnel and contractors based on education qualification (Appendix-IV), formal training received through in-house or external programme, demonstrated practical skills, and experience records in the relevant areas. Refer ASME B31Q for guidance.
- Ensure adequate documentation is available to support decisions made.
- Determine if annual performance measures have been achieved.
- A written integrity management policy and programme for all elements
- Written Integrity Management System procedures and task descriptions are up to date and readily available.
- Activities are performed in accordance with the Integrity Management System.
- A responsible individual has been assigned for each task.
- All required activities are documented.
- All action items or non-conformances are closed in a timely manner.
- The risk criteria used have been reviewed and documented.
- Prevention, mitigation and repair criteria have been established, met and documented.

**SCHEDULE 7****APPROVAL OF INTEGRITY MANAGEMENT SYSTEM (IMS):**

A Natural gas pipeline Integrity Management System is a management plan in the form of a document that explains to operator's employees, customers, regulatory authorities, etc., as to how the operator and its assets are managed, by stating:

- (i) who is responsible for each aspect of the asset and its management;
- (ii) what policies and processes are in place to achieve targets and goals;
- (iii) how they are implemented;
- (iv) how performance is measured and;
- (v) how the whole system is regularly reviewed and audited.

For the first time the approval of the IMS document shall be done by the Board of the entity. While during review to be done every three years, the approval shall be done by CEO / Full time Director of the company and all levels of management shall comply with its contents. Necessary awareness shall also be created within and outside the company regarding benefits to the society for up keeping of the pipeline system for all times to come.

Preparation of the document shall be done in following three stages and six steps.

**7.1 MANAGEMENT APPROVAL:**

- Step#1: Prepared by In-house team or Consultant
- Step#2: Checked by In-house team Head or Consultant head
- Step#3: Provisionally approved by Head of Operation team of the entity
- Step#4: Conformity of IMS document with the Regulation by Third Party Inspection Agency (TPIA)

**7.2 ACCEPTANCE BY PETROLEUM & NATURAL GAS REGULATORY BOARD (PNGRB)**

- Step#5: Acceptance by the Board

**7.3 APPROVAL FOR IMPLEMENTATION**

- Step#6: Approval of Integrity Management System document for implementation by the Board for the first time and approval of subsequent periodic review by CEO or Full time Director of the entity.

**Note:** A certificate regarding the approval of Integrity Management System document duly approved as specified at clause no. 7.1 above shall be submitted to the Board that the Pipeline Integrity Management system is in line with the requirements of the various regulations issued by the Board from time to time and has been approved by the CEO or full time Director of the company.

**SCHEDULE-8****IMPLEMENTATION SCHEDULE of Integrity Management System:**

<b>Sr. No.</b>	<b>Activities</b>	<b>Time Schedule</b>
1	Compliance with Petroleum and Natural Gas Regulatory Board (Technical Standards and specifications including Safety Standards for Natural gas pipelines) Regulations, 2009	YES/NO confirmation within 1 month from date of notification of these regulations
2	Preparation of Integrity Management System document and approval by Head of Operation team of the entity.	1 year from date of notification of these regulations
3	Conformity of Integrity Management System document with regulation by Third Party Inspection Agency.	3 months from the approval by Head of Operation team of the entity.
4	Submission of Integrity Management System document to Petroleum and Natural Gas Regulatory Board	1 month from the conformity of Integrity Management System by Third Party Inspection Agency
5	Approval for implementation by the entity	Within 3 months from the acceptance of Integrity Management System document by Petroleum and Natural Gas Regulatory Board
6	Start of Implementation	Immediately after approval at Sr. No. 5 above
7	Submission of Compliance Statement to Petroleum and Natural Gas Regulatory Board	Shall be submitted within 1 year to Petroleum and Natural Gas Regulatory Board

**Note: Steps for implementation to be followed as described in Schedule-7**

**SCHEDULE-9****REVIEW OF THE INTEGRITY MANAGEMENT SYSTEM****9.1 Periodicity of review of Integrity Management System**

Entities shall review their existing Integrity Management System every 3 years based upon the:

- (i) Revised Baseline data
- (ii) Critical Inputs from various departments

**9.2 Review of Internal and External Audit**

There shall be a system for ensuring compliance to the provisions of these regulations by conducting following audits during operation phase:

- (a) Internal Audit as per the checklist for natural gas pipelines provided by Petroleum and Natural Gas Regulatory Board shall be carried out by the management of operator every year.
- (b) External Audit (EA) by third party, approved by the Board, as per the methodology specified by the Petroleum and Natural Gas Regulatory Board every 3 years.

**SCHEDULE-10****Adequacy of Manpower positioned at different stage of project**

Entity will have to address the requirement of manpower for different stages of project, namely: Design, construction, commissioning, operation and maintenance.

The entity which is preparing Integrity Management System should address the manpower requirement for its present and future operations. The qualification of such manpower shall conform to **Appendix-IV**.

**APPENDIX-I****REFERENCES**

Reference documents of Standard Operation and Maintenance procedures related to Pipeline Integrity may be developed for use of O&M personnel. Some of them are mentioned below for reference:

- Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for Natural gas pipelines) Regulations, 2009;
- Petroleum and Natural Gas Regulatory Board (Codes of practices for Emergency Response and Disaster Management Plan) Regulations, 2010;
- ASME B31.8-Gas Transmission and Distribution Piping Systems;
- ASME B31.8S – Managing System Integrity of Gas Pipelines;
- ASME B31 Q- Pipeline Personnel Qualification
- ASME B31G - Manual for Determining Remaining Strength of Corroded Pipelines.
- Gas Research Institute - 00/0189 - A model for sizing high consequence areas associated with natural gas pipelines

**APPENDIX-II****CRITICAL ACTIVITIES IMPLEMENTATION SCHEDULE**

<b>S/N</b>	<b>CRITICAL ACTIVITY</b>	<b>TIME SCHEDULE</b>
1	Cathodic Protection (CP) Inspection	As per Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for natural gas pipelines) Regulations, 2009
2	Pigging/Intelligent Pigging	
3	Surveillance	
4	Coating Survey	
5	Hydro-testing	
6	GIS Mapping Implementation	2 years
7	Leak Detection System Implementation	2 years

**APPENDIX-III****SUGGESTIVE CHART FOR SELECTION OF INTEGRITY ASSESSMENT METHOD\* WITH RESPECT TO SPECIFIC THREAT**

Threat Group	Threat	Integrity Assessment Method*	Assessment interval
<b>(A) Time-Dependent</b>			
	External Corrosion	Inline inspection, External Corrosion Direct Assessment	Max.10 year**
	Internal Corrosion	Inline inspection, Internal Corrosion Direct Assessment	Max.10 year**
	Stress Corrosion Cracking	Inline inspection, Direct Assessment	Max.10 year**
<b>(B) Stable</b>			
a) Manufacturing related defects	Defective Pipe Seam	Hydro-test (Post Construction), Inline inspection	Before commissioning or as and when required
	Defective Pipe		
b) Welding / Fabrication related	Defective Pipe Girth Weld		
	Defective fabrication Weld		
	Wrinkle bend or buckle	Caliper Pigging / Electronic Gauging Pigging (EGP)	
	Stripped threads/broken pipe	Visual Examination / Gas Leakage Survey	
c) Equipment	Gasket / O-ring Failure	Visual Examination / Gas Leakage Survey	
	Control / Relief equipment malfunction	Visual Examination / Gas Leakage Survey	
	Seal pump packing failure	Visual Examination / Gas Leakage Survey	
<b>(C) Time-Independent</b>			
a) Third Party / Mechanical Damage	Damage inflicted by first, second, or third parties (Instantaneous / Immediate failure)	Public Education (See Communication Plan & preventive actions), Patrolling, ROW Maintenance, External Protection	Monthly /quarterly
	Previously damaged pipe (delayed failure mode)	Above + Leakage Survey, Rehabilitation	
	Vandalism	All above	
b) Incorrect Operations	Incorrect Operational procedure	Compliance Audits	

c) Weather Related and Outside Forces	Weather related	Leakage survey, Surveillance	As and when required
	Lightning	Surge diverters	
	Heavy rains or floods	Anti-buoyancy inspection, Surveillance	
	Earth Movements	Strain monitoring, Leakage survey.	
	Creek Area Effects	Surveillance, Pipe to Soil Potential surveys near creek, Leakage survey, Anti-Buoyancy Inspection, Integrated Surveillance System	As and when required
	Muddy/Marshy area effects	Surveillance, Pipe to Soil Potential surveys, Leakage survey, Cathodic Protection monitoring, Integrated Surveillance System	As and when required
	River Bed Movements	Surveillance, Pipe to Soil Potential surveys, Leakage survey, Cathodic Protection monitoring, Anti-Buoyancy Inspection, Integrated Surveillance System	As and when required

\* Some of the important Integrity Assessment Methods have been briefed in Schedule-5 of these regulations

\*\* Inline inspection frequency to be as per Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications Including Safety Standards for natural gas pipelines) Regulations, 2009

#### **APPENDIX-IV**

#### **Minimum Qualification and Experience for Field Personnel in Project Phase as well as O&M Stage**

Discipline	Tier-I	Tier-II	Tier-III
		Supervisor Level	Operator Level
Mechanical	Degree In Mechanical Engineering	Diploma In Mechanical Engineering + at least 1 year of Experience	ITI with at least 1 year experience in the relevant field of operation
Metallurgical	Degree In Metallurgical Engineering	Diploma In Metallurgical Engineering + at least 1 year of Experience in Pipeline corrosion control	ITI with at least 1 year experience in the relevant field of operation

Instrumentation & Control	Degree In I&C / Electronics Engineering	Diploma In I&C / Electronics + at least 1 year of Experience	ITI with at least 1 year experience in the relevant field of operation
Electronics & Communication	Degree In Electronics or Communication Engineering	Diploma In Electronics or Communication Engineering + at least 1 year of Experience in SCADA	ITI with at least 1 year experience in the relevant field of operation
Electrical	Degree In Electrical Engineering	Diploma In Electrical Engineering+ at least 1 year of Experience	ITI with at least 1 year experience in the relevant field of operation
Fire & Safety	Equivalent Degree In F&S Engineering	Diploma In F&S Engineering / at least 1 year of Experience	Fireman course passed and proficient in operation of fire water pumps and fire tenders with heavy vehicles driving license / at least 1 year experience in the relevant field of operation
Civil	Degree In Civil Engineering	Diploma In Civil Engineering+ at least 1 year of Experience	ITI with at least 1 year experience in the relevant field of operation

**Note:** Each Natural gas pipeline shall have SME (Subject Matter Expert) having qualification in any of the discipline mentioned above with **minimum 5 year** of relevant experience.

RATAN P. WATAL, Secy.

[ADVT-III/4/Enty/188/12]



# भारत का राजपत्र

## The Gazette of India

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EXTRAORDINARY

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### पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड अधिसूचना

नई दिल्ली, 30 नवम्बर, 2007

सा.का.नि. 36(अ).—पेट्रोलियम और प्राकृतिक गैस बोर्ड अधिनियम, 2006 (2006 का 19) के भाग-61 के उप-भाग (2) के खण्ड (ग) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड एतद्वारा निम्नलिखित विनियम बनाता है, नामतः—

1. लघु शीर्षक और प्रारम्भ.—(1) इन विनियमों को पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (परामर्शकों की नियुक्ति) विनियम, 2007 कहा जाएगा।

(2) ये विनियम सरकारी राजपत्र में इनके प्रकाशन की तारीख से प्रवृत्त होंगे।

2. परिभाषा.—(1) इन विनियमों में जब तक अन्यथा संदर्भ में अपेक्षित न हो;

(क) "अधिनियम" से अभिप्राय पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड अधिनियम, 2006 से है;

(ख) "बोर्ड" से अभिप्राय अधिनियम के भाग 3(1) के अंतर्गत गठित बोर्ड से है;

(ग) "अध्यक्ष" से अभिप्राय अधिनियम के भाग 4 के अंतर्गत नियुक्त बोर्ड के अध्यक्ष से है;

(घ) "परामर्शक" के अंतर्गत कोई व्यक्ति, फर्म, निकाय या व्यक्तियों का समूह शामिल है, जो बोर्ड में नियुक्त न हो, जो विशिष्ट ज्ञान, अनुभव या दक्षता रखता हो या उस तक पहुंच हो;

(ङ) "व्यक्तिगत परामर्शक" से अभिप्राय किसी ऐसे व्यक्ति से है जिसके पास कोई विशिष्ट ज्ञान, अनुभव या दक्षता हो या उस तक पहुंच हो;

(च) "संस्थागत परामर्शक" से अभिप्राय किसी फर्म, निकाय या व्यक्तियों का समूह से है जिनके पास ज्ञान, अनुभव या दक्षता हो;

(छ) "सदस्य" से अभिप्राय अधिनियम के भाग 4 के अंतर्गत नियुक्त बोर्ड के सदस्य से है;

(ज) "सचिव" से अभिप्राय अधिनियम के भाग 10 के अंतर्गत नियुक्त बोर्ड के सचिव से है;

(झ) "अधिकारी" से अभिप्राय बोर्ड के अधिकारी से है;

(2) इन नियमों में प्रयुक्त शब्द या अभिव्यक्तियों जिन्हें यहाँ परिभाषित नहीं किया गया है लेकिन अधिनियम में व्याख्या की गई है का अर्थ वही होगा जो अधिनियम में है।

(3) जब तक यहाँ अथवा अधिनियम में परिभाषित न किया गया हो, इन विनियमों पर समय-समय पर यथासंशोधित सामान्य खण्ड अधिनियम, 1897 के प्रावधान लागू होंगे।

3. कार्य क्षेत्र.—(1) परामर्शक को सामान्यतः दैनिक कार्यों के लिए नियुक्त नहीं किया जाएगा जिसके लिए स्टॉफ उपलब्ध होता है।

(2) परामर्शकों को ऐसा विशिष्ट कार्य करने के लिए नियुक्त किया जाएगा जिसके लिए बोर्ड के स्टॉफ में या तो दक्षता उपलब्ध नहीं है या जहाँ कार्य की प्रकृति विशिष्ट और समयबद्ध है।

(3) प्रत्येक मामले में तैयार किए गए विस्तृत विचारार्थ विषय तथा उन पर परामर्श देने से पहले परामर्शक और बोर्ड के बीच सहमति होना।

(4) नियुक्ति के विचारार्थ-विषय में अन्य बातों के अलावा परामर्शक द्वारा किए जाने वाले कार्यों की सही प्रकृति प्रत्येक कार्य को पूरा करने के लिए दिया गया समय तथा विशिष्ट आदानों का उल्लेख होता है जिसे प्रत्येक कार्य के संबंध में परामर्शक द्वारा उपलब्ध कराया जाता है।

4. आबंध अवधि.—परामर्शकों को अपेक्षित न्यूनतम अवधि के लिए नियुक्त किया जाएगा। किसी भी स्थिति में नियुक्ति की अधिकतम अवधि दो वर्ष से अधिक नहीं होगी।

5. संस्थागत परामर्शकों का चयन.—मौटे तौर पर संस्थागत परामर्शकों का चयन करने के लिए निम्नलिखित प्रक्रिया अपनाई जाएगी :

(क) बोर्ड दो स्तरीय चयन प्रक्रिया अपनाएगा अर्थात् परामर्शकों की सूची तैयार करने के लिए रूचि की अभिव्यक्ति (ईओआई) चरण तथा उसके बाद तैयार सूची में परामर्शकों के लिए अनुरोध प्रस्ताव (आरएफपी) जारी करना।

(ख) प्रत्येक वर्ष के शुरू में बोर्ड उन क्षेत्रों/सेक्टर का पता लगायेगा जिनसे वर्ष के दौरान परामर्शी सेवाओं की आवश्यकता पड़ेगी। इसके बाद बोर्ड प्रत्येक विशिष्ट क्षेत्र/सेक्टर में तैयार सूची के परामर्शकों के लिए रूचि की अभिव्यक्ति का पालन करेगा। तत्पश्चात् वर्ष के दौरान उस क्षेत्र/सेक्टर में सूचीबद्ध परामर्शकों को आरएफपी जारी करके चयनित किया जाएगा। परामर्शदाता, जिन्होंने सबसे कम वित्तीय बोली लगाई है, का एल1 के रूप में चयन किया जाएगा। यदि बोर्ड के संबंधित सदस्य/सचिव का यह मत हो कि इससे अलग पद्धति का किसी विशिष्ट और वैध कारणों के लिए किसी मुद्दे/विषय पर परामर्शक का चयन करने के लिए प्रयोग किया जाता है, तो उसके लिए बोर्ड का अनुमोदन अपेक्षित होगा। तथापि, उच्च तकनीकी कार्य के मामले में बोर्ड परामर्शकों की सूची तैयार करने के लिए नए सिरे से रूचि की अभिव्यक्ति आमंत्रित कर सकता है।

(ग) किसी भी एक समय में किसी परामर्शी फर्म को दो से अधिक कार्य नहीं दिए जाएंगे। यदि किसी विशिष्ट परामर्शी फर्म किसी क्षेत्र/सेक्टर में दो से अधिक परामर्शी कार्यों में एल1 है, तो उस विशिष्ट फर्म को कोई दो कार्य सौंपने के लिए बोर्ड का निर्णय अंतिम होगा। बोर्ड द्वारा इस संबंध में किसी परामर्श फर्म से प्राप्त किसी अभ्यावेदन या पत्र-व्यवहार पर विचार नहीं किया जाएगा।

(घ) इसके अलावा, स्थिति की आकस्मिकता को देखते हुए और कार्यों को वास्तव में समय पर पूरा करने के लिए बोर्ड को एल2 पार्टी को परामर्शी कार्य देना होगा यदि एल1 की दर वाली उसी पार्टी के पास दो से अधिक कार्य हों। ऐसे मामलों में बोर्ड उस विशिष्ट कार्य में एल1 के प्रस्ताव के बराबर एल2 पार्टी को विकल्प दे सकता है।

(ङ) परामर्शक के साथ संविदा का स्वरूप सामान्यतः एकमुश्त संविदा होगा। यदि अन्य किसी प्रकार की संविदा करनी हो, तो बोर्ड का अनुमोदन लेना होगा।

(च) विशिष्ट परामर्शी कार्यों के लिए विधि फर्मों का चयन संस्थागत परामर्शकों के चयन की प्रक्रिया द्वारा अधिशासित होगा।

6. परामर्शी मूल्यांकन समिति (एलईसी) और परामर्शी निगरानी समिति (सीएमसी)।—(1) परामर्शी मूल्यांकन समिति (सीईसी)।—परामर्शक चयन प्रक्रिया करने के लिए अध्यक्ष के अनुमोदन से संबंधित बोर्ड के सदस्य/सचिव के अंतर्गत सभी मामलों के लिए उपयुक्त स्तर पर कम से कम तीन व्यक्तियों वाली एक सीईसी का गठन किया जाएगा, जिसमें प्रयोक्ता प्रभाग और प्रशासन प्रभाग के प्रतिनिधि शामिल होंगे।

(2) परामर्शी निगरानी समिति (सीएमसी)।—इसी प्रकार कम से कम तीन सदस्यीय बोर्ड के संबंधित सदस्य/सचिव की अध्यक्षता में उपर्युक्त स्तर पर एक सीएमसी का भी गठन किया जाएगा जिसमें परामर्शक को कार्य सौंपने के बाद कार्य की प्रगति की निगरानी करने के लिए संयोजक के रूप में प्रयोक्ता प्रभाग और प्रशासन प्रभाग तथा संबंधित प्रभाग के सीएमसी के सदस्य को प्रतिनिधि को शामिल किया जाएगा। यदि उपयुक्त समझा गया तो सीईसी के सभी या किसी सदस्य को सीएमसी के सदस्यों के रूप में चयन किया जाएगा। इसके अलावा, बोर्ड यदि समझे तो सीएमसी का क्षेत्रवार/सेक्टरवार गठन कर सकता है। सीएमसी कार्य की प्रगति की निगरानी करने, कार्य को सहमत विचारार्थ विषयों (टीओआर) और ठेकागत शर्तों के अनुसार जांच करने, सुपुर्दगी की गुणवत्ता का मूल्यांकन करने, कार्य के किसी भाग को स्वीकृत/अस्वीकृत करने यदि कार्य संविदा के अनुसार नहीं किया जाता है तथा सेवा की गुणवत्ता घटिया पाए जाने और कार्य को पूरा करने से संबंधित ऐसी कोई कमी होने पर बोर्ड के संबंधित सदस्य/सचिव को उपयुक्त परिसमाप्ति हानि के लिए शुल्क या दण्ड लगाने का सुझाव देने के लिए जिम्मेदार होगा।

7. रूचि की अभिव्यक्ति आमंत्रित करना.—(1) सभी परामर्शी सेवाओं के लिए परामर्शकों की सूची तैयार करने के लिए कम से कम एक राष्ट्रीय समाचार पत्र में “रूचि की अभिव्यक्ति आमंत्रित करने” नामक एक विज्ञापन जारी किया जाएगा और उसे बोर्ड की वेबसाइट पर प्रदर्शित किया जाएगा। समाचार पत्रों में दिया गया विज्ञापन संक्षिप्त होगा और इसमें बोर्ड की वेबसाइट का संदर्भ दिया जाएगा। विज्ञापन में अन्य बातों के अलावा रूचि की अभिव्यक्ति को प्रस्तुत करने की अंतिम तारीख, ईओआई दस्तावेज की प्रति कैसे प्राप्त की जाए, संपर्क व्यक्ति के नाम सहित बोर्ड से संपर्क करने की जानकारी आदि शामिल होगी;

(2) रूचि की अभिव्यक्ति दस्तावेज में निम्नलिखित सूचना शामिल होगी :

- रूचि की अभिव्यक्ति आमंत्रित करना : इसमें विज्ञापन की एक प्रति शामिल होगी जिसके माध्यम से परामर्शकों को उनकी रूचि की अभिव्यक्ति देने के लिए आमंत्रित किया जाएगा।
- उद्देश्यों और कार्यक्षेत्र का सार : इसमें कार्य करने के उद्देश्यों, व्यापक कार्यक्षेत्र और कार्य की संभावित सुपुर्दगी शामिल होगी। इसमें कार्य के करने का स्थान भी शामिल होगा।
- परामर्शकों को अनुदेश : इसमें कार्य की प्रकृति, प्रस्तुति आवश्यकता, बोली संसाधित करने के शुल्क की आवश्यकता; यदि कोई हो; प्रस्तुति की अंतिम तारीख; प्रस्तुति का स्थान; तथा अन्य संबंधित अनुदेश शामिल होंगे।
- योग्यता पूर्व मानदण्ड : इसमें योग्यता पूर्व मानदण्ड को स्पष्ट रूप से निर्धारित किया जाएगा, जिसका बोर्ड द्वारा परामर्शकों की सूची तैयार करने के लिए प्रयोग किया जाएगा।

(v) प्रस्तुति के लिए प्रपत्र : इस भाग में प्रपत्र का उल्लेख होगा जिसमें परामर्शकों से उनकी अभिव्यक्ति की रुचि प्रस्तुत करने की अपेक्षा की जाती है।

बोर्ड रुचि रखने वाले परामर्शकों को रुचि की अभिव्यक्ति दस्तावेज की प्रतियां उपलब्ध कराएगा तथा अपनी वेबसाइट में डालेगा।

उपर्युक्त सूचना सामान्य तौर पर रुचि की अभिव्यक्ति दस्तावेज का हिस्सा होगी। तथापि, बोर्ड आवश्यकतानुसार मामला दर मामला आधार पर उपयुक्त रूप से उल्लिखित सूचना में संशोधन करने का निर्णय ले सकता है।

(3) सामान्यतः रुचि की अभिव्यक्ति को वित्तीय वर्ष के शुरू में वर्ष में एक बार जारी किया जाएगा। तथापि, यदि आवश्यकता हुई तो इसे किसी भी समय आवश्यकता के आधार पर वर्ष के दौरान भी जारी किया जा सकता है।

(4) केवल वही संस्थागत परामर्शक, जिनका भारत में पंजीकृत कार्यालय है, रुचि की अभिव्यक्ति के लिए आवेदन करने के पात्र होंगे। यदि अंतर्राष्ट्रीय परामर्शकों, जिनका भारत में अपना कार्यालय नहीं है, पर भी किसी विशिष्ट मामले में विचार किया जाता है तो इसके अंतर्गत रुचि की अभिव्यक्ति जारी करने से पहले बोर्ड का अनुमोदन लेने की आवश्यकता होगी।

**8. परामर्शकों की तैयार सूची.**—(1) परामर्शकों की तैयार सूची का मूल्यांकन किया जाएगा जिसमें अन्य बातों के साथ-साथ इस प्रकार के कार्य करने के उनके विगत अनुभवों, उनकी जनशक्ति और रुचि की अभिव्यक्ति में प्रत्येक मानदण्ड के लिए दी गई तरजीह के अनुसार फर्म की तकनीकी और वित्तीय क्षमता का आधार शामिल होगा :

क्रम सं.	मानदण्ड*	तरजीह
1.	फर्म का पिछला अनुभव	40%
	कुल अनुभव वर्ष में	15%
	इसी प्रकृति के अध्ययनों का पिछला अनुभव	40%
	संबंधित क्षेत्रों में अध्ययन कराने में पिछला अनुभव	20%
	तेल और गैस के क्षेत्र में भारत में किए गए अध्ययन	25%
2.	प्रमुख कार्मिकों का अनुभव	40%
	(प्रमुख कार्मिकों की संख्या और ब्यौरा)	
	अर्हकता	25%
	अर्हकता	25%
संबंधित अनुभव		
3.	परामर्शक की वित्तीय क्षमता	20%
	पिछले तीन वर्षों के कारोबार आंकड़े	40%
	पिछले तीन वर्षों के निवल लाभ आंकड़े	40%
	कारोबार अनुपात की तुलना में निवल लाभ	20%

\*इनकी कट ऑफ स्तर रुचि की अभिव्यक्ति दस्तावेज में विनिर्दिष्ट किया जाएगा।

(2) ऐसे सभी परामर्शकों की सूची तैयार की जाएगी जो न्यूनतम अपेक्षित अंक प्राप्त करते हैं। न्यूनतम योग्यता आवश्यकता को रुचि की अभिव्यक्ति दस्तावेज में विनिर्दिष्ट किया जाएगा।

(3) वैकल्पिक तौर पर, बोर्ड प्रत्येक मानदण्ड अर्थात् अनुभव के न्यूनतम वर्ष, किए गए कार्य की न्यूनतम कारोबार, आदि के लिए रुचि की अभिव्यक्ति दस्तावेज में न्यूनतम योग्यता आवश्यकता का उल्लेख करेगा। ऐसी परिस्थितियों में बोर्ड उत्तीर्ण-अनुत्तीर्ण परीक्षा लागू करेगा और सभी परामर्शकों सूची तैयार की करेगा जो विनिर्दिष्ट अनुसार न्यूनतम आवश्यकता पूरा करते हों।

(4) बोर्ड प्रत्येक विशिष्ट क्षेत्र/इलाके में न्यूनतम 3 और अधिकतम 10 परामर्शदाताओं का चुनाव करने के लिए तैयार कर सकता है। तैयार की गई सूची एक वर्ष की अवधि के लिए वैध होगी जब तक कि अन्यथा बोर्ड द्वारा उसे अधिकतम एक वर्ष की अवधि के लिए न बढ़ाया गया हो।

(5) परामर्शदाताओं से अपने प्रत्यय-पत्र अन्य बातों के साथ-साथ उपर्युक्त उप-खंड (1) में दिए गए मानदण्डों को शामिल करते हुए सीईसी के समक्ष प्रस्तुत करने के लिए कहा जा सकेगा। यदि अपेक्षित हुआ तो परामर्शदाताओं को अध्यक्ष/बोर्ड के समक्ष प्रस्तुतिकरण देने के लिए भी कहा जा सकता है।

**9. विचारार्थ विषय.**—(1) विचारार्थ विषयों के सामान्य प्रपत्र को बोर्ड द्वारा अनुमोदित किया जाएगा। इस प्रपत्र के आधार पर विशिष्ट कार्यों के लिए परामर्शदाताओं की नियुक्ति के लिए विचारार्थ विषय सीईसी द्वारा तैयार किए जाएंगे और उन्हें अध्यक्ष द्वारा अनुमोदित कराया जाएगा।

(2) विचारार्थ विषय स्पष्ट रूप से निम्नलिखित को परिभाषित करने के लिए तैयार किए जाएंगे—(i) नियत कार्यों का प्रयोजन/उद्देश्य; (ii) कार्य का विस्तृत क्षेत्र; (iii) मुख्य पेशेवरों (विशेषज्ञों की संख्या, अपेक्षित विशेषज्ञता का प्रकार) के संभावित आदान; (iv) नियत कार्यों को पूरा करने की प्रस्तावित समय अनुसूची; (v) परामर्शदाताओं से अपेक्षित रिपोर्ट/सुपुर्दगी योग्य कागजात; (vi) संविदा देने के पश्चात् परामर्शदाता के कार्य की समीक्षा की प्रक्रिया। विचारार्थ विषय में मौजूदा संबद्ध अध्ययनों की सूची और मूल आंकड़ों सहित पृष्ठभूमि संबंधी सूचना का प्रावधान किया जाएगा ताकि परामर्शदाता अपने प्रस्ताव तैयार कर सकें। यदि जानकारी, प्रशिक्षण का अन्तरण एक उद्देश्य है तो विचारार्थ विषय में प्रशिक्षित किए जाने वाले कर्मचारियों की संख्या का ब्यौरा दिया जाएगा। विचारार्थ विषयों में विगत कार्य करने के लिए आवश्यक सेवाओं और सर्वेक्षणों की सूची और विचारार्थ विषय में दिए गए प्रत्येक कार्य से संबद्ध संभावित निष्कर्षों (उदाहरणार्थ रिपोर्टें, आंकड़े, सर्वेक्षण आदि) की सूची दी जाएगी।

(3) विचारार्थ विषयों के अनुमोदन के पश्चात् सीईसी परामर्शदाताओं के चयन में सभी पहलुओं और चरणों अर्थात् विगत कार्यों की अनुमानित लागत तैयार करने, रुचि की अभिव्यक्ति जारी करने, रुचि की अभिव्यक्ति का मूल्यांकन, परामर्शदाताओं का चयन करने, आरएफपी जारी करने, वित्तीय प्रस्तावों का मूल्यांकन करने, परामर्शदाता का अंतिम चयन करने के लिए उत्तरदायी होगा। यदि प्रत्यक्ष बातचीत के जरिए परामर्शदाता का चयन किया जाता है तो

सीईसी परामर्शदाता के साथ वित्तीय पहलुओं पर मोल-भाव करेगा। सीईसी यह सुनिश्चित करेगा कि प्रत्येक मामले में उचित प्रचार किया जा रहा है। सीईसी विशिष्ट कार्य के लिए न्यूनतम बोली के आधार पर परामर्शदाता का चयन करने के पश्चात् सक्षम प्राधिकारी का अनुमोदन प्राप्त करेगा।

(4) सचिव यह सुनिश्चित करेगा कि प्रस्ताव की अनुमानित लागत के आधार पर प्रस्ताव के लिए बजट प्रावधान विद्यमान है।

**10. प्रस्तावों के लिए अनुरोध.**—(1) प्रस्तावों के अनुरोध में आमंत्रण पत्र होगा जिसमें परामर्शी सेवा, निधियों का स्रोत, योजना का ब्यौरा और तारीख, समय और प्रस्ताव प्रस्तुतीकरण परामर्शदाताओं के अनुदेश; विचारार्थ विषय, नियत कार्य के लिए अपेक्षित मुख्य स्थितियों/व्यावसायिकों की सूची फर्म और मुख्य व्यावसायिक कर्मचारियों की योग्यता और अनुभव की अपेक्षाएं, बोली मूल्यांकन मानदण्ड और चयन प्रक्रिया, वित्तीय प्रस्ताव के लिए मानक प्रपत्र, सविदा का प्रस्तावित फार्म, आदि शामिल होंगे।

(2) परामर्शदाताओं की सूचना में वह सभी आवश्यक जानकारी शामिल होगी जो मूल्यांकन प्रक्रिया पर जानकारी उपलब्ध कराकर और मूल्यांकन मानदण्ड और कारक तथा उनका वजन और न्यूनतम पूर्ण योग्यता अंक देकर अनुकूल प्रस्ताव तैयार करने में परामर्शदाताओं के लिए मददगार होगी।

**11. प्रस्तावों की प्राप्ति.**—(1) परामर्शदाता को अपने प्रस्ताव तैयार करने और प्रस्तुत करने के लिए पर्याप्त समय दिया जाएगा। दिया गया समय नियत कार्य पर आधारित होगा जबकि यह आमतौर पर दो सप्ताह से कम नहीं होगा और फर्म इस अवधि के दौरान विचारार्थ विषय में दी गई सूचना के बारे में स्पष्टीकरण प्राप्त करेगी।

(2) बोर्ड उपयुक्त समझे जाने पर प्रस्ताव प्रस्तुत करने के लिए समय-सीमा बढ़ाने का निर्णय ले सकता है।

(3) समय-सीमा के बाद प्रस्ताव में किसी प्रकार का संशोधन स्वीकार्य नहीं होगा। प्रस्तावों को सीलबंद लिफाफे में प्रस्तुत किया जाएगा।

(4) परामर्शदाता इलैक्ट्रॉनिक हस्ताक्षर प्रणाली या बोर्ड के प्रचालन में आ जाने पर इसके समकक्ष प्रणाली का प्रयोग करके इलैक्ट्रॉनिक तरीके से अपने प्रस्ताव प्रस्तुत कर सकते हैं। बोर्ड प्रस्तुत किए गए प्रस्तावों की गोपनीयता और प्रामाणिकता बनाए रखेगा। इस प्रणाली से परामर्शदाता के इलैक्ट्रॉनिक प्रमाणीकरण द्वारा ही प्रस्तावों को खोला जा सकेगा।

**12. प्रस्तावों का मूल्यांकन.**—(1) प्रस्तावों का मूल्यांकन आमतौर पर वित्तीय बोली के आधार पर किया जाएगा। जहां अलग तरह का मानदण्ड अपनाया जाना है, वहां वह केवल बोर्ड के अनुमोदन से ही अपनाया जाएगा और इस मानदण्ड का उल्लेख आरएफपी में किया जाएगा।

(2) वे परामर्शदाता जिन्होंने आरएफपी के खिलाफ आवेदन किया है उन्हें प्रस्ताव खोलने के समय परामर्शदाता के उपस्थित रहने यदि वह उपस्थित रहना चाहता है तो उसे पर्याप्त समय देते हुए वित्तीय प्रस्ताव खोलने की तारीख और समय की सूचना दी जाएगी।

(3) पूर्व-योग्यता परामर्शदाताओं के वित्तीय प्रस्ताव सभी के सामने खोले जाएंगे। प्रस्तावित मूल्यों को ऊंची आवाज में पढ़ा जाएगा और सभी के सामने खोले जाने की कार्रवाई दर्ज की जाएगी।

(4) अंकों की सभी गलतियों में सुधार किया जाएगा। लागत को एक समान बिक्री (विनिमय) दरों का इस्तेमाल करके एकल मुद्रा में परिवर्तित किया जाएगा।

(5) बोर्ड सभी प्रस्तावों को रद्द कर सकता है यदि वे विचारार्थ विषय के अनुपालन में बड़ी कमियों को दर्शाने या मूल लागत अनुमानों से काफी अधिक लागत दर्शाने के कारण अनुपयुक्त हों।

(6) न्यूनतम वित्तीय बोली के प्रस्तावों का चयन किया जाएगा। यदि आरएफपी में वित्तीय बोली के अलावा अन्य मानदण्ड दिए गए हैं तो मूल्यांकन और चयन मानदण्ड के आधार पर होगा।

**13. प्रत्यक्ष बातचीत द्वारा चयन.**—(1) प्रत्यक्ष बातचीत/नामांकन द्वारा चयन का उपयोग आपवादिक परिस्थितियों में किया जाएगा जैसे कि :—(क) ऐसे कार्यों के लिए जो फर्म द्वारा किए गए पिछले कार्य को जारी रखने को स्वाभाविक रूप से दर्शाता हो, (ख) आपातक स्थिति जो प्राकृतिक आपदाओं के कारण उत्पन्न हुई हो, ऐसी स्थिति जिनमें नियत कार्य समय पर पूरा करना अत्यावश्यक हो, (ग) ऐसी स्थितियां जिनमें नियत कार्य के निष्पादन में स्वामित्व तकनीकों का उपयोग करना शामिल हो या केवल एक परामर्शदाता के पास ही अपेक्षित विशेषज्ञता हो। ऐसे चयन आमतौर पर 10 लाख रुपए की वित्तीय सीमा तक प्रतिबंधित हो सकते हैं।

**14. अलग-अलग परामर्शदाताओं का चयन.**—(1) ऐसे नियत कार्यों के लिए अलग-अलग परामर्शदाता नियुक्त किए जाएंगे जिनके लिए कार्मिक-दल की आवश्यकता न हो, किसी अतिरिक्त बाह्य (गृह कार्यालय) व्यावसायिक सहायता की आवश्यकता न हो और उनकी योग्यता और अनुभव सबसे अधिक हो।

(2) परामर्शदाताओं का चयन नियत कार्य के लिए उनकी योग्यता के आधार पर किया जाएगा। सहायता को शैक्षिक पृष्ठभूमि और संगत अनुभव के आधार पर रखा जाएगा।

(3) संस्थागत परामर्शदाताओं के मामले में ऊपर बताया गया रुचि की अभिव्यक्ति का माध्यम विभिन्न क्षेत्रों/इलाकों के लिए उम्मीदवारों का पैनल तैयार करने के मामले में अपनाया जाएगा। यह चयन उपर्युक्त सीईसी तंत्र के माध्यम से किया जा सकता है। वर्ष के दौरान संबंधित सदस्य/सचिव पैनल से उपयुक्त व्यक्ति का चुनाव कर सकता है। यदि आवश्यक हुआ तो रुचि की अभिव्यक्ति वर्ष के दौरान जारी की जा सकती है।

(4) विधिक परामर्शदाता के लिए भी ऊपर बताया गया रुचि की अभिव्यक्ति का माध्यम अपनाया जाएगा। शुल्क का निर्धारण कार्मिक और प्रशिक्षण विभाग के नीचे दिए गए दिशा-निर्देशों के अनुसार किया जाएगा। स्थायी काउंसील के लिए बोर्ड विधि मंत्रालय से अधिवक्ताओं का पैनल प्राप्त करेगा। उसके भुगतान/शुल्क विधि मंत्रालय, भारत सरकार के नियमों द्वारा शासित होंगे।

**15. शुल्क और अन्य प्रभार.**—डीओपीटी द्वारा जारी वर्तमान दिशा-निर्देशों के अनुसार पूर्णकालिक आधार पर व्यक्तिगत परामर्शक को अधिकतम प्रति माह 26,000 रुपए (छब्बीस हजार रुपए) तक

की समेकित फीस (डीए, एचआरए या अन्य कोई राहत को छोड़कर) दी जाएगी। इस राशि में कार्मिक और प्रशिक्षण विभाग (डीओपीटी), भारत सरकार के दिशा-निर्देशों के अनुसार समय-समय पर संशोधन किया जाएगा।

(2) उपर्युक्त (1) में निर्धारित अनुसार किसी विशेष आवश्यकताओं की स्थिति में अधिक फीस की स्थिति में परामर्शदाता को अध्यक्ष/बोर्ड के अनुमोदन से नियुक्त किया जा सकता है। ऐसे परामर्शकों की फीस पर मामला दर मामला आधार पर अध्यक्ष/बोर्ड द्वारा निर्णय किया जाएगा।

(3) बोर्ड सरकार में समकक्ष रैंक के किसी सेवारत अधिकारी को देय सामान्य नियमों के अनुसार टीए/डीए और दूरभाष प्रभारों की प्रतिपूर्ति करना।

(4) देय फीस से संबंधित ये विनियमों, परामर्शकों के रूप में नियुक्त पूर्व और सेवा-निवृत्ति सरकारी कर्मचारियों पर भी लागू होंगे। इन्हें प्रतिमाह 20,000 रुपये (बीस हजार रुपये) की समेकित राशि दी जाएगी बशर्ते कि फीस और पेंशन प्लस मंहगाई पेंशन अंतिम प्राप्त वेतन तथा मंहगाई वेतन से अधिक न हो। ये डीओपीटी द्वारा समय-समय पर जारी दिशा-निर्देशों द्वारा अधिशासित होंगे।

**16. संविदा का प्रस्ताविक स्वरूप.**—(1) संविदा में स्वीकृत टीओआर पद्धति, संविदा की सामान्य और विशिष्ट परिस्थिति शामिल होगी।

(2) संविदा की सामान्य स्थिति में ऐसी सभी स्थितियां शामिल होंगी जिनकी प्रकृति सामान्य है और जो प्रस्ताव के लिए विशिष्ट नहीं है। ऐसी स्थितियों में उप-संविदा देना, भुगतान की पद्धति, संविदा को समाप्त तथा विस्तार करना, मध्यस्थता, गुणवत्ता में विभिन्नता, क्षतिपूर्ति और बीमा, बलात् कार्य कराना, रुचि में विवाद, स्थानीय कानूनों तथा कर और शुल्कों का अनुपालन आदि शामिल होगा।

(3) प्रस्ताव विशिष्ट शर्तों में दस्ती कार्य से संबंधित खण्ड शामिल है।

(4) सामान्य परिस्थितियों सहित संविदा का सामान्य प्रपत्र बोर्ड द्वारा अनुमोदित किया जाएगा। प्रस्ताव से संबंधित विशिष्ट शर्तों को सीईसी द्वारा तैयार किया जाएगा और उसे अध्यक्ष द्वारा अनुमोदित कराया जाएगा।

**17. गोपनीयता.**—प्रस्तावों के मूल्यांकन तथा घोषणा से संबंधित सिफारिशों की सूचना उन परामर्शकों, जिन्होंने प्रस्ताव दिए हैं या ऐसे व्यक्तियों को नहीं दी जाएगी जो इस प्रक्रिया से सरकारी तौर पर संबंधित नहीं हैं जब तक कि संविदा की घोषणा अधिसूचित न हो जाए।

**18. रुचि में विवाद.**—परामर्शकों की ऐसी किसी कार्य के लिए भाड़े पर सेवाएं नहीं ली जाएंगी जो अन्य ग्राहकों को उनकी पूर्व या वर्तमान बाध्यताओं के अनुसार विवादास्पद हो या उन्हें कार्यों को वस्तुनिष्ठ और निष्पक्ष तौर पर न कराने की स्थिति में रखता हो।

**19.—बोर्ड की अंतर्निहित शक्तियों का बचाव.**—इन प्रावधानों के अंतर्गत बोर्ड को ऐसी कोई प्रक्रिया अपनाने पर प्रतिबंधित नहीं किया जाएगा, जो इन विनियमों के किसी प्रावधान से भिन्न हो, यदि बोर्ड मामले या मामले की श्रेणी की विशेष परिस्थितियों और लिखित में रिकार्ड किए जाने वाले कारणों को देखते हुए विनियमों में निर्धारित प्रक्रिया के लिए आवश्यक या उससे अलग समझता है।

**20. संशोधन करने की सामान्य शक्ति.**—बोर्ड किसी भी समय और ऐसी शर्तों, जिन्हें वह उपयुक्त समझता हो, उद्देश्यों को पूरा करने के उद्देश्यों जिनके आधार पर इन विनियमों को बनाया गया है, से इन विनियमों के किसी प्रावधान में संशोधन कर सकता है।

**21. कठिनाइयों को दूर करने की क्षमता.**—यदि इन विनियमों के किसी प्रावधान को लागू करने में कोई कठिनाई उत्पन्न होती है तो बोर्ड सामान्य या विशेष आदेश द्वारा कुछ भी कर सकता है जो अधिनियम के प्रावधानों के अनुसार असंगत न हो, तथा जो उसे कठिनाइयों को दूर करने के उद्देश्य से आवश्यक या उचित प्रतीत होता हो।

अजय त्यागी, सचिव

## PETROLEUM AND NATURAL GAS REGULATORY BOARD

### NOTIFICATION

New Delhi, the 30th November, 2007

**G.S.R. 36(E).**—In exercise of the powers conferred clause (c) of sub-section (2) of Section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (Act 19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely :—

**1. Short title and commencement.**— (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Appointment of Consultants) Regulations, 2007.

(2) These regulations shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**— (1) In these regulations, unless the context otherwise requires,—

- (a) “Act”, means Petroleum and Natural Gas Regulatory Board Act, 2006;
- (b) “Board”, means the Board constituted under Section 3 (1) of the Act.
- (c) “Chairperson”, means the Chairperson of the Board appointed under Section 4 of the Act;
- (d) “Consultant” includes any individual, firm, body or association of persons, not in the employment of the Board, who or which possesses or has access to any specialized knowledge, experience or skill;
- (e) “Individual Consultant”, means any individual who possesses or has access to any specialized knowledge, experience or skill;
- (f) “Institutional Consultant”, means any firm, body or association of persons which possesses specialized knowledge, experience or skill;
- (g) “Member”, means a Member of the Board appointed under Section 4 of the Act;
- (h) “Secretary”, means the Secretary of Board appointed under Section 10 of the Act.

(2) Words or expressions occurring in these regulations and not defined herein but defined in the Act shall bear the same meaning as in the Act.

(3) Unless defined herein or in the Act, the provisions of the General Clauses Act, 1897 as amended from time to time shall apply to these regulations.

**3. Scope of work.—** (1) Consultants will not be normally appointed for routine day to day work for which staff is available.

(2) Consultants will be engaged for executing specialized tasks for which skills are either not available within the staff of the Board or where the nature of jobs is specific and time-bound.

(3) Detailed terms of reference for engagement drawn up in each case and agreed to between the Consultant and the Board prior to award of consultancy.

(4) The terms of reference for engagement will *inter alia* specify the exact nature of the tasks to be undertaken by the consultant, the time allowed for completion of each task and the specific outputs that are to be provided by the consultant in relation to each task.

**4. Period of engagements.—** Consultants will be engaged for the minimum period required. In no case will the maximum period of engagement exceed two years.

**5. Selection of Institutional Consultants.—**

(1) Broadly, the following procedure would be adopted for the selection of Institutional Consultants :—

(a) The Board will follow the two stage selection procedure i.e. Expression of Interest (EOI) stage to shortlist the Consultants followed by issuance of Request for Proposal (RFP) to short-listed Consultants.

(b) At the beginning of each year, the Board may identify the areas/sectors in which consultancy services would be required during the year. Then the Board will follow the EOI route to shortlist Consultants in each particular area/sector. Thereafter, during the course of the year, the consultant on specific issue/subject within a particular area/sector will be selected by issuing RFP to the short-listed Consultants in that area/sector. The consultant, who has submitted the lowest financial bid, shall be selected as the L 1. In case the concerned Member/Secretary of Board is of the view that methodology other than this is to be used for selecting a consultant on any issue/subject for specific and valid reasons, approval of the Board will be required. However, in case of highly technical assignments, the Board may invite a fresh Expression of Interest for short-listing the Consultants.

(c) At any given point of time no consultancy firm shall be awarded more than two assignments. In case any particular consultancy firm is L1 in more than two consultancy assignments in any sector/area, then the decision of the Board shall be final for awarding any two assignments to that particular firm. No representation or communication shall be entertained in that respect by the Board from any of the consultancy firm.

(d) Further, in the exigencies of situation and in order to actually ensure the timely completion of assignments, the Board may have to award consultancy assignments to the L 2 party in case of same party having L 1 rating in more than two assignments. In such cases, the Board may give the option to L 2 party to match the offer of L1 in that particular assignment, failing which the Board may re-tender the assignment.

(e) The type of contract with the consultant will normally be lump sum contract. In case any other form of contract is required to be entered into, approval of the Board will be required.

(f) Selection of Law firms for specific consultancy assignments shall be governed by the procedure for selection of institutional Consultants.

**6. Consultancy Evaluation Committee (CEC) and Consultancy Monitoring Committee (CMC).—**

(1) **Consultancy Evaluation Committee (CEC):** For all cases a CEC comprising of at least three persons at appropriate level including representative of Internal Finance Division, a representative of the user division and that of administration division, shall be constituted under the concerned Member/Secretary of Board with the approval of the Chairperson in order to carry out the consultant selection procedure.

(2) **Consultancy Monitoring Committee (CMC):** A CMC shall also be constituted similarly under the Chairpersonship of the concerned Member/Secretary of Board comprising at least three persons at appropriate level, including representative from user division, administration division with the member of the CMC from the concerned division being the convener for monitoring the progress of the assignment once the same has been assigned to a consultant. If considered appropriate all or any of the members of CEC may be selected as members of CMC. Further, Board may constitute CMC area-wise/sector-wise if felt appropriate. The CMC shall be responsible to monitor the progress of the assignment, to oversee that the assignment is carried out as per agreed terms of reference (TOR) and contractual conditions, to assess the quality of the deliverables, to accept/reject any part of assignment, to suggest the levy of appropriate liquidated damages or penalty to the concerned Member/Secretary of Board if

the assignment is not carried out as per the contract and if the quality of services is found inferior and for any such deficiency related to the completion of the assignment.

**7. Invitation of Expression of Interest.**—(1) For all consultancy services, an advertisement called “invitation for Expression of Interest” shall be released in at least one National Newspaper and the website of the Board for preparing a short list of Consultants. Advertisement in newspapers will be brief and shall give reference to the Board’s website. The advertisement shall include, among other things, the last date of submission of EOI, how to get copy of EOI document, contact information of the Board with name of contact person etc.

(2) EOI document may contain the following information :—

- (i) *Invitation to EOI* : It would include a copy of the advertisement whereby Consultants are invited to submit their EOI.—
- (ii) *Brief about objectives and scope of work* : This may include brief description about objective of carrying out the assignment, broad scope of work and expected deliverables of the assignment. This may also include the place of execution of the assignment.
- (iii) *Instructions to the Consultants* : It may include instructions regarding nature of job; submission requirement; requirement of bid processing fees; if any; last date of submission; place of submission; and any related instructions.
- (iv) *Pre-qualification Criteria* : This may clearly lay down the pre-qualification criteria which shall be applied by the Board for short-listing the Consultants.
- (v) *Formats for submission* : This section would specify the format in which the Consultants are expected to submit their EOI.

The Board would make available the copies of the EOI document to the interested Consultants in hard copies as well as on its web site.

The above information may generally be part of an EOI document. However, Board may decide to modify the above information appropriately on a case to case basis as per the requirements.

(3) Generally, the EOI may be issued once a year at the beginning of the financial year. However, if required, it could also be issued during the course of the year depending upon the requirements at that point of time.

(4) Only the institutional Consultants with their registered office in India would be eligible for applying in response to the EOI. In case international Consultants, who do not have their offices in India, are to be also considered in any particular case, approval of the Board would be required before issuing the EOI.

**8. Short List of Consultants.**—(1) The Consultants will be evaluated for short listing, *inter-alia*, based on their past experience of handling similar types of jobs, strength of their man power and technical and financial strength of the firm as per the following weightages assigned to each of the criteria in EOI :—

Sr. No.	Criteria *	Weightage
1	Past Experience of The firm	40%
	• Number of years experience	15%
	• Past Experience of studies of similar nature.	40%
	• Past experience in carrying out studies in related sectors.	20%
	• Studies carried out in India in the oil & gas sector.	25%
2	Experience of Key Personnel. (No. and details of key personnel be given) Qualifications	40%
	• Qualifications	25%
	• Relevant Experience	75%
3	Financial Strength of the Consultant.	20%
	• Turnover figure for Last three Years.	40%
	• Net Profit Figure for Last three years	40%
	• Net profit to turnover ratio	20%

\* the cut off levels for these may be specified in the EOI document.

(2) The short-listing shall be done for all the Consultants who secure the minimum required marks. The minimum qualifying requirement will be specified in the EOI document.

(3) Alternatively, the Board will specify in the EOI document minimum qualifying requirement for each of the criteria i.e. minimum years of experience, minimum number of assignments executed, minimum turnover etc. Under such circumstances, the Board shall apply pass-fail test and short list all the Consultants who meet the minimum requirement as specified.

(4) The Board may shortlist a minimum of 3 and upto 10 Consultants in each particular areal sector. The short list prepared shall be valid for a period of one year unless extended, by a maximum period of one year, by the Board.

(5) The Consultants may be asked to make presentation about their credentials covering *inter alia* the criteria at sub-clause (1) above before the CEC. If required, the Consultants may also be asked to make presentation before the Chairperson/Board.

**9. Terms of Reference.**—(1) The general format of Terms of Reference (TOR) will be approved by the Board. Based on this format, TOR for appointment of Consultants for specific tasks will be prepared by CEC and got approved from the Chairperson.

(2) The TOR will be prepared to define clearly the (i) purpose/objective of the assignment; (ii) detailed scope of work; (iii) expected input of key professionals (number of experts, kind of expertise required); (iv) proposed schedule for completing the assignment; (v) reports/deliverables required from the Consultants; (vi) procedure for review of the work of Consultant after award of contract. TOR shall provide background information including a list of existing relevant studies and basic data to facilitate the Consultants preparation of their proposals. If transfer of knowledge, training is an objective, the TOR will detail the number of staff to be trained. TOR shall list the services and surveys necessary to carry out the assignment and the expected outputs (for example reports, data, surveys etc.) linked to each task in the TOR.

(3) After approval of the TOR, the CEC shall be responsible for all aspects and stages of the Consultants selection i.e. preparation of likely estimated cost for the assignment, issuance of EOI, evaluation of EOI, short-listing of Consultants, issuance of RFP, evaluation of financial proposals, negotiations and final selection of the Consultant. Even in case of selection of Consultant by direct negotiations the CEC shall negotiate with the Consultant on financial aspects. The CEC will ensure that appropriate publicity is given in each case. The CEC shall take approval of competent authority after selecting the Consultant based on the lowest bid for a specific job.

(4) The Secretary will ensure that budgetary provision exists for the proposal based on the estimated cost of the proposal.

**10. Request for Proposals.—** (1) Request for Proposals (RFP) shall contain a letter of invitation (LOI) stating the intention of the Board to enter into a contract for provision of a consultancy service, source of funds, details of plan and date, time and submission of proposal; Instructions to Consultants (ITC); TOR; list of key positions/professionals required for the assignment; requirement of qualification and experience of the firm and of the key professional staff; criteria of bid evaluation and selection procedure; standard formats for financial proposal; proposed form of contract etc.

(2) Information to Consultants shall contain all necessary information that will help Consultants prepare responsive proposals by providing information on the evaluation process and by indicating the evaluation criteria and factors and their respective weights and the minimum pre-qualification score.

**11. Receipt of proposals.—** (1) Enough time shall be allowed for the Consultant to prepare and submit their proposals. While the time allowed shall depend on the assignment, it will normally not be less than two weeks, during which period firms may seek clarifications about the information provided in the TOR.

(2) The Board may decide to extend the deadline for submission of proposals, as deemed appropriate by it.

(3) No amendments to the proposal shall be accepted after the deadline. The proposals shall be submitted in sealed cover.

(4) The Consultants may submit their proposals by electronic means using an electronic signature system or equivalent once such a system is put in operation in the Board. The Board shall maintain the confidentiality and authenticity of the proposals submitted. The system shall only allow proposals to be opened with due electronic authorization of the Consultant.

**12. Evaluation of proposals.—** (1) Proposals will normally be evaluated on the basis of financial bid. Where a different criteria is to be used it would only be with the approval of the Board and such a criteria would be stated in the RFP.

(2) Those Consultants who have applied against the RFP shall be informed about the date and time for opening the financial proposals giving sufficient time for the Consultants to be present at the opening, should they so desire.

(3) The financial proposals of the pre-qualified Consultants will be opened publicly. The proposed prices shall be read aloud and recorded in a minute of the public opening.

(4) Arithmetical errors will be corrected. The cost will be converted to a single currency using uniform selling (exchange) rates.

(5) The Board may reject all proposals if they are found to be unresponsive or unsuitable either because they represent major deficiencies in complying with the TOR or they involve costs, which are substantively higher than the original, cost estimates.

(6) The proposal with the lowest financial bid will be selected. Where a criteria other than the financial bid has been stated in the RFP, the evaluation and selection shall be based on that criteria.

**13. Selection by direct negotiation.—** (1) The selection by direct negotiation/nomination shall be used under exceptional circumstance such as (a) for tasks that represent a natural continuation of previous work carried out by the firm, (b) in case of emergency situation, situation arising after natural disasters, situations where timely completion of the assignment is of utmost importance, (c) situations where the execution of assignment may involve use of proprietary techniques or only one Consultant has requisite expertise. Such selection may normally be restricted to a financial ceiling of Rs. ten lakh.

**14. Selection of individual Consultants.—** (1) Individual Consultants will be employed for assignments for which teams of personnel are not required, no additional outside (home office) professional support is required and where the experience and qualifications of the individual are the paramount requirement.

(2) Individual Consultants will be selected on the basis of their qualifications for the assignment. Capability will be judged on the basis of academic background and relevant experience.

(3) EOI route as stated above in case of institutional Consultants will be followed for drawing-out panels of candidates for different areas/sectors. The selection could be through the aforesaid CEC mechanism. During the course of the year, the concerned Member/Secretary may choose an appropriate individual from the panel. If required, EOI could be issued even during the course of the year.

(4) For legal Consultants also, the EOI route as indicated above shall be followed. Fee shall be governed by the DOPT guidelines as stated below. For the Standing Counsel the Board shall get the panel of lawyers from the Ministry of Law. Their payments/fee shall be governed by the rules of Ministry of Law, Government of India.

**15. Fee and Other Charges.**— (1) A consolidated fee up to a ceiling of Rs. 26,000 (rupees twenty six thousand) per month (with no DA, HRA, CCA or any other relief) would be payable to an individual Consultant on a whole time basis in line with the existing guidelines issued by the DOPT. This amount may be revised from time to time in line with Department of Personnel & Training (DOPT), Government of India guidelines.

(2) In case of any special requirements at fee higher than that prescribed at (1) above, the Consultants could be appointed with the approval of the Chairperson/Board. Fee for such Consultants shall be decided by the Chairperson/Board on case to case basis.

(3) The Board will reimburse TA/DA and telephone charges as per normal rules applicable to any serving officer of an equivalent rank in the Government.

(4) These regulations regarding fees payable will also apply to former and retired Government servants engaged as Consultants. They shall be paid a consolidated amount of Rs. 20,000/- (Rupees twenty thousand) per month subject to the condition that the fee plus pension plus dearness pensions should not exceed the last pay drawn plus dearness pay. This also shall be governed by the guidelines issued by the DOPT from time to time.

**16. Proposed form of contract.**— (1) The contract would include accepted TOR methodology, general and specific conditions of contract, etc.

(2) The general conditions of contract would include all such conditions which are common in nature and not specific to a proposal. Such conditions may include clauses pertaining to sub contracting, methods of payment, termination and extension of contracts, arbitration, variation in quantities, indemnity and insurance, *force majeure*, conflict of interest, compliance to local laws and taxes and duties etc.

(3) The proposal specific conditions would include clauses relating to the assignment in hand.

(4) The general format for the contract, including the general conditions, will be approved by the Board. The specific conditions related to proposal will be prepared by CEC and got approved from the Chairperson.

**17. Confidentiality.**— Information relating to, evaluation of proposals and recommendations concerning awards shall not be disclosed to the Consultants who submitted the proposals or to other persons not officially concerned with the process, until the award of contract is notified.

**18. Conflict of interest.**— Consultants shall not be hired for any assignment that would be in conflict with their prior or current obligations to other clients or that may place them in a position of not being able to carry out the assignments objectively and impartially.

**19. Saving of inherent power of the Board.**— Nothing in these provisions shall bar the Board from adopting a procedure which is at variance with any of the provisions of these Regulations, if the Board, in view of the special circumstances of the matter or class of matters and for reasons to be recorded in writing, deems it necessary or expedient to depart from the procedure prescribed in the regulations.

**20. General power to amend.**— The Board may at any time and on such terms as it may think fit amend any provisions of these regulations for the purpose of meeting the objectives with which these Regulations have been framed.

**21. Power to remove difficulties.**— If any difficulty arises in giving effect to any of the provisions of these regulations the Board may, by general or special order, do anything not being inconsistent with the provisions of the Act, which appears to it to be necessary or expedient for the purpose of removing the difficulties.

AJAY TYAGI, Secy.

**NOTIFICATION**

New Delhi, the 18th January, 2010

**G.S.R. 39(E).**—In exercise of the powers conferred by Section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely :—

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Codes of Practices for Emergency Response and Disaster Management Plan (ERDMP) Regulations, 2010.
- (2) They shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

(1) In these regulations, unless the context otherwise requires,-

- (a) "Act" means the Petroleum and Natural Gas Regulatory Board Act, 2006;
- (b) "Board" means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of section 3 of the Act;
- (c) "boiling liquid expanding vapour explosion (BLEVE)" means the violent rupture of a pressure vessel containing saturated liquid or vapour at a temperature well above its atmospheric boiling point and the resulting flash evaporation of a large fraction of the superheated liquid which produces a large vapour cloud which burns in the form of a large rising fireball due to ignition;
- (d) "chief incident controller" means the person who assumes absolute control of the unit and determines action necessary to control the emergency;
- (e) "codes of practice" means the codes of practice for emergency response and disaster management plan notified by the Board;
- (f) "disaster" means an occurrence of such magnitude as to create a situation in which the normal patterns of life within an industrial complex are suddenly disrupted and in certain cases affecting the neighborhood seriously with the result that the people are plunged

into helplessness and suffering and may need food, shelter, clothing, medical attention protection and other life sustaining requirements;

- (g) "disaster management plan" means a well coordinated, comprehensive response plan to contain loss of life, property, environment and provide speedy and effective recovery by making the most effective use of available resources in case of a disaster;
- (h) "emergency" means a situation or scenario which has the potential to cause serious danger to persons, environment or damage to property and which tends to cause disruption inside or outside the premises and may require the help of outside resources;
- (i) "emergency response vehicle (ERV)" means a vehicle for handling emergencies having necessary equipment meant for rescue and relief operations and ERV can be put to use within installation, outside of installation including road incident;
- (j) "hazard" means an event related to the property of substance or chemicals with a potential for human injury, damage to property, damage to the environment, or some combination thereof;
- (k) "incident" means an unplanned or unintended or intended event having potential to cause damage to life, property and environment;
- (l) "incident record register" means a register containing complete information pertaining to all incidents covering near miss, and all other incidents leading to Level-I, Level-II and Level-III emergencies;
- (m) "installation" means facilities, namely, gaseous product pipeline, liquid Product pipeline, hydrocarbons processing installation, oil and natural gas terminals and commercial storage and transportation, hydrocarbons gas bottling Installations including CNG, city gas distribution facilities and retail outlets;
- (n) "leak" means release or discharge of a dangerous chemicals or substances or material into the environment;
- (o) "Level-I emergency" means an emergency as defined under sub-regulation 6 (a);
- (p) "Level-II emergency" means an emergency as defined under sub-regulation 6 (b);
- (q) "Level-III emergency" means an emergency as defined under sub-regulation 6 (c);
- (r) "mutual aid association" means an industrial mutual aid association in which participating industries as a community shall assist each other in case of emergency. Mutual aid associations supplement a site's emergency control plan. Services of member industries shall be

requested only when the emergency threatens to exceed the capability of otherwise available resources;

- (s) "occupier" of an installation means the person who has ultimate control over the affairs of the installation;
- (t) "off site emergency" means an emergency that takes place in an installation and the effects of emergency extends beyond the premises or the emergency created due to an incident, catastrophic incidents, natural calamities, etc. It no longer remains the concern of the installation management alone but also becomes a concern for the general public living outside and to deal with such eventualities shall be the responsibilities of district administration;
- (u) "off site emergency plan" means a response plan to control and mitigate the effects of catastrophic incidents in above ground installation (AGI) or underground installations (UGI) or road transportation. This plan shall be prepared by the district administration based on the data provided by the installation(s), to make the most effective use of combined resources, i.e. internal as well as external to minimise loss of life, property, environment and to restore facilities at the earliest;
- (v) "on site emergency" means an emergency that takes place in an installation and the effects are confined to the Installation premise's involving only the people working inside the plants and to deal with such eventualities is the responsibility of the occupier and is mandatory. It may also require help of outside resources;
- (w) "on site emergency plan" means a response plan to contain and minimize the effects due to emergencies within the installations which have a potential to cause damage to people and facilities within the installation premises;
- (x) "risk" means the chance of a specific undesired event occurring within a specified period or in specified circumstances and it may be either a frequency or a probability of a specific undesired event taking place;
- (y) "risk analysis" means the identification of undesired events that lead to the materialization of a hazard, the analysis of the mechanisms by which these undesired events could occur and, usually, the estimation of the extent, magnitude, and likelihood of any harmful effects;
- (z) "risk assessment" means the quantitative evaluation of the likelihood of undesired events and the likelihood of harm or damage being caused by them, together with the value judgments made concerning the significance of the results;
- (aa) "risk management" means the programme that embraces all administrative and operational programmes that are designed to

reduce the risk of emergencies involving acutely hazardous materials. Such programmes include, but are not limited to, ensuring the design safety of new and existing equipment, standard operating procedures, preventive maintenance, operator training, incident investigation procedures, risk assessment for unit operations, emergency planning, and internal and external procedures to ensure that these programmes are being executed as planned;

- (ab) "site incident controller" means the person who goes to the scene of the emergency and supervises the actions necessary to overcome the emergency at the site of the incident;
- (ac) "spill" means an unintended release or discharge of hydrocarbon or any other dangerous liquid into the environment;
- (ad) "transport emergency (TREM) card" means a card containing details about the nature of hazards, protective devices, telephone numbers and actions related to spillage, fire, first aid and other details of national and international (UN) numbers or signage which is common in India and abroad;
- (ae) "unconfined vapour cloud explosion (UVCE)" means the formation of vapour cloud due to release of significant quantity of liquefied hydrocarbons into the atmosphere and its explosion due to ignition which may cause high over pressure and low pressure that cause very heavy damage.

(2) Words and expressions used and not defined in these regulations, but defined in the Act or rules or regulations made thereunder, shall have the meanings respectively assigned to them in this Act or in the rules or regulation, as the case may be.

### 3. Applicability.

These regulations shall apply to –

- (a) hydrocarbons processing installation (refinery, gas processing, LNG Re-gasification installations etc.);
- (b) pipeline such as natural gas, propane, butane etc. and the hydrocarbons products which remain in gaseous state at NTP;
- (c) liquid petroleum product pipeline;
- (d) commercial petroleum storage facilities, gas storage facilities and terminals including LNG terminals;
- (e) hydrocarbons gas bottling installations having receiving, storage and handling facilities including storage for LPG, propane and butane;
- (f) city or local natural gas distribution facilities;
- (g) dispensing stations and POL retail outlets;
- (h) transportation of petroleum products by road;
- (i) any other installation as may be notified by the Board from time to time;

#### 4. Scope and intent.

##### 4.1 Scope.

The scope shall cover –

- (i) the identification of emergencies;
- (ii) the mitigation measures that attempt to reduce and eliminate the risk or disaster;
- (iii) the preparedness that to develop plans for actions when disaster or emergencies occur;
- (iv) the responses that mobilize the necessary emergency services including responders (primary, secondary and tertiary) like fire service, police service, medical service including ambulance, government as well as non-governmental agencies;
- (v) the post disaster recovery with aim to restore the affected area to its original conditions;

##### 4.2 Intent.

It is intended to apply these regulations –

- (a) to develop an ERDMP that should be concise and informative so that members of the emergency control organization should be able to quickly refer to the action plan to determine important functions that are being carried out;
- (b) to manage an emergency and not to use ERDMP just as reference material for training and shall be made applicable -
  - (i) to prevent casualties - both on-site and off-site;
  - (ii) to reduce damage to property, machinery, public and environment;
  - (iii) to develop a state of readiness for a prompt and orderly response to an emergency and to establish a high order of preparedness (equipment, personnel) commensurate with the risk;
  - (iv) to provide an incident management organogram with clear missions and lines of authority (incident command system, field supervision, unified command);
  - (v) to ensure an orderly and timely decision-making and response process (notification, standard operating procedures);
  - (vi) to maintain good public relations;

**Note:** No two locations shall be identical in respect of layout, surroundings, products, storage quantities, meteorological data etc. Therefore, ERDMP will be location specific as per the available resources.

#### 5. The content of the regulation.

The ERDMP shall include -

- (a) classification of emergencies;
- (b) implementation schedule;
- (c) consequences of defaults or non-compliance;
- (d) statutory requirements;
- (e) pre-emergency planning;
- (f) emergency mitigation measures;
- (g) emergency preparedness measures;
- (h) emergency response procedures and measures;
- (i) emergency organisation and responsibilities;
- (j) infrastructure requirements;
- (k) declaration of on-site and off-site emergency;
- (l) resources for controlling emergency;
- (m) demographic information;
- (n) medical facilities;
- (o) evacuation;
- (p) public relations and information to public;
- (q) reporting of the incident;
- (r) emergency recovery procedures;
- (s) ERDMP for tank trucks and pipelines carrying petroleum products;
- (t) integration of the ERDMP with National Disaster Management Authority (NDMA) guidelines and action plan on Chemical Disasters (Industrial);
- (u) security threat plan and action plan to meet the eventualities.

#### 6. Classification of emergencies.

Emergencies can be categorized into three broad levels on the basis of seriousness and response requirements, namely: –

- (a) **Level 1** : This is an emergency or an incident which
  - (i) can be effectively and safely managed, and contained within the site, location or installation by the available resources;
  - (ii) has no impact outside the site, location or installation.
  
- (b) **Level 2** : This is an emergency or an incident which –
  - (i) cannot be effectively and safely managed or contained at the location or installation by available resource and additional support is alerted or required;
  - (ii) is having or has the potential to have an effect beyond the site, location or installation and where external support of mutual aid partner may be involved;
  - (iii) is likely to be danger to life, the environment or to industrial assets or reputation.

- (c) **Level 3:** This is an emergency or an incident with off-site impact which could be catastrophic and is likely to affect the population, property and environment inside and outside the installation, and management and control is done by district administration. Although the Level-III emergency falls under the purview of District Authority but till they step in, it should be responsibility of the unit to manage the emergency.

Note: Level-I and Level-II shall normally be grouped as onsite emergency and Level-III as off-site emergency.

## 7. Implementation schedule.

These Codes of Practices shall be implemented for the areas covered under Regulation 3 as per the implementation period mentioned in **Schedule-I**.

## 8. Consequences of default or non-compliance.

- (1) There shall be a system for ensuring compliance to the provision of these regulations through developing a well defined Emergency Response and Disaster Management Plan and conduction of mock drill and safety audits during the construction, commissioning and operation phase, as well as on an on-going basis. There shall also be a system of do's and don'ts regarding safety, mock drills or real emergencies for the visitors before entering an establishment. This should be supported by written instruction sheet for the visitor and ensured that visitor is accompanied by plant representative on forward visit and return gate.
- (2) The Board shall monitor the compliance of ERDMP, Technical Standards and Specifications including Safety Standards either directly or indirectly by accredited third party through separate regulations on third party conformity assessment.
- (3) In case of any deviation or shortfall, in achieving the recommended standards the entities are liable to penal provisions under the provisions of the technical standards, specifications including safety standards.
- (4) Mutual Aid Association not responding as per Memorandum of Understanding (MoU) or written agreement on request of assistance shall attract penalty under these regulations as under:-
  - (a) for first default in response, the defaulting entity with the application and its management shall have to submit written explanation to affected mutual aid members.
  - (b) for the second and successive failure, the defaulting entity shall have to pay the double of the billed amount of expenses incurred by affected mutual aid members in case of any eventuality occurs in the premises of affected mutual aid members.

## 9. Requirements under other statutes.

- (1) It shall be necessary to comply with statutory rules, regulations and Acts, such as, the Environment (Protection) Act, 1986, the Factories Act, 1948,

the Inflammable Substances Act, 1952, the Motor Vehicles Act, 1988, the Public Liability Insurance Act, 1991, the Petroleum Act, 1934, the National Environment Tribunal Act, 1995, the Explosives Act, 1884 mentioned in **Schedule-II**. It shall also be necessary to comply with the relevant statutes, provisions and guidelines of the Disaster Management Act, 2005 and National Disaster Management Guidelines Chemical Disasters (Industrial), April, 2007.

- (2) These regulations are not intended to override the requirement of other statutory bodies or any other guidelines issued by the Central Government in respect of formulation of ERDMP. It shall be necessary to comply with the provisions of different laws relating to management of hazardous substances, more particularly, referred to in Schedule-II, and rules and regulations made thereunder, as amended from time to time.

## 10. Pre-Emergency Planning.

### 10.1 Hazard identification.

- (1) The first step towards ERDMP shall be to identify potential on-site and off-site hazards such as gas leaks, spills, fire, explosion, transportation incident, pipeline ruptures, equipment failure, natural calamities, etc. and the types of damage caused by them. The hazard identification shall include –
- (a) information on toxicological, physical, and chemical properties of the substances being handled in the format of Material Safety Data Sheet (MSDS – Annexure – I);
  - (b) the identification of potential impact on downwind air quality or downstream water quality from an incidental release and possible danger to human, Flora and Fauna and animal health;
  - (c) hazards to the installation shall also include Natural perils such as floods, earthquakes, cyclones or landslides etc. ;
  - (d) check points for hazard identification are given at Check list-1.

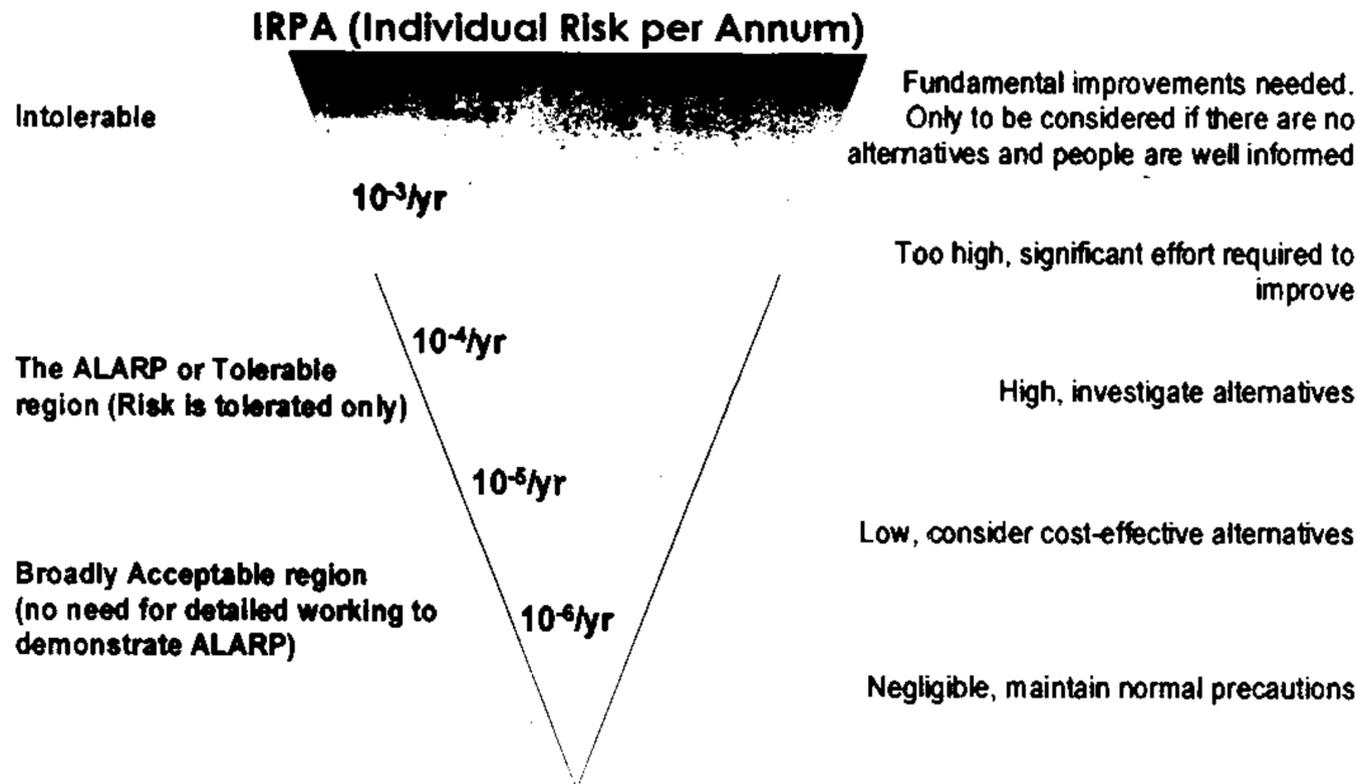
### 10.2 Risk analysis and risk assessment.

The second step of the ERDMP process is to determine the risk of an incident associated with each hazard. The basic procedure in a risk analysis shall be as follows:

- (a) identify potential failures or incidents (including frequency) ;
- (b) calculate the quantity of material that may be released in each failure, estimate the probability of such occurrences;
- (c) evaluate the consequences of such occurrences based on scenarios such as most probable and worst case events;
- (d) the combination of consequences and probability will allow the hazards to be ranked in a logical fashion to indicate the

zones of important risk. Criteria should then be established by which the quantified level of risk may be considered acceptable to all parties concerned;

- (e) after assessing the risk, the "maximum tolerable criterion" must be defined and above which the risk shall be regarded as intolerable. Whatever be the benefit level must be reduced below this level;
- (f) the risk should also be made "as low as reasonably practicable" (ALARP) and least impacting the neighbourhood. While conducting the risk analysis, a quantitative determination of risk involves three major steps:-



**NOTE-** a risk of 10 per million per year, or  $10^{-5}$ /Year, effectively means that any person standing at a point of this level of risk would have a 1 in 100 000 chance of being fatally injured per year.

**10.3 Causes of disasters.**

The common causes for the above events are tabulated below for reference and the ERDMP should be prepared by the installation to deal with the following emergencies.

Man made	Natural Calamities	Extraneous
<ul style="list-style-type: none"> <li>• Heavy Leakage</li> <li>• Fire</li> <li>• Explosion</li> <li>• Failure of Critical Control system</li> <li>• Design deficiency</li> <li>• Unsafe acts</li> <li>• In-adequate maintenance</li> </ul>	<ul style="list-style-type: none"> <li>• Flood</li> <li>• Earth Quake</li> <li>• Cyclone</li> <li>• Outbreak of Disease</li> <li>• Excessive Rains</li> <li>• Tsunami</li> </ul>	<ul style="list-style-type: none"> <li>• Riots/Civil Disorder/ Mob Attack</li> <li>• Terrorism</li> <li>• Sabotage</li> <li>• Bomb Threat</li> <li>• War / Hit by missiles</li> <li>• Abduction</li> <li>• Food Poisoning/ Water Poisoning</li> </ul>

#### 10.4 Consequences.

- (1) The consequences of an Incident may be confined within the premises or may spill off-site triggering cascading effects.
- (2) The consequences of an Incident are fire explosion, deflagration, blast waves, fast spreading flames, BLEVE, UVCE resulting in direct effects like damage to buildings/property, burns, fatalities. However, an Incident in the neighborhood may sometimes cascade into an on-site emergency. It should be prevented or managed to avoid major emergency.

#### 11.0 Emergency Mitigation Measures.

After determining the risk level, the following actions shall be required for mitigation of emergency:-

##### 11.1 Basic requirement of ERDMP.

Basic requirement needs to be assessed prior to development of ERDMP as per the details provided in **Schedule-III**.

##### 11.2 Resource mobilisation.

Resource mobilisation shall include manpower requirement, fire fighting materials, appliances or equipment, safety equipment, communication facilities, transport, list of emergency drugs and appliances, etc. (**Schedule-IV**).

##### 11.3 Incident preventing measures and procedures.

The incident prevention measures and procedures at installation or other locations shall include the following:-

- (i) health safety and environment (HSE) policy;
- (ii) proper layout and inter facility distances (the layout should not have any criss-cross movement of men and materials);
- (iii) safety committees with fair participation of Union leaders and workers;
- (iv) safety audits and inspections shall be carried out with the help of prescribed checklists. The entity shall follow the periodicity and guidelines for inspection as per regulations of Petroleum and Natural Gas Regulatory Board on process / procedure/methodology for ensuring adherence and its protocol for third party conformatory assessment;
- (v) work permit system (including confined space and entry permit);
- (vi) early warning alarm system in the installation (gas monitoring system, heat detection, high level alarms, low pressure/high pressure alarms etc.) especially in the vicinity of storage tanks, filling

station, delivery points and along with periphery with the indication in the central control room;

- (vii) in-built safety interlocks system in design such as safety relief valves (SRVs), thermal safety valves (TSVs), non-returning valves (NRVs), remote operated valves (ROVs) and other various emergency trip systems in Installations;
- (viii) fire protection (preferably automatic) and HSE Management system;
- (ix) drill for visitors including assembly procedure and escape route, do's and don'ts written instructions before entry, etc;
- (x) setting up of safety MIS system and sending Exception reports to the head of organisations or CEO;
- (xi) all standby equipments should be tried and operated periodically and recorded. Similarly back up power for safety equipment and instrument should be checked periodically and observations be recorded;
- (xii) check points for incident prevention measures are given at Check list -2.

## **12.0 Emergency preparedness Measures.**

After detailing the prevention measures, preparedness measures to handle the emergency shall be explained in ERDMP document.

### **12.1 Emergency Drills and Mock Exercises.**

- (a) To evaluate the thoroughness and effectiveness of an ERDMP, it is necessary to conduct periodic table top exercises full-scale or announced, and unannounced drills. Each site should hold drills on the night shifts, change shifts as well as during the day as mandated under regulation 12.1 (e).
- (b) Drills should present a variety of Emergency scenarios and designed to challenge each segment of the organization. Limited scale drills are useful and should be used by Chief of each Support Service to train his own team. Plans should be made to have periodic mass casualty exercises. These exercises should attempt to simulate as closely as possible a fire, explosion, or toxic agent release and comparison of the prescribed time lines and the actual received.
- (c) The warning system, first aid, evacuation procedures and the definitive treatment procedures should all be tested periodically.
- (d) Some of the drills should also include the participation of outside groups and agencies such as police, fire companies, ambulance service, civil defence organizations and mutual aid groups.
- (e) Testing and mock drills for onsite emergency plan shall be carried once in three months and for offsite emergency plan twelve months.

- (f) For other installations, the mock drill shall be carried out once a year. However, for locations having more than one industry member, the annual mock drill can be carried out by one industry member in turn, thus ensuring one mock drill in every year at the location.
- (g) These mock drills will enable the unit/location to assess the capability of the individual and performance as a group. The frequent discussions and drills will help in eliminating the confusion and shortcomings, if any.
- (h) Each Mock Drill should be recorded with observations and deficiencies to be rectified within 24 hours.
- (i) Check Points for mutual aid and mock drills are given at Check list - 3.

## 12.2 Training.

- (1) An ERDMP shall be easier to use if training material and general philosophy on emergency prevention and control are kept separate from the working plan.
- (2) (i) Training shall be imparted to all the personnel likely to be involved directly or indirectly to the emergencies including employees, contract workers, transport crew and security personnel.  
  
(ii) Contract personnel and contract labourer shall be allowed to start work only after clearance of attending and passing safety training.
- (3) Refresher training shall be conducted at regular intervals.
- (4) The basic requirements of Central Motor Vehicles Rules, 1989 pertaining to dangerous or hazardous goods transport must be complied by the transporters. For this the loading station must conduct training of tank truck crew as per the requirement under Central Motor Vehicles Rules, 1989.

## 12.3 Mutual Aid.

Since combating major emergencies might be beyond the capability of individual unit, it is essential to have mutual aid arrangements with neighboring industries. Consideration shall be given to the following while preparing mutual aid arrangements:-

- (a) Written mutual aid arrangements are to be worked out to facilitate additional help in the event of Level-II emergencies by way of rendering manpower, medical aid or fire fighting equipments, etc.
- (b) The mutual aid arrangement shall be such that the incident controller of the affected installation shall be supported by neighbouring industries on call basis for the support services materials and equipments already agreed. Further, all such services deputed

by member industry shall work under the command of the site incident controller of the affected installation.

- (c) Mutual aid associations shall conduct regular meetings, develop written plans and test the effectiveness of their plans by holding drills. Drills are essential to establish a pattern for operation, detect weaknesses in communications, transportation and training. Periodic drills also develop experience in handling problems and build confidence in the organization.
- (d) To make the emergency plan a success, the following exchange of information amongst the member organizations of mutual aid association is considered essential: -
- (i) The types of hazards in each installation and fire fighting measures.
  - (ii) List of all the installations or entities falling along the routes of transport vehicles carrying petroleum or petroleum products.
  - (iii) The type of equipment, that would be deployed and procedure for making the replenishment.
  - (iv) Written procedures which spell out the communication system for help and response. This is also required to get acquainted with operation of different firefighting equipment available at mutual aid members and compatibility for connecting at users place.
  - (v) Familiarization of topography and drills for access and exit details carried out by mutual aid members.

**Note:** Incidents involving road transport vehicles carrying petroleum products shall be attended by the nearest installation on request of civic authorities even in absence of mutual aid agreement with the consignor. Failure on the part of such industry, installations shall attract penalty provisions under sub-regulation 8(4) of these regulations.

### 13.0 Response Procedures and Measures.

Containing the consequences of an emergency requires well planned and documented procedures to ensure prompt response and coordination among various task groups. The following response procedures as prevalent in the location shall be carried out:

#### (a) Zoning and Maps.

- (i) The zones and maps shall be prepared highlighting the incident prone areas of the unit so that in case of an emergency it serves as a basis for taking the action. This indicates the size of the area within which human life is seriously endangered by the consequences of incident. This should also indicate the location of assembly points and emergency control rooms. The map should also have marked 24 wind directions to facilitate easy access in case of emergencies.
- (ii) The entities shall help District Disaster Management Authority (DDMA) in finalizing the full drawn map of installations and nearby areas under

their operations having presence of habitats which are vulnerable and sensitive like old age homes, schools, prison, etc.

- (iii) Wind speed and direction should be recorded with the help of anemometer and declaration of off-site emergencies should be immediately communicated to DDMA.

**(b) Layout/flow diagram -**

Detailed layout and flow diagram for different activities such as Product Lines, filling system, emergency shutdown system isolation valves etc. should be detailed. The important control valves should be highlighted.

**(c) Manpower data**

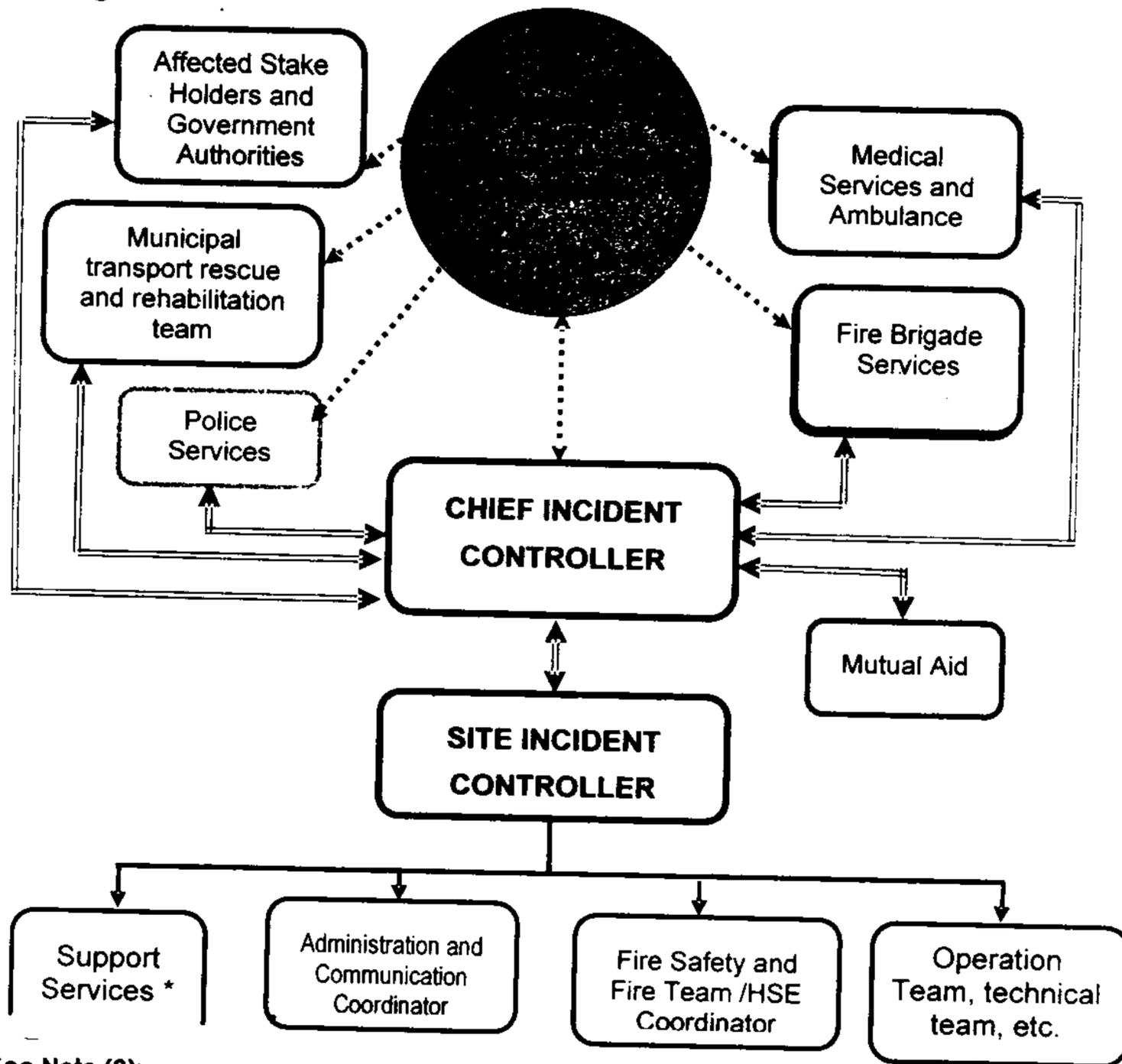
The details of manpower deputed on shift basis should be given in order to assess the requirement in case of emergency.

**Note :** Check points on ERDMP response measures are given at Check list- 4.

**14.0 Emergency Organization and Responsibilities.**

- (1) The ERDMP shall identify the safe transition from normal operation to emergency operations and systematic shut down, if any, and the delegation of authority from operations personnel to emergency response personnel. For this purpose, the plan shall identify an emergency response organization with appropriate lines of authority with succession planning and actuating the response management. Responsibilities for decision making shall be clearly shown in an emergency organization chart. The plan shall identify each responder's position, mission, duties and reporting relationship.
- (2) Overall objectives of an emergency control organization shall be:
  - (a) to promptly control problems as they develop at the scene.
  - (b) to prevent or limit the impact on other areas and off-site.
  - (c) to provide emergency personnel, selecting them for duties compatible with their normal work functions wherever feasible. The duties and functions assigned to various people shall include making full use of existing organizations and service groups such as fire, safety, occupational health, medical, transportation, personnel, maintenance, and security.
  - (d) Employees must assume additional responsibilities as per laid down procedure of ERDMP whenever an emergency alarm sounds.
  - (e) In setting up the organization, the need for round-the-clock coverage shall be essential. Shift personnel must be prepared to take charge of the emergency control functions or emergency shutdown of system, if need be, until responsible personnel arrive at the site of emergency. The organization should have an alternate arrangement for each function.

## 14.1 Organization chart.



\* See Note (2):

**Index**

Level - I    —  
 Level II    ==  
 Level III   - - -

- Note:** (1) Above is a typical and basic organogram for control of emergency. Entity can merge the functions as per their other statutory requirements and based on level of risk and range of operations. The organisation shall have to address all services and support system required and available to it.
- (2) Support Services Include Communication Services, Engineering/Maintenance Services, Medical and Occupational Health, Human Resource and Welfare Service, Security, Media/Public Relations, Transport and Logistics, Finance, Contract and Procurement and Environmental Services.
- (3) Role of both CIC and SIC can be merged depending upon the requirement.

## 14.2 Roles and Responsibilities.

### 14.2.1 Chief Incident Controller.

The Chief Incident Controller (CIC) shall have overall responsibility to protect personnel, site facilities, and the public before, during, and after an emergency or disaster. The CIC shall be present at the main emergency control centre for counsel and overall guidance. Responsibilities of the Chief Incident Controller shall include the following:-

- (a) preparation, review and updation of the ERDMP as per Check List-5;
- (b) assessment of situation and declaration of emergency;
- (c) mobilisation of main coordinators and key personnel;
- (d) activation Emergency Control Centre;
- (e) taking decision on seeking assistance from mutual aid members and external agencies like Police, Fire Brigade, Hospitais etc.;
- (f) continuous review of situation and decide on appropriate response strategy;
- (g) taking stock of casualties and ensure timely medical attention;
- (h) ensuring correct accounting and position of personnel after the emergency;
- (i) ordering evacuation of personnel as and when necessary;
- (j) taking decision in consultation with District Authorities when an Off-site emergency to be declared.

### 14.2.2 Site Incident Controller (SIC)

The Site Incident Controller shall be identified by the Chief Incident Controller and will report directly to him. SIC should be nominated by the entity in each shift 24 hrs. Responsibilities of the Chief Incident Controller shall include the following:-

- (a) The SIC shall maintain a workable emergency control plan, establish emergency control centers, organize and equip the organization with ERDMP and train the personnel;

- (b) The SIC shall be capable of making quick decisions and taking full charge;
- (c) The SIC shall communicate to the Emergency Control Centre where it can coordinate activities among groups;
- (d) The SIC shall be responsible for ensuring that appropriate local and national government authorities are notified, preparation of media statements, obtaining approval from the CIC and releasing such statements once approval received;
- (e) The SIC shall also ensure the response to the incidents or the emergencies, as the case may be, is in line with entity procedures, coordinating business continuity or recovery plan from the incident. He must ensure next of kin are notified in a timely manner;
- (f) The SIC shall also co-ordinate if any specialist support is required for the above purpose; and
- (g) The SIC shall decide on seeking assistance of mutual aid members and external agencies like police, fire brigade, hospital etc.

#### 14.2.3 Administration and Communication Coordinator.

Responsibilities of the administration and communication controller shall include the following:-

- (a) to coordinate with mutual aid members and other external agencies;
- (b) to direct them on arrival of external agencies to respective coordinators at desired locations;
- (c) to activate the medical centre and render first aid to the injured. arrange ambulance and coordination with hospitals for prompt medical attention to casualties;
- (d) to ensure head counts at assembly points;
- (e) to arrange procurement of spares for fire fighting and additional medicines and drugs;
- (f) to mobilize transport to various teams for facilitating the response measures;
- (g) to monitor entry and exit of personnel into and out of premises;
- (h) to ensure only authorized personnel enter into the premises;

- (i) To regulate the flow of traffic into and out of premises and control the mob outside, if any, with the assistance of the police.
- (j) to provide administrative and logistics assistance to various teams; and
- (k) to arrange evacuation as directed by the chief incident controller, and in coordination with the civil authorities like police, panchayat/municipal authorities etc.

#### 14.2.4 Fire Safety Coordinator and Fire Team.

Responsibilities of the Fire and Safety Coordinator shall include the following:-

- (a) to activate emergency sirens as per the practiced codes;
- (b) to take charge of all fire fighting and rescue operations and safety matters;
- (c) to ensure that key personnel are called in and to release crew of fire fighting operations as per emergency procedure;
- (d) assess functioning of his team and communicate with the CIC and or administrative controller for any replenishment or, replacement of manpower or firefighting equipment;
- (e) direct the fire brigade personnel and mutual aid members to their desired roles as also proper positioning of the manpower and equipment;
- (f) to decide the requirement of mutual aid and instruct fire station, who, in turn will contact mutual aid members;
- (g) to coordinate with outside fire brigades for properly coordinated fire fighting operation;
- (h) to ensure that casualties are promptly sent to first aid centre / hospital;
- (i) to arrange requirement of additional fire fighting resources including help from mutual aid partners;
- (j) ensure empty and loaded trucks are removed to safer area to the extent possible so as not to affect emergency handling operations;
- (k) continually liaise with the SIC and or CIC and implement the emergency combat strategies as communicated by him; and
- (l) ensure adequate hydrant pressure in the mains and monitor water level in the reservoir.

*Note: Fire chief shall wear identification jackets at the site of disaster so that he is clearly distinguished among fire fighting personnel and is visible from a distance.*

**14.2.5 Support and auxiliary services for major installations.**

The following additional coordinators (refer 14.2.5.1 up to 14.2.5.4) may be nominated and delegated the specific responsibilities falling under the basic functions of SIC and or CIC: -

**14.2.5.1 Human Resources and Welfare Services Coordinator****14.2.5.2 Transport and Logistics Services Coordinator****14.2.5.3 Media and Public Relations Coordinator****14.2.5.4 Operations and Technical Coordinator****14.2.5.5 Security Coordinator.**

The Security Coordinator reports to the Chief / Site Incident Controller and is responsible for security of the installation during any incident or emergency situation and for implementing the actions below:

- (a) Obtaining an approved visitor list from the security department or reception for ensuring that personnel on the list are escorted to reception by security staff;
- (b) Maintaining security of the office in the event of an office evacuation;
- (c) Providing office security and assisting authorities in the event of civil unrest or when required organising additional security at the emergency scene;
- (d) Obtaining initial briefing from Chief / Site Incident Controller and providing security information and or status reports to Site Incident Controller during the emergency;
- (e) Assuming responsibility for any task delegated by Chief Incident Controller; and
- (f) Assessing the emergency, identify security specific problems and recommend solutions to Chief Incident Controller.

**14.2.5.6 (a) Maintenance of ERDMP Records.**

There shall be maintenance of ERDMP records for all kind of emergencies covering near Miss, Level-I, Level-II and Level-III. Organisation shall maintain an Incident Record Register for the above purpose and post-disaster documentation like resources deployed, relief, rehabilitation measures and lesson learned to avoid re-occurrence of any such emergency. Head of HSE or any other designated personnel by the CIC/SIC shall be responsible for maintenance of such records.

- (1) A good public relations program is extremely important in an emergency situation. Inquiries will normally be received from the media, government agencies, local organizations and the general public.
- (2) This section of the Response Plan shall include a public relations or media plan. It should identify an Information Officer that is well-equipped and trained in media relations.
- (3) Initial releases shall be restricted to statements of facts such as the name of the installation involved, type and quantity of spill, time of spill, and countermeasure actions being taken. All facts must be stated clearly and consistently to everyone.

Note- Plans shall also be developed to utilize local media and television stations for periodic announcements during an emergency. This shall also assist in reducing rumours and speculation.

#### **14.2.5.7 (b) Recorder.**

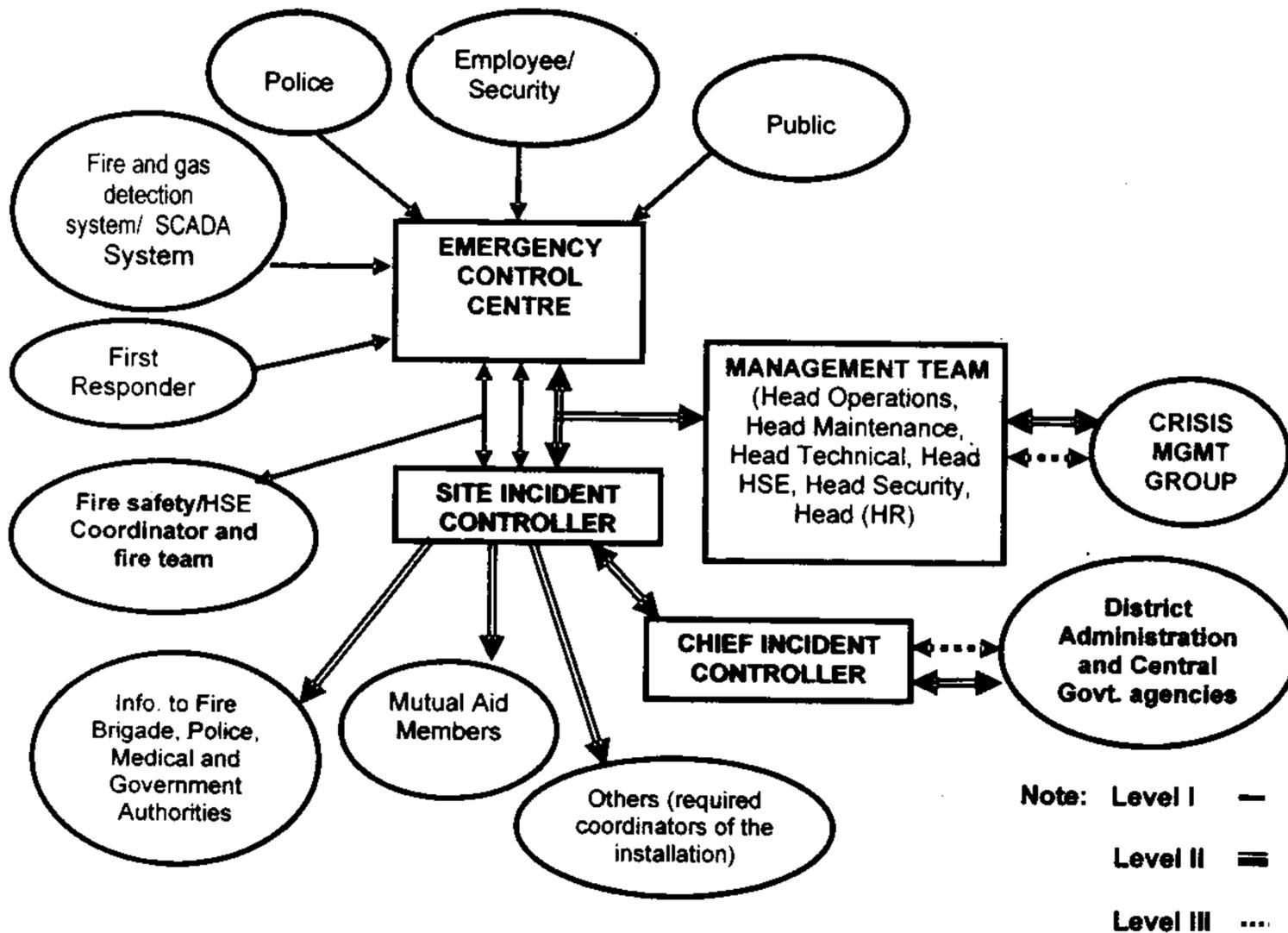
The Recorder responsibility is to maintain an accurate time record of key information received from the incident or emergency location and to record the actions initiated by the site incident controller and for implementing the emergency response actions below:

- (a) to record key incident events/actions on incident status board/display manually or electronically;
- (b) to maintain essential equipment checklist status;
- (c) to ensure all status and information is up to date and correctly displayed;
- (d) to take all necessary recorded material to the alternate ECC room in the event of emergency in main ECC room; and
- (e) to maintain a log book.

#### **14.2.5.8 Communications Services.**

- (1) The Communications Coordinator shall ensure the following actions below:
  - (a) Ensuring the ECC equipment and systems are maintained to a high standard and remain functional throughout the emergency.
  - (b) Ensuring a back-up communication system is available in the event of the ECC Room is not available.
  - (c) Providing quality and diverse communication systems for use in routine and emergency situations.

## COMMUNICATION FLOW CHART



- Note: 1. above is a typical communication flow chart for notification of emergency.
2. Wherever communication exists for any level of emergency, it automatically implies that the communication exists for all higher levels of emergencies.

## (2) Flow of Information.

- Control Centre shall receive the information from field either in person or from the various systems available in the installation.
- on receipt of information, the control room shift In-charge will actuate the ERDMP and notify the emergency to site incident controller.
- Control room shift in-charge will act as site incident controller till arrival of designated person.
- SIC or CIC depending upon the level of emergency will actuate the ERDMP and inform the concerned authorities as depicted above in the chart.

Note: Apart from the above main function, the role and responsibility of other support services such as finance, material etc should also be detailed in disaster management plan.

**14.2.5.9 Siren Codes.**

- (1) The Emergency siren/s should be located suitably to cover the whole area with the operational control within the installation. These should be tested at least once in a week to keep them in working condition.
- (2) Emergency siren code should be as follows, namely: -
  - (a) Emergency Level-I: A wailing siren for two minutes.
  - (b) Emergency Level-II and III: Same type of siren as in case of Level - I and II but the same will be sounded for three times at the interval of one minutes i.e. ( wailing siren 2min + gap 1 min + wailing siren 2min + gap 1min + wailing siren 2min) total duration of Disaster siren to be eight minutes.
  - (c) ALL CLEAR: Straight run siren for two minutes.
  - (d) TEST: Straight run siren for two minutes at frequency at least once a week
  - (e) Public address system should be provided with message.

**15.0 Infrastructure.****15.1 Emergency control centers (ECC).**

- (1) Each installation shall have the provision of ECC preferably with a back-up arrangement.
  - (a) The ECC shall be away from potential hazards and provide maximum safety to personnel and equipment.
  - (b) Preference should be given to a non-combustible building of either steel frame or reinforced concrete construction.
  - (c) The ECC should have at least two exits and adequate ventilation
- (2) Following certain basic supplies and dedicated equipment shall be made available at the ECC.
  - (a) A copy of the ERDMP.
  - (b) Maps and diagrams showing buildings, roads, underground fire mains, important hazardous material and process lines, drainage trenches, and utilities such as steam, water, natural gas and electricity are required.
  - (c) Aerial photographs, if possible, and maps showing the site, adjacent industries, the surrounding community, high-ways, rivers, etc., help determine how the disaster may affect the community so that the proper people can be notified, adequate roadblocks established, and the civil authorities advised.
  - (d) Names, addresses, and telephone numbers of employees.

- (e) Names, addresses, and telephone numbers of off-site groups and organizations that might have to be contacted should be available. All telephone lists should be reviewed for accuracy on a scheduled basis and updated, as necessary.
- (f) Dedicated and reliable communication equipment should be provided at the ECC. Enough telephones and one fax line to serve the organization for calls both on-and off-the-site. Two-way radio equipment shall be provided to maintain continuity of communications when other means fail and also provides an excellent way of keeping in contact with field activities.
- (g) All ECC should have emergency lights so that operations can continue in the event of power failure.
- (h) Facilities for recording the sequence of events should be provided to assist in investigating causes, evaluating performance, and preparing reports. This can range from a pan board, logbook to a tape recorder with a person assigned to record pertinent information.
- (i) ECC should also have dedicated computer with LAN/ internet facility to access the installation data and also it should have the latest and updated soft copies of all standard operating practices (SOP) etc.

### **15.2 Assembly Points.**

- (1) There should be pre-designated areas in safe zone as per quantitative risk assessment, where the personnel like workers, staff, contractor workers etc. not involved in emergency operations (as per ERDMP) shall assemble in case of an emergency.
- (2) Depending on the location of the emergency, the assembly point can vary. For each potential hazardous zone, a specific assembly point shall be identified and clearly marked on the zones or maps.
- (3) The assembly point should be clearly marked with directional display board along the route. Route should be well lighted with florescent marking.
- (4) During an emergency, pre-designated persons would take charge of this point and take the roll call of the people reporting. Provisions should be made for assembly points, communication and headcount facilities at assembly points, and personnel to control the movement of assembled employees.

### **16.0 Declaration of on-site and off-site emergencies.**

- (1) An emergency starts as a small incident which may become a major incident with passage of time. At the initial stages, the emergency organisation chart shall be put into action. If the incident goes beyond

control the on-site emergency plan will be actuated by the chief incident controller at the appropriate stage as considered necessary.

- (2) During idle shift or holidays, the security personnel will combat the incident as per the ERDMP organisation chart and at the same time inform various emergency controllers for guidance and control the situation.
- (3) When emergency becomes catastrophic and evacuation beyond the plant premises is considered necessary by the chief incident controller, the situation will be handed over to district authority for implementing the off-site emergency plan.
- (4) The management of emergency henceforth has to be controlled by the district crisis management group under the supervision of the District Collector/DDMA.
- (5) In addition to preparation of on-site emergency plan, furnishing relevant information to the district authorities for the preparation of off-site emergency plan is a statutory responsibility of the occupier of every industry handling hazardous substance.

#### **17.0 Resources for controlling Emergency**

- (1) To meet all possible emergencies, installation has to provide a number of systems and resources based on the risk level as identified above in addition to requirements under the Factories Act, 1948 and other statutory regulations applicable to the installation.
- (2) The available emergency control systems and facilities within the installation shall be as under: -
  - (a) fire and gas detection system
  - (b) fire protection system (Active and Passive)
  - (c) fire fighting systems
  - (d) ambulance facility in house, if not available then should be available on urgent call basis.
  - (e) rescue facilities and personal protective equipments (PPEs)
  - (f) first aid and medical facilities round the clock with availability of minimum one nurse (24X7) and doctor in the first aid room.
  - (g) communication facilities
  - (h) escape route and evacuation zones
  - (i) emergency shutdown system
- (3) Required resources shall be suitably incorporated into the plan. Number and type shall be as per the relevant code, standards and best practices in the industry. This section shall also identify sources of local assistance including telephone numbers and names of contacts for:
  - (a) fire departments
  - (b) police

- (c) municipal and provincial agencies
- (d) hospitals
- (e) doctors
- (f) other relevant company facilities
- (g) mutual aid organizations
- (h) co-operatives
- (i) helicopter and air transport services
- (j) surface transport services
- (k) safety and monitoring equipment suppliers
- (l) spill response and/or cleanup services

(4) Installations shall also determine type of resources such as equipment, personnel, technology, expertise, etc. provided by the respective governments under different conditions.

(5) Check Points for availability of resources-internal/external are given at Check list-6.

#### 18.0 Demographic Information.

ERDMP shall be prepared based on the following information: -

- (a) neighboring population in a 5km radius
- (b) housing colonies of industries
- (c) sensitive institutions such as schools, hospitals, religious establishments and old aged homes, etc.
- (d) cattle and livestock
- (e) flora and fauna

#### 19.0 Medical Facilities.

Details of medical facilities to be provided in the ERDMP as per the following:-

- (a) facilities available at first aid centre
- (b) details of trained persons in first aid in the plant
- (c) facilities available at identified hospitals
- (d) facilities available at other local hospitals
- (e) antidotes and emergency medicines
- (f) details of specialist doctors in the town
- (g) details of hospital in nearby cities

#### 20.0 Evacuation.

(1) Planning and training on evacuation techniques are important in preventing injuries. Evacuation of local communities or people near the site may be prudent depending on the situation and down-wind dispersion information etc. Although this action will normally be initiated and handled by district

authorities, the affected installation shall help to implement such evacuation.

(2) This evacuation plan shall also consider:

- (a) basis for recommending on-site or off-site actions
- (b) authorize person for area or site evacuation
- (c) mode of communication
- (d) training in locating exits from buildings, areas and the site
- (e) location of escape equipment
- (f) provisions for flashlights or other supplemental lighting
- (g) which areas can function as safe area
- (h) moving crosswind from gas or fume releases, etc.
- (i) provision of food and drinking water at assembly point and transfer point.

(3) If evacuation takes place after initial head counts are reported, means for recounting may be necessary. Where it is safe to do so, areas being evacuated should be thoroughly searched to ensure everyone has departed safely. Portable mobile vehicle for announcement should be available in the emergency.

### **21.0 Information to Public.**

- (1) The safety measures to be taken in the event of an emergency shall be made known to the general public who are likely to be affected.
- (2) For the purpose, use of Dos' and Don'ts' shall be prepared and furnished to the Crisis management Group. Display boards carrying do's and don'ts should be located outside the gate as well as in the neighbouring colonies and other habitat areas in the immediate vicinity.

### **22.0 Roles and responsibilities of stakeholders including external agencies.**

- (1) Role and responsibilities of stakeholders including external agencies such as District Authority, police, fire service, revenue department, health department, pollution control board, National Disaster Response Force (NDRF) and State Disaster Response Force (SDRF).
- (2) For roles and responsibilities of above stakeholders and responders, primarily district collector as Head of emergency operation and other authorities under his charge including external agencies, has been defined in **Schedule-V**. These roles and responsibilities are generally in line with National Disaster Management Guidelines on Chemical Disasters, April, 2007, brought out by National Disaster Management Authority.

### 23.0 Reporting of the Incident:

- 1) All incidents covered under Level-I should be maintained by the entity for inspection whenever called for inspection and Level-II and Level-III shall be reported to the Board in the format specified and placed at **Schedule-VI** including near miss incident. The above report should be submitted within 48 hours after occurrence of the incidents or any other reason triggering major incident.
- 2) Investigation report of all major incidents shall be submitted to the Board. An incident shall be treated as Major if any of the following occurs;
  - (a) fire for more than 15 minutes
  - (b) explosion / blowout
  - (c) fatal incident.
  - (d) loss above Rs. 10.0 Lac
  - (e) cumulative man hours lost more than 500 hrs.
  - (f) plant shutdown / outage due to the incident
  - (g) Level-III incident

### 24.0 Action after reporting of incident by the entity

After reporting of the incidents to Board, Nodal officer of the Board (head of Technical Standards the specifications and safety group) shall have responsibility of informing all the Members of the Board and shall coordinate with appropriate level in National Disaster Management Authority (NDMA) till normalization of the situation.

### 25.0 Termination of emergency

- (1) Termination activities should concentrate on giving accurate information to people who need it most especially employees, neighbourhood, District Authorities engaged in offsite emergencies, and should begin as soon as the emergency phase of the operation is completed.
- (2) The termination of emergency shall be declared through siren as per the Siren Code defined by industry in case of Level- I and II. For Level-III termination of emergency shall be declared by District Authority through appropriate mode of information transfer so as to reach each and everyone

### 26.0 Emergency Recovery Procedures

- (1) After the emergency, the following activities need to be carried out in detail.
  - a) information to statutory authorities.
  - b) incident investigation.
  - c) damage assessment.
  - d) salvage of products, de-contamination, clean-up and restoration.

- e) a detailed report shall be prepared based on the entire experience of the incident, including restorations, limitations and lessons learnt.
- f) ambient air monitoring at the site as well as 5 km radius of the installation by State Pollution Control Board to determine the contamination level affecting health.

(2) Check points on ERDMP recovery measures as given at Check list-7.

### 27.0 ERDMP for pipelines carrying petroleum products and retail outlets

- 1) ERDMP for pipelines carrying petroleum products should follow modern methods of surveillance of Pipeline and take guidance from all the aspects of Disaster Management Plan mentioned in the ERDMP. **Schedule-VII** should be referred, which is in line with Chemical Disaster by National Disaster Management Authority.
- 2) ERDMP for retail outlets should take care of all aspects mentioned in ERDMP and **shall** also refer to OISD STD- 225.

### 28.0 ERDMP for road transportation.

The road transport of Petroleum product has significant presence and needs special attention. Complete details of treatment for handling emergency arising out of road transportations have been provided below:

#### 28.1 Resource mobilisation for road transport emergency

Resource mobilisation for road transport emergency shall be as per the **Schedule-VIII**.

- (a) In order to handle Emergencies, which may arise due to incident involving Petroleum Product Transportation, it is required that a comprehensive Emergency Management Plan is readily available with the industry as well as with other related authorities all along the routes. The ERDMP should be clearly understood by its users so that the emergencies can be handled in a systematic manner with minimum response time in accordance with the prescribed procedure.
- (b) Copies of the ERDMP shall be made available by the Industry to all the field locations i.e. Installations, POL Depots, Terminals / Installations, Refineries, Gas Processing Plants, Dispatch units of etc., the concerned District Administration, Police Stations and Fire Brigades en-route and within vicinity of specified tank truck routes, oil industry sales personnel of concerned area as may be required.
- (c) Location specific availability of Emergency Response Vehicle shall be mentioned in the ERDMP.

#### 28.2 TREM Card (Specific to Road Transportation)

TREM Card format including sample as per details shown in **Schedule-IX** and Route Map shall be provided to the Tank Truck Crew which should

be referred in case of an emergency.

### 28.3 Role of External Agencies for road transportation emergency

It is expected that the following roles shall be performed by various agencies:

#### 28.3.1 Fire Brigade

On receipt of information from any source on incident of tank truck, fire brigade may contact nearest installation and police station. After assessing the situation, it may:

- (a) rush fire tender to the incident site with all necessary fire fighting equipments;
- (b) prepare a contingency plan for removal of tank truck, if not leaking, in consultation with installation personnel;
- (c) dispersal of vapours by water spray away from inhabited area, in case of leakage. Extinguish the fire, in case leakage source cannot be stopped;
- (d) allow the fire to burn under controlled conditions if isolation is not possible in case of gaseous fuels;
- (e) save human lives and salvage material from incident affected truck;
- (f) liaise with fire brigade in the adjoining town for additional help, if necessary;
- (g) arrange water through muni
- (h) cipal water tanker or any other source;

In addition to the above, the Schedule-V shall be followed.

#### 28.3.2 Role of Police

On receipt of information, police may take the following actions as per Schedule-V derived from the National Disaster Management Guidelines Chemical Disasters (Industrial), April, 2007. However, the following points may also be taken care by the police authority:

- (a) stop the traffic from both ends of the road.
- (b) warn the people living in adjacent area for stopping all fire, smoking, evacuation to safe places, if necessary.
- (c) contact nearest district police headquarters and giving the situation report.
- (d) evacuate personnel from the area, if required.
- (e) extend help in removal of injured personnel to the nearest first-aid centre /hospital, contacting highway patrol, completing legal formalities in case of any casualty.

In addition to the above, the shall be followed

### 28.3.3 District Administration

On receipt of information, District Administration may take the following actions as per Schedule-V derived from the National Disaster Management Guidelines Chemical Disasters (Industrial), April, 2007. However, On receipt of information, following actions should be taken care :-

- (a) to keep watch on the overall situation.
- (b) rush ambulance to the incident site if casualties are reported.
- (c) direct cranes or any other such equipment to carry out rescue operations.
- (d) issue warning messages to people through public address system, if any evacuation is required.
- (e) arrange emergency vehicles for evacuation purposes.
- (f) give direction to hospitals having burns injury ward for readiness to receive patient in case of incident involving fire.
- (g) provide basic amenities, e.g., water, electricity, food and shelter to the affected people as required.

In addition to the above, the Schedule-V shall be followed.

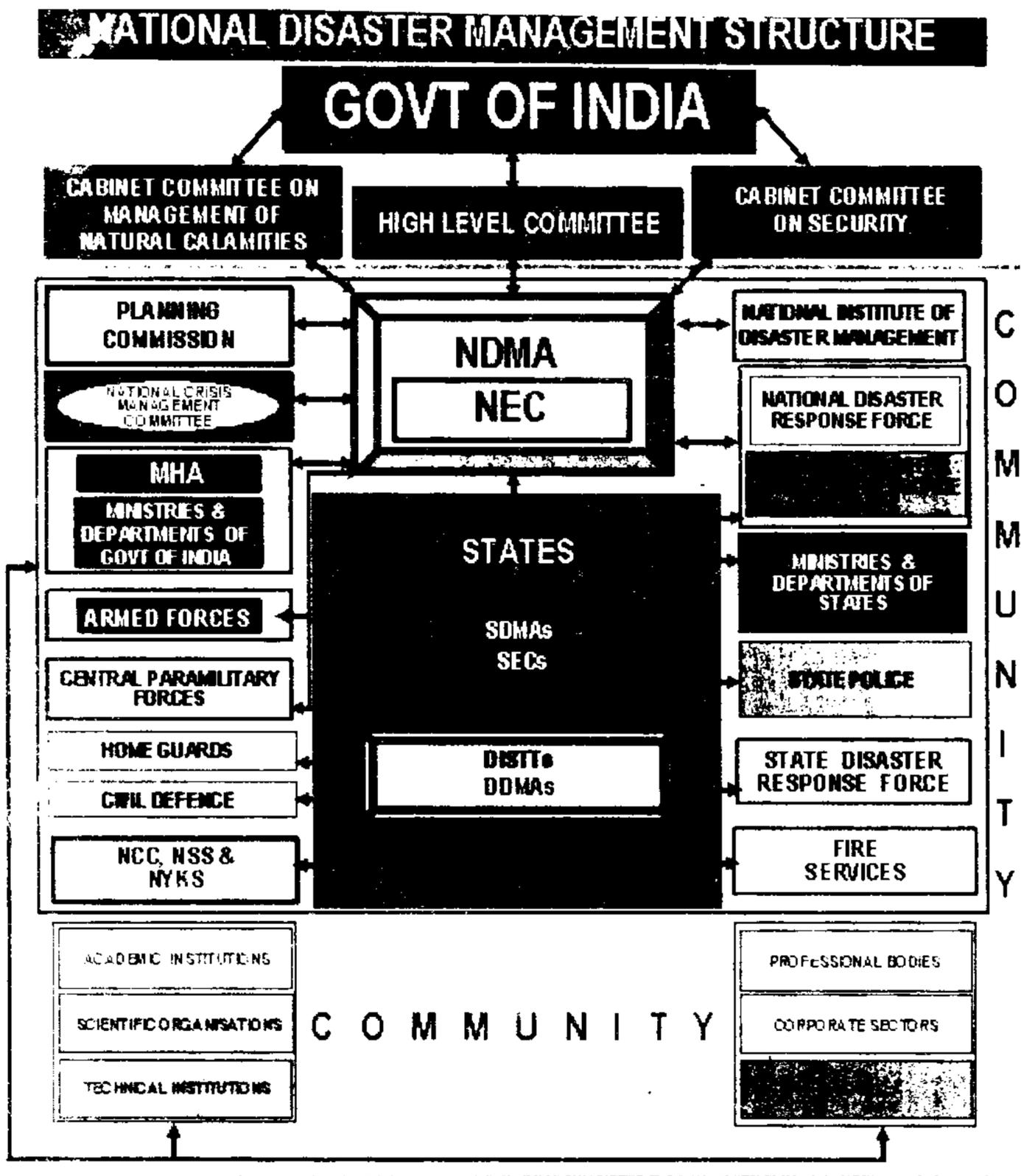
## 29.0 Integration of the ERDMP with the NATIONAL DISASTER MANAGEMENT PLAN (NDMP)

### 29.1 NATIONAL DISASTER MANAGEMENT PLAN (NDMP)

- (1) On 23 December 2005, the Government of India took a definite step towards NDMP by enacting the NDMP ACT, 2005. The NDMP Act, 2005 is a Paradigm Shift from a response and relief-centric approach to a proactive and comprehensive mindset towards NDMP covering all aspects from prevention, mitigation, preparedness to rehabilitation, reconstruction and recovery.
- (2) Similar to National Authority at the Centre, the State Government is to establish a State Disaster Management Authority for the State. The State Authority is to be headed by the Chief Minister of the State as the Chairperson. Every State Government, in turn, is to establish a District Disaster Management Authority for every district in the State with the District Collector as the Chairperson.
- (3) The Central Government is empowered to take further measures as it deems fit for the purpose of disaster management like deployment of naval, military and air forces, other armed forces of the Union or any other civilian personnel as may be required for the purposes of this NDMP Act. Government of India is empowered to establish institutions for

research, training, and developmental programmes in the field of disaster management as per this Act.

- (4) The national vision is to build a safer and disaster resilient India by developing a holistic, proactive, multi-disaster and technology driven strategy for NDMP. This will be achieved through a culture of prevention, mitigation and preparedness to reduce the impact of disasters on people. The entire process will centre stage the community and will be provided momentum and sustenance through the collective efforts of all government agencies supported by Non-Governmental Organisations (NGOs).
- (5) National Disaster management Structure showing the interactive linkage among various agencies for synergised management of disaster is given below;



Notes: 1. This diagram reflects interactive linkages for synergised management of disasters and not a hierarchical structure.

2. Backward and forward linkages, especially at the functional level, are with a view to optimise efficiency.
3. Participation of the Community is a crucial factor.

**Note:** Since PNGRB has been constituted by PNGRB Act, 2006, it should be identified under Ministries / Departments of Govt. of India.

### **Abbreviations for NDMA:**

NDMA	:	National Disaster Management Authority
NEC	:	National Executive Committee
DM	:	Disaster Management
NCC	:	National Cadet Corps
NCDM	:	National Committee on Disaster Management
NDMRCs	:	National Disaster Mitigation Resource Centres
NDRF	:	National Disaster Response Force
NSS	:	National Service Scheme
NYK	:	Nehru Yuva Kendra
NGOs	:	Non-Governmental Organisations
SDMA	:	State Disaster Management Authority
SEC	:	State Executive Committee
DDMA	:	District Disaster Management Authority

### **29.2 Integration of ERDMP with NDMP**

This ERDMP document has been developed taking into account all possible inputs on the subjects from various stake holders. Efforts have also been made to synergize this with the document on National Disaster Management Guide (Chemical Disasters) Industrial brought out by National Disaster Management Authority.

### **29.0 Security Threat Plan**

- (1) With increase in terrorist activities towards the end of 20<sup>th</sup> century and installations having, significant role in national economy, sabotage and bomb threats to such installation should also be considered in the disaster management plan. Such as high level of alertness measures, strengthening security measures by security gadgets mechanical and electronic security gadgets. In any of such situation, city police/ administration should be informed immediately and their help should be sought.
- (2) Emergency Action in case of Bomb Threat :
  - (a) The persons inside the Plant should be evacuated as soon as possible.
  - (b) All the vehicles in the plant premises should be evacuated to safer places.
  - (c) Plant personnel should contact district authorities immediately.
  - (d) Any new or doubtful thing should not be touched.

- (e) All pipeline and tank valves should be closed and all the operations inside the Bottling Plant should be stopped.
- (f) In case of fire, firefighting equipments shall be operated and city fire brigade should be called immediately during emergency.

Note: A detailed action plan on bomb threat to be prepared by each installation and should be vetted by the Police Authority specialist in this area under information to PNGRB.

### 30.0 Miscellaneous.

- (1) Whenever any deviation from this code of practices is required to be implemented, the entity shall seek approval of the Board with mitigation measures proposed to be carried out giving full details and justification for such deviation within 1 month from the date of notification of these regulations.
- (2) If any dispute arises with regards to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final. Further, the Board may at any time effect appropriate modifications in these regulations.

### **SCHEDULE - I** (refer regulation 7)

#### **Schedule of implementation of Code of Practice for ERDMP**

S. No.	Activity	Implementation Time (from the notification date of Codes of Practices for ERDMP)
1.	On-site Emergency Plan	3 months
2.	Off-site Emergency Plan(submission of information to District Authority)	3 months
3.	Resources in position	6 months *
4.	Accredited Third Party Certification of ERDMP	1 year
5.	Testing and Mock Drills (On-site)	3 months
6.	Testing and Mock Drills (Off-site)	** 12 months

Note: A copy of ERDMP, duly approved by the Board of Directors of the organisations shall be submitted to the PNGRB.

\* Long Delivery Items should be tied up with mutual aid organizations upto 12 months.

\*\* To be coordinated with District Authority.

**Schedule – II**  
(Refer regulation 9(1))

**List of Relevant Statutes on Management of Hazardous Substances**

- The Environment (Protection) Act, 1986 (amended 1991) and following Rules thereunder:
  - The Environment (Protection) Rules, 1986 (amended 2004).
  - The Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 (amended, 1994 and 2004).
  - The Hazardous Wastes (Management and Handling) Rules, 1989 (amended 2000 and 2003).
  - The Environment Prior Clearance Notification, 2006.
  - The Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.
  - Bio-medical Wastes (Management and Handling) Rules, 1989.
  
- The Factories Act, 1948 (amended 1987).
  - State Factory Rules.
  
- The Inflammable Substances Act, 1952.
  
- The Motor Vehicles Act, 1988 (amended 2001).
  - The Central Motor Vehicles Rules, 1989 (amended 2005).
  - The Public Liability Insurance Rules, 1991 (amended 1992).
  - The Public Liability Insurance Rules, 1991 (amended 1993).
  
- The Petroleum Act, 1934.
  - The Petroleum Rules, 2002.
  
- The Insecticide Rules, 1968 (amended 2000).
  - The Insecticide Rules, 1971 (amended 1999).
  
- The National Environment Tribunal Act, 1995.
  
- The Explosives Act, 1884 (amended till 1983).
  - The Gas Cylinder Rules, 2004,
  - The Static and Mobile Pressure Vessels (Unfired) Rules, 1981 (amended 2002).
  - The Explosives Rules, 1983 (amended 2002).

**SCHEDULE – III**(Refer regulation 11.1)**Basic Requirements of ERDMP**

1. Location Plan of the Installation indicating siting of the installation at neighbouring details up to a distance of 2 kms from the installation in each direction.
2. Site plan of the installation showing a complete layout of the installation indicating boundary walls, exit and entry gates and location of various facilities.
3. Layout of Fire Water Systems and Fire Fighting Equipment details.
4. Line block diagram of manufacturing process and Process Flow Diagram (PFD) of each unit.
5. Material Safety Data Sheet (MSDS) for all hazardous chemicals stored, handled, produced and transported in the installation. (Sample MSDS at Annexure-1)
6. Internal and External Emergency contact numbers and addresses of police, fire station, hospitals, mutual aid industry, factory inspectors, Board, State Pollution Control Board, Petroleum and Explosive Safety Organization (PESO), etc.
7. Pipeline route map and details of various facilities such as sectionalising Valve (SV), intermediate Pigging (IP) stations, intermediate pumping stations (IPS) across pipeline route
8. Addresses and Telephone Directory of Technical Support Services such as Environmental Laboratories, fire fighting chemical suppliers, public and private consultant associated with emergency handling and Aviation Medical Services, if any.
9. Security threat plan.

**SCHEDULE – IV**(Refer regulation 11.2)**Resource Mobilisation (Men and Equipment)**

Sl. #	Total Requirement	Available with Installation	Neighbouring Units	Civil Authorities
1	<b>MANPOWER</b>			
	Regular employees - shiftwise			
	Security staff			
	Personnel Trained in first aid			
	Others ( Technicians / Helpers )			
2	<b>FIRE FIGHTING APPLIANCES/ EQUIPMENT/ CHEMICALS</b>			
	Fire Tenders/ Fire fighting engines			
	Water storage capacity			
	Fire Hoses			
	Jet/Fog/Spray Nozzles			

	Foam Branch			
	Jumbo Jet Nozzles			
	Foam Compound ( KL )			
<b>3</b>	<b>SAFETY EQUIPMENTS</b>			
	PVC Suit			
	Compressed air B.A. Set			
	Refill Cylinders for B.A. Set			
	Cascade B.A Set			
	Fire Proximity Suit			
<b>4</b>	<b>COMMUNICATION</b>			
	Walkie-Talkie			
	Public Address System			
	Megaphone			
<b>5</b>	<b>TRANSPORT</b>			
	Jeeps			
	Cars			
	Ambulance			
	Trucks			
	Buses			
	Tractors			
	Boats			
	Mobile Cranes			
<b>6</b>	<b>MISCELLANEOUS</b>			
	Ropes ( Metres )			
	Empty drums			
	Buckets			
	Sand bags			
	Dewatering pump			
	Pneumatic pump			
	Photo Camera			
	Video Camera			
<b>7</b>	<b>EQUIPMENTS FOR CORPS DISPOSAL</b>			
	Light Metal Stretchers			
	Tarpauline 12' X 12"			
	Rope fibre 3/8"			
	Bucket			
	Rubber gloves			
<b>8</b>	<b>LIST OF EMERGENCY DRUGS and APPLIANCES</b>			
	Canvas Stretcher			
	Oxygen Cylinder			
	Sterlite Bandages			
	Cotton Sterilised			
	Antibiotics			
	Analgesties			
	Sedatives			
	Tetanus Toxoid			
	Dressing Instruments			
	Sterilisers			

Autoclave for sterilising Instruments, dressing			
B.P. Apparatus			
Suction Apparatus			
I.V.Set			
Antishock drugs			
Gluco Saline Set			
Gluco Saline Bottle			

### Schedule – V

(Refer Regulation 22.0)

### The important Roles and Responsibilities of Various Stakeholders

a) Oil and Gas Installations and Areas (Mentioned in Regulation 3).

The above mentioned Installation in Regulation 3 should provide necessary information to Mutual Aid Association, District Authority, Police and Fire Services.

- i) List of Hazardous Chemical and Systems which have potential to cause danger to Human, Environment and Property.
- ii) On-Site Emergency Plan and Periodic Mock Drill.

The above entities should support authorities in mitigation, rescue and rehabilitation, with resources identified and agreed with the authorities in advance. Such areas shall be included in Off-Site Emergency Plans.

b) **The district authority** is responsible for the Off-Site emergency plan and it shall be equipped with up-to-date Major Accident Hazard units, website, control room etc., with provisions for monitoring the level of preparedness at all times. Regular meetings of various stakeholders of Chemical Disaster Management will be conducted by district administration/District Disaster Management Authority to review the preparedness of Chemical Disaster Management.

c) **The police** will be an important component of all disaster management plans as they will be associated with investigation of incident s/disasters. Police take overall charge of the Off-Site situation until the arrival of the district collector or its representative at the scene.

- d) The **fire services** are one of the first responders and shall be adequately trained and equipped to handle chemical emergencies. Fire services are to acquire a thorough knowledge of likely hazards at the incident site and the emergency control measures required to contain it.
- e) In a chemical emergency, the **revenue department** shall coordinate with other agencies for evacuation, establishment of shelters and provision of food, etc.
- f) When required for evacuation purposes in a chemical emergency, the **department of transport** should make transport promptly available.
- g) The role of **civil society and private sector** in the Off-Site plan shall be defined.
- h) **The health department** needs to assure that all victims get immediate medical attention on the site as well as at the hospitals/health-care facility where they are shifted. In addition, the department needs to network all the health-care facilities available in the vicinity for effective management and also take effective measures to prevent the occurrence of any epidemic.
- i) **Pollution control boards** need to ascertain the developing severity of the emergency in accordance with responsive measures by constant monitoring of the environment. If and when an area is fit for entry will depend upon the results of the monitoring. A decontamination operation would be required to be carried out with the help of other agencies and industries.
- j) **The NDRF and SDRF** are the specialised forces to manage these disasters in a longer run according to the severity and nature of the disaster. Their specialised training is an effective measure that needs to be built up and maintained with time for achieving a higher standard of preparedness. They need to coordinate with other local agencies such as the Central Industrial Security Force that may be responsible for security at the industrial site.

*\* Role of above External Agencies have been defined in Annexure – E of National Disaster Management Guidelines Chemical Disasters, April, 2007*

NDRF: National Disaster Response Force  
SDRF: State Disaster Response Force

**SCHEDULE - VI**  
**(Refer Regulation 23.0)**

**INCIDENT REPORTING FORMAT**

1. Organisation		2. Sector	
3. Location		4. Incident Sr. No.	
5. Date of Incident		6. Time of Incident	
7. Major / Minor / Near miss		8. Report - Preliminary / Final	
9. Fire / Incident		10. Duration of fire - Hrs / Min	
11. Type of Incident with loss of life / injury, Fire, Explosion, Blowout, Electrocutation, Fall from Height, Inhalation of Gas, Driving, Slip / Trip, Others, NA			
12. Location of Incident ( Name of Plant / Unit / Area / Facility / Tank farm / Gantry / Road / Parking area etc )			
13. Whether plant shutdown / caused outage of the facility? Yes / No			
14. Fatalities nos.	a) Employees =	b) Contractor =	c) Others =
15. Injuries nos.	a) Employees =	b) Contractor =	c) Others =
16. Man - hours Lost	a) Employees =	b) Contractor =	c) Others =
17. Direct Loss due to the incident ( Rs. In Lacs ). Loss to equipment / Machinery as per Insurance claim etc.			
18. Indirect Losses : Through put / Production Loss, etc.			
19. Status of the Facility : Construction / Commissioning / Operation / Shutting down / Turn around, Maintenance / Start up / Any other.			
20. Brief Description of the Incident including post incident measures. ( Attach details in separate sheet )			
21. Whether similar Incident has occurred in past at the same location, If yes, give brief description of the incident and attach details in separate sheet.			
22. Whether Internal Investigation has been completed. If no, likely date by which it will be completed.			
23. Whether internal investigation report ( Major Incident ) has been submitted to PNGRB. If no, likely date by which it will be submitted.			
24. Cause of the Incident ( Tick the most relevant cause preferably one, maximum two )			
A) Deviation from Procedure		I) Not using the PPE	
B) Lack of Job Knowledge		J) Equipment failure	
C) Lack of supervision		K) Poor design / Layout etc.	
D) Improper Inspection		L) Inadequate facility	
E) Improper Maintenance. ( Mech. / Elec. / Inst )		M) Poor House Keeping	
F) Improper material handling		N) Natural Calamity	
G) Negligent Driving		O) Pilferage / Sabotage	
H) Careless walking / climbing etc.		P) Any other (give details)	
25. Cause of leakage - Oil, Gas or Chemical ( Tick one only )			
A) Weld leak from equipment / lines		E) Leakage due to improper operation	
B) Leak from flange, gland etc.		F) Leak due to improper	

		maintenance
C) Leak from rotary equipment		G) Normal operation - Venting / draining
D) Metallurgical failure		H) Any other
26. Cause of Ignition leading to fire ( Tick only one cause )		
A) Near to hot work		F) Static Electricity
B) Near to Furnace / Flare etc.		G) Hammering / Fall of object
C) Auto - ignition		H) Heat due to Friction
D) Loose electrical connection		I) Lightning
E) Near to hot surface		J) Any other ( pyrophoric etc )
27. Was the incident Avoidable?		( Yes / No )
28. The incident could have been avoided by the use of / or by ; ( Tick the most relevant point preferably one, maximum two )		
A) Better supervision		F) Personal Protective Equipment
B) Adhering to specified operating procedure		G) Better equipment
C) Imparting Training		H) Management Control
D) Giving adequate time to do the activity through proper planning.		I) Adhering to specified maintenance procedure
E) Adhering to the work permit system		J) Adhering to specified Inspection / Testing procedures.
K) Any other information;		

**Guidelines for filling the Incident Report:**

- All Major, Minor and Near miss incidents shall be reported in the quarterly report.
- Incident Reporting form shall be filled up for all Major, Minor and Near miss Incidents.
- Summary report shall be enclosed with every quarterly report.
- Investigations shall be carried out for all Major, Minor and Near miss Incidents.
- Investigation report of all Major incidents shall be submitted to PNGRB. An incident shall be treated as Major if any of the following occurs;
  - Fire for more than 15 minutes
  - Explosion / Blowout
  - Fatal Incident.
  - Loss above Rs. 5.0 Lac.
  - Cumulative man hours lost more than 500 hrs.
  - Plant Shutdown / Outage due to the incident
- Loss time Incident shall be monitored till the affected person joins duty. In case the affected person is yet to join the duty, then the status of report submitted will be preliminary. Final report against the same incident shall be sent once he joins duty and the man - hours lost are known.
- All columns must be filled up.
- For any additional information use separate sheets as required.
- Quarterly report shall be sent to PNGRB within 15 to 30 days of end of quarter.
- Immediate reporting of incident through fax/telephone shall continue as per the prevailing system.

Signature  
Name  
Designation of the Occupier/Manager

**Schedule -VII**

(Refer Regulation 27.0)

**ERDMP for pipelines carrying petroleum products**

Pipelines are assuming importance as a means of transport of hazardous substances. Crude oil, its derivatives and natural gas are among the main substances transported by pipelines.

The Guidelines, therefore, comprise:

- i) Creation and maintaining an administrative framework to facilitate the development of a safe and environmentally sound transportation infrastructure, including pipelines for hazardous substances.
- ii) The pipeline operator has the primary responsibility for the safety of the systems and for taking measures to prevent incidents and to limit their consequences for human health and the environment.
- iii) Pipelines for the transport of hazardous substances will be designed and operated so as to prevent any uncontrolled release into the environment.
- iv) Risk assessment methods should be used in evaluating pipeline integrity and impact on human health and the environment.
- v) Land-use planning considerations will be taken into account both in the routing of new pipelines (e.g. to limit proximity to populated areas and water catchment areas to the extent possible), and in decisions concerning proposals for new developments/building in the vicinity of existing pipelines.
- vi) Pipeline operators and the authorities responsible for pipelines shall review and, if necessary, develop and implement systems to reduce third-party interference, which is a cause of incident including their effects.
- vii) National legislation shall be clear, enforceable and consistent to facilitate safe transport and international cooperation.
- viii) Competent authorities should ensure that pipeline operators:
  - (a) Draw up emergency plans.
  - (b) Provide the authorities designated for that purpose with the necessary information to enable them to draw up Off-Site emergency plans.
  - (c) Emergency plans shall be coordinated between pipeline operators and competent authorities, as well as with fire brigades and other disaster control units.

- ix) Pipelines shall be designed, constructed and operated in accordance with recognised national and international codes, standards and guidelines, notified by the Board.
- x) Consideration will be given to the impact on the safety of a pipeline such as design and stress factors, quality of material, wall thickness, and depth of burial, external impact protection, markings, route selection and monitoring.
- xi) The safety of the pipelines shall be demonstrated through a suitable risk assessment procedure including the worst case scenario and including breakdowns and external additional loads.
- xii) The pipeline operator shall draw up a Pipeline Management System (PMS) to ensure that it is properly implemented. The PMS shall be designed to guarantee a high level of protection of human health and the environment. The following issues shall be addressed by the safety management system.
  - (a) The pipeline will be inspected and maintained regularly. Only reliable trained staff or qualified contractors may carry out maintenance work on a pipeline. Third party conformatory assessment bodies should inspect the pipeline at regular intervals as far as required by the Board. These inspections are to cover in particular the proper condition of the pipeline and the functioning of the equipment ensuring pipeline safety.
  - (b) Organization ability, roles and responsibilities, identification and evaluation of hazards, operational control, and management of change, planning for emergencies, monitoring performance, audit and review shall be duly addressed in the Pipeline Management System.

### SCHEDULE -VIII

(Refer Regulation -28.1)

#### **Resource Mobilisation for Road Transportation Emergencies**

##### **A. In-Plant Resources**

Following items should be available at the Plant in adequate quantity / nos.

##### **Mechanical Equipment:**

1. Gaskets (Carbon Asbestos Filled)
2. Studs and bolts.
3. Teflon tapes.
4. 1/2" / 3/4" crowbar (1 m long)
5. Spade / blind flange
6. Rope (Manila / Jute)
7. Spark arrestors.
8. 1" tapered wooden pegs.
9. Chopper

10. Spare fan belt for tank lorry with P.T.O. unit
11. Wind sock
12. M-Seal / epoxy-base cold-welding compound.
13. Wooden slippers
14. Teflon-taped spanners, wrenches
15. Spark-proof wrenches, hammer and tools.
16. Barricading masts and ropes / tapes
17. hoses
18. Chain pulley blocks and stay pipes
19. Small valve keys for operating valves in the tank truck

**Electrical Equipment :**

1. Gas Explosi-meter
2. Flame-proof torches
3. Earthing wires (10 m long) with crocodile clips

**Personnel Protective Equipment :**

1. Gloves:
  - i) Rubber gloves
  - ii) Low Temperature Gloves
  - iii) Industrial gloves (with leather lining)
  - iv) Canvas gloves
2. Face shields
3. Ear muff / ear plugs

**SCHEDULE -VIII (contd..)**

**Other Safety Items:**

1. 1 roll of gunny / hessian cloth (about 10 mts. long)
2. First aid box (containing water gel compounds)
3. Soap
4. Blanket.
5. Water Gel Blanket
6. Breathing Apparatus (With spare filled cylinder and Canister gas masks)
7. Fire proximity suit

**Fire Fighting Equipment :**

1. Portable Dry Chemical Powder Fire Extinguishers
2. Fire-water Hoses
3. Triple Purpose diffuser nozzle for use with fire hoses.

**Communication Equipment :**

1. Hand operated sirens
2. Whistles
3. Megaphone, Mobile Phones, VHF sets.

**Traffic Control Equipment :**

1. Red lights (Battery operated) - for traffic diversion
2. Area maps
3. Diversion Boards

**SCHEDULE - VIII (contd...)****B. External Resources:**

Particulars	Name	Address	Ph. No.	Any Other Info.
1. Fire Station				
2. Ambulance				
3. Hospitals				
4. Police Station				
5. Drug Stores				
6. District Administration / Collector				
7. Availability of Cranes				
8. Local PWD / CPWD water supplies, sand, morum, vehicles etc.				
9. Local Army, Navy, Air Force authorities				
10. Any major industry nearby				

**C. Identification of Communication Resources:**

Particulars	Name	Address	Ph. No.	Any Other Info.
1. Public Address System				
2. Retail Outlets				
3. Railway Station				
4. Power Houses				
5. Civil Authorities				
6. Voluntary Agencies				
7. Local All India Radio / Doordarshan/ other channels				

215 GI/10-14

**SCHEDULE – IX**  
**(Refer Regulation 28.2)**

**Transport Emergency Card Format**

Nature of Hazard :

Protective Devices :

Emergency Action

Spillage

Fire

First Aid

Chemical Abstract Service (CAS). No

(for universal acceptance of material, both number should be  
mentioned on TREM Card)

Emergency Telephone Numbers/mobile numbers

Name and contact numbers of the control room/contact person of the  
supplying company

Name and contact numbers of the control room/contact person of the  
receiving company

Name and contact numbers of Transporter

Other important Name and contact numbers of civic authorities, fire and police

Note: The format shall be designed in English, Hindi and local language where crews are operating.

**SCHEDULE -IX (contd...)****SAMPLE TRANSPORT EMERGENCY CARD FORMAT****Cargo: Liquefied Petroleum Gas (LPG)**

Nature of Hazard : Highly volatile and Inflammable.  
 Can cause Cold Burns.  
 Inhaling vapour can cause nausea, breathlessness and headache.  
 Air / vapour mixture highly explosive.  
 Leakage of LPG can cause Vapour Cloud explosion and BLEVE.

Protective Devices : Hand gloves (Rubber / low temperature)  
 Safety Goggles  
 Self-contained Respiratory device to work in vapour-rich area.  
 Low temperature / fire proximity suit.

**Emergency Action**

Try to move the vehicle to open area.  
 Stop Engine.  
 Vehicle should not be left unguarded.  
 Contact Police, Fire Brigade, Sarpanch, nearest oil company by sending helper / passer by.  
 Keep public and traffic away by displaying 'Danger Boards' at sufficient distance.  
 "No Smoking" and "No Naked Lights" within the cordoned off area.  
 Keep ready for action Fire Extinguishers and Safety Kit.  
 Stay Upwind.

**Spillage**

Check the valves and caps for tightness by hand and stop leak if possible

**Fire**

If minor, try to extinguish by DCP fire extinguishers

**First Aid**

Pour water in case of cold or hot burn  
 Seek medical help, if necessary

**Emergency Telephone Numbers/mobile numbers**

IOC _____	HPC _____
BPC _____	IBP _____
FIRE 101 _____	POLICE 100 _____

**CHECK LIST-1**  
**(Refer Regulation 10.1 (d))**

**Emergency Response and Disaster Management Plan (ERDMP)**

**Hazard Identification**

<b><u>Hazard Analysis and Risk Assessment</u></b>		
1	Which of the following procedures or techniques for hazard identification has been used in the terminal/ installation : 1) HAZOP/HAZAN 2) Incident Consequences and Analysis 3) Event Tree Analysis 4) Fault Tree Analysis 5) Failure Modes, Effects and Criticality Analysis 6) Risk Assessment 7) What if, analysis 8) Other accredited practice	1. <input type="checkbox"/> 2. <input type="checkbox"/> 3. <input type="checkbox"/> 4. <input type="checkbox"/> 5. <input type="checkbox"/> 6. <input type="checkbox"/> 7. <input type="checkbox"/> 8. <input type="checkbox"/>
<b><u>Hazard Identification :</u></b>		
2	Is the terminal / installation covered under the definition of "Major Incident Hazard Installation" as per the Manufacture Storage and Import of Hazardous Chemicals Rules 1989 (Amended 1994 and 2004). If yes, please specify the site notification and safety reports	
3	If yes, whether major Incident hazards identified and steps taken for their prevention	
4	Whether design deficiencies, failures or errors which can contribute to hazards and cause abnormalities leading to an Incident are identified	
5	What are the measures undertaken to counter above deficiencies or, errors	
6	Consequences of a major Incident on the workers, people in the neighbourhood and the environment are considered	
7	Steps envisaged for mitigation of the consequences of such incident	
8	Does the installation produce / handle / use / import / store any hazardous chemicals as defined under MSIHC Rules 1989 (Amended 1994 and 2004)	
9	If yes, whether a list of these chemicals, preferably in alphabetical order with their maximum licensed storage quantities is displayed	
10	Are material safety data sheets (MSDS) of these chemicals are prepared / obtained in the prescribed format as per MSIHC Rules and State Factory Rules	
11	Whether a system for disseminating information about these MSDS to concerned workers are existing	
12	Are there a system of labeling of containers / storage tanks for the chemicals / hazardous substances	
13	Whether estimation of maximum possible quantity of each hazardous substance are considered including any vehicle (TT/TW) on site or within 500 mtrs of the site.	

**CHECK LIST-1 (contd..)**

14	Whether location, configuration and condition under which the hazardous substances are stored and handled are clearly declared	
	<u>Vulnerability Analysis :</u>	
15	Whether zones of influence or vulnerable zones are estimated by considering the maximum single storage of hazardous substance and maximum loss scenario	
16	Whether effects of influence on the vulnerable zones are made after considering the population, facilities and environment encompassed inside that zone	
	<u>Risk Analysis :</u>	
17	Whether a relative measure of the probability and consequences of various possible hazardous events including worst case scenario are taken into account	
18	Whether risks are calculated by multiplying the probability of occurrence of each event by the consequences of that event and then summing up the results.	
19	Whether all types of events possible in petroleum installations are considered including i) storage tanks on fire, ii) pool fire [burning pool of liquid fuel], iii) Flange joint leakage in pipelines, iv) Fire in TT or TW gantry, and v) rupture of hoses.	
	<u>Risk Reduction Measures :</u>	
20	Whether measures for reduction of identified high risks are included by reducing the consequences through hazard mitigation measures	
21	Whether steps have been considered to reduce risks to the exposed population by increasing safe distances by acquiring property around the facility, if possible	
	<u>HAZOP Study</u>	
22	Whether the above method is applied if the location handles more than specified storage and / or critical operations	
23	Whether the study systematically identifies all possible deviations from normal operations	
24	Whether risk levels are established for each deviation after considering the probability and consequences of each such events	
25	Whether potential means for detection of such events and preventive measures are recommended by the study	

**CHECK LIST-2****(Refer Regulation 11.3 (xii))****Incident Prevention Measures**

1	Whether Safety, Health and Environment Policy of the location is displayed	
2	Whether the Safety Policy is documented and duly approved by the top management	
3	Whether the Safety Policy is well structured to cover all elements of Safety, Health and Environment protection	
4	Whether the layout is convenient from operation and safety aspects and meets minimum distance norms as per OISD-118	
5	Whether a duly constituted Safety Committee is functioning in the location with representation from workmen/staff	
8	Whether all unsafe developments and likely risks are deliberated in the meetings and appropriate steps are recommended for eliminating such risks	
9	Whether compliance status of recommendations of earlier Safety Committee meetings are discussed before taking up new issues.	
10	Whether performance and shortcomings observed during recent mock disaster drills form part of the discussions in safety committee meetings	
11	Is the safety committee minutes are recorded and signed by all the attending members	
13	Whether periodical safety audits and inspections by internal and external audit teams are conducted in defined intervals	
14	Whether a system of regular monitoring of such audit compliances by controlling offices / HO are in place	
15	What is the composition of external audit teams to ensure impartiality of audit findings	
16	Whether Work Permit System in line with OISD-105 have been implemented	
17	Whether work permits are issued for hot work, cold work, electrical work and vessel entry jobs	
18	Whether the location-in-charge or his authorized nominee remain the issuer for all hot work and vessel entry permits for enhanced safety and control.	
19	Whether work permits are duly closed at completion of the stipulated jobs, duly certified by the supervising officer	
20	Whether heat detectors in tank sprinkler systems, high level alarms of tank farm management system are provided and checked for regular functioning	
21	Whether in-built safety interlocks provided in the design of the terminal are adequately specified and checked for regular functioning	

**CHECK LIST-3**

[Refer Regulation 12.1(i)]

**MUTUAL AID / MOCK DRILLS**

		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Remarks
1	Whether mock fire / emergency response drills are held			
2	If yes, periodicity of emergency response drills			
3	Mock drills cover all types of probable emergencies			
4	Does the location have Mutual Aid Plan			
5	If yes, the details of other members including names and contact nos. of concerned officials			
6	List of fire fighting equipments available with each Mutual Aid members including District Fire Service			
7	Compatibility of safety equipment of all Mutual Aid members including District Fire Services with said location has been tested and documented in the DMP			
8	Details of water storage available with Mutual Aid member including District Fire Service and mechanism to utilize the same in the said location well documented in the DMP			
9	Details of fire fighting foams concentrate/chemicals available with Mutual Aid members including nearest Fire Service has been incorporated			
10	Details of lead time for response of Mutual Aid members including District Fire Service has been documented in the DMP			
11	Periodicity of safety training for officers, staff, contractor workers, IT crew and security personnel mentioned in the ERDMP.			
12	<b><u>Mutual Aid Plans</u></b> Does the location have established Mutual Aid Plans			
13	Which are the Mutual Aid Team members and the assistance offered			
14	Does the plan clearly indicate types of possible hazards and fire fighting measures required.			
15	Does the plan include expected assistance from each members			
16	Does the Plan spell out the communication protocol and the channels in times of emergency			
17	Periodic joint exercise and meetings for practice, familiarization and identifying and resolving compatibility issues.			

**CHECK LIST-4****(Refer Regulation 13.0)****ERDMP Response Measures/Infrastructure**

		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Remarks
	<u>Zones, maps and layouts</u>			
1	Does the Location have Emergency Zones clearly identified for Incident prone areas			
2	Do the Maps indicate location of Emergency Assembly Points and Emergency Control Rooms			
3	Is the process Lay-out prominently displayed			
4	Does the Piping and instrument Diagram include emergency control valves, shutdown system, isolation valves, important control valves etc.			
5	Does the Fire Hydrant Layout conspicuously displayed.			
	<u>Manpower</u>			
1	Is the ERDMP Organogram clearly displayed.			
2	Does the Organogram include all duties to be attended in connection with an emergency.			
3	Is the organogram include key personnel by their names or, work position			
4	Does it have the alternate coverage to take care of the absence of a particular person [ in cases where organogram is developed basis names]			
5	Does it include assignment of all key coordinators viz. the Incident Controller, Administration and Communication Controller and Safety Coordinator.			
	<u>Emergency Control Centre (ECC)</u>			
1	Is the ECC well defined and clearly marked on the displayed layout			
2	Is it strategically positioned to be outside the periphery of immediate affected area.			
3	Is the centre have adequate communication channels including internal and external telephone connections, PA, paging and VHF systems			
4	Is list of key personnel and essential telephone nos. are prominently displayed.			
5	The layout of fire fighting system, different hazardous zones, Assembly Points are prominently displayed.			
	<u>Emergency Assembly Points</u>			
1	Are the EAPs well defined and clearly marked on the displayed layout			
2	The EAPs have pre-defined in-charges during emergencies who keep in touch with the Emergency Control Centre and Administrative Controllers and updates on the roll call on people reporting.			

**CHECK LIST-5**

[Refer Regulation 14.2.1 (a)]

**Review and Updation of ERDMP**

Sr.#	Check-point	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Remarks
1	Frequency of mock-drills for practice, refinement and updation			
2	Are the records for periodic Mock drills maintained in a well defined format.			
3	After each drill, whether assembly meetings involving all staff and contract personnel are conducted to share experience of the event as also to identify the shortcomings and scopes for further improvement in procedures. Whether the issues are discussed and the plan modified suitably.			
4	Does the review ensures efficiency of the plan particularly w.r.t. response, communication and coordination aspects.			
5	Do the Mutual Aid members participate in the drills and based on the actual response and difficulties experienced, corrective actions initiated for refinement of the plan.			
6	Does a procedure exist in incorporating the findings/learnings of the actual disaster management handling, if any so that the plan can be revised accordingly.			

**CHECK LIST-6**

[Refer Regulation 17.0 (5)]

**Availability of resources [ internal / external ]**

		Yes <input type="checkbox"/>	No <input type="checkbox"/>	Remarks
1	Details of fire fighting equipment of the location is incorporated in the DMP			
2	Information on critical resources like no. of fire hydrants, water monitors, fire fighting pumps, static water storage, portable fire fighting equipment and foam systems are included			
3	Available resources as per <b>Schedule-IV</b>			
4	Location has storage of water for 4 hours fire fighting. In case water availability is less, a plan for replacement from nearby sources			
5	Details of drainage system including Oil Water Separator is available in DMP, wherever applicable.			
6	Requirement and availability of Personal Protective Equipment			
7	Whether manpower available during regular as well as idle shift hours including security personnel clearly indicated in the plan			
	<u>External and Internal Resources for combating Emergency</u>			
8	Does the plan enumerate the following resources available internally with the location as also from external agencies including Mutual Aid Members and govt agencies like fire brigade, police, municipal authorities etc. :			
	<ul style="list-style-type: none"> <li>a. Water – from static reservoir as also mobile water tankers</li> <li>b. Fire Hoses</li> <li>c. Specialised nozzles e.g. fog, jet, triple purpose etc.</li> <li>d. Mobile water monitors</li> <li>e. Fire Extinguishers – type and capacity</li> <li>f. Water Gel Blankets</li> <li>g. Foam Compounds</li> <li>h. First Aid material, Medicines, Stretchers</li> <li>i. Mobile / fixed ladders</li> <li>j. Vehicles available</li> </ul> Trained manpower for combating emergency			
9.	Any other resources considered necessary			

**CHECK LIST-7**

(Refer Regulation 26.0 (2))

**ERDMP - Recovery Measures**

Sr.#	Check-point	
	<b>Post Emergency Recovery</b>	
	<b>Salvage of product</b>	
1	Check that spilled / accumulated product contents are transferred to the OWS or collected in drums.	
2	Check whether the quality and quantity estimation of the product extracted from OWS has been done for further disposal in line with standing QC guidelines by either transferring to service tanks or to nearest refinery for blending / reprocessing or not.	
3	Check that correct stock accounting of spilled product as loss has been completed in accounting system.	
4	Check that affected area has been completely cleaned and dried after evacuation of spilled product.	
5	Declare that affected area after salvage operations is fully clean and safe for movement of the working personnel.	
6	Check that all drains are not having any residual oil and are thoroughly cleaned and dried.	
7	Check that all control valves on product lines and OWS lines outside dyke area and drains are completely closed after removal of the spilled product.	
8	Check that interlocking system of tanks / gantry has been re-activated for normal operations.	
9	Check whether the soil testing of the affected area, if required, has been done to assess the soil contamination level to meet the Environmental - SPCB norms / requirements.	
	<b>Taking care of affected manpower</b>	
10	Whether physical accounting of all personnel on duty during and after the incident are ascertained by the Site Incident Controller and reconciled immediately	
11	Whether the first-aid treatment and post-incident health check of the affected personnel has been undertaken in time	
12	Whether these personnel are declared fully physically fit before allowing them to resume their normal duties	
13	Whether the records for such first aid and treatment of the affected personnel are maintained in a well defined format	
	<b>Addressing media and outside bodies</b>	
14	Whether the incident was appropriately informed to the local media in line with the respective company's Press and Media Policy	
15	Whether the role of neighbouring population during the drill / disaster is suitably informed to the population during subsequent meetings with local administration / panchayat etc. for necessary improvements	
16	Whether the awareness and preparedness on disaster is regularly assimilated / shared with nearby public / societies and stake holders.	

	<b>Reporting</b>	
17	Check whether that disaster incident report was communicated to respective controlling office / HQ promptly in a standard format.	
18	Whether the incident reports are also sent to concerned State Level Industry Coordinator on time.	
19	Check that detailed report on disaster in proper format was communicated to PNGRB/ Factory inspector / Labour inspector / SPCB / District Magistrate / PESO.	
	<b>Investigation</b>	
20	Whether investigation teams are constituted as per respective company policies	
21	Whether RCA (Root Cause Analysis) of the disaster is conducted by the investigating team	
22	Whether detailed investigation into effective functioning of interlocks, detection devices, automation controls and applicable norms are carried out to find out possible improvements in design / construction / operations / maintenance and training aspects etc.	
23	Whether a system of initiating appropriate corrective measures including suitable revisions to the Disaster Management Plan are adopted based on findings of the investigation	
	<b>Damage Assessment – Monetary and Physical</b>	
24	Check the valuation / cost of product loss / down gradation on account of contamination, if any / Property / Structures / damaged assets – equipments.	
25	Whether repairs and maintenance cost of property, assets and equipment are assessed.	
26	Whether any penalty by statutory authorities like SPCB / Factory Inspector and Labour Commissioner are assessed.	
27	Whether possible impact on environment are also assessed and appropriate measures are taken	
28	Whether damage assessment also include potential erosion of reputation – from company, industry and national perspectives	
	<b>Clean up and Restoration</b>	
29	Whether the affected area has been fully cleaned and cleared after due clearance from investigation team	
30	Check whether heat detectors, high level alarms, in built safety systems (NRV, TSV etc.) are fully functional after the disaster incident.	
31	Check whether all fire fighting equipments like – hoses / nozzles / Fire Extinguishers etc. have been put back at designated places and are fully ready for reuse	
32	Whether clear procedures are in place to allow resumption of normal operations	

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RATAN P. WATAL, Secy.

**Format for MSDS**

1. Chemical Identified	Safety Date Sheet	
Chemical Name	Chemical Classification	
Synonyms	Trade Name	
Formula	C.A.S. No.	U.N. No. 1

Shipping Name  
Codes/Lable

Hazchem No.

Regulated identification.....

Hazardous Waste  
I.D. No.:

Hazardous Ingredients	C.A.S. No.	Hazardous Ingredients	C.A.S. No.
1.	3.		
2.	4.		
<b>2. Physical and chemical data</b>			
Boiling Range/Point	0C	Physical State	Appearance
Melting/Freezing Point	0C	Vapour Pressure @ 35°C	Odour mm/Hg
Vapour Density (Air = 1)		Solubility in water @ 30°C	Others
Specific Gravity Water-1		PH	
<b>3 Fire and Explosion Hazard data</b>			
Flammability Yes/No	LEL	%Flash Point 0°	Autoignition 0°
TDG Flammability	UEL	%Flash Point 0°	
Explosion Sensitivity to impact		Explosion Sensitivity to Static Electricity	Hardous Combustion Products
<b>Hazardous Ploymerisation</b>			
Combustible Liquid		Explosive Material	Corrosive
Flammable Material		Oxidiser	Others
Pyrophoric Material		Organic Peroxide	
<b>4. Reactivity Data</b>			
Chemical Stability			
Incompatibility with other Material			
Reactivity			
Hazardous Reaction Product			
<b>5. Health Hazard Data</b>			
Routes of Entry			
Effects of Exposure Symptoms			
Emergency Treatment			
TLV (ACGIH)	PPm	ME/m <sup>3</sup>	STEL PPm mg/m <sup>3</sup>
Permissible Exposure Limit pom mg/m <sup>3</sup> other Threshold			mg/m <sup>3</sup>
Lo		LD2	
NEPA Hazard Signals	Health	Flammability	Stability Special

**6. Preventive Measures**

Personal Protective equipment

Handling and storage Precautions

**7. Emergency and First aid measure**

Fire

Fire Extinguishing

Fire

Special procedures

Unusual Hazards

Exposure

First Aid measures

Antidotes/Dosages

Spills

Steps to be taken

Waste disposal Method

**8. ADDITIONAL INFORMATION / REFERENCES****9. MANUFACTURER/SUPPLIERS DATA**

Name of Firm Mailing Address Telephone/Telex Nos. Telegraphic Address	Contract Person in Emergency
	Local Bodies involved

Standard Packing
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Treatment Details/Ref.
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Other
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**PETROLEUM AND NATURAL GAS REGULATORY BOARD****NOTIFICATION**

New Delhi, the 19th March, 2008

**G.S.R. 196(E).**—In exercise of the powers conferred by Section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely :—

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.
- (2) They shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

- (1) In these regulations, unless the context otherwise requires,—
  - (a) “Act” means the Petroleum and Natural Gas Regulatory Board Act, 2006;
  - (b) “appointed day” means the date of October 1, 2007 when the Central Government notified the establishment of the Petroleum and Natural Gas Regulatory Board;
  - (c) “authorized area” means the specified geographical area for a city or local natural gas distribution network (hereinafter referred to as CGD network) authorized under these regulations for laying, building, operating or expanding the CGD network which may comprise of the

following categories, either individually or in any combination thereof, depending upon the criteria of economic viability and contiguity as stated in Schedule A, namely:-

- (i) geographic area, in its entirety or in part thereof, within a municipal corporation or municipality, any other urban area notified by the Central or the State Government, village, block, tehsil, sub-division or district or any combination thereof; and
- (ii) any other area contiguous to the geographical area mentioned in sub-clause (i);
- (d) "Board" means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of section 3 of the Act;
- (e) "City Gate Station" (hereinafter referred as CGS) means the point where custody transfer of natural gas from natural gas pipeline to the CGD network takes place;
- (f) "compression charge for CNG" means a charge (excluding statutory taxes and levies) in Rs. / Kg for online compression of natural gas into compressed natural gas (hereinafter referred to as CNG) for subsequent dispensing to customers in a CNG station;
- (g) "development of a CGD network" means laying, building, operating or expanding a city or local natural gas distribution network;
- (h) "network tariff" means the weighted average unit rate of tariff (excluding statutory taxes and levies) in rupees per million British Thermal Units (Rs./ MMBTU) for all the categories of customers of natural gas in a CGD network;

(i) "piped natural gas" (hereinafter referred as PNG) means natural gas transported through pipelines in a CGD network for consumption by any customer in domestic, commercial or industrial segments and includes natural gas supplied to an online CNG station before its compression.

(2) Words and expressions used and not defined in these regulations, but defined in the Act or in the rules or regulations made thereunder, shall have the meanings respectively assigned to them in the Act.

### 3. Application.

(1) These regulations shall apply to an entity which is laying, building, operating or expanding, or which proposes to lay, build, operate or expand a CGD network.

(2) A CGD network shall be designed to operate at a pressure as specified in the relevant regulations for technical standards and specifications, including safety standards for maintaining the volumes of supply of natural gas on a sustained basis to meet the following requirements, namely:-

(a) customers having requirement of natural gas upto 50,000 SCMD shall be supplied through the CGD network;

(b) customers having requirement of natural gas more than 50,000 SCMD and upto 100,000 SCMD shall be supplied-

(i) through the CGD network; or

(ii) through a pipeline not forming part of the CGD network;

(c) customers having requirement of natural gas more than 100,000 SCMD shall be supplied through a pipeline not forming part of the CGD network.

**4. Initiation of proposal through expression of interest route or *suo-motu* by Board.**

(1) An entity desirous of laying, building, operating or expanding a CGD network shall submit an expression of interest to the Board in the form of an application at Schedule B alongwith an application fee as specified under the Petroleum and Natural Gas Regulatory Board (Levy of Fee and Other Charges) Regulations, 2007.

(2) The Board may *suo-motu* invite bids from entities interested in laying, building, operating or expanding a CGD network for any specified geographical area.

**5. Criteria for selection of entity for expression of interest route.**

(1) The Board may carry out a preliminary assessment of the expression of interest with respect to the following, namely:-

(a) natural gas availability position;

(b) possible connectivity with an existing or proposed natural gas pipeline for supply of natural gas to the city gate of the proposed CGD network, including LNG supplies by tank trucks or tank wagons and CNG by cascades; and

(c) any other relevant issue as the Board may consider necessary.

(2) The Board may, within fifteen days of the receipt of expression of interest and based on its preliminary assessment, either issue an open

advertisement in at least one national and one vernacular daily newspaper (including webhosting) publishing receipt of an expression of interest and commencement of public consultation process period of thirty days or reject the expression of interest:

Provided that in case the Board rejects the expression of interest, it shall inform the entity of the decision alongwith the reasons for rejecting the expression of interest.

- (3) During the period of public consultation process, any person or entity may submit in writing to the Board its views, if any, on the expression of interest.
- (4) The Board may, based on the views received and taking into consideration the criteria specified in Schedule A, decide or fix the authorized area for the proposed CGD network, including the decision whether it should be different from that indicated in the expression of interest.
- (5) The Board may, within a period of fifteen days after the end of the public consultation process period, publish through an open advertisement in at least one national and one vernacular daily newspaper (including webhosting), the proposal for the development of CGD network and invite bids for the same.
- (6) The Board shall scrutinize the bids received in response to the advertisement in respect of only those entities which fulfill the following minimum eligibility criteria, namely:-
  - (a) entity has paid the application fee alongwith the application-cum-bid as specified under the Petroleum and Natural Gas Regulatory Board (Levy of Fee and Other Charges) Regulations, 2007:

Provided that the entity submitting the bid, which has already paid the application fee at the time of submission of the expression of interest

shall not pay the application fee at this stage unless there is a requirement to pay additional application fee on account of change in the authorized area;

(b) entity is technically capable of laying and building CGD network as per the following qualifying criteria, namely:-

(i) entity has on its own in the past laid and built either a hydrocarbon pipeline of a length not less than three hundred kilometers on a cumulative basis or a CGD network;

(ii) entity has a joint venture with another entity (with at least eleven percent equity holding by that entity) which in the past has laid and built either a hydrocarbon pipeline of a length not less than three hundred kilometers on a cumulative basis or a CGD network;

(iii) entity intends to lay and build proposed city or local gas distribution network on lump sum turnkey or project management consultancy basis through one or more technically competent firms which in the past have laid and built either a hydrocarbon pipeline of a length not less than three hundred kilometers on a cumulative basis or a CGD network and the entity shall also enclose a list of such firms alongwith aforesaid proof of their technical competence:

Provided that the entity shall have the freedom to choose from amongst such firms at the time of execution of the project and the Board reserves the right to cross verify the credential of the firms included in the list and seek any clarifications; or

(iv) entity has an adequate number of technically qualified personnel with experience in construction, pre-commissioning

and commissioning of hydrocarbon pipelines and also has a credible plan to independently undertake and execute the CGD project on a standalone basis.

*Explanation.-* The entity shall have at least three technically qualified personnel on its permanent rolls having experience of not less than one year in the following areas, namely:-

(i) right of way acquisition or clearance securing;

(ii) design and execution of a hydrocarbon pipeline project;

(iii) pre-commissioning including hydro-testing and restoration;  
and

(iv) safety of hydrocarbon pipeline and installations;

(c) entity is technically capable of operating and maintaining a CGD network as per the following qualifying criteria, namely:-

(i) entity on its own has an experience of at least one year in operations and maintenance of a CGD network;

(ii) entity has a joint venture with another entity (with eleven percent holding of that entity) which has an experience of at least one year in operations and maintenance of a CGD network;

(iii) entity intends to operate and maintain the proposed CGD network through an appropriate technical assistance agreement for a period of at least one year with another party having experience of at least one year in operations and maintenance of a CGD network; or

(iv) entity has an adequate number of technically qualified personnel with experience in commissioning, and operation and maintenance (O&M) of hydrocarbon pipelines and also has a credible plan to independently undertake the O&M activities for a CGD project on a standalone basis.

**Explanation.-**

**1. In relation to sub-clause (iii), -**

a) the entity shall submit in its application-cum-bid an exhaustive list of proposed firms with whom it desires to have a technical assistance agreement alongwith the proof of relevant and credible experience of such firms and the entity may choose a firm or more from amongst the firms in this list for operation and maintenance of the proposed CGD network and the Board reserves the right to cross verify the credential of the firm or firms included in this list and seek any clarifications;

b) the entity shall also submit a credible plan along with the bid to develop an in-house O&M team for city or local gas distribution network.

**2. In relation to sub-clause (iv), the entity shall have at least three technically qualified personnel on its permanent rolls having experience of not less than one year in the following areas, namely:-**

a) commissioning of a hydrocarbon pipeline;

- b) operation and maintenance of natural gas pipelines and natural gas installations including gas compressors;
- c) commercial issues including gas pricing, gas measurement, accounting, billing and collection; and
- d) safety of natural gas infrastructure;
- (d) the entity has agreed to abide by the relevant regulations for technical standards and specifications, including safety standards;
- (e) the entity has adequate financial strength to execute the proposed project, operate and maintain the same in the authorized area and shall meet the following financial criterion to qualify for bidding for a single CGD network, namely:-

Tier	Population in the authorized area as per census of India, 2001 or other published records of the Central or the State Government, whichever is higher	Minimum combined net worth (*) of the entity along with its promoters available for investments in a single CGD Network duly supported by letter of comfort from promoters
(1)	(2)	(3)
I	5 million or more	= Rs.1,500 million for a population of 5 million, and proportionately higher for population of more than 5 million (\$)
II	1 million or more but less than 5 million	= Rs.1,000 million
III	0.5 million or more but less than 1 million	= Rs.500 million
IV	0.25 million or more but less than 0.50 million	= Rs.250 million
V	0.1 million or more but less than 0.25 million	= Rs.100 million
VI	Less than 0.1 million	= Rs.50 million

(\*) combined net worth (equity share capital plus free reserves, but excluding revaluation reserves) to be adequately represented by cash funds, which shall be available as bridge finance and as promoters equity contribution in the project as certified by a Chartered Accountant based on the latest financial position of the entity and its promoters. The promoters undertaking, in the form of letter of comfort, stating that promoters financial contribution in the project shall be converted in to equity share capital within three months of the date of grant of authorization must accompany the application.

(\$) For example, if the population is 12 million, then, the combined net worth shall be equal to a minimum of Rs.3,600 million (i.e., Rs.1,500 million X 12 / 5);

- (f) the entity, on being declared as a successful bidder and not being a company registered under the Companies Act, 1956, shall become a company registered under the Companies Act, 1956;
- (g) the entity should have a credible plan for sourcing natural gas for supply in the proposed CGD network;
- (h) entity shall furnish a bid bond for an amount equal to-

- i) rupees fifty million for a population of five million and proportionately higher amount for population of more than five million.

*Illustration.*- The bid bond in case of population of the city or local area of twelve million shall be rupees one hundred twenty million (that is, rupees fifty million X 12/ 5);

- ii) rupees thirty million for a population of one million and more but less than five million;
- iii) rupees twenty million for a population of half a million and more but less than one million;
- iv) rupees fifteen million for a population of quarter of a million and more but less than half a million;
- v) rupees ten million for a population of one-tenth of a million and more but less than quarter of a million;
- vi) rupees five million for a population less than one-tenth of a million;

- (i) entity submitting the bid should not have been imposed any penalty under section 28 or punished under Chapter IX of the Act;
- (j) in case the entity submitting the bid does not fulfill the requirements of any criteria under clauses (a) to (i), the bid submitted by it shall be summarily rejected and a communication in this regard shall be sent to it and the financial bid shall not be opened for that entity;
- (k) the bid bond shall be –
- i) encashed if an entity submitting the bid walks out;
  - ii) released in respect of the unsuccessful entity submitting the bid;
  - iii) retained till the prescribed performance bond is furnished at the time of authorization by the successful bidder.
- (7) The application-cum-bid shall be submitted in two parts in the form as specified in Schedule C in separate properly earmarked and sealed envelopes, namely:-
- (a) Part I (Technical bid) covering general particulars of the entity and technical details of the project including minimum eligibility criteria under sub-regulation (6);
  - (b) Part II (Financial bid) covering the financial details under regulation 7.
- (8) A time period of sixty days shall be allowed for submission of the application-cum-bid for grant of authorization for laying, building, operating and expanding the CGD network and any application-cum-bid received after the notified date shall not be considered.

- (9) The Board may extend the date of submission of bids upto a period of one month through an advertisement in the same manner as specified under sub-regulation (5), including in a situation where only a single application-cum-bid is received in response to the original advertisement.

**6. Invitation by Board for laying, building, operating or expanding of CGD network.**

The Board may *suo-motu* form a view regarding the development of a CGD network in a specific city or a geographic area, and in such a case, the procedure as specified in regulation 5 (except aspects relating to the expression of interest shall be replaced by project details as prepared by the Board) shall apply.

**7. Bidding criteria.**

- (1) The Board, while considering the proposal for authorization, shall tabulate and compare all financial bids meeting the minimum eligibility criteria, as per the bidding criteria given below, namely:-
- (a) lowness of the present value of the overall unit network tariff for usage of the proposed CGD network by all categories of customers of natural gas (including supply of natural gas to online compressor for CNG) over the economic life of the CGD network project (twenty five years from the date of authorization). The entity is required to bid for the tariff charge for each year of the economic life of the project. This shall have a weightage of forty percent;
- (b) lowness of the present value of the compression charge for CNG for dispensing in the CNG stations in the proposed CGD network over the economic life of the project. The entity is required to bid for the compression charge for CNG for each year of the economic life of the project. This shall have a weightage of ten percent;

(c) highness of the present value of the inch-kilometer of steel pipelines proposed to be laid in the CGD network during the period of exclusivity in terms of an exemption from the purview of the common carrier or contract carrier as specified in the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008. The entity is required to bid for the inch-kilometer of steel pipeline in CGD network for each of the year of the exclusivity period. This shall have a weightage of twenty percent; and

(d) highness of the present value of the number of domestic customers proposed to be connected by PNG by the entity during the period of exclusivity in terms of an exemption from the purview of common carrier or contract carrier as specified in the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008. The entity is required to bid for the number of domestic customers to be connected by PNG for each of the year of the exclusivity period. This shall have a weightage of thirty percent.

(2) The present value in the criteria at clauses (a) to (d) of sub-regulation (1) shall be calculated by the entity using a discount rate equal to fourteen percent.

(3) Entity with the highest composite score considering the criteria under clauses (a) to (d) of sub-regulation (1) and as illustrated in Schedule C (1) shall be declared as successful in the bid.

#### 8. Fixation and recovery of network tariff and compression charge for CNG.

(1) The network tariff for transportation of natural gas in the CGD network shall be fixed as per the network tariff bid under clause (a) of the sub-regulation (1) of regulation 7 and shall be recovered from all categories of customers of PNG and CNG.

- (2) The compression charge for CNG in the CGD network shall be fixed as per the compression charge for CNG bid under clause (b) of the sub-regulation (1) of regulation 7 and shall be recovered from the customers of CNG only.
- (3) The entity shall recover the network tariff and the compression charge for CNG separately through an invoice without any premium or discount on a non-discriminatory basis.
- (4) Any cost subsequent to the online compression of natural gas into CNG, such as, towards storage and transportation of CNG in a cascade mounted system to a CNG station is an activity associated with the dispensation of CNG and is not covered under these regulations.

**9. Performance bond.**

- (1) Grant of authorization shall be issued to the selected entity after it furnishes a performance bond of an amount equal to-
  - (a) rupees one hundred million or five percent of the estimated project capital cost, whichever is higher in respect of an authorized area with a population of five million or more;
  - (b) rupees sixty million or five percent of the estimated project capital cost, whichever is higher in respect of an authorized area with a population of one million or more but less than five million;
  - (c) rupees forty million or five percent of the estimated project capital cost, whichever is higher in respect of an authorized area with a population of half a million or more but less than one million;
  - (d) rupees thirty million or five percent of the estimated project capital cost, whichever is higher in respect of an authorized area with a population of quarter of a million or more but less than half a million;

- (e) rupees twenty million or five percent of the estimated project capital cost, whichever is higher in respect of an authorized area with a population of one-tenth of a million or more but less than quarter of a million;
- (f) rupees ten million or five percent of the estimated project capital cost, whichever is higher in respect of an authorized area with a population less than one-tenth of a million.

Explanation.- The amount of the performance bond shall be revised by applying the above basis in case the estimated project cost undergoes a change on completion of the financial closure as per regulation 11.

- (2) The performance bond has been prescribed for guaranteeing the timely commissioning of the proposed CGD network as per the prescribed targets and also for meeting the service obligations by the selected entity during the operating phase of the project.

#### 10. Grant of authorization.

- (1) The authorization shall be granted to the selected entity in the form at Schedule D within a period of thirty days of the last date of submitting the bid.
- (2) The grant of authorization is subject to the entity achieving a firm natural gas tie-up and a financial closure as per regulation 11.
- (3) The grant of authorization to the entity shall not be renounced by way of sale, assignment, transfer or surrender to any person or entity during the period of three years from the date of its issue.
- (4) The entity intending to renounce the authorization in favour of another entity after the end of the three years period shall submit a proposal to the Board at least thirty days in advance and shall provide all information as may be called for by the Board.

- (5) The Board after satisfying itself that the proposal will not adversely affect the existing or proposed activities of laying, building, operating or expansion of the CGD network shall either accept the proposal in full or with such modifications as it may deem fit and in a case where the entity is permitted by the Board to take over the activities of laying, building, operating or expanding the CGD network such entity shall abide by the existing or modified terms and conditions of the authorization including compliance with the service obligations and adherence to the quality of service standards:

Provided that the Board reserves the right to reject the proposal in public interest and in such a case the Board shall provide in writing the reasons for such rejection.

#### **11. Natural gas tie-up and financial closure.**

- (1) The entity authorized under regulation 10 shall enter into a firm natural gas supply agreement for the proposed CGD network project with any entity owning natural gas in a transparent manner on the principle of “at an arm’s length” for a period equal to or more than the exclusivity period for exemption from the purview of common carrier or contract carrier allowed under the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008 within ninety days of the date of issue of the authorization.
- (2) The volume of natural gas supply under the agreement referred to in sub-regulation (1) shall be equal to at least fifty percent of the volumes considered in the determination of the network tariff bid for each year of the exclusivity period allowed for exemption from the purview of common carrier or contract carrier under the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008.

- (3) The authorized entity shall obtain the financial closure of the project from a bank or financial institution within a period of one hundred and twenty days from the date of the authorization.
- (4) In case of an internally financed project, the entity shall submit the approval of its 'Board of Directors' for the detailed feasibility report (hereinafter referred as DFR) of the project alongwith its financial plan within one hundred and twenty days of the authorization:

Provided that the Board may ask the entity to submit any further details or clarifications on the financial closure.

- (5) In case the entity fails to meet the requirements at sub-regulations (1) to (4), the authorization of the entity for laying, building, operating or expanding CGD network shall be cancelled and the performance bond shall be encashed and the Board reserves the right to re-award the authorization in a transparent manner and the entity shall have no right whatsoever against the Board for seeking any compensation or remedy on this account.

## 12. Exclusivity period.

The period of exclusivity to lay, build, operate or expand a city or local natural gas distribution shall be as per the provisions in the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008.

## 13. Post-authorization monitoring of activities (pre-commissioning).

- (1) An authorized entity shall provide, on a quarterly basis, a progress report detailing the clearances obtained, targets achieved, expenditure incurred, works-in-progress and other relevant information in the form at Schedule E.
- (2) The Board shall seek compliance by the entity to the relevant regulations for technical standards and specifications, including safety standards through conduct of technical and safety audits during the commissioning phase as

well as on an on-going basis thereafter for ensuring safe commissioning and operation of the CGD network.

- (3) The Board shall monitor the progress of the entity in achieving various targets with respect to the CGD network project, and in case of any deviations or shortfall, advise remedial action to the entity.

**14. Service obligations of authorized entity (post commissioning).**

- (1) The entity may take an interest-free refundable security deposit from domestic PNG Customer towards security of the following equipments and facilities including the labour cost of installation towards last mile connectivity, that is, between the riser isolation valve before the metering unit and the suraksha hose pipe connecting the burner in the customer's premises for an amount not exceeding rupees five thousand for a single connection, namely:-

- (a) riser isolation valve before the metering unit;
- (b) ten meters of pipe up to the metering unit;
- (c) metering unit;
- (d) five meters of pipe or tube from the metering unit up to the excess flow check valve-cum-isolation valve;
- (e) excess flow check valve-cum-isolation valve; and
- (f) suraksha hose pipe of standard size connecting the domestic PNG burner:

Provided that the network tariff bid by the entity shall include the charges towards the last mile connectivity.

**Explanation.-**

1. The domestic PNG customer shall bear the actual cost of the material and labour charges for pipe and the tubing in excess of the length specified above.
  2. The domestic PNG customer shall pay the actual cost of installation including labour charges from the common metering unit onwards for connecting another domestic PNG burner or any other gas-based appliance in the same premises.
- (2) The entity may take an interest-free refundable security deposit from non-domestic PNG customers for an amount not exceeding the actual cost of the metering unit and other related equipment and labour charges towards installation:

Provided that these are installed by the entity in the customer's premises.

- (3) The entity shall not exert any undue influence on any domestic PNG customer to purchase natural gas burner stove or avail of any other service not connected with the supply of natural gas.
- (4) The entity shall convert the existing LPG burner stove of a prospective domestic PNG customer into natural gas burner stove free of charge.
- (5) The authorized entity shall maintain separate books of accounts including detailed activity-based costing records to segregate direct, indirect and common costs alongwith the basis of allocation and the revenues earned in respect of the activities of-
  - (a) purchase of natural gas including its odourization;
  - (b) transportation of natural gas in the CGD network;

- (c) online compression of natural gas into CNG;
  - (d) transportation of CNG in a cascade mounted system, if any;
  - (e) marketing or distribution including commission allowed to any agency for marketing or distribution of natural gas and CNG in the CGD network;  
and
  - (f) dispensing of CNG including booster compression, if any.
- (6) The costs and revenues associated with activities other than those stated in clauses (a) to (f) of sub-regulation (5) should be reflected separately in the books of accounts of the entity.
- (7) The authorized entity shall ensure that –
- (a) there is no cross-subsidization of the costs between the activity of transportation and the activity of marketing of natural gas in the CGD network;
  - (b) the confidentiality of customer information collected in the course of providing regulated service is maintained; and
  - (c) there is no preferential access allowed to itself or to any other entity for the activity of transportation of natural gas in the CGD network.
- (8) The authorized entity shall be responsible for getting the technical and safety audits carried out by independent technical experts or accredited agencies out of the panel approved at regular intervals during the commissioning phase as well as on an on-going basis thereafter to ensure compliance with the relevant regulations for technical standards and specifications, including safety standards and the audit report alongwith the

findings shall be submitted to the Board and the Board may review the same and advise remedial action, if any, to the entity.

- (9) The entity will have to meet the service obligations as stated under the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008.

#### 15. Quality of service standards.

- (1) The entity laying, building, operating or expanding a CGD network must comply with the quality of service standards as specified in Schedule F.
- (2) The performance of the entity in complying with the quality of service standards shall be periodically assessed by the Board and compared against the minimum prescribed benchmarks and a performance consistently below the minimum prescribed benchmark may lead to the consequences specified under regulation 16.

#### 16. Consequences of default and termination of authorization procedure.

- (1) An authorized entity shall abide by all the terms and conditions specified in these regulations and any failure in doing so, except for *force majeure*, shall be dealt with as per the following procedure, namely:-
- (a) the Board shall issue a notice to the defaulting entity allowing it a reasonable time to fulfill its obligations under the regulations;
- (b) no further action shall be taken in case remedial action is taken by the entity within the specified period to the satisfaction of the Board;
- (c) in case of failure to take remedial action the Board may encash the performance bond of the entity as per the following basis, namely:-

(i) twenty five percent of the amount of the performance bond for the first default; and

(ii) fifty percent of the amount of the performance bond for the second default:

Provided that the entity shall make good the encashed performance bond in each of the cases at sub-clause (i) and (ii) within a week of encashment, failing which the remaining amount of the performance bond shall also be encashed and authorization of the entity terminated.

(iii) one hundred percent of the amount of performance bond for the third default and simultaneous termination of authorization of the entity;

(d) the procedure for implementing the termination of an authorization shall be as provided in Schedule G;

(e) without prejudice to as provided in clauses (a) to (d), the Board may also levy civil penalty as per section 28 of the Act in addition to taking action as prescribed for offences and punishment under Chapter IX of the Act.

**17. Entity authorized by the Central Government for laying, building, operating or expanding CGD network before the appointed day.**

(1) The entity shall submit relevant information along with supporting documents in the form as in Schedule H within a period of one hundred and eighty days from the appointed day.

(2) The entity shall abide by the terms and conditions of the authorization by the Central Government including obligations, if any, imposed by the Central Government.

- (3) The entity shall abide by the relevant regulations for technical standards and specifications, including safety standards and the quality of service standards as specified under regulation 15.
- (4) The Board may consider grant of exclusivity on such terms and conditions as per the provisions in the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008.
- (5) The network tariff and the compression charge for CNG shall be as determined under the Petroleum and Natural Gas Regulatory Board (Determination of Network Tariff for City or Local Natural Gas Distribution Networks and Compression Charge for CNG), Regulations 2008.
- (6) The activities of the entity may be subject to such other regulations as may be applicable as per the provisions of the Act.

**18. Entity not authorized by the Central Government for laying, building, operating or expanding CGD network before the appointed day.**

- (1) An entity laying, building, operating or expanding a CGD network at any time before the appointed day but not duly authorized to do so by the Central Government shall apply immediately for obtaining an authorization in the form as at Schedule I.
- (2) The Board may take into consideration the following criteria while considering the application for grant of authorization, namely:-
  - (a) the entity meets the minimum eligibility criteria as at specified in clauses (a) to (e) and (i) of sub-regulation (6) of regulation 5 before the appointed date and is possessing all necessary statutory clearances, permissions, no objection certificates from the Central and State Governments and other statutory authorities;

- (b) an entity which is not registered under the Companies Act, 1956 at the time of submitting the application for grant of authorization shall undertake to become a company registered under the Companies Act, 1956:

Provided that the Board may exempt an entity to register under the Companies Act, 1956 on such conditions as it may deem appropriate;

- (c) a satisfactory assessment of the actual physical progress made and the financial commitment thereof till immediately before the appointed day in comparison with the entity's DFR appraised by the financial institution funding the project. In case the project has not been funded by any financial institution, the Board may appraise the DFR. The DFR of the entity should clearly indicate the specified geographical area of the project and also specify the coverage proposed for CNG and PNG. In case upon scrutiny of the DFR by the Board by taking into account the geographical area, customer segments, infrastructure requirements, etc. proposed by the entity, the DFR is found to be sub-optimal and unacceptable, the Board may not consider the case of the entity for issuing the authorization;

- (d) in respect of the actual physical progress made and the financial commitment thereof referred to in clause (c), a physical progress of at least twenty five percent and a financial commitment of at least twenty five percent of the capital expenditure identified for the CGD project as per the DFR immediately before the appointed day may be considered as adequate;

- (e) the entity should have arranged, by way of acquisition or lease, land for CGS and procured the necessary equipment for erecting the CGS before the appointed day;

- (f) the Board reserves the right to get the actual physical progress and the financial commitment certified and depending upon the progress achieved, the Board may consider authorizing the entity for the authorized area-
- i) as per the geographical area in its DFR;
  - ii) as per the geographical area actually covered under implementation till the appointed day; or
  - iii) the geographical area as specified by the Board;
- (g) in relation to laying, building, operating or expanding the CGD network, it is for the entity to satisfy the Board on the adequacy of its ability to meet the applicable technical standards, specifications and safety standards as specified in the relevant regulations for technical standards and specifications, including safety standards and the quality of service standards as specified in regulation 15;
- (h) assessment of the financial position of the entity in timely and adequately meeting the financial commitments in developing the CGD network project as appraised by a financial institution and an examination of the audited books of accounts of the entity;
- (i) firm arrangement for supply of natural gas to meet the demand in the authorized area to be covered by the CGD network;
  - (j) any other criteria considered as relevant by the Board based on the examination of the application.
- (3) The evaluation of the application in terms of the clauses (a) to (j) shall be done in totality considering the composite nature and the inter-linkages of the criteria.

- (4) The Board, after examining the application in terms of the criteria under sub-regulation (2) and also taking into account the requirements in other regulations may form a *prima-facie* view as to whether the case should be considered for authorization.
- (5) In case of *prima-facie* consideration, the Board shall issue a public notice in one national and one vernacular daily newspaper (including webhosting) giving brief details of the project and seek comments and objections, if any, within thirty days from any person on the proposal.
- (6) The Board, after examining the comments and objections, if any under sub-regulation (5), may either consider or reject the case for grant of authorization for the CGD network.
- (7) In case it is decided to grant authorization, the same shall be in the form at Schedule D;
- (8) In case of rejection of the application, the Board shall pass a speaking order after giving a reasonable opportunity to the concerned party to explain its case and proceed to select an appropriate entity for the project in terms of regulation 6.
- (9) In case the entity is selected for grant of authorization for CGD network,-
  - (a) the network tariff and the compression charge for CNG shall be determined under the Petroleum and Natural Gas Regulatory Board (Determination of Network Tariff for City or Local Natural Gas Distribution Networks and Compression Charge for CNG), Regulations 2008;
  - (b) the Board may consider grant of exclusivity on such terms and conditions as specified in the Petroleum and Natural Gas Regulatory

**Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008;**

- (c) the entity shall abide by the technical standards, specifications including safety standards as specified under relevant regulations for technical standards and specifications, including safety standards;
- (d) the provisions under regulations 9, 13, 14, 15 and 16 shall apply to the entity.

**19. Miscellaneous.**

If any dispute arises with regards to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final.

**Schedule A** *Bal*

[see regulations 2 (1) (c) and 5 (4)]

**Basis for defining authorized area for laying, building, operating or expanding CGD network**

The specified geographical area in respect of an authorized area for a CGD network as per regulation 2 (1) (c) of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008 may be determined considering the following criteria of economic viability and geographical contiguity, namely:-

**1. Economic viability.**

The authorized area should have natural gas demand potential over various categories of customers to *prima-facie* justify investments in laying, building, operating or expanding a CGD network over its economic life. The guiding principles in this regard may include -

- a) viable projected volume built-up representing all types of customer segments, such as, industrial, commercial, transport, domestic, etc.;
- b) ease of operation and maintenance of the CGD network in the proposed area and serviceability to all category of customers; and
- c) economic viability of the project of laying, building, operating or expanding a CGD network in the area proposed.

## 2. Geographical contiguity.

For the purpose of any area to be considered as contiguous to the geographical area as per regulation 2 (1) (c) of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008, such an area shall not have an economic viability to have an independent CGD network on its own.

### Note:

The Board reserves the right to intervene during the expression of interest stage itself, if in its opinion the specified geographical area is too large to sustain customer service; or allow safe and convenient operations; or has a potential to restrict competition. In the alternative, the Board may also intervene in case the geographical area considered is too small; or covers only a certain class of customers; or tantamount to cherry-picking. In all such cases, the Board may prescribe a geographical area of a size different than that indicated in the expression of interest.

**Schedule B**

[see regulations 4 (1) and 5 (6)]

Application form for submitting expression of interest by an entity desirous of laying, building, operating or expanding a CGD network

- A. Only an entity which complies with the minimum eligibility criteria as per regulation 5 (6) of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008 is eligible to submit its application for submission of expression of interest to the Board.
- B. Entities must enclose documentary proof in support of its meeting the minimum eligibility criteria.
- C. The entity submitting the expression of interest must submit the following information:

1	General Details
A	Name of the Entity
B	Type of firm – Public Limited Company / Private Limited Company / Partnership firm / Proprietorship firm / Others (please specify)
C	Date of incorporation and date of commencement of business
D	Address of Registered office
2	Basic Data
A	<p>1) Population and number of households under the proposed CGD network.</p> <p>2) Geographical area in square kilometers and segregated in different categories in terms of the provisions under regulation 2 (c) of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008. The area should also be depicted in a physical map.</p> <p>3) Economic activity in the proposed geographical area in terms of industrial and commercial activity (number of units and fuel mix).</p> <p>4) Vehicular population profile.</p>
B	Preliminary Assessment of the potential demand for natural gas in the proposed CGD network amongst various customer segments.

C	Likely source of supply of natural gas and plans for access to the natural gas pipeline.
D	Whether the States or the Union Territories, in whose jurisdiction the proposed CGD network is located, has enacted any legislation or taken any administrative action to promote the use of natural gas in the said city? If the reply to the question is yes, then, provide copy of the said enactment or administrative order.
3	Application fee of Rs. _____ paid vide demand draft/ pay order number < > and dated < > drawn on <name of bank and branch>.

Date:

Place:

Name and signature of entity or authorized signatory

Official Seal

<p>Name of the Entity</p>
<p>Type of firm - Public Limited Company / Private Limited Company / Partnership firm / Proprietorship firm / Others (Please specify)</p>
<p>Date of incorporation and date of commencement of business</p>
<p>Address of Registrar's office</p>
<p>Basic Data</p>
<p>1) Population and number of households under the proposed CGD network</p>
<p>2) Geographical area in square kilometers and segregated in different categories in terms of the provisions under regulation 2 (c) of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities) Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks Regulations, 2008. The area should also be depicted in a physical map</p>
<p>3) Economic activity in the proposed geographical area in terms of industrial and commercial activity (number of units and fuel mix)</p>
<p>4) Vehicular population profile</p>
<p>5) Preliminary Assessment of the potential demand for natural gas in the proposed CGD network amongst various customer segments</p>

**Schedule C**

[see regulation 5 (7)]

**Application-cum-bid for grant of authorization for CGD network**

To,  
The Secretary,  
Petroleum and Natural Gas Regulatory Board,  
1st Floor, World Trade Centre  
Babar Lane, Connaught Place,  
New Delhi – 110 001.

Sub: Application-cum-bid for grant of authorization for laying, building, operating or expanding city or local natural gas distribution network in the proposed geographical area of \_\_\_\_\_ in the State or Union Territory of \_\_\_\_\_ under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008

(Attach separate sheets for providing information wherever necessary)

<b>Part-I – General details of the entity and technical details of the project (to be submitted in a properly earmarked, sealed and separate envelope)</b>	
<b>1</b>	<b>Details of the entity</b>
<b>A</b>	<b>Name of the entity</b>
<b>B</b>	Type of firm – Public Limited Company / Private Limited Company / Partnership firm / Proprietorship firm / others (please specify and attach copy of Articles of Association or Partnership deed, etc., as applicable).
<b>C</b>	Date of incorporation and date of commencement of business.
<b>D</b>	Address of registered office.
<b>E</b>	Name, addresses, telephone numbers, e-mail ID of all directors / partners / proprietor (please provide full details with STD Code and Pin Code).
<b>2</b>	<b>Financial details</b>
<b>A</b>	Share capital or proprietor's own funds as applicable.
<b>B</b>	Loans – amount, tenure, moratorium period, rate of interest, taken from and asset mortgaged or hypothecated for securing the same, if any.
<b>C</b>	Reserves, if any

D	Fixed Assets	
E	Current Assets	
F	Current Liabilities	
G	Sales Turnover	
H	Profit After Tax	
	(Attach copies of audited Profit and Loss Account and Balance Sheet for last three financial years) - In case entity is a subsidiary company, copies of audited Profit and Loss Account and Balance Sheet for last three financial years of the parent company to be attached.	
3	Business activities of the entity	
A	Details of all existing city gas distribution network of the entity, if any, and including design specifications, installed capacity, capital cost, year-wise details of operating cost, age of the network, gas volumes transported in the network alongwith details of customer profile, distribution network map and drawings showing details of existing facilities and future plan, natural gas sources, average unit network tariff being charged, etc.	
B	Details of tie-up or collaboration with any entity for natural gas supply and marketing.	
C	Details of other business, if any, being carried out by the promoters for the last five years.	
4	Ownership and affiliate details	
A	Details of promoters	
B	Details of all affiliates of the entity mentioning the business relationship between the entity and the affiliates ("affiliate" means as defined in the relevant regulations for affiliate code of conduct).	
C	The entity undertakes to produce all relevant records or documents of itself and its related entities on demand by the Board.	Yes / No
D	Is the entity a company registered	Yes / No

	under Companies Act, 1956?	
E	Is the entity promoted by a company registered under Companies Act, 1956?	Yes / No
F	The entity undertakes to become a company, in case it is not a company at the time of submission of this application-cum-bid, under the Companies Act, 1956 on being selected for grant of authorization.	Yes / No
G	Promoters undertaking in the form of letter of comfort stating that their financial contribution in the project shall be converted in to equity share capital within three months of the date of grant of authorization. Enclose the letter of comfort from the promoters:	Yes / No
5	Technical details of the proposed CGD network project	
A	Name of the proposed CGD network project.	
B	Details of the city, town or area earmarked in developmental zones in respect of the proposed CGD network project along with a sketch showing facilities proposed.	
C	Technical specifications of the project attaching the copy of the feasibility report and covering full details of pipeline design, pressure, length of network, pipeline diameter, pipeline thickness, route, corrosion protection arrangements, city gate station, natural gas source, tap-off points, main block valves, isolation valves, emergency shutdown valves, odourization facilities, metering arrangements, CNG stations, HSE measures, etc.	
D	Development plan envisaged for the proposed CGD network project - design and installed capacity of the CGD network along with details of phased-out capital expenditure plans including the projected dates of commencement of operations phase-wise and the details of the activities	

	or targets associated with the completion of the project to be enclosed.	
E	Estimates of volume of natural gas including supplies to CNG stations before compression proposed to be transported and sold.  Also, give details of projected anchor volumes, if any.	
F	Sources of supply of natural gas and capacity tie-up with the natural gas pipeline including connectivity and the details of tie-up phase wise, if any.	
G	Whether the State or the Union Territory, in whose jurisdiction the proposed CGD network is located, has enacted any legislation or has taken administrative action to promote the use of natural gas in the said geographical area? If the reply to the question is yes, then provide copy of the said enactment or the administrative order.	Yes / No
H	Are all applicable technical standards, specifications including safety standards, as specified under the relevant regulations for technical standards and specifications, including safety standards have been considered and complied with in designing the CGD network? Provide full details.	Yes / No
I	Attach copy of the Disaster Management Plan.	
J	Is the project entitled to any subsidy, exemption, deferment or waiver of any statutory levy from the Central or the State Governments? If yes, give complete details indicating the year-wise utilization plan of the entity.	Yes / No
K	Non-refundable Application fee under the regulation 5 (6).	Rs. < _____ >
	Demand draft or pay order	
	Demand draft or pay order number and date	
	Name of issuing bank and branch	
L	Bid bond	Rs. < _____ >

	Demand draft or pay order	
	Demand draft or pay order number and date	
	Name of issuing bank and branch	
<b>Part-II: Financial bid (to be submitted in a separate earmarked sealed envelope) to be opened for those entities qualifying the minimum eligibility criteria under regulation 5 (7)</b>		
A	Present Value (PV) of the Weighted Average Network Tariff Bid for laying, building, operating or expanding the CGD network over the economic life of the project (which is twenty five years from the date of authorization).	<p>PV of the weighted average unit network tariff bid for each year of the economic life of the project using the discount rate of 14% is Rs.&lt; ___ &gt; per MMBTU</p> <p>Year-wise weighted average unit network tariff bid-</p> <p>Year 1: Rs.&lt; ___ &gt; per MMBTU</p> <p>Year 2: Rs.&lt; ___ &gt; per MMBTU</p> <p>⋮</p> <p>Year 25: Rs.&lt; ___ &gt; per MMBTU</p>
B	Present Value (PV) of the compression charge bid for compressing natural gas into CNG for dispensing in the CNG stations of the CGD network over the economic life of the project (which is 25 years from the date of authorization).	<p>PV of the compression charge for CNG bid for each year of the economic life of the project using the discount rate of 14% is Rs.&lt; ___ &gt; per Kg</p> <p>Year-wise compressed charge for CNG bid-</p> <p>Year 1: Rs.&lt; ___ &gt; per Kg</p> <p>Year 2: Rs.&lt; ___ &gt; per Kg</p> <p>⋮</p> <p>Year 25: Rs.&lt; ___ &gt; per Kg</p>
C	Present Value (PV) of inch-kilometer of steel pipeline bid in the CGD network during the period of exclusivity in terms of exemption from purview of common carrier or contract carrier.	<p>PV of inch-kilometer of steel pipeline bid in the CGD network using the discount rate of 14% is &lt; inch-kilometer &gt;</p> <p>Year-wise inch-kilometer bid-</p> <p>Year 1: &lt; ___ &gt; inch-kilometer</p>

		<p>Year 2: &lt; ___ &gt; inch-kilometer</p> <p>Year 3: &lt; ___ &gt; inch-kilometer etc.</p> <p>(Each year of exclusivity in terms of exemption from purview of common carrier or contract carrier)</p>
D	<p>Present Value of the number of PNG domestic customers bid in the CGD network during the period of exclusivity in terms of exemption from the purview of common carrier or contract carrier.</p>	<p>PV of the number of PNG domestic connections bid using the discount rate of 14% is &lt;Number&gt;</p> <p>Year-wise number of PNG domestic connections bid-</p> <p>Year 1: &lt; ___ &gt; number</p> <p>Year 2: &lt; ___ &gt; number</p> <p>Year 3: &lt; ___ &gt; number etc.</p> <p>(Each year of exclusivity in terms of exemption from purview of common carrier or contract carrier)</p>

### DECLARATION

1. Certified that the above information is true to the best of my / our knowledge and belief and the information and data given in the annexure, attachments, enclosures and calculation sheets accompanying this application-cum-bid are correct, complete and truly stated, and if any statement made herein is found to be incorrect, the application-cum-bid shall be rejected, the application fee and the Bid Bond shall be forfeited and I / We shall be liable to be proceeded against and for punishment under the provisions of the Act.
2. I / We certify that the above application-cum-bid is the only application-cum-bid submitted and no other application-cum-bid has been or is being submitted separately for this city or local area by me / us.

Date:

Schedule C (1)

Place:

[see regulation 7 (3)]

Name and Signature of Entity/ Authorized Signatory

Official Seal

**Instructions for filling the Application-cum-bid:**

1. All entries in the form and annexed documents should be legible with no cuttings.
2. Details requiring separate statement may be enclosed giving clear reference of the point against which the same is being attached.
3. All pages of the application-cum-bid and the attachments and statements need to be serially numbered and initialed by the person or official authorized by the entity through a notarized power of attorney.
4. Any information filled in the application-cum-bid needs to be substantiated by attaching relevant proof of the same.
5. The entity is required to submit five true copies of the application-cum-bid with all the enclosures in addition to the original.
6. Incomplete application-cum-bid is liable to be summarily rejected.

**Schedule C (1)**

[see regulation 7 (3)]

**Illustration showing the basis of determining the highest composite score for ascertaining the successful bid for grant of authorization for CGD network**

Let there be three entities whose bids need to be compared for determining the successful bid over the bidding criteria described below-

**(A) Network tariff bid in CGD network.**

Let,

N1 = Present value of the network tariff bid for twenty five years by the 1<sup>st</sup> entity.

N2 = Present value of the network tariff bid for twenty five years by the 2<sup>nd</sup> entity.

N3 = Present value of the network tariff bid for twenty five years of the 3<sup>rd</sup> entity.

Assume that N1 is lower than N2 and N2 is lower than N3.

The least present value of the network tariff bid (LN1) shall be given a score of 100% and the present value of the other network tariff bids shall be given a score in relation to LN1 on a pro-rata basis as under-

$$\begin{aligned} \text{LN1} &= 100 \% \text{ for N1} \\ \text{LN2} &= 100 \% \times (\text{N1} + \text{N2}) \\ \text{LN3} &= 100 \% \times (\text{N1} + \text{N3}) \end{aligned}$$

**(B) Compression charge for CNG bid in CGD network.**

Let,

C1 = Present value of the compression charge for CNG bid for twenty five years by the 1<sup>st</sup> entity.

C2 = Present value of the compression charge for CNG bid for twenty five years by the 2<sup>nd</sup> entity.

C3 = Present value of the compression charge for CNG bid for twenty five years by the 3<sup>rd</sup> entity.

Assume that C1 is more than C2 and C2 is more than C3.

The least present value of the compression charge for CNG bid (C3) shall be given a score of 100% and the present value of the other network compression charge for CNG bids shall be given a score in relation to LC3 on a pro-rata basis as under-

$$LC1 = 100 \% \times (C3 + C1)$$

$$LC2 = 100 \% \times (C3 + C2)$$

$$LC3 = 100 \%$$

**(C) Inch-Kilometer of steel pipelines bid in CGD network.**

Let,

IK1 = Present value of the inch-kilometer of steel pipelines bid by the 1<sup>st</sup> entity over the period of exclusivity in terms of the exemption from the purview of the contract carrier or common carrier.

IK2 = Present value of the inch-kilometer of steel pipelines bid by the 2<sup>nd</sup> entity over the period of exclusivity in terms of the exemption from the purview of the contract carrier or common carrier.

IK3 = Present value of the inch-kilometer of steel pipelines bid by the 3<sup>rd</sup> entity over the period of exclusivity in terms of the exemption from the purview of the contract carrier or common carrier.

Assume that IK1 is lower than IK2 and IK2 is lower than IK3.

The highest present value of the inch-kilometer bid (HIK3) shall be given a score of 100% and the present value of the other inch-kilometer bids shall be given a score in relation to HIK3 on a pro-rata basis as under-

$$\text{HIK1} = 100 \% \times (\text{IK1} + \text{IK3})$$

$$\text{HIK2} = 100 \% \times (\text{IK2} + \text{IK3})$$

$$\text{HIK3} = 100 \%$$

**(D) Number of PNG domestic customers bid in CGD network.**

Let,

P1 = Present value of the PNG domestic customers by the 1<sup>st</sup> entity over the period of exclusivity in terms of the exemption from the purview of the contract carrier or common carrier.

P2 = Present value of the PNG domestic customers of the 2<sup>nd</sup> entity over the period of exclusivity in terms of the exemption from the purview of the contract carrier or common carrier.

P3 = Present value of the PNG domestic customers of the 3<sup>rd</sup> entity over the period of exclusivity in terms of the exemption from the purview of the contract carrier or common carrier.

Assume P1 is higher than P2 and P2 is higher than P3.

The highest present value of the PNG domestic customers bid (HP1) shall be given a score of 100% and the present value of the other PNG domestic customers bids shall be given a score in relation to HP1 on a pro-rata basis as under-

$$\text{HP1} = 100 \%$$

$$HP2 = 100 \% \times (P2 + P1)$$

$$HP3 = 100 \% \times (P3 + P1)$$

Now, the composite score of three entities shall be computed by assigning the respective weights assigned to each of the bidding criterion as indicated below-

$$\text{Entity 1} = 0.40 \times LN1 + 0.10 \times LC1 + 0.20 \times HIK1 + 0.30 \times HP1$$

$$\text{Entity 2} = 0.40 \times LN2 + 0.10 \times LC2 + 0.20 \times HIK2 + 0.30 \times HP2$$

$$\text{Entity 3} = 0.40 \times LN3 + 0.10 \times LC3 + 0.20 \times HIK3 + 0.30 \times HP3$$

The entity with the highest composite score shall be declared as successful in the bid.

## Schedule D

[see regulations 10 (1) and 18 (7)]

Grant of authorization for laying, building, operating or expanding CGD network

To,

&lt;Name of the Successful Bidding Entity&gt;

&lt;Address&gt;

Subject: Grant of authorization for laying, building, operating or expanding CGD network in the authorized area of <\_\_\_\_\_> in the State or the Union Territory of <\_\_\_\_\_> under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008

Sir / Madam,

With reference to your application-cum-bid for grant of authorization for laying, building, operating or expanding the CGD network in <name of the authorized area> in the State or the Union Territory of <name>, it has been decided to grant you the authorization subject to the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008 and the following terms and conditions:

1. The Authorized Area for laying, building, operating or expanding the proposed CGD Network shall cover an area of <\_\_> square kilometers and as depicted in the enclosed drawing.
2. The activities of laying, building, operating or expansion of the CGD Network to commence within a period of \_\_\_\_\_ days from the date of this authorization.
3. The activities permitted above shall have to be completed as per the approved time schedule enclosed. Any failure on the part of the entity in complying with the milestones prescribed in the time schedule shall lead to consequences as specified under regulation 16 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.

4. The entity shall design and install an optimal size of the infrastructure in terms of pipelines of various types including steel belting of the authorized area, online compressors of adequate capacity for compressing of natural gas into CNG, allied equipments and facilities in the CGD network as identified in its DFR depending upon the potential demand for natural gas. The infrastructure in the CGD network should be adequate to maintain uninterrupted flow of natural gas in the pipelines and be also able to maintain supplies at adequate pressure to online CNG stations.
5. The entity shall maintain an uninterrupted supply of natural gas to all categories of customers in the CGD network. In the event of any disruption in the supply of natural gas in the CGD Network, first priority shall be accorded to restoration of supplies to domestic PNG customers. In case of disruption of supply to domestic PNG customers for more than twelve hours, the entity shall compensate to the domestic customer on the following basis:-
  - (a) the normative volume of natural gas consumption for the first domestic PNG connection for cooking requirements based on last three months weighted average consumption per day to be applied for each day's disruption and multiplied by ten;
  - (b) normative value of natural gas consumption shall be based on last three months' weighted average billing price of natural gas for supplies to the first domestic PNG connection for cooking requirements; and
  - (c) the value of compensation shall be equal to normative volume of natural gas consumption as per clause (a) multiplied by normative value as per clause (b) and shall be adjusted by allowing a credit to the domestic PNG Customer in the next billing cycle or in the next pre-paid smart card in case of smart card metering.

In case the disruption of supplies is attributed to any fault of the domestic PNG customer, no compensation shall be payable by the entity.

6. The entity is allowed an exclusivity period under the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008, in respect of the following:

- (a) \_\_\_\_\_ months from the date of issue of this communication for laying, building and expansion of the CGD network; and
- (b) \_\_\_\_\_ months from the date of issue of this communication in terms of an exemption from the purview of common carrier or contract carrier for the CGD network:

Provided that the entity meets the obligations in line with the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008:

Provided further that the period of exclusivity allowed under sub-clause (a) or sub-clause (b) may be terminated before the expiry of the period mentioned above in line with the provisions under Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008.

7. The authorized entity shall be required to take prior approval from the Board for creation of any lien, charge or hypothecation of the CGD network to secure finances for the project and furnish details of utilization of funds. However, in case of raising funds from any financial institution or bank, the entity will be required to only inform the Board of the sanction of the funds within a period of seven days.
8. The entity shall submit a detailed and clear financial closure report to the Board within a period of one hundred and twenty days from the date of authorization issued by the Board under regulation 10 of Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.

9. The entity shall publish the approved network tariff for transportation of natural gas as well as the compression charge for CNG in the CGD network in the authorized area.
10. The entity shall publish the applicable retail selling price of PNG for all categories of customers and also for the purpose of invoicing in Rs./ MMBTU.
11. The entity shall publish and display the retail selling price of CNG for the purpose of invoicing to CNG customers in Rs./ Kg at all CNG dispensing stations.
12. The furnishing of performance bond of Rs. \_\_\_\_\_ Million is a guarantee for timely commissioning of the project as per the prescribed targets in the bid and for meeting the service obligations during the operating phase of the project.
13. The entity shall abide by-
  - (a) the service obligations as specified under regulation 14 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008;
  - (b) the service obligations specified under the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008;
  - (c) the service obligations specified in Schedule-J to the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008;
  - (d) the quality of service standards as specified under regulation 15 of Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.

14. In case the authorization of the entity is terminated, the Board may assign the rights and obligations of the entity to any agency or another entity on such terms and conditions, as it may deem fit. Further, the entity may be required, as per the directions of the Board, to continue the operations of the CGD network at the same level till another agency or entity appointed by the Board takes over the full control of the CGD network.
15. The entity shall comply with the applicable provisions under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008, Petroleum and Natural Gas Regulatory Board (Determination of Network Tariff for City or Local Natural Gas Distribution Networks and Compression Charge for CNG) Regulations, 2008, Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008, relevant regulations for technical standards and specifications, including safety standards, any other regulations as may be applicable and the provisions of the Act.
16. The entity shall comply with any other term or condition which may be notified by the Board in public interest from time to time.

You are requested to confirm your acceptance by filling-in the acceptance of the grant of authorization provided below and return the same in original.

Yours faithfully,

Sd/-

Dated:

Name and Designation of Officer  
On behalf of the PNGRB  
Official Seal

Acceptance of the Grant of Authorization

I / We hereby accept the grant of authorization issued by the PNGRB vide letter ref. < \_\_\_ > dated < \_\_\_ > and agree to comply with all the terms and conditions subject to which I/ We have been granted the authorization for laying, building, operating or expanding city or local natural gas distribution in the authorized area of \_\_\_\_\_ in the State or the Union Territory of \_\_\_\_\_.

Date:

Place:

Signature of the Entity or Authorized Signatory  
Name and Official Seal

**Schedule-F**

[see regulation 13 (1)]

**Quarterly submission of data by authorized entity**

A. The data and information required to be submitted by the entity in the following form shall be analyzed by the Board by comparing the –

- (1) actual progress made by the entity versus the physical and financial targets, identified in its DFR;
- (2) actual number of domestic customers connected by PNG versus the numbers committed in the bid or as fixed by the Board for the entities authorized by the Central Government before the appointed day or for the entities laying, building, operating or expanding the CGD network before the appointed day and authorized by the Board in case such entities have sought exclusivity; and
- (3) inch-kilometer of steel pipeline actually laid versus that committed in the bid or as fixed by the Board for the entities authorized by the Central Government before the appointed day or for the entities laying, building, operating or expanding the CGD network before the appointed day and authorized by the Board in case such entities have sought exclusivity.

B. Monitoring of the progress shall be taken up by the Board on a quarterly basis and the notice of deviations and shortfalls, if any, shall be sent to the entity on an annual basis for a prompt resolution. In case of any delay in meeting the yearly commitments within the notice period or in case of repeated violations, the entity may face the consequences specified under regulation 16 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008 or under regulation 10 of the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Network) Regulations, 2008, or both.

A	Name of Authorized Entity		
B	Project Name		
C	Date of grant of authorization		
D	Date of commencement of operations		
E	Details of composition of the ownership of the entity (please give details of variations, if any, since the date of authorization)		
F	Self certification by the entity in terms of its compliance with the requirements of regulation 14 (7) of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.  <u>Note:</u>  The Board reserves the right to seek any information or data from the entity, as it may deem to be fit, to satisfy itself to the compliance by the entity.		
G	Financial details (in Rs. Million)		
1	Capital investment		
	(a) Fixed Assets		
	Opening balance		
	Direct additions		
	Transfer from CWIP		
	Deletions, if any		
	Closing balance		
	(b) Capital Work-in-progress (CWIP)		
	Opening balance		
	Additions		
	Transfer to fixed assets		
	Deletions, if any		
	Closing balance		
2	Operating Expenses		
	(a) Consumables and chemicals		
	(b) Utilities - Power and Fuel		

	(c) Salaries		
	(d) Repair and Maintenance		
	(e) General administrative expenses		
	(f) Insurance		
	(g) Any other expenses (to be detailed)		
3	Financial Expenses		
	(a) Interest on working capital borrowings (WCB)		
	(b) Interest on term loans		
4	Depreciation		
5	Revenue Earned		
	(a) Network tariff		
	(b) Compression charge for CNG		
	(c) Marketing of natural gas		
	(d) Other Income - interest, etc.		
6	Loans Status		
	(a) <u>Term Loans</u>		
	Opening		
	Added		
	Repaid		
	Closing		
	(Provide details of each loan - interest rate, moratorium period, term, terms and conditions, etc.)		
	(b) <u>Working capital loans</u>		
	Opening		
	Added		
	Repaid		
	Closing		
	(Provide details of each loan - interest rate, moratorium period, term, terms and conditions, etc.)		
7	Network Tariff and Compression Charges for CNG Charged		
	CNG (Rs./ Kg)		
	Network tariff (Rs./ MMBTU)		
H	Physical details		

1	Quantity of gas transported in the CGD network		
	CNG (in Kg)		
	Residential (in MMBTU and SCM)		
	Commercial (in MMBTU and in SCM)		
	Industrial (in MMBTU and SCM)		
2	Average heat value of natural gas (in MMBTU/ SCM)		
3	Number of customers connected with PNG supplies		
	Domestic		
	Commercial		
	Industrial		
	<b>Note:</b> In respect of PNG domestic customers- a. Actual to be compared with the number committed in the bid or fixed by the Board. b. Action plan of the entity to rectify the shortfall, if any in the next period.		
4	Inch Kilometer of steel pipeline		
	Till last quarter		
	Laid and built in the current quarter		
	Length as at the end of the quarter		
	<b>Note:</b> a. Actual inch-kilometer to be compared with that committed in the bid or as fixed by the Board. b. Action plan of the entity to rectify the shortfall, if any in the next period.		
5	Pipeline length (in Kilometers).		
	Till last quarter		
	Laid and built in the current quarter		
	Length as at the end of the quarter		
	(Provide details for all types of pipelines based on material (steel or PE), diameter, pressure rating, etc.).		
6	Online compression capacity (in cubic meters and number of online compressors).		
	Till last quarter		
	Added now		

	Total as on date		
7	CNG dispensing stations of the entity (in cubic meter of dispensing capacity and number).		
	Till last quarter		
	Added now		
	Total as on date		
	(To be indicated against each type of CNG stations - mother, online and daughter booster stations, etc.).		
8	Project completion status (physical progress and financial commitment in percentage terms) as per approved schedule. Please provide details for each activity as per the approved time schedule to the grant of authorization and reasons for deviation, if any.		
9	CNG Vehicles conversion		
	Provide details of number of vehicles (commercial vehicles, taxis, Auto-rickshaws, private cars, buses, etc.) converted into CNG during the quarter.		
10	Any other information or data as may be prescribed by the Board or may be considered relevant by the entity.		

Date:

Place:

Signature of the Entity or Authorized signatory  
Name and official Seal

Note:

The Information and data in the above form should be certified by a Chartered Accountant.

**Schedule-F**  
[see regulation 15 (1)]  
**Quality of Service Standards**

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**General.**

The purpose of specifying the quality of service standards is to specify the minimum level of performance expected of the entity in laying, building, operating or expanding the CGD network in terms of service to be provided to the customers and other entities. In order to enable the entity to satisfactorily comply with the quality of service standards, other stakeholders, like, customers and other entities are also expected to diligently fulfill certain minimum responsibilities. While the authorized entity shall have to mandatorily comply with the quality of service standards, it may widely advertise the minimum responsibilities expected of the customers and other entities and also incorporate the same suitably in the contracts. The quality of service standards are indicated below:-

**1. System upkeep and customer classification.**

**(1) Entity's responsibility:**

- a) to ensure upkeep of the system as per the technical standards, specifications including safety standards specified under the relevant regulations for technical standards and specifications, including safety standards at all points of time;
- b) to ensure that the type of customers are classified in terms of prioritization for use of line pack volumes and the order of restoration of supplies in case of disruption or interruption in the CGD network as per the following order of priority:
  - i) domestic PNG customers,

- ii) essential services (hospitals, clinics, milk supplies, etc.),
- iii) CNG customers, and
- iv) Others

The contracts with the customers should accordingly contain a specific clause on dealing with interruptibility in natural gas supplies;

- c) to maintain the quality of natural gas in the CGD network as per the technical standards, specifications and safety standards in the relevant regulations for technical standards and specifications, including safety standards.

**(2) Customer's responsibility:**

- a) to ensure safety of equipment and facilities provided by the entity within the premises;
- b) to clearly state the purpose of gas usage and ensure use against the same connection.

**2. Request for connection.**

**(1) Entity's responsibility:**

- a) to publish in newspaper and its official website, the roll-out plan for laying, building, operating or expanding the CGD network within the authorized area after authorization for the information of the general public;
- b) to provide connectivity promptly provided the premises of the customer including the route have the necessary safety and statutory clearances;

- c) to explain the terms and conditions of the standard contract to the all categories of customers;
- d) to select safe and best possible route to provide connection;
- e) to ensure every consumption point is installed with a meter;
- f) in case of own reticulated system (in terms of pipelines and metering unit) for all the buildings within the colony or an area, to ensure that the internal pipeline network and equipments comply with the technical standards, specifications and safety standards as specified in the relevant regulations for technical standards and specifications, including safety standards before supplying PNG. In such a case, the entity shall not take any interest-free security deposit from the customers or charge any network tariff for Last Mile Connectivity.

(2) Customer's responsibility:

- a) to inform the entity of any change in residential status or the ownership status;
- b) to take prior permission of the entity, if any changes are required to be made in the area in the premises having the installation;
- c) to make necessary payment of deposit and sign the contract;
- d) to be responsible for any civil work required for the safety of the pipelines, piping or other facilities and equipments installed by the entity, within customer's premises and not tamper with the same.

**3. Metering and billing.**

(1) Entity's responsibility:

- a) responsible for installation of the metering equipment at a location which is easily accessible, and the operation, maintenance, inspection, calibration, checking and replacement or removal of the metering equipment;
- b) to publish specifications of the metering equipment for public knowledge;
- c) to raise bill for supply of natural gas as per the terms and conditions of the contract, indicating the network tariff for common infrastructure and for the last mile connectivity, if applicable. The bill should also contain customer name and address, serial number, volume (in MMBTU), price (in Rs./MMBTU), taxes/ levies, amount, due date, etc;
- d) to raise bill for supply of CNG on the entity for dispensing by the latter by separately indicating the network tariff and compression charge for CNG. The bill should also contain customer name and address, serial number, volume (in Kilogram), price, taxes or levies, amount, due date, etc. The dispensing equipment should be capable of converting heat value in to Kg.;
- e) to publicize any price changes or change in metering related activities;
- f) to ensure correct billing;
- g) to ensure authorized representatives with proper identification visit the customer's unit or premises for meter reading on pre-specified days.

**(2) Customer's responsibility:**

- a) to report about any burnt or damaged meter, piping, equipment or facility or non-reading of meter to the entity immediately;

b) to allow access to the metering unit on meter reading days or during the installation or maintenance or repairs to the equipment and facilities provided by the entity;

c) to ensure payment of dues within specified time.

#### **4. Disconnection of supply.**

(1) Entity's responsibility:

a) give proper notice explaining in detail the reason before disconnection;

b) ensure immediate disconnection, if proving hazardous to public safety;

#### **5. Network interruptions.**

(1) Entity's responsibility:

a) give due notice to customers for planned maintenance;

b) ensure the earliest possible network resumption after interruption; and

c) ensure prompt recovery from unplanned network interruptions;

(2) Customer's responsibility:

a) inform the entity at the earliest regarding any leakages, broken pipes, etc.;

#### **6. Emergency response handling.**

(1) Entity's responsibility:

a) to ensure in-position of the emergency response plan to -

- i) handle emergencies in co-ordination with the police, fire department, local administration and hospitals;
  - ii) ensure 24 X 7 manning of emergency cell for handling emergencies;
  - iii) put-in place a clear responsibility chart depicting roles for individuals in the times of emergency.
- b) ensure availability of disaster management plan, a copy of which should be made available to the Board as well as the local administration.

(2) Customer's responsibility:

- a) inform the entity of any potentially hazardous situation at the earliest;
- b) help the entity's personnel to contain the emergency situation, if required.

**7. Information disclosure and customer awareness.**

(1) Entity's responsibility:

- a) to provide on request information about the route of pipeline, pipeline capacities and specifications, like, pressure, calorific value of natural gas, etc.;
- b) to educate the customers through customer awareness campaigns on-
  - i) appropriateness of burner configuration of the appliance in getting best results from usage of natural gas;
  - ii) approved make of CNG kit and storage cylinder, list of authorized agencies for installing CNG kit and storage cylinder, safety procedures, proper upkeep and maintenance, regular hydro-testing of

cylinders as per Petroleum Explosive Safety Organization (PESO) norms, etc.

## 8. Customer handling.

### (1) Entity's responsibility:

- a) to advertise toll-free emergency contact numbers and customer care numbers with facility to automatically upgrade the unsettled Customer grievances or complaints to the appropriate supervisory level;
- b) establish a comprehensive customer care system and software to help provide better service to customers. The software should be equipped to handle-
  - i) Customer complaints;
  - ii) Customer requests;
  - iii) Docket number to customers;
  - iv) Tracking the progress of request or complaint.
- c) to set-up bill acceptance centers.

## 9. Maintain database.

### Entity's responsibility:

to maintain a credible database management system to handle the data requirements of the Board and also the record of customer complaints received and action taken on the same.

## 10. Other.

The entity shall continuously endeavour to facilitate increased availability of CNG kits by coordinating with reputed original equipment manufacturers besides also to

liaise with the Government or other development agencies to facilitate setting-up of approved workshops for fitting of CNG kits and periodical testing and certification of the CNG storage cylinders in the authorized area so as to facilitate-

- a) reduction in cost of CNG Kit and the installation cost of the kit and the storage cylinders;
- b) customer satisfaction;
- c) serviceability of the CNG kit and storage cylinder.

**Schedule G**  
[see regulation 16 (1) (d)]

**Procedure for the termination of grant of authorization of CGD network**

The procedure for implementing the termination of the authorization of the entity to lay, build, operate or expand a CGD network following default by the entity as per the provisions of regulation 16 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008, is as under:

1. On approval of termination of the authorization by the Board, the entity shall be required to submit a detailed statement of the ongoing activities in the CGD network, investments, liabilities and such other information as may be directed by the Board within a period of thirty days from the date of receipt of notice of termination by the entity;
2. The authorized entity shall be required to continue the operations of the CGD network at the same level till such time another agency or entity, as per the decision of the Board, takes over the full control of the CGD network. The Board reserves the right to appoint any other entity or agency to manage and operate the CGD network till such period of time and on such terms and conditions, as it may deem fit;
3. The Board may, in any manner as it deems fit including through an issue of an advertisement, invite expression of interest or bids from entities interested in taking over the management and operation of the CGD network;
4. On receipt of expression of interest or bids, as the case may be, the Board may take an appropriate view on the procedure for evaluation and subsequent grant of authorization and an entity shall be selected to take over the operations of the CGD network from the defaulting entity;
5. The defaulting entity shall have to provide an undertaking to indemnify the newly authorized entity for any liability which may arise later as a result of its past actions;

## Schedule H

[see regulation 17 (1)]

**Information to be provided for CGD network authorized by Central Government before the appointed day**

To,

The Secretary,  
Petroleum and Natural Gas Regulatory Board,  
1st Floor, World Trade Centre  
Babar Lane, Connaught Place,  
New Delhi – 110 001.

Sub: Information in respect of CGD network in the city or area of \_\_\_\_\_ in the State or the Union Territory of \_\_\_\_\_

(Attach separate sheets for providing information wherever necessary)

<b>Part-I – General details of the entity and technical details of the project</b>	
1	Details of the entity
A	Name of the entity
B	Type of firm – Public limited company / Private limited company / Partnership firm / Proprietorship firm / Others (please specify attaching the copy of the articles of association, partnership deed, etc. as the case maybe.
B	Date of incorporation and date of commencement of business.
C	Address of registered office.
D	Name, addresses, telephone numbers, e-mail ID of all directors / partners / proprietor (please provide full details with STD Code and Pin Code).
E	Full particulars of the authorization granted by the Central Government for laying, building, operating or expanding the CGD network before the appointed day. Details of NOCs', clearances, etc. considered relevant by the entity to be provided. (copies of the authorization and other documents to be enclosed).

<b>2</b>	<b>Financial Details</b>	
<b>A</b>	Share capital / Proprietor's own funds	
<b>B</b>	Loans – amount, tenure, moratorium period, rate of interest, taken from and asset mortgaged or hypothecated for securing the same, if any.	
<b>C</b>	Reserves, if any	
<b>D</b>	Fixed Assets	
<b>E</b>	Current Assets	
<b>F</b>	Current Liabilities	
<b>G</b>	Sales Turnover	
<b>H</b>	Profit After Tax	
	(Attach copies of audited Profit and Loss Account and Balance Sheet for the last three financial years) - In case the entity is a subsidiary company, copies of the audited Profit and Loss Account and Balance Sheet for the last three financial years of the parent company to be attached	
<b>3</b>	<b>Business activities of the entity</b>	
<b>A</b>	Original cost and WDV of assets along with year of commissioning, detailed break-up of the operating costs, unit network tariff customer-category wise, average unit compression charge for CNG, average unit transportation cost of cascade mounted CNG systems and retail selling price charged from each category of customers during the last three years, etc.	
<b>B</b>	Details of technical or operational tie-up or collaboration with any other entity for laying, building, operating or expanding of CGD network	
<b>C</b>	Details of other business, if any, being carried out by the promoters for the last three years	
<b>4</b>	<b>Ownership and affiliate details</b>	
<b>A</b>	Details of promoters	
<b>B</b>	Details of affiliates of the entity mentioning the business relationship ("Affiliate" means as defined in the	

	relevant regulations for affiliate code of conduct).	
C	The entity undertakes to produce all relevant records and documents of itself and its related entities on demand by the Board.	Yes / No
D	Is the entity a company registered under Companies Act, 1956?	Yes / No
E	Is the entity promoted by company registered under Companies Act, 1956?	Yes / No
F	The entity undertakes to become a company, in case it is not a company at the time of providing the information herein, under the Companies Act, 1956 on grant of exclusivity under the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008.	Yes / No
5	Technical details of the CGD network	
A	Name of the CGD network	
B	Wards in the municipalities and charge area identified by the entity for the CGD network along with a physical map indicating all the existing and proposed facilities	
C	Technical specifications of the existing infrastructure in the CGD network, comparison with projections in the DFR and reasons for variation. (Attach copy of the feasibility report and provide full details regarding pipelines design pressure, diameter, thickness, class, etc., area of the CGD network, route, pipeline corrosion protection arrangements, city gate stations, main block valves, isolation valves, emergency shutdown valves, odourization facilities, metering arrangements, CNG infrastructure, HSE measures, etc.	
D	Development plan envisaged for the project - design & installed capacity of the CGD network along with	

	<p>details of phased-out capital expenditure plans including the timelines and the projected dates of commencement of operations phase-wise. Complete details of the activities and targets associated with the completion of the Project to be enclosed.</p>	
E	<p>Year-wise growth achieved in physical infrastructure along with value till the appointed day. Details of number, length and type of pipelines laid and number and type of connections provided to customers and CNG infrastructure in terms of online compression capacity and number and dispensing facilities along with allied infrastructure in existence to be provided.</p>	
F	<p>i) Volume of natural gas transported in the CGD network and sold (Customer category-wise including CNG) during the period till the appointed day.</p> <p>ii) Reasons for variations in actual volumes transported and sold versus the projections in the DFR.</p> <p>iii) Volume of natural gas proposed to be transported and sold on an annual basis during the rest of the economic life of the project for each category of customer.</p> <p>Also, give details of customer tie-up, if any.</p> <p>Volumes to be indicated in SCM (or in Kg in case of CNG). The conversion factors for conversion of volume or weight of natural gas or CNG into MMBTU to be provided.</p>	
G	<p>Number of customers connected by PNG category-wise and year-wise and reasons for variation with the projections in the DFR</p>	
H	<p>Sources of supply of natural gas and capacity tie-up with the entity owning and operating natural gas pipeline including existing or any proposed connectivity. Details of the natural gas</p>	

	source tie-up to be provided phase-wise. Please enclose copies of the gas purchase-sale agreement or Memorandum of understanding or Heads of Agreement, as the case maybe.	
I	Demand assessment over the economic life of project – estimated yearly demand for each category of customers.	
J	Time schedule for phase-wise completion of the project from the date of commencement of operations. (Complete details of all the activities associated with the completion of the project to be provided separately)	
K	Whether the State, in whose jurisdiction the CGD network is located, has enacted any legislation or taken any administrative action to promote the use of natural gas in the said city or area? If the reply to the question is yes, then, provide copy of the said enactment or the administrative order.	Yes / No
L	Are all applicable technical standards, specifications including safety standards under the relevant regulations for technical standards and specifications, including safety standards been considered and complied with while designing, laying, building, expanding or operating the CGD network? Provide details.	
M	Attach copy of the Disaster Management Plan in place.	
N	Is the project entitled to any subsidy or entitled for any exemption or deferment or waiver of any statutory levy from the Central or the State Governments? If yes, give complete details indicating the year-wise utilization plan of the entity.	Yes / No
O	Has the entity availed any period of exclusivity for laying, building, operating or expanding the CGD network till the appointed day?	
P	Details of approved capital expenditure plans? What is the	

	percentage of year-wise actual capital expenditure during the last three years to the projected capital expenditure in the DFR and reasons for variation, if any? (The data is required to be provided for last three financial years and for the period till the appointed day)	
<b>Part-II:</b> Any other submission considered as relevant by the entity		
<b>Part-III:</b> Detailed justifications for seeking exclusivity for laying, building, operation or expansion of CGD network under the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008. (see note below)		
A	Justification for seeking exclusivity in laying, building or expansion of the CGD network. Please indicate the period of exclusivity sought. Data, analysis and documents in support of the argument may be provided as attachments.	
B	Justification for seeking exclusivity in terms of seeking exemption from the purview of common carrier and contract carrier. Please indicate the period for which the exemption is sought.	-do-
<p><b>Note:</b></p> <ol style="list-style-type: none"> <li>1) In case the entity applies for exclusivity under the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008 and the Board grants the exclusivity, the targets to be achieved by the entity shall be as fixed by the Board in terms of the clause (b) of sub-regulation (1) of regulation 8 under the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008; and</li> <li>2) The Board shall monitor the actual progress against the targets fixed for the entity, on a quarterly basis, and take further action in case of any deviation or shortfall determined on an annual basis in the manner as indicated in Schedule E.</li> </ol>		

## DECLARATION

1. Certified that the above information is true to the best of my / our knowledge and belief and the information and data given in the Annexure and statements are

correct, complete and truly stated, and if any statement made herein is found to be incorrect, I / We shall be liable for proceeding and for punishment under the provisions of the Act.

2. I/ we also undertake to provide any further information or data as may be required by the Board within the stipulated time.

Date:

Place:

Name and Signature of Authorized Signatory

Official Seal

Instructions for providing information:

1. All entries in the form and annexed documents should be legible with no cuttings.
2. Details requiring separate statement shall be provided giving clear reference of the point against which the same is being attached.
3. All pages of the information format and all annexure, statements, etc need to be serially numbered and initialed by the person or official authorized by the applying entity through a notarized Power of Attorney.
4. Any information or data filled in the information format needs to be substantiated by attaching relevant proof of the same.
5. The information format is required to be submitted in five copies with all the enclosures in addition to the original.
6. Incomplete information format is liable to be summarily rejected.

**Schedule I**  
[see regulation 18 (1)]

**Application for grant of authorization for CGD network to entities not authorized by  
Central Government**

To,  
The Secretary,  
Petroleum and Natural Gas Regulatory Board,  
1st Floor, World Trade Centre  
Babar Lane, Connaught Place,  
New Delhi – 110 001.

Sub: Application for grant of authorization for City or Local Natural Gas Distribution project in the city of \_\_\_\_\_ in the State or the Union Territory of \_\_\_\_\_

(Attach separate sheets for providing information wherever necessary)

General details of the entity and technical details of the project		
1	Details of the entity	
A	Name of the Entity	
B	Type of firm – Public limited company / Private limited company / Partnership firm / Proprietorship firm / Others attaching the copy of articles of association, Partnership deed, etc. if any.	
C	Date of incorporation and date of commencement of business.	
D	Address of registered office.	
E	Names, addresses, telephone numbers, e-mail ID of all directors / partners / proprietor (please provide full details with STD Code and Pin Code).	
2	Information/ data to be provided by the entity in support of the eligibility criteria as specified under sub-regulation (2) of regulation 18.	
A	Non-refundable application fee under regulation 5 (6)(a)	Rs. < _____ >
	Demand draft or pay order	
	Demand draft or pay order no. & date	
	Name of issuing bank and branch	
B	Entity is technically capable of laying and building CGD Network	
	Documentary evidence in support of	

	the technical capability of the entity in terms of the qualifying criteria under regulation 5 (6) (b) (i) to (iv) to be attached.	
C	Entity is technically capable of operating and maintaining a CGD Network.	
	Documentary evidence in support of the technical capability of the entity in terms of the qualifying criteria under regulation 5 (6) (c) (i) to (iv) to be attached.	
D	Entity agrees to abide by the relevant regulations for technical standards and specifications, including safety standards.	Yes/ No
E	Entity has adequate financial strength to execute the proposed CGD project, operate and maintain the same in the authorized area and meets the financial criterion in terms of having a minimum combined net worth as specified under regulation 5 (6) (e).  Note: All documents in support of the calculations of the minimum combined net worth duly certified by a Chartered Accountant to be attached.	
F	Has any penalty been imposed on the entity under section 28 or punished under Chapter IX of the Act? In case the answer is yes, please submit full details.	Yes/ No
G	Copies of all the necessary statutory clearances, permissions and no objection certificates obtained by the entity from the Central and State Governments and other statutory authorities as applicable for the proposed CGD project to be attached.	
H	In case entity is not registered as a company under the Companies Act, 1956, the entity undertakes to become a company registered under the Companies Act, 1956 on grant of authorization. Full details of the promoters of the entity to be provided.	Yes/ No

	<p><b>Note:</b> In case the entity seeks an exemption from registering under the Companies Act, 1956, detailed justifications shall be submitted to the Board.</p>	
I	<p><b>Details on Financial and Physical progress</b></p>	
	<p>i) Copy of the approved DFR of the project to be attached.</p> <p><b>Note:</b> The entity shall also enclose the documentary proof of the formal approval of the DFR of the project by its management.</p>	
	<p>ii) Has the DFR of the proposed CGD project for which authorization is being sought been appraised by any financial institution?</p>	Yes/ No
	<p>iii) Does the DFR of the proposed CGD project specify the geographical area proposed to be covered? In case the answer is yes, please specify the size of the geographic area proposed and also enclose the map depicting the same.</p>	Yes/ No
	<p>iv) Details in the DFR in terms of year-wise coverage of PNG domestic connections and CNG compression facilities</p>	
	<p>v) Extent of physical progress in laying and building the proposed CGD network achieved by the entity till the day immediately before the appointed day as against the total physical activities proposed in the DFR.</p> <p><b>Note:</b> The onus of proving the physical progress actually made by the entity lies with the entity and the entity shall submit all necessary documentary proofs in support.</p>	<in percentage terms>
	<p>vi) Extent of financial commitment actually made by the entity in the</p>	<in percentage terms>

	<p>proposed CGD network till the day immediately before the appointed day as against the estimated capital expenditure identified in the DFR.</p> <p>Note: The onus of proving the financial commitment actually made by the entity lies with the entity and the entity shall submit all necessary documentary proofs in support.</p>	
J	Arrangements for erecting the CGS	
	i) Has the entity arranged the land by way of acquisition or lease for erecting the proposed CGS? If yes, please submit the documentary proof.	Yes/ No
	ii) Whether the necessary equipment for erecting the CGS already procured? If yes, please submit documentary proofs.	Yes/ No
K	Entity shall enclose the copies of the internal procedures and guidelines as approved by its management prescribing the basis of compliance by the entity to any technical standards, specifications, including safety standards and the quality of service to customers, if any.	
L	Entity shall enclose copies of the agreement in support of having made firm arrangements for supply of natural gas to meet the demand in the proposed CGD network.	
M	Any other information or data including any documentary proof considered relevant by the entity for consideration of the Board or as may be specified by the Board shall also be provided.	
3	Financial details	
A	Share capital / Proprietor's own funds	
B	Loans – amount, tenure, moratorium period, rate of interest, taken from and asset mortgaged or hypothecated for securing the same, if any.	
C	Reserves, if any	
D	Fixed Assets	
E	Current Assets	
F	Current Liabilities	

G	Sales Turnover	
H	Profit after Tax	
	(Attach copies of audited Profit & Loss Account and Balance Sheet for last three financial years) - In case entity is a subsidiary company, copies of audited Profit and Loss Account and Balance Sheet for last three financial years of the parent company to be attached.	
4	Business Activities of the entity.	
A	Original cost and WDV of assets along with year of commissioning, detailed break-up of the operating costs, unit network tariff customer category wise, average unit compression charge for CNG, average unit transportation cost of cascade mounted CNG systems and retail selling price charged from each category of customers during the last three years, etc.	
B	Details of other business, if any, being carried out by the promoters for the last three years.	
5	Ownership and affiliate details	
A	Details of promoters	
B	Details of all affiliates of the entity mentioning the business relationship between the entity and "Affiliate" means as defined in the relevant regulations for affiliate code of conduct.	
C	The entity undertakes to produce all relevant records and documents of itself and its related entities on demand by the Board.	Yes / No
D	The entity undertakes to abide by the relevant regulations for affiliate code of conduct.	Yes / No
6	Technical details of the CGD Network	
A	Name of the CGD network	
B	Wards in the municipalities and charge area identified by the entity for the CGD network alongwith a physical map indicating all the existing and proposed facilities.	

C	<p>Technical specifications of the existing infrastructure and a comparison with that projected in the DFR and reasons for variation, if any.</p> <p>Indicate full details regarding the pipelines design pressure, diameter, thickness, class, etc., area of the CGD network, route details, pipeline corrosion protection arrangements, city gate stations, main block valves, isolation valves, emergency shutdown valves, odourization facilities, metering arrangements, CNG stations, HSE measures, etc.</p>	
D	<p>Development Plan envisaged for the project - design and installed capacity of the CGD network along with details of phased-out capital expenditure plans including the time-lines and the projected dates of commencement of operations phase-wise. Complete details of the activities and targets associated with the completion of the project to be enclosed.</p>	
E	<p>Year-wise growth achieved in physical infrastructure along with value. Details of number, length and type of pipelines laid and number of connections customer over their types and CNG infrastructure in terms of online compression capacity and number of dispensing facilities along with allied infrastructure in existence to be provided. Gross and Net block value to be indicated over each asset-head.</p>	
F	<p>i) Volume of natural gas transported in the CGD network and sold customer category-wise, including CNG during last year-years till the appointed day.</p> <p>ii) Reasons for variations in actual volumes transported and sold versus the projections in the DFR.</p> <p>iii) Volume of natural gas proposed to be transported and sold on an annual basis during the rest of the economic life of the project for each</p>	

	<p>category of customer. Also, give details of customer tie-up, if any.</p> <p>Volumes to be indicated in MMBTU and also in SCM for PNG and in Kg for CNG. The conversion factors for conversion of volume or weight of natural gas or CNG into MMBTU to be provided.</p>	
G	Number of customers provided with PNG connection category-wise and year-wise and reasons for variation with the projections in the DFR, if any.	
H	Capacity tie-up with the entity owning and operating natural gas pipeline including existing and proposed connectivity.	
I	Demand assessment over the economic life of the project – estimated yearly demand for each category of customer.	
J	<p>Time schedule for phase wise completion of the project from the date of commencement of operations.</p> <p>Complete details of all the activities associated with the completion of the project to be provided separately.</p>	
K	Whether the State, in whose jurisdiction the CGD network is located, has enacted any legislation or taken any administrative action to promote the use of natural gas in the said city? If the reply to the question is yes, then provide copy of the said enactment or the administrative order.	Yes / No
L	Whether applicable technical standards, specifications including safety standards under the relevant regulations for technical standards and specifications, including safety standards been considered and complied with while designing, laying, building, operating and expanding the CGD network? Provide details.	
M	Copy of Disaster Management Plan to be attached.	
N	Is the project entitled to any subsidy, tax waiver or exemption or deferment from the Central or State Government?	Yes / No

	<b>If yes, give details.</b>	
O	Has the entity availed any period of exclusivity for laying, build, operate or expand the existing CGD network?	
P	Details of approved capital expenditure plans? What is the percentage of year-wise actual capital expenditure to the projected capital expenditure in the DFR during the last three years and reasons for variation, if any?	
<b>Part-II: Any other submission considered as relevant by the entity with regards to the application for grant of authorization for CGD network by the Board</b>		
<b>Part-III: Detailed justifications for seeking exclusivity for laying, building, operation or expansion of CGD network under the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008. (see note below)</b>		
A	Justification for seeking exclusivity in laying, building or expansion of the CGD network. Please indicate the period of exclusivity sought.	Data, analysis and documents in support may be provided
B	Justification for seeking exclusivity in terms of seeking exemption from the purview of common carrier and contract carrier. Please indicate the period for which the exemption is sought.	-do-
<p><b>Note:</b></p> <p>1) In case the entity applies for exclusivity under the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008 and the Board grants the exclusivity, the targets to be achieved by the entity shall be as fixed by the Board in terms of the clause (b) of sub-regulation (1) of regulation 8 under the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008; and</p> <p>2) The Board shall monitor the actual progress against the targets fixed for the entity, on a quarterly basis, and take further action in case of any deviation or shortfall determined on an annual basis in the manner as indicated in Schedule E.</p>		

### DECLARATION

1. Certified that the above information is true to the best of my / our knowledge and belief and the information given as Annexure and statements accompanying this application are correct, complete and truly stated, and if any statement made

herein is found to be incorrect, the application shall be rejected, the application fee shall be forfeited and I / We shall be liable for proceeding and for punishment under the provisions of the Act.

2. I / We also undertake to furnish a Performance Bond, which may be prescribed by the Board.
3. I / We certify that this is the only application submitted and no other application has been or is being separately submitted for this city or geographic area.

Date :

Place :

Name and Signature of entity or authorized signatory

Official seal

**Instructions for filling the Application form:**

1. All entries in the form and annexed documents should be legible with no cuttings.
2. Details requiring separate statement may be provided giving clear reference of the point against which the same is being attached.
3. All pages of the application form and all annexure, statements, etc need to be initialed by the person or official authorized by the applying entity through a notarized Power of Attorney.
4. Any information and data filled in the application form needs to be substantiated by attaching relevant proof of the same.
5. The entity is required to submit five copies of the application with all the enclosures in addition to the original.
6. Incomplete application is liable to be summarily rejected.

**Schedule J** *As Ld*

[see clause 13 (c) of the form of grant of authorization in Schedule D]

**Service Obligations of an Entity****1. General.**

- a) The entity shall obtain all statutory permits, clearances and approvals from the concerned approving authorities and shall at all times ensure the validity of said permits, clearances and approvals.
- b) During the continuance of the authorization, the entity shall supply natural gas to the city and its inhabitants in accordance with the terms of this authorization, charge the approved tariff, not change the domestic PNG price for the end customers by more than once in a quarter and abide by the extant rules and regulations, including such revisions as the case may be.
- c) The entity shall enter into a firm agreement for delivery of natural gas till the city gate station for such quantity and period of time, as shall be necessary for ensuring an uninterrupted supply in the CGD network.
- d) The entity shall put in place appropriate systems and procedures for-
  - i) protection of its property;
  - ii) prevention of loss and waste in the operation of the network;
  - iii) safe operation of network following the technical standards and specifications including safety standards as notified by the Board;
  - iv) addition of odorant to natural gas as a safety requirement;
  - v) undertaking periodic safety awareness campaigns;
  - vi) sale and distribution of natural gas;

vii) redressal of Customer grievances;

viii) specifying obligations of customers and distributors; and

ix) extension of the CGD network.

A documented copy of the said systems & procedures shall be provided by the authorized entity to the Board and shall widely publish the same in the interest of general public. Modifications, if any, suggested by the Board shall be carried out by the entity.

e) The entity selling natural gas to a customer shall:

i) provide all relevant information with regards to the delivered price of natural gas including the tariff to be paid for using the CGD network and other relevant terms proposed in the contract;

ii) not exert any undue pressure on the customer for shifting to natural gas usage;

iii) not make any offer for supply of natural gas conditional on the Customer availing any non-regulated service; and

iv) not make any representation or statement or give any answer or take any measure that is false or is likely to mislead a customer.

f) The entity shall enter into contract with its proposed customers with appropriate clauses to ensure compliance to the obligations specified in clause 1d) as well as with respect to the following:-

i) the time period for the validity of the contract; and

ii) frequency of billing or smart-card based pre-paid gas supply system.

g) The entity shall insure all the assets used in the business of city gas distribution and the insurance policy, in this regard, shall also cover third party liabilities.

## 2. Construction, operation and maintenance.

- a) The entity shall not undertake any excavation or related work which shall disturb or interfere with the surface of the traveled portion of any road or highway unless a permit for the same has been first obtained from the approving agencies of the city or local administration and all works subsequently undertaken by the entity up to and including the restoration work shall be carried out to the satisfaction of the city or local administration.
- b) The entity shall not deviate from the permission granted in clause 2 a) without the prior approval of the approving agencies of the city or local administration.
- c) The entity shall, in the construction, maintenance and operation of the city or local natural gas distribution system, use all reasonable precaution to avoid damage or injury to any person or property. The entity shall further be liable for any loss, injury or damage attributed to the negligence of the entity or its agents and also indemnifies the affected parties.
- d) The entity shall establish a centralized control room for monitoring and control of the CGD network and be responsible for operationalizing the disaster management system.
- e) The entity shall put in place a supply chain management system including natural gas accounting system.
- f) The entity shall furnish on regular basis to the city or local administration, the map including detailed "as built" drawings, accurately depicting the size, depth and location of pipelines, related equipment, location of marker posts indicating the route, pipeline gradient, etc. of the CGD network and regularly update the same for any change, addition or deletion.
- g) The entity shall ensure that main pipeline, service pipelines and all other associated equipment are installed in such a manner so as not to obstruct or interfere with the use of a public or private drain, sewer, water pipe, or other public utility already installed including street, alley, avenue, road and other

public place in the city and take requisite permissions from the authorities concerned.

- h) In the event of the city proposing to construct, change or repair any water main, sewer, pipe, drain or other public improvement or change the status of any of its street, alley, road or public ground which is being used by the entity for its main pipeline or related equipment, then, the entity shall be under an obligation to raise, lower or relocate its facilities at its own expense.
- i) The entity shall ensure compliance of all necessary quality checks and inspection certification before providing connectivity to any gas delivery system.
- j) The entity shall properly purge, isolate, blind or dismantle any gas pipeline segment, equipment etc, which is not in use for long time or has been abandoned, so as to ensure complete safety and necessary modifications shall be carried out in the maps and drawings.
- k) The entity shall have proper systems and procedures including designated facilities for the purpose of undertaking inspection, testing, calibration and repair of meters and equipments etc.
- l) Any other service obligation, which the Board shall specify in consultation with city or local Administration.
- m) Put in position the disaster management plan including mutual aid system and offsite or onsite emergency plan.

**3. Services and database to be maintained by the entity.**

- a) The entity shall have a current mailing address and telephone numbers of its offices in the authorized area where the city gas distribution network is being set-up and operated.
- b) The entity shall maintain a database and provide to the Board on request details of:
  - i) the customers;

- ii) the contracts with the customers;
- iii) contract renewal or extension;
- iv) vehicles converted into CNG along with identification details of CNG kit and cylinder installed in the vehicle.

#### **4. Confidentiality of customer Information.**

a) The entity shall not disclose Customer information to any person other than the Board without the consent of the Customer in writing except when the information has been sufficiently aggregated such that an individual customer's information cannot be separately identified or where the customer information is required to be disclosed:

- i) for billing or market operation purposes;
- ii) for law enforcement purposes; and
- iii) when past due accounts of the customer have been transferred to a debt collection agency.

b) The entity shall inform customers regarding the conditions described in clause 4 a) under which customer information may be released to a third party without the customer's consent.

c) The entity shall not use customer information obtained for a purpose other than for which it was obtained.

#### **5. Complaints.**

a) The entity shall provide the addresses and telephone number of its customer service centre for lodging of any complaint and widely advertise the same from time to time.

- b) The entity shall make all reasonable efforts in resolving the complaints received in a time bound manner.
- c) The entity shall maintain an automated system of registering complaints received, details of the actions taken on the same and provide on a monthly basis, to the Board, the details of:
  - i) complaint received by the entity or referred to by the Board;
  - ii) method and time of disposal of complaint;
  - iii) complaint pending for redressal; and
  - iv) comment on the quality of service provided by the entity and suggestions, if any.

[F. No. S-Admn/II/8/2007-Vol. I]

AJAY TYAGI, Secy.

Secretary

**NOTIFICATION**

New Delhi, the 19th March, 2008

**G.S.R. 197(E).**—In exercise of the powers conferred by Section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely :—

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Determination of Network Tariff for City or Local Natural Gas Distribution Networks and Compression Charge for CNG) Regulations, 2008.
- (2) They shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

- (1) In these regulations, unless the context otherwise requires,—
  - (a) “Act” means the Petroleum and Natural Gas Regulatory Board Act, 2006;
  - (b) “appointed day” means the date of October 1, 2007 when the Central Government notified the establishment of the Petroleum and Natural Gas Regulatory Board;

- (c) "Board" means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of section 3 of the Act;
- (d) "City Gate Station" means the point where custody transfer of natural gas from natural gas pipeline to the city or local natural gas distribution network (hereinafter referred as CGD Network) takes place;
- (e) "compression charge for CNG" means a charge (excluding statutory taxes and levies) in Rs./ Kg for online compression of natural gas into compressed natural gas (hereinafter referred to as CNG) for subsequent dispensing to consumers in a CNG station;
- (f) "Development of a CGD network" means laying, building, operating or expanding a CGD network;
- (g) "Network tariff" means the weighted average unit rate of tariff (excluding statutory taxes and levies) in rupees per million British Thermal Units (Rs./ MMBTU) for all the categories of consumers of natural gas in a CGD Network;

(2) Words and expressions used and not defined in these regulations, but defined in the Act or in the rules or regulations made thereunder, shall have the meanings respectively assigned to them in the Act.

### 3. Application.

(1) These regulations shall apply to an entity -

- (a) authorized by the Central Government for laying, building, operating or expanding CGD network before the appointed day;

(b) laying, building, operating or expanding CGD network before the appointed day and authorized by the Board for such activities under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.

**4. Determination of network tariff and compression charge for CNG.**

The network tariff and compression charge for CNG in respect of an entity covered clause (a) or clause (b) of sub-regulation (1) of regulation 3 shall be determined as per the procedure at Schedule A.

**5. Form for data submission for determination of network tariff and compression charge for CNG.**

(1) An entity is obligated to submit to the Board the financial, cost and other data in the form at Attachment 1 of Schedule A:

(a) The information referred to in sub-regulation (1) shall be submitted by an entity referred to in clause (a) of sub-regulation (1) of regulation 3 within thirty days of the notification of these regulations;

(b) The information referred to in sub-regulation (1) shall be submitted by an entity referred to in clause (b) of sub-regulation (1) of regulation 3 alongwith the application seeking grant of authorization under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.

**6. Miscellaneous.**

If any dispute arises with regards to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final.

## Schedule A

[see regulations 3 and 4]

Procedure for determination of network tariff and compression charge for CNG

The network tariff and compression charge for CNG in a CGD network shall be determined by considering a reasonable rate of return on normative level of capital employed plus a normative level of operating expenses in the CGD network.

**1. Financial feasibility.**

The entity to which these regulations apply shall submit all technical, operating, financial and cost data of the CGD network or CGD network project that may be required by the Board for determination of the network tariff and compression charge for CNG.

**2. Methodology for determination of network tariff and compression charge for CNG.**

The unit rates of network tariff and the compression charge for CNG to be charged for a period shall be the calculation based on the "Discounted Cash Flow" (DCF) methodology<sup>1</sup> considering the reasonable rate of return as the project's internal rate of return as specified in clause 3. The parameters relevant to the

<sup>1</sup> Discounted Cash Flow refers to equating the inflows from the projected revenue earnings out of network tariff and compression charge for CNG with the outflows of capital and operating expenditures over the economic life of the project by discounting these flows at the reasonable rate of return. The volumes and outflows are estimated over the economic life which results in the determination of the network tariffs and compression charge for CNG required to be earned by the project to achieving the reasonable rate of return.

applicability of the DCF methodology have been described in detail in clause 4 to clause 6.

### 3. Reasonable rate of return.

The reasonable rate of return shall be the rate of return on capital employed equal to fourteen percent post-tax considering the rate of return on long-term risk-free Government securities and the need to incentivize investments in creation of CGD infrastructure. The rate of return on capital employed once applied to a CGD network shall remain fixed for the entire economic life of the project.

#### Note:

The pre-tax rate of return on capital employed shall be computed by grossing-up fourteen percent by the nominal applicable rate of income tax applicable for corporate assesses as per the provisions of the Income Tax, 1961.

### 4. Return on total capital employed for network tariff and compression charge for CNG.

(1) The return on total capital employed shall be determined separately for the capital employed in -

- (a) the common infrastructure in the CGD network (i.e., consisting of the pipeline from the tap-off point in the natural gas pipeline up to the city gate station, if any, city gate station, city gate distribution network consisting of pipelines, district regulatory station and distribution related equipments and facilities, but excluding CNG compression and dispensation related equipments and facilities) as specified in clause a)

and clause c) of Attachment 1 of Schedule A for determination of the network tariff;

- (b) online compressors and related facilities as specified in clause (b) of Attachment 1 of Schedule A required for compression of natural gas into CNG for dispensation in the CNG stations in the CGD network for determination of the compression charge for CNG. Land for online compressor and all equipments and facilities beyond the discharge valve of the online compressor for CNG are related to the activity of dispensing of CNG and hence not to be considered for return on capital employed.
- (2) The reasonable rate of return shall be applied on the total capital employed to determine the return on total capital employed in the project over its economic life and the authorized entity is free to leverage the financing of the project in any suitable manner.
- (3) The total capital employed shall be equal to the Gross Fixed Assets in the project less accumulated depreciation <sup>2</sup> plus Normative Working Capital (equal to twenty days of operating cost excluding depreciation).
- (4) The Gross Fixed Assets shall be equal to their actual historical cost of acquisition (including the cost of any subsequent replacement or improvement or modification) or that normatively assessed by the Board, whichever is lower, as required in the CGD network or CGD network project over its economic life as per the following basis and principles<sup>3</sup> that may be

<sup>2</sup> Depreciation shall be calculated by applying the rates of depreciation as specified in Schedule VI to the Companies Act, 1956 on the value of Gross Fixed Asset.

<sup>3</sup> The basis and principles identified here are not exhaustive and may vary depending upon the specific CGD network or CGD network project under consideration which the Board may apply in a transparent manner.

considered as required to create an efficient and robust CGD infrastructure, namely:-

- (a) treatment of an investment in the fixed asset in the determination of total return on capital employed shall be as per the basis indicated in Attachment 2;
- (b) capital costs in similar projects elsewhere in India benchmarked on a "like-to-like" basis;
- (c) appropriateness of the pipeline design and the operating philosophy with regards to maximum allowable operating pressure;
- (d) optimization of the equipments and facilities (online compressors for CNG compressors, metering systems, SCADA, fire fighting, etc.) required based on an assessment of the appropriate available technology;
- (e) design parameters of the equipments, like, online compressors for CNG;
- (f) assessment of the latest costs of major equipments in the CGD network - pipelines, online compressors, laying or building costs, project management consultancy, pre-operative expenditure, etc;
- (g) treatment of costs incurred in providing last mile connectivity (LMC, i.e., between the riser isolation valve before the metering unit and the Suraksha hose pipe connecting the burner in the domestic PNG customer's premises) in the return on capital employed for network tariff shall be as per the procedure indicated in Attachment 3.

## 5. Operating costs.

Operating costs<sup>4</sup> required in the operation and maintenance of -

- 1) common infrastructure in the CGD network; and
- 2) online compressor facilities for compressing natural gas in to CNG

shall be computed separately for sub-clause 1) in the determination of network tariff and for sub-clause clause 2) in the determination of compression charge for CNG over the economic life, on an actual basis or based on a normative assessment by the Board, whichever is lower, over the following functional cost head, namely:-

- (i) consumables;
- (ii) utilities (power, fuel and water);
- (iii) salaries and wages;
- (iv) repairs and maintenance;
- (v) insurance premia on fixed assets (excluding on the value of loss of profit) and on line-pack volume;

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<sup>4</sup> Operating costs are those which are necessary for a proper upkeep and maintenance of a tangible asset created for operation of the CGD network (including online compressors for CNG) and does not include any financial cost, like, interest on loans, bad-debts, , expenditure incurred in raising or servicing of capital/ debenture/ bond/ debt, exchange variation on revenue account, sales promotion expenses, advertisement expenses (except for inviting tenders), but includes normal bank charges, bank guarantee charges, LC charges, application fee and bank charges for bid bond and performance bond required as per the terms of authorization.

- (vi) administrative overheads (to the extent not classifiable under sub-clause (i) to (v), related and also commensurate to the level of operations in the CGD network);
- (vii) depreciation on fixed assets based on the rates as per Schedule VI to the Companies Act, 1956;
- (viii) miscellaneous income (realizable from a fixed asset included in the return on total capital employed or out of an expense considered as an operating cost, but does not include interest income, profit or loss on sale or transfer of any fixed or other asset), if any, shall be netted from the operating cost.

**Note:**

Since the cost of land for siting the online compressor is not considered in the determination of the total return on capital employed for compression charge for CNG, any land rentals or land lease charges for siting the online compression facilities shall not be considered as an operating cost for the determination of the compression charge for CNG.

**6. Volumes to be considered in determination of unit network tariff and unit compression charge for CNG.**

The volume to be used as divisor for the purpose of determination (including for subsequent review periods) of the yearly unit network tariff and unit compression charge for CNG shall be equal to -

- a) the actual volume of natural gas (including the volume of natural gas transported by pipeline till the online compressor for CNG) transported in the CGD network; and

b) actual volume of natural gas compressed as CNG.

Note:

Adjustment for the volume correction required due to actual volumes in a review period being different than that considered in the divisor in the determination of unit network tariff or compression charge for CNG shall be carried out on a prospective basis in the next review period.

#### **7. Economic life.**

The economic life of the project for the purpose of determination of network tariff and compression charge for CNG shall be as specified in the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Networks) Regulations, 2008.

#### **8. Review of network tariff and compression charge for CNG.**

- a) review of network tariff and compression charge for CNG shall be carried out separately during each review period;
- b) review period shall normally be a period of five years (commencing from 1st of April and ending on 31st March of next year) from the end of the fifth year of the economic life of the project;
- c) the actual performance with respect to the capital and operating costs during the previous review period shall be monitored against the parameters identified under clauses 4 and 5 and the variations shall be adjusted in the

calculations on a prospective basis considering the remaining period of the economic life of the CGD project;

- d) The Board may, either on its own or on the entity's request, carry out review in between two tariff review periods, considering-
- i) mandatory conversion of vehicles using MS, HSD or any other fuel into CNG fuel to the extent not envisaged earlier and necessitating incremental investments;
  - ii) changes in the applicable nominal rate of income tax used for grossing-up the rate of return on capital employed;
  - iii) sudden change in any parameter used in the determination of the network tariff or the compressed charge for CNG;

**Attachment 2 to Schedule A**  
[see clause 4 (4) (a) of the Schedule]

**Definition of a fixed asset and treatment in the determination of return on total capital employed for network tariff and compression charge for CNG**

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The basis of considering fixed assets in a CGD network (including online compressors and related equipments) in the determination of the return on total capital employed shall be as per the following norms:-

- 1) A fixed asset in a CGD network is a tangible asset having a useful operating life of more than one year and is integral to the generation of revenues through network tariff and compression charge for CNG. Investment in securities, goodwill, current assets, accumulated loss not written-off, work-in-progress, etc. are not fixed assets.
- 2) Any change in the historical cost of the fixed asset due to revaluation or capitalization of losses shall not be considered. However, cost incurred in improvements, modification or replacement of any fixed asset shall be considered in line with the treatment prescribed in the mandatory accounting standards of The Institute of Chartered Accountants of India.
- 3) Cost of land purchased and used for putting the facilities essential to the CGD network (including CGS) shall only be considered. Land for siting Online CNG Compressors will not be considered. Land purchased for any future use (such as for CGD expansion requirements) shall be considered only when used.
- 4) Fixed asset declared as commissioned but not deployed in operations of the CGD network shall not be considered.

- 5) Any change in the value of the fixed asset due to capitalization of interest on loan (including foreign exchange variation in case of any loan in any foreign currency) during the pre-commissioning phase of the fixed asset shall be considered provided such loan was utilized for creation of the said fixed asset only.
- 6) A fixed asset shall be considered for return on capital employed on a "rolling basis" till the end of the economic life of the CGD project, provided it is not de-commissioned on reaching 95% of its original cost. In the terminal year of the economic life, the depreciated value of the asset shall be treated as a project inflow in the DCF calculations for network tariff and compression charge for CNG.
- 7) Treatment of line-pack volume in pipelines in a CGD network shall be as per the procedure indicated below:-
  - a) Assessment of the volume of natural gas required as Line pack in the pipelines as and when commissioned in the CGD network shall be as specified in the relevant regulations for technical standards and specifications, including safety standards.
  - b) The line pack value of natural gas in pipelines in a CGD network shall be considered as a non-depreciating fixed asset and included in the total capital employed for network tariff and shall remain fixed over the economic life of the project.
  - c) The value of the line-pack volume shall be derived by multiplying the volume of line-pack by the average cost of natural gas at the CGS station at the time of commissioning of the pipelines in the CGD network.
  - d) The salvage value of the line pack at the end of the economic life of the project shall be equal to its value initially assessed and shall be considered as a project inflow.

**Attachment 3 to Schedule A**

[see regulation 3 (2) and clause 4 (4) (g) of the Schedule]

**Treatment of costs incurred in last mile connectivity (LMC) in the determination of total return on capital employed for network tariff**

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1. In respect of an entity covered either under regulation 3 (1) (a) or under regulation 3 (1) (b),

a) the new PNG domestic consumers to be connected by the entity post-authorization shall not be required to pay the LMC charges upfront and in such a case, the related facilities and equipment shall be the property of the entity and eligible for return on total capital employed;

b) if such entity has already provided connectivity to some domestic PNG customers and upfront collected the LMC charges, the facilities and equipments, like, regulator, meter, pipe, valves, etc. shall be the property of the domestic consumer:

Provided that in case the actual cost of providing last mile connectivity to a PNG domestic customer exceeds the amount collected upfront by the entity from the PNG domestic customer, then the balance amount (that is, the difference between the actual cost of providing last mile connectivity and the amount so collected from the domestic PNG customer) shall be considered for return on total capital employed;

c) in order to allow differentiation in the treatment of PNG domestic customers, the network tariff shall be split over the following charge elements, namely:-

i) network tariff charge for the common CGD infrastructure before the pipe connecting the metering unit;

- ii) charge towards last mile connectivity, that is, equipments and facilities from the pipe connecting the metering unit and onwards upto and including the suraksha hose pipe connecting the burner;
- d) domestic PNG customers who have paid the LMC charge upfront shall be required to pay only the network tariff charge for the common infrastructure specified at item i) of sub-clause c). Other domestic PNG customers shall be required to pay both the charges [that is, for the common infrastructure mentioned at item i) of sub-clause c) and for the LMC charges mentioned at item ii) of sub-clause c)] through the network tariff, in addition to paying the interest-free refundable security deposit of up to a maximum of Rs.5,000.
2. Entity may collect refundable interest free security deposit as specified under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities for Laying, Building, Operating or Expanding City or Local Natural Gas Distribution Networks) Regulations, 2008. Such deposit is towards the safe-keeping of the meter and is to be refunded in full to the domestic PNG customer in case of a dis-connection. Further, since the amount collected as interest-free refundable security deposit shall exist as a liability in the books of accounts of the entity, the same shall not be reduced from the total capital employed while determining the network tariff.

**Attachment 1**

[see sub-regulation (1) to regulation 5]

**PROJECT CAPITAL COST SUMMARY (CAPEX OUTFLOWS)**

Sr. No.	Description	INR	FE	Total (*)
		Indian Rupees	Foreign Exchange	
<b>A</b>	<b>Plant &amp; Machinery</b>			
1	City Gate Station [see Attachment 1 (a)]			
2	Online Compressors [as per Attachment 1 b)]			
3	City Gas Distribution [as per Attachment 1 c)]			
	<b>Subtotal (A)</b>			
<b>B</b>	<b>Engineering Costs</b>			
1	Detailed engineering, procurement, construction, supervision and project management			
2	Service tax on above			
	<b>Subtotal (B)</b>			
<b>C</b>	<b>Owner's Cost, Start-up Expenses</b>			
1	Start-up and commissioning expenses			
2	Owner's management expenses			
	<b>Subtotal (C)</b>			
<b>D</b>	<b>Other Costs</b>			
1	Contingencies and escalation			
2	Preliminary and pre-operative expenses			
3	Interest during construction period and financing charges			
4	Margin money for working capital			
	<b>Subtotal (D)</b>			
	<b>Total (A+B+C+D)</b>			

(\*) INR + FE Converted to INR

Note : Details of assumptions and calculations to be given for Item D.

**Attachment 1 (a)**  
[see sub-regulation (1) to regulation 5]

1. CAPITAL COST OF CITY GATE STATION

Sr. No.	Description	INR	FE	Total (*)	Technical Specifications
<b>A</b>	<b>Land</b>				
1	Cost of land (for siting the CGS only)				Area in Square meters and Rate.
	<b>Subtotal</b>				
<b>B</b>	<b>City Gate Station</b>				
1	Mechanical				
2	Instrumentation				
3	Electrical				
4	Fire fighting system				
5	Any other item (details to be given)				
	<b>Subtotal</b>				
<b>C</b>	<b>Capital Spares</b> (details to be given)				
	<b>Subtotal</b>				
<b>D</b>	<b>Erection</b>				
1	Mechanical				
2	Electrical				
3	Instrumentation				
4	Civil work				
5	Land				
6	Any other item ( details to be given)				
	<b>Subtotal</b>				
<b>E</b>	<b>Taxes &amp; Duties</b>				
1	Ocean freight				
2	Customs duty				
3	Port handling				
4	Inland freight				
5	Excise and CST				
6	Works Contract Tax				
7	Insurance				
8	Any other applicable tax and duty (give details)				
	<b>Subtotal</b>				
	<b>Total (A to E)</b>				

(\*) INR + FE Converted to INR

Page 19

**Attachment 1 (b)**  
[see sub-regulation (1) to regulation 5]

**2. CAPITAL COST OF ONLINE COMPRESSORS FOR CNG**

Sr. No.	Description	INR	FE	Total (*)	Technical Specifications
<b>A</b>	<b>On-line Compressor and related facilities</b>				
1	Online Compressor				
2	DG Set AND Control Panel				
3	Fire Fighting System				
4	Metering Skid				
5	UPS or Battery Banks				
6	Miscellaneous				
7	Any other item (details to be given)				
	<b>Subtotal</b>				
<b>C</b>	<b>Capital Spares</b> (details to be given)				
<b>D</b>	<b>Erection</b>				
1	Mechanical				
2	Electrical				
3	Instrumentation				
4	Civil Work				
5	Any other item (details to be given)				
	<b>Subtotal</b>				
<b>E</b>	<b>Taxes and Duties</b>				
1	Ocean Freight				
2	Customs Duty				
3	Port Handling				
4	Inland Freight				
5	Excise and CST				
6	Works Contract Tax				
7	Insurance				
8	Any other applicable tax and duty (give details)				
	<b>Subtotal</b>				
	<b>Total (A to E)</b>				

(\*) INR + FE Converted to INR

Note :

- Compressor facilities to be considered shall include the online compressor and equipments between inlet valve to discharge flange.
- Facilities beyond the discharge valve of the online compressor for CNG, booster compressors in CNG stations and land shall not be considered for return on capital employed in the determination of compression charge for CNG.
- The above cost is to be considered for return on capital employed in the determination of compression charge for CNG.

**Attachment 1 (c)**

[see sub-regulation (1) to regulation 5]

**3. CAPITAL COST OF CITY GAS DISTRIBUTION**

Sr. No.	Description of facilities	INR	FE	Total (*)	Technical Specifications
<b>A</b>	<b>Equipment</b>				
1	Pipe MDPE				
2	Pipe HDPE				
3	Steel Pipes - Main Gridline PE Coated				
4	Cathodic Protection				
5	SCADA				
6	OFC, Telecom & Telesupervisory System				
7	Warning Grid Tape				
8	Odourising Unit				
9	MDPE Valves, Fittings, Transition Fittings				
10	DRS				
11	TCP / PCP				
12	Capital Stores (give details)				
13	Any other item (details to be given)				
	<b>Subtotal</b>				
<b>B</b>	<b>Erection</b>				
1	Mechanical				
2	Electrical				
3	Instrumentation				
4	Civil Work				
5	Land				
6	Any other item (details to be given)				
	<b>Subtotal</b>				
<b>C</b>	<b>Taxes &amp; Duties</b>				
1	Ocean Freight				
2	Customs Duty				
3	Port Handling				
4	Inland Freight				
5	Excise and CST				
6	Works Contract Tax				
7	Insurance				
8	Any other cost (details to be given)				
	<b>Subtotal</b>				
	<b>Total (A+B+C)</b>				

(\*) INR + FE Converted to INR

Note :

1. Pipelines includes pipelines for transportation of natural gas to Online Compressor for CNG.

**Attachment 1 (d)**  
[see sub-regulation (1) to regulation 5]

**Estimated Profit and Loss Account**

Sr. No.	Description	Rs.					
		Year 1	Year 2	Year 3	Year 4	-----	Year 25
1	<b>Total Inflows</b>						
a	-Revenue from Network Tariff (based on PIRR)						
b	-Revenue from compression charge for CNG (based on PIRR)						
2	<b>Total Operating cost Outflows (*)</b>						
a	Consumables & Chemicals						
b	Utilities- (Power, Fuel)						
c	Salaries						
d	Repair & Maintenance						
e	Gen Administrative Expenses						
	Bank Charges (including on Bid Bond and Performance Bond as per the Grant of Authorization)						
f	Other Expenses (excluding bad-debts) (to be detailed)						
g	Insurance (including on Line Pack volumes)						
3	<b>Profit before Depreciation, Interest and Tax (PBDIT) (1 - 2)</b>						
4	Interest on Working Capital Borrowings to the extent utilised in working capital requirement for above expenses (with rates)						
5	Interest on Term Loans (with rates)						
6	<b>Profit before Depreciation and Tax (PBDT) (3 - 4 - 5)</b>						
7	Depreciation (on SLM basis) & Misc expenses written off (give details of each)						
8	<b>Profit Before Tax (PBT) (6- 7)</b>						
9	Tax provision ( provide as per IT Rules in force )						
10	<b>Profit after Tax (PAT) (8 - 9)</b>						
	Cash From Operation (CFO) (10+7) -To be transferred to cash flow sheet						

(\*) Excluding all direct, indirect and allocated common cost associated beyond compression of natural gas in Online Compressor. Financial costs and selling expenses to be excluded.

**Note**

- The Network Tariff shall be based on the volumes of Natural Gas transported in pipelines for all consumers (including supply by pipeline to Online Compressors for compression of natural gas into CNG as determined by the DCF methodology adopted by considering a PIRR, at which level the Net inflows equal the net outflows over the economic life of the project.
- The Compression Charge for CNG shall be based on the Volumes of Natural Gas transported by pipeline to online compressors for compression into CNG as determined by the DCF methodology adopted by considering a PIRR, at which level the cumulative inflows equal the outflows over the economic life of the project.
- For Expansion/ extension - Same data as applicable for project post expansion or extension.
- Land rentals or land lease charges towards siting of online compressors shall not be considered for return on capital employed or operating cost, as the case maybe.
- Non-operating income (such as, Interest on interest-free refundable security deposit from PNG domestic customers) not to be considered as project inflows.
- Modvat benefit, if available, is to be reflected separately alongwith the calculations.
- Copy of Audited Profit & Loss Account to be attached, wherever applicable.

Page

**Attachment 1 (e)**  
[see sub-regulation (1) to regulation 5]

**CASH FLOW STATEMENT**

Sr. No.	YEAR	Construction period	Rs.					Year 25
			Year 1	Year 2	Year 3	Year 4	-----	
<b>1</b>	<b>Sources of Funds</b>							
a	Equity / Preference Equity (*)							
b	Term Loans / short term loans							
c	Cash From Operations							
d	Bank Borrowings for Working Capital							
e	Others (Please Specify)							
<b>2</b>	<b>Uses of Funds</b>							
a	Capital Expenditure							
b	Normal / additional Capital Expenditure							
c	Increase/ (Decrease) in Net Working Capital							
d	Repayment of Loans							
e	Dividends to Equityholders							
f	Tax on Distributable Profits							
g	Others (Please Specify)							
<b>3</b>	<b>Cash Surplus/ (Deficit)</b>							
a	Opening Cash Balance							
b	Closing Cash Balance							

(\*) Redemption details to be given.

## Attachment 1 (f)

[see sub-regulation (1) to regulation 5]

### Estimated BALANCE-SHEET

		Rs.						
YEAR	Construction period	Year 1	Year 2	Year 3	Year 4	-----	Year 25	
<b>ASSETS</b>								
Gross Fixed Assets								
Less : Accumulated Depreciation (*)								
<b>Net Fixed Assets</b>								
Net Current Assets								
Cash & Bank								
Investments								
Misc Fixed assets								
Deferred Revenue Exp.								
Others (Please specify)								
<b>LIABILITIES</b>								
<b>Net Worth</b>								
Equity Capital								
Preference Share Capital (**)								
Reserves								
<b>Debt</b>								
Rupee Term Loans								
FC Term Loans								
Bank Borrowings for Working Capital								
Others (Please specify)								

(\*) Asset head-wise depreciation calculations on SLM basis to be provided.

(\*\*) To the extent non-redeemable. Redeemable Preference Capital to be shown under Debt.

#### Note

a) Copy of Audited Balance Sheet to be attached, where ever applicable.

**Attachment 1 (g)**  
[see sub-regulation (1) to regulation 5]

**Network Tariff Calculations**

YEAR	Construction period	Year 1	Year 2	Year 3	Year 4	-----	Year 25
a) Capital and Operating Cost Outflows (incl. Margin Money)							
b) Inflows (Profit Before Depreciation, Interest & Tax - as per Item 3 of P&L Account)							
<b>Net Inflows/ (Outflows)</b>							
<b>Cumulative Inflows/ (outflows)</b>							
Network Tariff for each year calculated based on reasonable rate of return as project's internal rate of return as specified in clause 2 of Schedule A							

**Compression Charge for CNG Calculations**

YEAR	Construction period	Year 1	Year 2	Year 3	Year 4	-----	Year 25
a) Capital and Operating Cost Outflows (incl. Margin Money)							
b) Inflows (Profit Before Depreciation, Interest & Tax - as per Item 3 of P&L Account)							
<b>Net Inflows/ (Outflows)</b>							
<b>Cumulative Inflows/ (outflows)</b>							
Compression charge for CNG for each year calculated based on reasonable rate of return as project's internal rate of return as specified in clause 2 of Schedule A							

**Attachment 1 (h)**

[see sub-regulation (1) to regulation 5]

**Details of the assumptions made in the calculations**

1. Exchange rate used for computing capital costs
2. Format of Annual Operating Cost

Sr. No.	Description of cost elements	Rs.
<b>A.</b>	<b>Variable Cost</b>	
1	Consumables	
	a) Fuel (quantity and rate)	
2	Utilities (quantity and rates)	
	a) Power (*)	
	b) Water	
	Any other Expenses ( to be specified)	
	<b>Sub Total</b>	
<b>B</b>	<b>Fixed / Semi Variable Cost</b>	
1	Salary and Wages	
2	General Administration	
3	Repairs and Maintenance	
4	Any other expenses ( to be specified) (£)	
	<b>Sub Total</b>	
<b>C</b>	<b>Insurance (%)</b>	
	<b>Total (A+B+C)</b>	

- (\*) Break-up of purchased power (over fixed charge & variable charge) & own generation to be provided  
 (\$) Break-up over routine & turnaround as well as function-wise over electrical, civil, mechanical, etc. to be provided.  
 (£) Basis of direct & indirect administrative expenses (alongwith basis of allocation to be provided).  
 (%) Break-up of premia on loss of profit, facilities & Line-pack volume to be provided.

**Note**

- a For each items of operating cost, detailed assumptions and calculations to be attached.
  - b Give basis of allocation / apportionment of costs over various categories of customers (CNG & PNG - residential, commercial, industrial) over each of the cost element.
- 3 Project implementation schedule to be given along with break up of expenditure for each year
  - 4 Loan schedule to be provided for each type of loan, interest rates, repayments etc.
  - 5 Applicable rates of depreciation as per schedule VI of the Companies Act and Income Tax Act shall be provided.
  - 6 Pipeline lengths based on type/ class in the CGD network.
  - 7 Steel pipeline design capacity and rated capacities of online compressors of CNG to be provided.
  - 8 Capacity utilisation of the steel belting pipeline and online compressors of CNG alongwith the basis to be provided.
  - 9 Implementation period of project in phases to be indicated.
  - 10 Economic life of the project
  - 11 Applicable Rate of Income Tax

**Attachment 1 (h) (contd...)**  
**[see sub-regulation (1) to regulation 5]**

- 12 **Details of Volumes of Natural Gas to be transported in pipelines in the CGD Network (in SCM or in Kg as applicable, based on the conversion factors).**

	Year 1	Year 2	Year 3	Year 4	-----	Year 25
CNG						
PNG - Residential						
PNG - Commercial						
PNG - Industrial						
<b>Total</b>						

**Note:**

A) Growth rates for various segments of customers.

B) Detailed note for base year volumes & growth rates assumed.

C) Conversion factors adopted in determination of calorific equivalence of the volume of natural gas to be provided.

- 13 **Pipeline Tariff details as given below shall be furnished.**

	Year 1	Year 2	Year 3	Year 4	-----	Year 25
1 Compression Charge for CNG in Rs./ Kg (*)						
2 Overall Unit Network Tariff in Rs./ MMBTU (\$)						

(\$) considering supply of natural gas by pipeline to online compressors for compressing into CNG.

(\*) considering PNG supplies to all consumers, including supply of natural gas to online compressors for CNG.

- 14 Copy of the duly appraised/ approved Detailed Financial Report to be enclosed. Any variation in the parameters adopted in the calculation of the network tariff and/ or the compression charge for CNG from the basis adopted in the DFR to be explained.

[F. No. S-Admn/II/8/2007-Vol. I]

AJAY TYAGI, Secy.

**NOTIFICATION**

New Delhi, the 19th March, 2008.

**G.S.R. 198(E).**—In exercise of the powers conferred by Section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely :—

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Exclusivity for City or Local Natural Gas Distribution Network) Regulations, 2008.
- (2) They shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

- (1) In these regulations, unless the context otherwise requires,—
  - (a) “Act” means the Petroleum and Natural Gas Regulatory Board Act, 2006;
  - (b) “appointed day” means the date of October 1, 2007 when the Central Government notified the establishment of the Petroleum and Natural Gas Regulatory Board;
  - (c) “authorized area” means the area as defined in clause (c) of sub-regulation (1) of regulation 2 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008;

(d) "Board" means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of section 3 of the Act.

(2) Words and expressions used and not defined in these regulations, but defined in the Act or in the rules or regulations made thereunder, shall have the meanings respectively assigned to them in the Act.

### 3. Application.

These regulations shall apply to an entity which is laying, building, operating or expanding or which proposes to lay, build, operate or expand a city or local natural gas distribution network (hereinafter referred as CGD network) under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.

### 4. Rationale for allowing exclusivity.

The rationale for allowing exclusivity to an entity is explained in Schedule A, which only explains the rationale for allowing exclusivity to entities to lay, build, operate or expand CGD networks, is not part of this regulation, does not have any legal force and should not be quoted or relied upon while interpreting these regulations.

### 5. Exclusivity for laying, building or expansion of CGD network

(1) The Board may allow an entity exclusivity for laying, building or expanding of CGD Network over the economic life of the project subject to the following terms and conditions, namely:-

(a) during the economic life which is normally expected to be twenty five years of the CGD network project consisting of network of pipelines, online compressors for compressing natural gas into CNG and other allied equipments and facilities, the authorized entity shall carry out further expansions required through pipeline capacity building and CNG

infrastructure as well as carry out replacements and upgradation of assets and facilities as and when necessary in order to maintain the network system integrity at all times including keeping it abreast of technical advancements and the entity shall meet the requirement for investment in pipelines and other allied equipments including online compressors for compression of natural gas into CNG which may emerge either to meet the entity's own requirements or other entities requirements post-exclusivity period as per regulation 6 besides complying with the service obligations as per regulation 8;

(b) The economic life of the project shall commence from,-

- (i) in case an entity proposes to lay, build or expand a CGD network on or after the appointed day, the date of grant of authorization to the entity by the Board under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008;
  - (ii) in case an entity is laying, building or expanding CGD network before the appointed day, where the entity has either an authorization from the Central Government before the appointed day or an authorization from the Board under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008, the economic life of the CGD Network project shall commence from the start-up date of the commencement of physical activities of laying, building or expanding the CGD network.
- (c) at the end of the economic life of the project, issue of allowing further extension of the period of exclusivity or not may be considered by the Board for a block of ten years at a time, depending on the satisfactory compliance of the service obligations and quality of service norms as specified in the

Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008, the service obligations under regulation 8 and on such terms and conditions, as it may deem fit at that point in time.

- (d) non-compliance to the provisions of clause (a) of sub-regulation (1) shall be dealt through levy of penalty and termination of the exclusivity period as per the provisions of regulation 10 and the Board reserves the right to allow any other entity to take up the activities of laying, building or expanding or replacement of assets and facilities or both in the CGD network in terms of the provisions in regulation 10.

**6. Exclusivity from the purview of common carrier or contract carrier.**

- (1) The Board may provide exclusivity to an entity proposing to lay, build, operate or expand a CGD network from the purview of common carrier or contract carrier for a period of five years from the date of authorization subject to the conditions that the entity meets the service obligations as stipulated under regulation 8.
- (2) In case an entity is laying, building, operating or expanding a CGD network before the appointed day and has been authorized by the Central Government or has been authorized by the Board under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008, the period of exclusivity from the purview of common carrier or contract carrier shall be -
- (a) three years from the date of issue of the letter by the Board for allowing such exclusivity in case the entity has been operating the CGD network for three years or more before the appointed day;
- (b) five years from the date of issue of the letter by the Board for allowing such exclusivity in case the entity has been operating the CGD network for less than three years before the appointed day.

1036 GI/08-30

## 7. Specific performance bond.

Entity laying, building, operating or expanding a CGD network before the appointed day and authorized by the Central Government for such activities shall be required to furnish to the Board, a specific performance bond linked to allowing of exclusivity and equal to the amount as specified under regulation 9 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.

## 8. Service obligations.

(1) The entity allowed exclusivity under regulation 6 shall comply with the following service obligations during the exclusivity period, namely:-

(a) in respect of an entity proposing to lay, build, operate or expand a CGD network after the appointed day and which has been authorized by the Board under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008, the entity shall -

- (i) provide domestic PNG connections as per the bid;
- (ii) lay and build steel pipeline as per the inch-kilometer bid;
- (iii) reach all charge areas or wards in the authorized area through pipelines of adequate size to meet the demand of the consumers in these charge areas or wards; and
- (iv) provide piped natural gas connection on demand to a domestic consumer for cooking purposes within a distance of twenty five meters of the metering unit at the consumer's end till the tap-off in the pipeline:

Provided that the physical achievement shall be monitored by the Board on a quarterly basis;

(b) in respect an entity laying, building, operating or expanding a CGD Network before the appointed day and which has been either authorized by the Central Government or by the Board under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008, the entity shall -

(i) achieve the targets in respect of providing PNG domestic connections and laying and building steel pipeline inch kilometer as per sub-clauses (i) and (ii) of clause (a) of sub-regulation (1) at the levels derived based on the successful bids of similar placed cities or local areas in terms of the population as per the census of India 2001 or in the absence of such similarly placed cities or areas, the cities which come closest to these cities or areas in terms of population by suitable extrapolation or interpolation;

(ii) reach all charge areas or wards through pipelines of adequate size to meet the demand of the consumers in these charge areas or wards;

(iii) provide piped natural gas connection on demand to a domestic consumer for cooking purposes within a distance of twenty five meters of the metering unit at the consumer-end till the tap-off point in the pipeline:

Provided that the physical achievement shall be monitored by the Board on a quarterly basis.

(2) During the period of exclusivity allowed under regulation 6, the authorized entity may supply compressed natural gas for dispensing either through CNG dispensing facilities owned by itself or by any other entity and in the latter case,

the other entity shall be required to pay the compression charge for CNG to the authorized entity and enter into a mutually agreeable commercial contract with the authorized entity for-

- (a) either having the online compression facilities installed in its own dispensing facilities wherein the online compression facilities shall be owned, installed and operated by the authorized entity, or
  - (b) take delivery of CNG ex-online compressor station of the authorized entity for subsequent dispensing in the authorized area.
- (3) After the expiry of the exclusivity period allowed under regulation 6, any entity using the CGD network for transportation of natural gas may use the online compressor facilities of the authorized entity against payment of compression charge for CNG for dispensing of CNG either by itself or by any other entity.

**9. Post-exclusivity period, that is, beyond the period of exclusivity allowed under regulation 6.**

The entity shall -

- (1) continue to expand the network of pipelines by increasing the penetration within all charge areas based on the demand for PNG domestic, besides laying requisite infrastructure for adequate availability of CNG and at adequate pressure in the CGD network, which could emerge out of entity's own requirement or that of other entities which may use the CGD network in the post-exclusivity period.
- (2) allow third party access on a non-discriminatory basis to any entity in its CGD network as per the provisions in the -
  - (a) relevant regulations on access code for CGD networks; and
  - (b) relevant regulations for declaring CGD networks as common carrier or contract carrier;

- (3) provide piped natural gas connection on demand to a domestic consumer of any entity within any charge area:

Provided that the distance from the metering unit from the consumer-end to the tap-off point in the pipeline shall not be more than twenty five meters.

#### 10. Cancellation of exclusivity.

- (1) The exclusivity allowed under regulation 5 to an entity proposing to lay, build, operate or expand a CGD network after the appointed day and which has been authorized by the Board or laying, building, operating or expanding a CGD network before the appointed day and which has been authorized by the Central Government or by the Board under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008, shall be terminated, either for the entire authorized area or part thereof, in case the entity either refuses or fails to lay, build or expand the CGD network to meet the natural gas demand requirements including the requirements of other entities allowed to use the CGD network post exclusivity provided under regulation 6.
- (2) Non-compliance with the provisions under regulation 8 or repeated violation of the quality of service standards specified under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008 shall result in cancellation of the exclusivity.
- (3) The procedure with regards to the termination of exclusivity under sub-regulations (1) and (2) shall be as under, namely:-
- (a) the Board shall issue a notice to the defaulting entity allowing it a reasonable time to fulfill its service obligations under these regulations and also as per the quality of service standards specified in the Petroleum and

Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008;

(b) no further action shall be taken in case remedial action to the satisfaction of the Board is taken by the entity within the specified period;

(c) in case of failure to take remedial action by the entity, the Board may encash the performance bond as per the following basis, namely:-

(i) twenty five percent of the amount of the performance bond for the first default; and

(ii) fifty percent of the amount of performance bond for the second default:

Provided that the entity shall make good the encashed performance bond in each of the cases within a week failing which the remaining amount of the performance bond shall also be encashed and the exclusivity including authorization of the entity shall be terminated;

(iii) one hundred percent of the amount of performance bond for the third default and the exclusivity shall also be simultaneously terminated;

(d) the entities authorized under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008 shall also have to replenish the performance bond within fifteen days failing which their authorization shall also be terminated.

(4) The exclusivity allowed under regulation 6 to an entity either proposing to operate a CGD network after the appointed day and which has been authorized by the Board, or which is operating a CGD network before the appointed day and which has been authorized by the Central Government or the Board under

the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008, shall be terminated in case the entity fails to comply with the service obligations under these regulations or on repeated violations of the quality of service standards as per the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.

(5) The procedure with regards to the termination of exclusivity under sub-regulation (4) shall be as under, namely:-

(a) the Board shall issue a notice to the entity for not meeting the service obligations under these regulations and also quality of service standards specified under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008 and allow it a reasonable time to fulfill its obligations under these regulations;

(b) no further action shall be taken in case remedial action is taken to the satisfaction of the Board by the entity within the specified period;

(c) in case of failure to take remedial action, the Board may encash the performance bond on the following basis, namely:-

(i) twenty five percent of the amount of the performance bond for the first default; and

(ii) fifty percent of the amount of performance bond for the second default:

Provided that the entity shall make good the encashed performance bond in either of the cases within a week, failing which the remaining amount of the performance bond shall also be encashed and the exclusivity including authorization of the entity shall be terminated;

- (iii) one hundred percent of the amount of performance bond for the third default and the exclusivity shall also be simultaneously terminated;
- (d) The entities authorized under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008 shall also have to replenish the performance bond within fifteen days failing which their authorization shall also be terminated;
- (e) any entity losing its exclusivity allowed under regulation 5 shall also automatically lose its exclusivity allowed under regulation 6.

#### 11. Miscellaneous.

If any dispute arises with regards to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final.

#### Schedule A [see regulation 4]

#### Rationale for allowing exclusivity to lay, build, operate or expand a CGD network <sup>1</sup>

- 1 Exclusivity-
  - a) for laying, building or expansion of the CGD network during the economic life of the project; and
  - b) in terms of an exemption from the purview of the contract carriage or common carrier for a limited period of time-

is envisaged with a view to facilitate the development of a planned and integrated CGD network with appropriate priorities for end-use of natural gas as also the network spread besides providing incentive to the entity for investing in such project.

- 2 Exclusivity as per sub-clause a) of clause 1 is or shall be necessary to facilitate the development and operation of an integrated network by a single entity as per the prescribed technical standards, specifications including safety standards. This shall also obviate multiple digging-up of lanes, roads, etc. in the authorized area.

- 3 Exclusivity as per sub-clause b) of clause 1 is or shall be necessary due to the following reasons, namely:-
- a) During the initial phase of the development of city or local natural gas distribution network, there shall be a need to have a close synchronization between the development of requisite infrastructure and the ramp-up in the natural gas volumes for different end-consumers in different areas. It is expected that the development of the city or local natural gas distribution network would be quicker if the same is guided by entity's own plan (which is responsible for meeting various service obligations) rather than the expectation of other potential marketers of natural gas in the network. Also, it shall be more practical for the Board to deal with one entity rather than multiple entities to ensure a strict compliance with the service obligations by the entity in the initial period;
  - b) during such limited period of exclusivity, the authorized entity could be made directly responsible for meeting the desired service obligations, viz., achieving maximum PNG domestic connections and other related aspects;
  - c) besides such an approach is also likely to incentivize investments in this capital intensive business.
- 4 Ideally, while the exclusivity as per sub-clause a) of clause 1 shall be for the economic life of the project, the exclusivity as per sub-clause b) of clause 1 shall depend upon various factors, viz., the projected natural gas demand build-up in the city or local area (which in turn would depend upon the key drivers for demand in that city or local area, such as, level of industrial or commercial activity, vehicular population and conversion of vehicles in to CNG, potential domestic PNG customers, consumer preferences, price of alternative fuels, etc.), geographical spread and population, projected capital cost of the project, investment climate, etc. However, considering that these factors shall vary from city to city, a credible

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<sup>1</sup> This Schedule A only explains the rationale for allowing exclusivity to entities for laying, building, operating or expanding CGD Networks and is not part of these regulations. Therefore, it does not have any legal force and should not be quoted or relied upon while interpreting these regulations.

assessment of exclusivity period based on these factors may not be always practical. Thus, it is proposed that the period of exclusivity at sub-clause b) of clause 1 may be limited to five years for cases where an entity proposes to lay, build, operate or expand a CGD network. However, where an entity is laying, building, operating or expanding a CGD Network before the appointed day and has been authorized by the Central Government or is authorized by the Board under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008, the period of exclusivity shall be for three years (if the entity has been operating for three years or more before the appointed day) or five years (if the entity has been operating for less than three years before the appointed day).

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AJAY TYAGI, Secy.



# भारत का राजपत्र

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असाधारण

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पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड

अधिसूचना

नई दिल्ली, 21 अप्रैल, 2009

सा.का.नि. 273(अ).—पेट्रोलियम और प्राकृतिक गैस विनियामक अधिनियम, 2006 (2006 का 19) की धारा 61 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड एतद्वारा निम्नलिखित विनियम बनाता है, नामतः :—

### 1. संक्षिप्त शीर्षक और प्रारंभ

(1) इन विनियमों को पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (सामान्य वाहक या ठेका वाहक के रूप में प्राकृतिक गैस पाइपलाइन की घोषणा या प्राधिकृत करने के मार्गदर्शी सिद्धांत) विनियम, 2009 कहा जाएगा।

(2) ये सरकारी राजपत्र में प्रकाशन की तारीख से प्रवृत्त होंगे।

### 2. परिभाषाएं

(1) इन विनियमों में जब तक संदर्भ में अन्यथा अपेक्षित न हो—

(क) "अधिनियम" का अर्थ पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड अधिनियम, 2006 से है;

(ख) "नियत तारीख" का अर्थ 1 अक्टूबर, 2007 से है जब केन्द्र सरकार ने पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड की स्थापना को अधिसूचित किया था;

(ग) "संबद्ध" का अर्थ उस व्यक्ति से है जो कंपनी से संबंधित हो—

(i) जो कंपनी के प्रबंधन या नियंत्रण या पूंजी में प्रत्यक्ष या अप्रत्यक्ष या एक या अधिक मध्यवर्तियों के रूप में भाग लेता हो;

(ii) जिसके पास कंपनी के प्रत्यक्ष या अप्रत्यक्ष शेयर हों और उसे कंपनी में छब्बीस प्रतिशत से कम का मतदान अधिकार प्राप्त न हो;

(iii) जो निदेशक मण्डल या शासी बोर्ड के आधे से अधिक सदस्यों या कंपनी के शासी बोर्ड के एक या अधिक कार्यकारी निदेशक या कार्यकारी सदस्यों की नियुक्ति करता हो; या

(iv) जो कंपनी के कुल देनदारी के कम से कम दस प्रतिशत की गारंटी देता हो।

(घ) "बोर्ड" का अर्थ अधिनियम की धारा 3 की उप-धारा (i) के अंतर्गत स्थापित पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड है;

(ङ) "प्राकृतिक गैस पाइपलाइन" का अर्थ पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (प्राकृतिक गैस पाइपलाइन बिछाना, निर्माण, प्रचालन या विस्तार के लिए कंपनियों को प्राधिकृत करना) विनियम, 2008 से है;

(2) इन विनियमों में प्रयुक्त जिन शब्दों और अभिव्यक्तियों को परिभाषित नहीं किया गया है, लेकिन उन्हें अधिनियम या उसके अंतर्गत निर्मित नियमों या विनियमों में परिभाषित किया

गया है, का क्रमशः अधिनियम या नियमों या विनियमों, जैसी भी स्थिति हो, में दिया गया अर्थ ही होगा।

### 3. कार्यक्षेत्र

ये विनियम उस कंपनी पर लागू होंगे—

(क) जो प्राकृतिक गैस पाइपलाइन बिछाने, निर्माण, प्रचालन या विस्तार करने का प्रस्ताव करता है और उसे ऐसा करने के लिए पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (प्राकृतिक गैस पाइपलाइन बिछाने, निर्माण, प्रचालन या विस्तार करने के लिए प्राधिकृत करना) विनियम, 2008 के अंतर्गत प्राधिकृत किया गया हो;

(ख) जो नियत तारीख से पहले से प्राकृतिक गैस पाइपलाइन बिछाने, निर्माण, प्रचालन या विस्तार कर रहा हो और उसे पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (प्राकृतिक गैस पाइपलाइन बिछाने, निर्माण, प्रचालन या विस्तार करने के लिए कंपनियों को प्राधिकृत करना) विनियम, 2008 के अंतर्गत प्राधिकृत किया गया हो; या

(ग) जिसे केन्द्र सरकार द्वारा नियत तारीख से पूर्व प्राधिकृत किया गया है और उसे पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (प्राकृतिक गैस पाइपलाइन बिछाने, निर्माण, प्रचालन या विस्तार करने के लिए कंपनियों को प्राधिकृत करना) विनियम, 2008 के विनियम 17 में विनिर्दिष्ट प्रावधानों के अंतर्गत स्वीकार किया गया है।

### 4. प्राकृतिक गैस पाइपलाइन को सामान्य वाहक या ठेका वाहक के रूप में घोषित करने के उद्देश्य

(क) प्राकृतिक गैस पाइपलाइन किसी विशिष्ट मार्ग में स्रोत से सुपुर्दगी प्वाइंट तक प्राकृतिक गैस के बल्क परिवहन की व्यापक तौर पर स्वीकृत प्रणाली है। प्राकृतिक गैस के परिवहन में स्वाभाविक एकाधिकार की अवधारणा को इसकी पूंजी गहनता, सुरक्षा तथ्यों और उपभोक्ताओं के हितों की रक्षा करने की आवश्यकता को देखते हुए सार्वभौमिक रूप से स्वीकार किया गया है। इसलिए, प्रतिस्पर्धा को प्रोत्साहित करके उपभोक्ता के हितों की बेहतर ढंग से रक्षा की जाती है ताकि प्राकृतिक गैस पाइपलाइनों के आधारभूत ढांचे के अधिकतम उपयोग द्वारा व्यर्थ के निवेश से बचा जा सके।

(ख) किसी कंपनी द्वारा बिना किसी भेदभाव के इस्तेमाल की जाने वाली प्राकृतिक गैस पाइपलाइन में क्षमता की अनुमति देने की अवधारणा से प्राकृतिक गैस के स्वतंत्र वाहक को प्रोत्साहन मिलेगा जो कंपनियों के साथ ठेका वाहक या सामान्य वाहक व्यवस्थाओं के लिए करार करेगा जिसमें प्राकृतिक गैस के परिवहन के लिए ऐसे आधारभूत ढांचे शामिल होंगे जिनके परिणामस्वरूप प्रतिस्पर्धी प्राकृतिक गैस बाजारों का विकास होगा।

### 5. प्राकृतिक गैस पाइपलाइनों के लिए ठेका वाहक प्रणाली

(क) ठेकागत वाहक प्रणाली का अर्थ है कि किसी कंपनी की निजी आवश्यकता की तुलना में किसी प्राकृतिक गैस पाइपलाइन की क्षमता अन्य किसी कंपनी के लिए उपलब्ध होगी बशर्ते कि अन्य कंपनी द्वारा न्यूनतम एक वर्ष की अवधि के लिए प्राकृतिक गैस की मात्रा का परिवहन करने के लिए सुनिश्चित ठेका किया जाए, जो परस्पर सहमत अन्य निबंधन और शर्तों के आधार पर होंगे, और अधिनियम के अंतर्गत समय-समय पर अधिसूचित विनियमों के प्रावधानों तथा भुगतान पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (प्राकृतिक गैस पाइपलाइन शुल्क) विनियम, 2008 के अंतर्गत प्राधिकृत अनुसार प्राकृतिक गैस पाइपलाइन शुल्क के अधीन होंगे।

(ख) प्राकृतिक गैस के परिवहन का ठेका केवल प्राकृतिक गैस के परिवहन के लिए ही होगा और यह प्राकृतिक गैस के स्रोत की बाध्यता के बिना होगा।

### 6. प्राकृतिक गैस पाइपलाइनों के लिए सामान्य वाहक प्रणाली

(क) ठेकागत वाहक प्रणाली का अर्थ है कि किसी कंपनी की निजी आवश्यकता की तुलना में किसी प्राकृतिक गैस पाइपलाइन की क्षमता तथा ठेका वाहक आधार पर आर्बिट्रि क्षमता किसी अन्य कंपनी के लिए उपलब्ध होगी बशर्ते कि अन्य कंपनी द्वारा न्यूनतम एक वर्ष की अवधि के लिए प्राकृतिक गैस की मात्रा का परिवहन करने के लिए सुनिश्चित ठेका किया जाए, जो परस्पर सहमत अन्य निबंधन और शर्तों के आधार पर होंगे, और अधिनियम के अंतर्गत समय-समय पर अधिसूचित विनियमों के प्रावधान तथा भुगतान पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (प्राकृतिक गैस पाइपलाइन शुल्क का निर्धारण) विनियम, 2008 के अंतर्गत प्राधिकृत अनुसार प्राकृतिक गैस पाइपलाइन शुल्क के अधीन होंगे :

बशर्ते कि यदि सामान्य वाहक क्षमता का पूरी तरह से इस्तेमाल नहीं किया जाता है तो कंपनी एक वर्ष या अधिक की अवधि के लिए इसका ठेका कर सकती है।

**स्पष्टीकरण**—इन विनियमों के उद्देश्यों के लिए प्राकृतिक गैस पाइपलाइन बिछाने, निर्माण, प्रचालन या विस्तार करने वाली कंपनी को अपनी निजी और सहायक कंपनियों की आवश्यकता को पूरा करने के लिए इसका सबसे पहले इस्तेमाल करने का अधिकार होगा तथा यह पहले इस्तेमाल के अधिकार तक ही सीमित होगा। प्रथम इस्तेमाल करने के इस अधिकार को वरियता नहीं माना जाना चाहिए।

(ख) प्राकृतिक गैस के परिवहन का ठेका केवल प्राकृतिक गैस के परिवहन के लिए ही होगा और यह प्राकृतिक गैस के स्रोत की किसी बाध्यता के बिना होगा।

(ग) किसी कम्पनी को किसी निश्चित समय तक प्राकृतिक गैस पाइपलाइन में उपलब्ध सामान्य वाहक क्षमता का आबंटन "पहले आओ, पहले पाओ" के आधार पर बिना किसी भेदभाव के बुकिंग मांगने पर किया जाएगा।

(घ) यदि किसी निश्चित अवधि में प्राकृतिक गैस पाइपलाइन में सामान्य वाहक क्षमता उपलब्ध नहीं है और कोई दूसरी कम्पनी एक वर्ष से कम की अवधि के लिए बुकिंग चाहती है तो इस अनुरोध को पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (सामान्य वाहक या ठेका वाहक प्राकृतिक गैस पाइपलाइनों के लिए पहुंच कोड) विनियम, 2008 तथा समय-समय पर यथासंशोधित अनुसार विनियम 12 में निर्धारित प्रक्रिया का पालन किया जाना चाहिए।

(ङ) जब सामान्य वाहक आधार पर उपलब्ध कराई जाने वाली प्राकृतिक गैस पाइपलाइन में अतिरिक्त क्षमता कम्पनी की कुल क्षमता आवश्यकताओं के तैतीस प्रतिशत से कम हो और अन्य कम्पनियों के साथ सुनिश्चित क्षमता का ठेका किया गया हो, तो उसे (i) फर्म ठेकों के समाप्त होने पर, या (ii) प्राकृतिक गैस पाइपलाइन में क्षमता का विस्तार करके उपलब्ध कराया जाए :

बशर्ते कि जब सामान्य वाहक क्षमता कम्पनी की कुल क्षमता आवश्यकताओं के दस प्रतिशत से कम हो और अन्य कम्पनियों के साथ सुनिश्चित ठेका किया गया हो, तो बोर्ड स्वतः आधार पर तथा सार्वजनिक परामर्श की यथोचित प्रक्रिया का पालन करने के बाद ऐसी अवधि के लिए तथा बोर्ड द्वारा विनिर्दिष्ट अनुसार अन्य निबंधन और शर्तों पर किसी कम्पनी को अतिरिक्त क्षमता का निर्माण करने के लिए कह सकता है।

#### 7. सामान्य या ठेका वाहक क्षमता के लिए सामान्य सिद्धांत

(क) प्राकृतिक गैस पाइपलाइन बिछाने, निर्माण, प्रचालन या विस्तार करने वाली कम्पनी अपनी वेबसाइट पर प्राकृतिक गैस पाइपलाइन में, उपलब्ध सामान्य वाहक या ठेका वाहक क्षमता को प्रकाशित करेगी तथा पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (सामान्य वाहक या ठेका वाहक प्राकृतिक गैस पाइपलाइनों के लिए पहुंच कोड) विनियम 2008 के संगत प्रावधानों के अनुसार प्रक्रिया का पालन करेगी।

(ख) क्षमता की बुकिंग करने वाली कम्पनी को बोर्ड द्वारा इसके लिए बनाए जाने वाले संगत विनियमों के अंतर्गत बोर्ड द्वारा विनिर्दिष्ट अनुसार ऐसी निबंधन और शर्तों के आधार पर खुले बाजार में क्षमता सौंपने या व्यापार करने की अनुमति दी जाए।

(ग) प्राकृतिक गैस पाइपलाइन बिछाने, निर्माण, प्रचालन या विस्तार करने वाली कम्पनी प्राप्त आवेदनों का रिकार्ड रखकर और आबंटन के आधार पर पारदर्शिता अपनाते हुए उपलब्ध सामान्य वाहक या ठेका वाहक क्षमता का

आबंटन करेगी।

#### 8. ठेका वाहक आधार पर आबंटित निजी आवश्यकता और आबंटित क्षमता का सत्यापन

कम्पनी अपनी निजी आवश्यकता और वाहक क्षमता पर आधारित आबंटित क्षमता के व्यौरों का उल्लेख करेगी जिसे बोर्ड द्वारा यथापेक्षित समय-समय पर सत्यापित किया जाएगा।

#### 9. प्राकृतिक गैस पाइपलाइन में ठेका वाहक या सामान्य वाहक क्षमता का निर्धारण

प्राकृतिक गैस पाइपलाइन के संबंध में सामान्य वाहक या ठेका वाहक क्षमता निम्नलिखित के अंतर्गत शामिल है—

(क) विनियम 3 के खण्ड (क) को पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (प्राकृतिक गैस पाइपलाइन बिछाना, निर्माण, प्रचालन या विस्तार को प्राधिकृत करना) विनियम, 2008 तथा प्राकृतिक गैस पाइपलाइन की क्षमता का निर्धारण करने के लिए संगत विनियमों में विनिर्दिष्ट आधार पर बोर्ड द्वारा अनुमोदित अनुसार विनियम 5 के उप-विनियम (6) के खण्ड (जे) में उपलब्ध कराए गए आधार पर निर्धारित किया जाएगा ;

(ख) विनियम 3 के खण्ड (ख) को बोर्ड द्वारा प्राकृतिक गैस पाइपलाइन की क्षमता का निर्धारण करने के लिए विनियमों के अनुसार तथा विनियम 3 के खण्ड (ग) को बोर्ड द्वारा प्राकृतिक गैस पाइपलाइन की क्षमता का निर्धारण करने के लिए संगत विनियमों के अनुसार अनुमोदित किया जाएगा।

#### 10. सामान्य या ठेका वाहक के रूप में प्राकृतिक गैस के परिवहन के लिए मौजूदा पाइपलाइन की घोषणा करना

(1) यदि बोर्ड का यह मत हो कि प्राकृतिक गैस के परिवहन के लिए किसी मौजूदा पाइपलाइन को सामान्य या ठेका वाहक के रूप में घोषित करना आवश्यक या व्यावहारिक हो तो—

(क) वह इसके लिए आपत्तियों और सुझाव आमंत्रित करके अपने आशय का व्यापार प्रचार-प्रसार करेगा जो आमंत्रण की तारीख से तीन सप्ताह से कम की अवधि का नहीं होगा ;

(ख) बोर्ड प्राकृतिक गैस पाइपलाइन की कम्पनी को आपत्तियों और सुझावों के लिए आमंत्रण की समाप्ति तारीख से पंद्रह दिनों की न्यूनतम सूचना अवधि में सुनवाई का अवसर भी देगा।

(2) आपत्तियों और सुझावों पर विचार करने तथा उप-विनियम (1) के अंतर्गत प्राकृतिक गैस पाइपलाइन की कम्पनी की सुनवाई के बाद बोर्ड पाइपलाइन को सामान्य या ठेका वाहक पाइपलाइन घोषित कर सकता है जो इसके लिए निर्धारित निबंधन और शर्तों के अधीन होगा।

- (3) उप-विनियम (1) और उप-विनियम (2) के बावजूद कम्पनी स्वतः आधार पर बोर्ड को सामान्य या ठेका वाहक के रूप में प्राकृतिक गैस पाइपलाइन की घोषणा करने के लिए आवेदन कर सकती है तथा बोर्ड कम्पनी को सुनवाई का अवसर देने के बाद ऐसे आवेदन की प्राप्ति से पंद्रह दिनों की अवधि के अंदर संगत प्राकृतिक गैस पाइपलाइन को, जैसा उचित समझे, निबंधन और शर्तों के आधार पर सामान्य या ठेका वाहक के रूप में घोषित कर सकता है।

#### 11. विविध

- (क) प्राकृतिक गैस पाइपलाइन बिछाने, निर्माण, प्रचालन या विस्तार करने वाली कम्पनी और प्राकृतिक गैस पाइपलाइन में क्षमता बुक करने वाली कम्पनी पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (सामान्य वाहक या ठेका वाहक प्राकृतिक गैस पाइपलाइन के लिए पहुंच कोड) विनियम, 2008 के अंतर्गत विनिर्दिष्ट संगत प्रावधानों का पालन करेगी।
- (ख) यदि इन विनियमों के किसी प्रावधान के कार्यन्वयन के संबंध में कोई विवाद उत्पन्न होता है तो बोर्ड का निर्णय अंतिम होगा।

[फा. सं. एस-प्रशा/II/8/2008-खण्ड-1]

रतन पी. वातल, सचिव

### PETROLEUM AND NATURAL GAS REGULATORY BOARD

#### NOTIFICATION

New Delhi, the 21st April, 2009

**G.S.R. 273(E).**— In exercise of the powers conferred by Section 61 of the Petroleum and Natural Gas Regulatory Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely :—

#### 1. Short title and commencement.

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Guiding Principles for Declaring or Authorizing Natural Gas Pipeline as Common Carrier or Contract Carrier) Regulations, 2009.
- (2) They shall come into force on the date of their publication in the Official Gazette.

#### 2. Definitions.

- (1) In these regulations, unless the context otherwise requires,—
- (a) “Act” means the Petroleum and Natural Gas Regulatory Board Act, 2006;
- (b) “appointed day” means the date of October 1, 2007 when the Central

Government notified the establishment of the Petroleum and Natural Gas Regulatory Board;

- (c) “associate” means a person in relation to the entity—

(i) who participates, directly or indirectly or through one or more intermediaries, in the management or control or capital of the entity;

(ii) who holds, directly or indirectly, shares carrying not less than twenty-six per cent of the voting power in the entity;

(iii) who appoints more than half of the Board of directors or members of the governing board, or one or more executive directors or executive members of the governing board of the entity; or

(iv) who guarantees not less than ten per cent of the total borrowings of the entity.

- (d) “Board” means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of Section 3 of the Act;

(e) “natural gas pipeline” means natural gas pipeline as specified under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008;

- (2) Words and expressions used and not defined in these regulations, but defined in the Act or in the rules or regulations made thereunder, shall have the meanings respectively assigned to them in the Act or in the rules or regulations, as the case may be.

#### 3. Scope.

These regulations shall apply to an entity—

(a) which proposes to lay, build, operate or expand a natural gas pipeline and has been authorized to do so under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008;

(b) which has been laying, building, operating or expanding natural gas pipeline before the appointed day and has been authorized under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008; or

- (c) which has been authorized by the Central Government before the appointed day and accepted by the Board for laying, building, operating or expanding natural gas pipeline under the provisions specified in regulation 17 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008.
- 4. Objectives for declaring natural gas pipeline as common carrier or contract carrier.**
- (a) Natural gas pipeline is widely accepted mode of bulk transportation of natural gas from a source to a delivery point over a particular route. The concept of natural monopoly in transportation of natural gas is universally accepted in view of its capital intensiveness, safety factors and the need for protecting consumer's interests. Therefore, consumer interest is best served by promoting competition, avoiding infructuous investments by optimum utilization of infrastructure of natural gas pipelines.
- (b) The concept of allowing capacity in a natural gas pipeline to be utilized by any entity on a non-discriminatory basis shall incentivize emergence of independent shippers of natural gas who shall enter into contract carrier or common carrier arrangements with entities owning such infrastructure for transportation of natural gas which, in turn, shall lead to development of competitive natural gas markets.
- 5. Contract carrier system for natural gas pipelines.**
- (a) A contract carrier system implies that the capacity in a natural gas pipeline, over and above the entity's own requirement, shall be available to any other entity subject to the latter entering into a firm contract for transportation of a volume of natural gas for a period of minimum one year, on such other terms and conditions as may be mutually agreed, and subject to the provisions of regulations notified from time to time under the Act and on payment of natural gas pipeline tariff as authorized under the Petroleum and Natural Gas Regulatory Board (Determination of Natural Gas Pipeline Tariff) Regulations, 2008.
- (b) The contract for transportation of natural gas shall only be for transportation of natural gas and without any obligation as to the sourcing of the natural gas.
- 6. Common carrier system for natural gas pipelines.**
- (a) A common carrier system implies that the capacity in a natural gas pipeline, over and above the entity's own requirement and capacity allocated on a contract carrier basis, shall be available to any other entity subject to the latter entering into a contract for transporting volume of natural gas normally for a period of less than one year, on such other terms and conditions as may be mutually agreed, and subject to the provisions of regulations notified from time to time under the Act and on payment of natural gas pipeline tariff as authorized under the Petroleum and Natural Gas Regulatory Board (Determination of Natural Gas Pipeline Tariff) Regulations, 2008:
- Provided that if the common carrier capacity is not fully utilized, the entity may contract the same for a period of one year or more.
- Explanation.**—For the purpose of these regulations, entity laying, building, operating or expanding a common carrier or contract carrier natural gas pipeline shall have right of first use for its own and its associates' requirement and shall be limited to the right of first use. Such right of first use shall not be deemed to be preferential access.
- (b) The contract for transportation of natural gas shall be only for transportation of natural gas and without any obligation as to the sourcing of the natural gas.
- (c) Common carrier capacity available in natural gas pipeline at any given point of time shall be allocated to any entity seeking booking of the same on a non-discriminatory "first-come-first served" basis.
- (d) In case common carrier capacity is not available in a natural gas pipeline at any given point of time and another entity seeks booking of the same for a period of less than one year, the request shall be accommodated by following the procedure set out in regulation 12 of the Petroleum and Natural Gas Regulatory Board (Access Code for Common Carrier or Contract Carrier Natural Gas Pipelines) Regulations, 2008 and as amended from time to time.
- (e) When the extra capacity in a natural gas pipeline to be provided on a common carrier basis is less than thirty three per cent of the sum of the capacity requirements of the entity and the firm up contracted capacity with other entities, the same will be made available - (i) on expiry of firm contracts, or (ii) by way of expansion of capacity in the natural gas pipeline:
- Provided that when the common carrier capacity is less than ten per cent of the sum of

the capacity requirements of the entity and the firm up contracted capacity with other entities, the Board may on a suo motu basis and after following the due process of public consultation require an entity to build extra capacity on such time lines and other terms and conditions as may be specified by the Board.

**7. General principles for common or contract carrier capacity.**

- (a) Entity laying, building, operating or expanding natural gas pipeline shall publish the common carrier or contract carrier capacity available in a natural gas pipeline on its website and follow the procedure as per the relevant provisions of the Petroleum and Natural Gas Regulatory Board (Access Code for Common Carrier or Contract Carrier Natural Gas Pipelines) Regulations, 2008.
- (b) Entity booking the capacity may be allowed to assign or trade the capacity in the open market based on such terms and conditions as may be specified by the Board under the relevant regulations to be framed by the Board for the same relating to fostering fair trade and competition amongst entities.
- (c) Entity laying, building, operating or expanding natural gas pipeline shall allocate the common carrier or contract carrier capacity available on a transparent basis by maintaining a record of the applications received and the basis of allocation.

**8. Verification of own requirement and capacity allocated on a contract carrier basis.**

The entity shall specify the details of its own requirement and the capacity allocated on a contract carrier basis which shall be verified from time to time by the Board as required.

**9. Determination of contract carrier or common carrier capacity in natural gas pipeline.**

The common carrier or contract carrier capacity in respect of natural gas pipeline covered under—

- (a) clause (a) of regulation 3 shall be determined as per the basis provided in clause (j) of sub-regulation (6) of regulation 5 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008 and as approved by the Board as per the basis specified in the relevant regulations for determining the capacity of the natural gas pipeline;
- (b) clause (b) of regulation 3 shall be as approved by the Board as per the relevant regulations for determining the capacity of the natural gas

pipeline and clause (c) of regulation 3 shall be as authorized by the Central Government or as approved by the Board as per the relevant regulations for determining the capacity of the natural gas pipeline.

**10. Declaring of existing pipeline for transportation of natural gas as a common or contract carrier.**

- (1) If the Board is of the opinion that it is necessary or expedient to declare an existing pipeline for transportation of natural gas as a common or contract carrier,—
  - (a) it may give wide publicity of its intention to do so by inviting objections and suggestions within a period of not less than three weeks from the date of invitation;
  - (b) the Board may also provide the entity owning the natural gas pipeline an opportunity of being heard within a minimum notice period of fifteen days from the close of the invitation for objections and suggestions.
- (2) After considering the objections and suggestions received and after hearing the entity owning the natural gas pipeline under sub-regulation (1), the Board may declare the pipeline as a common or contract carrier subject to such terms and conditions as it may fix.
- (3) Notwithstanding anything in sub-regulation (1) and sub-regulation (2), the entity may, on a suo motu basis, apply to the Board seeking declaration of a natural gas pipeline as a common or contract carrier and the Board after giving an opportunity of hearing to the entity, may, within a period of fifteen days from the receipt of such an application, declare the relevant natural gas pipeline as a common or contract carrier on such terms and conditions as it deems fit.

**11. Miscellaneous.**

- (a) Entity laying, building, operating or expanding natural gas pipeline and entity booking capacity in natural gas pipeline shall abide by the relevant provisions specified under the Petroleum and Natural Gas Regulatory Board (Access Code for Common Carrier or Contract Carrier Natural Gas Pipelines) Regulations, 2008 and other relevant regulations.
- (b) If any dispute arises with regards to the implementation of any of the provisions of these regulations, the decision of the Board shall be final.

[F. No. S-Admn/II/8/2008-Vol. I]

RATAN P. WATAL, Secy.

**PETROLEUM AND NATURAL GAS REGULATORY BOARD****NOTIFICATION**

New Delhi, the 14th May, 2009

**G.S.R. 323(E).**—In exercise of the powers conferred by Section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely :—

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Procedure for development of Technical Standards and Specifications including Safety Standards) Regulations, 2009.
- (2) They shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

- (1) In these regulations, unless the context otherwise requires,—
  - (a) "Act" means the Petroleum and Natural Gas Regulatory Board Act, 2006;
  - (b) "Board" means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of section 3 of the Act;
  - (c) "standard development organization (SDO)" means a nationally or internationally established body recognized by the Board for developing standards;
  - (d) "technical committee" means a committee constituted by the Board or SDO with the approval of the Board to contribute in respect to all functional aspects of the subject standard and this committee shall have wide participation including, but not limited to, multi stakeholders, industry, statutory bodies, suppliers, service providers, academia, and NGOs.
- (2) Words and expressions used and not defined in these regulations, but defined in the Act or in the rules or regulations made thereunder, shall have the meanings respectively assigned to them.

**3. Application.**

These regulations shall apply to-

- (a) all stakeholders associated with development of standard including, but not limited to, the technical committees or SDOs.
- (b) developing any standard, practices, and codes or modifying such standard, practices and codes.

**4. Scope.**

These regulations shall cover the procedures for development of draft standards by the technical committees or SDOs in the areas mentioned in

clause (i) of section 11 of the Act and the finalization, adoption and notifications of these by the Board.

### 5. General provisions.

- (1) The Board may either develop standards for the purpose of regulation under the Act itself or utilize the services of any Standards Development Organization (SDO).
- (2) The Board, when it decides to develop any standard itself, shall constitute an appropriately named technical committee of independent experts in the relevant technical areas, stakeholders, consumer groups, oil and natural gas and other energy related bodies, Government organisations and representatives of industry bodies and the committee may co-opt experts to assist it in its work.
- (3) Any technical committee constituted under sub-regulation (2) shall have a chairman and a member-secretary besides nominated members and it shall be ensured that balance of interests is maintained and no single interest dominates.
- (4) The technical committee may appoint ad hoc expert groups for specific tasks and such expert groups shall have tenure as decided by the technical committee.
- (5) The technical committee shall have defined scope of work as specified by the Board.
- (6) The Board may reconstitute the technical committee from time to time and the Board shall have the power to dissolve a committee.
- (7) In case an SDO is developing a standard for the Board, it shall constitute the technical committee with the approval of the Board.
- (8) All members of the technical committees and ad hoc expert groups shall be bound by the code of conduct at Annexure-I.
- (9) The procedures employed in formulation of the standards shall be designed in a manner so as to provide opportunities to all interested parties to communicate their views.
- (10) The technical committees and SDOs responsible for standards development activities shall maintain written records and follow procedures in accordance with the provisions contained in these regulations and the codes of good practices as per WTO agreement on Technical Barriers to Trade, Annex-3 - Codes of Good Practice for the Preparation, Adoption and Application of Standards.

### 6. Procedure for formulation of standards.

- (1) Any interested party may submit a proposal to the Board for formulation of a standard or updating or amending or cancelling an existing standard in activities relating to petroleum, petroleum products and natural gas including the construction and operation of pipeline and infrastructure projects related to downstream petroleum

and natural gas sector in the form at Annexure-II alongwith an application fee as specified under the Petroleum and Natural Gas Regulatory Board (Levy of Fees and Other Charges) Regulations, 2007 as amended from time to time.

- (2) Notwithstanding anything in sub-regulation (1), the Board on its own may also decide to develop, update, amend or cancel an established standard.
- (3) If the Board on examining any existing standards is satisfied that such standards have been developed by an SDO following the international best practices and such SDO has been credited for development of substantial number of standards, the Board may refer or adopt such standards.
- (4) The intent to formulate, update, amend or cancel any standard by the Board shall be published for a period of thirty days on the web site of the Board or publicized by any other means for inviting views from the stakeholders.
- (5) The views received shall be considered by the Board itself or by referring them to SDO for comments and the final decision in this regard shall lie with the Board.
- (6) The work of formulation of new standards and modification and revision of existing standards on any specific subject shall be undertaken when the Board is satisfied that the necessity for formulation, modification or revision, as the case may be, of a standard has been established.
- (7) A preliminary draft standard shall be prepared by the SDO, either by engaging any consultant, experts, specialized organization or by the technical committee.
- (8) The draft standard so prepared shall be put up to the technical committee for deliberation.
- (9) After deliberations, technical committee shall prepare a final draft and shall submit the same to the Board and the Board shall consider and approve the final draft standard and put it on its website for public consultation for sixty days.
- (10) In cases where the final draft is modified by the Board, it may refer it back to the technical committee for its comments on the modifications and the technical committee shall give its comments within a period of forty five days to the Board for its consideration and the Board shall consider the comments of the technical committee and finalise the final draft and put it on its website for public consultation for a period of sixty days.
- (11) The technical committee shall take into account the comments received during the period for public consultation and shall thereafter finalize the draft standard which shall be submitted to the Board for adoption through SDO, if any.

- (12) The draft standard after deliberation of the Board with the changes, if any, incorporated at appropriate places shall be hosted in the website of the Board for thirty days for comments of stakeholders and the general public.
- (13) The comments received shall be forwarded to the technical committee for deliberations and the final draft standard after deliberations with or without modifications shall be submitted to the Board for its adoption and if no comments have been received, then, the Board may adopt the final draft standard placed on its website for public consultation.
- (14) In case the finalized standard draws assistance or reproduces text from any other standard where some other person has intellectual property right, the responsibility for seeking concurrence of such person shall lie with the SDO, if any, preparing the draft standard.
- (15) Technical committee shall finalize the draft by consensus in the committee and if consensus is not reached, the standard shall be finalized by voting and acceptance by two-third majority of members and the detailed reasons for lack of consensus, if any, shall be conveyed to the Board for its consideration while adopting the standard.
- (16) All standards so developed shall be reviewed periodically at least once in five years, and revised, reaffirmed or withdrawn, as considered necessary by the Board.
- (17) Proposals for revising or amending published standards shall be considered by the technical committee concerned in a manner similar to proposals for development of new standards with the final decision resting with the Board.

#### **7. Multi-stakeholder consultation.**

- (1) Participation shall be open to all persons who are directly and materially affected by the activity in question as provided in a sub-regulation (3) of regulation (5).
- (2) The standards development process shall not be dominated by any single interest category whether individual or organization as a means of its position or strength and the development process shall have a balance of interests and participants from diverse interest categories shall be sought with the objective of achieving balance.
- (3) The procedure employed in formulation of the standard shall be designed as to allow all interested parties the opportunity to communicate their views.

#### **8. Time period for preparation of standards.**

- (1) The technical committee or SDO shall submit the draft standard to the Board for adoption within the period specified by the Board and the time period specified by the Board may be reduced depending upon the urgency and the requirements as decided by the Board in specific cases.

- (2) In case it is anticipated that the process will take more than the specified time, the technical committee or SDO shall seek approval of the Board by submitting due justification at least two months in advance of last date.

#### **9. Publication.**

The standard shall be published by the Board immediately after it has been adopted.

#### **10. Price of standard.**

The price of a standard may be decided by the Board from time to time on a case to case basis.

#### **11. Revenue model for development/amending/cancelling and existing standard.**

SDO shall be compensated by the Board for the development or the draft standards on such terms and conditions as may be specified by the Board in general or on a case to case basis.

#### **12. Recognition of other standards.**

- (1) The technical committee or SDO may recommend to the Board any standard established by any other SDO complying with these regulations on the basis of applicability to a specific area within the jurisdiction of the Board.
- (2) The responsibility for seeking concurrence for adoption of any standard with the original owner of the standard shall rest with the technical committee or SDO as the case may be.
- (3) In a case, the standard to be recognized has been developed in a manner not complying with these regulations, the process of adoption shall follow the WTO agreements on Technical Barrier to Trade (TBT) , Annex-3 – code of good practice for preparation, adoption and application of standards.

#### **13. Handling enquiries and complaints.**

- (1) The Board shall set a unit to handle the enquiries in terms of explanation or interpretation required by any entity with respect to technical standards and provisions of the regulations of the Board.
- (2) In case any complaint about the standard development process is received, the Board shall refer it to the technical committee or SDO for resolution and in a case the complaint is not resolved, the matter shall be referred back to the Board and the Board may seek help of ombudsman or technical experts appointed by the Board or both to resolve the complaint.

#### **14. Miscellaneous.**

If any dispute arises with regards to the interpretation of any of the provisions of this regulation, the decision of the Board shall be final.

**Annexure - I****Petroleum and Natural Gas Regulatory Board****CODE OF CONDUCT FOR THE MEMBERS OF THE TECHNICAL COMMITTEES OR EXPERT GROUPS**

This Code of Conduct is for all the members of the technical committees or expert groups who are responsible for development of Technical Standards for Petroleum and Natural Gas Regulatory Board as per the general provisions contained at Regulation 5(8).

Principles and procedures to be followed:

- (i) Meeting with respect to development of standards or any matter related to standard development process shall be conducted with the prior notice and adequate records for the committee meetings and other relevant deliverable, decisions and action taken thereof shall be maintained by the Member-Secretary.
- (ii) The Chairman or the Member-Secretary of the technical committee shall ensure that that standard development process will not give any privilege to or favour the interests of a particular supplier, country or region.
- (iii) A structural mode of exchange of information shall be maintained among the members or between members and SDO so that standard developing process is transparent.
- (iv) Every member shall be given equal opportunity to express his views and the chairman of the technical committee shall ensure that no discrimination prevails against any of the member of the technical committee or expert groups.
- (v) Procedure shall be established so that adequate time and opportunities are provided to all the members for written comments.
- (vi) Misutilization of information for individual gain or organizational gain shall be avoided.
- (vii) The standard developed shall not be intended to discriminate any product on the basis of place of origin and shall take care or remove the potential for future instances.
- (viii) Technical committee shall take all efforts to harmonize the standards with balancing approach giving equal opportunities to all interested parties including the members of the Technical Committees and the Expert Groups.

**Annexure – I (contd)**

- (ix) The standards shall be drafted in plain language to improve clarity and simplicity, to reduce uncertainty and discrepancies and to enable to have better understanding of the implications of the standards.
- (x) Use of name for any patent or copyright item shall be avoided in writing the technical standard. Standard shall not incorporate any copyrighted material, in whole or in part, without prior permission from the copyright holder.
- (xi) All the members of the technical committee or expert groups can take advice or seek information from any other sources as deemed fit within the jurisdiction decided by the SDO or the Board.
- (xii) All members of the technical committee or expert group shall respond to any request made by the SDO or the Board for any clarification and information related to Standard Development process.
- (xiii) Any complaint concerning the technical committee or the members of the technical committee or expert groups shall be resolved by the concerned authority.
- (xiv) If the above steps of complaint redressal fail, the matter shall be referred to the Board with detailed supporting documents. Decision of the Board in such cases shall be final and binding.
- (xv) Any members found for misconduct and not following the standard practices defined in this code or any international mandatory practices can be replaced with a new member with the approval of the Board.
- (xvi) Each member shall submit his professional engagement including membership of other professional bodies and also clarify the conflict of interests due to his being nominated to the technical committee.

**Annexure – II**

(Refer regulation 6 (1))

**Form for submitting proposal to the  
Petroleum and Natural Gas Regulatory Board**

for

**Formulation of a standard or revising, amending, or cancelling an established  
standard.**

1. Name of the party:
2. Type of entity
3. Business profile:
4. Address including telephone numbers/mobile no./email/fax
5. Name , e-mail, mobile No of contact person for any clarification required by Petroleum and Natural Gas Regulatory Board:
6. Standard proposed to be developed/revised/amending/cancelling:
7. Reason in support of the serial No. 6
8. Payment details:
  - a. Draft No. \_\_\_\_\_ date \_\_\_\_\_ for Rs. \_\_\_\_\_

(DD shall be made in favour of "Petroleum and Natural Gas Regulatory Board" payable at New Delhi)

Signature of the authorized representative of the Party

Name \_\_\_\_\_

Designation \_\_\_\_\_

Organisation \_\_\_\_\_

**Note :** A letter of authorization for the above mentioned representative from CEO of the entity/party may also be enclosed.

[F. No. S-Admin./II/8/2008-Vol. I]

RATAN P. WATAL, Secy.

**PETROLEUM AND NATURAL GAS REGULATORY BOARD****NOTIFICATION**

New Delhi, the 6th May, 2008

**G.S.R. 340(E).**—In exercise of the powers conferred by Section 61 of the Petroleum and Natural Gas Regulatory Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely :—

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008.
- (2) They shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

- (1) In these regulations, unless the context otherwise requires, -

- (a) "Act" means the Petroleum and Natural Gas Regulatory Board Act, 2006;
- (b) "appointed day" means the date of October 1, 2007 when the Central Government notified the establishment of the Petroleum and Natural Gas Regulatory Board;
- (c) "Board" means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of section 3 of the Act;
- (d) "development of natural gas pipeline" means laying, building, operating or expanding a natural gas pipeline;

(e) "economic life" of natural gas pipeline shall be a period of twenty five years commencing from-

- (i) the date of grant of authorization to the entity by the Board in case an entity proposes to lay, build or expand a natural gas pipeline on or after the appointed day;
- (ii) the start-up date of the commencement of physical activities of laying, building or expanding the natural gas pipeline in case an entity started up laying, building or expanding a natural gas pipeline before the appointed day and the entity has either an authorization from the Central Government before the appointed day or an authorization from the Board under these regulations:

Provided that at the end of the aforesaid period of twenty five years extension of the period of economic life may be considered by the Board for a block of ten years at a time depending on the satisfactory compliance of the service obligations under these regulations and on such terms and conditions, as it may deem fit at that point in time.

(f) "natural gas pipeline" means any pipeline including spur lines for transport of natural gas and includes all connected equipments and facilities, such as, compressors, storage facilities, metering units, etc. but excludes-

- (i) dedicated pipeline laid to transport natural gas to a specific customer to meet his requirement and not for resale;
- (ii) pipelines in a city or local natural gas distribution network which are regulated by the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.

(g) "natural gas pipeline tariff" means the unit rate of tariff for a natural gas pipeline (excluding statutory taxes and levies) in rupees per million British Thermal Units (Rs./MMBTU) for transport of natural gas;

(h) "tariff zone" means the zone—

(i) of a length of three hundred kilometers along the route of the natural gas pipeline; and

(ii) a corridor along the natural gas pipeline with a width of upto ten percent of the total length of the natural gas pipeline without including the length of the spur lines or fifty kilometers measured from the nearest point on the surface of the natural gas pipeline on both sides of the natural gas pipeline, whichever is lower:

Provided that the natural gas pipeline tariff for transport of natural gas shall be uniform for all the customers located within the zone:

Provided further that the entity shall supply natural gas to any customer located in the zone subject to the techno-commercial feasibility of laying, building, operating or expanding a new spur line from the natural gas pipeline.

*Explanation.-*

(a) the length of the first zone shall start from the first point of injection of natural gas in the natural gas pipeline and extend to a distance of three hundred kilometers along the natural gas pipeline;

(b) the length of each of the zones subsequent to the first zone shall be equal to three hundred kilometers; and

(c) the length of the last zone shall be equal to the balance length in the natural gas pipeline:

Provided that a distance of ten percent of the pipeline length excluding the spur lines or fifty kilometers, whichever is lower, before the point of origin and after the end point along the natural gas pipeline shall fall within the first tariff zone and the last tariff zone respectively.

(2) Words and expressions used and not defined in these regulations, but defined in the Act or in the rules or regulations made thereunder, shall have the meanings respectively assigned to them in the Act or in the rules or regulations, as the case may be.

### 3. Applicability.

These regulations shall apply to an entity-

- (a) which is laying, building, operating or expanding or which proposes to lay, build, operate or expand a natural gas pipeline; or
- (b) which proposes or is directed by the Board to convert a dedicated pipeline for supply of natural gas to a specific consumer into a natural gas pipeline.

### 4. Initiation of proposal through expression of interest route or *suo-motu* by Board.

(1) An entity desirous of laying, building, operating or expanding a natural gas pipeline shall submit an expression of interest to the Board in the form of an application at Schedule A alongwith an application fee as specified under the Petroleum and Natural Gas Regulatory Board (Levy of Fee and Other Charges) Regulations, 2007.

- (2) The Board may *suo-motu* initiate a proposal inviting entities to participate in the process of selection of an entity for laying, building, operating or expanding natural gas pipeline along any route.

**5. Criteria for selection of entity for expression of interest route.**

- (1) In case the expression of interest fulfills the criteria and the requirements stated at Schedule A, the Board shall issue an open advertisement in at least one national and one vernacular daily newspaper (including webhosting) publishing receipt of an expression of interest and commencement of public consultation period of thirty days.
- (2) During the period of public consultation process any other entity which may be interested in laying, building, operating or expanding a natural gas pipeline referred to in sub-regulation (1) may submit in writing to the Board its views, if any, on the expression of interest.
- (3) The Board shall web-host all comments received to facilitate possible contracts for capacity booking by different entities with the entities that may be interested in the development of natural gas pipeline so as to facilitate coming up of an optimum sized natural gas pipeline through the bidding process as stated in regulation 7.
- (4) The Board shall, based on the views received, within a period of forty five days after the last day of the public consultation period decide-
- (a) to reject the expression of interest on grounds of non-availability of natural gas;
- (b) not to allow the proposed natural gas pipeline if it is convinced that, instead of laying, building or expanding the proposed natural gas pipeline, the projected potential demand could be better met in cost-effective manner by expansion of an existing pipeline; or

(c) to go ahead with the proposal with or without modification:

Provided that, if required, the Board may also hold an open house discussion with the entities who have offered their views to arrive at a decision:

Provided further that the Board in deciding so shall be guided by one or more of the following objectives, namely:-

- (i) promoting competition among entities;
  - (ii) avoiding infructuous investment;
  - (iii) maintaining or increasing supplies or for securing equitable distribution or ensure adequate availability of natural gas throughout the country;
  - (iv) protection of customers' interest in terms of availability of natural gas at reasonable natural gas pipeline tariff;
  - (v) incentivizing rapid development of natural gas pipeline infrastructure.
- (5) The Board may, within the period specified in sub-regulation (4), publish through an open advertisement in at least one national and one vernacular daily newspaper (including webhosting), the proposal for the development of natural gas pipeline and invite bids for the same.
- (6) The Board shall scrutinize the bids received in response to the advertisement in respect of only those entities which fulfill the following minimum eligibility criteria, namely:-
- (a) entity has paid the application fee alongwith the application-cum-bid as specified for trunk lines as specified under regulation 3 of the Petroleum and Natural Gas Regulatory Board (Levy of Fee and Other Charges) Regulations, 2007:

Provided that the entity submitting the bid, which has already paid the application fee at the time of submission of the expression of interest, shall not pay the application fee at this stage;

(b) entity is technically capable of laying and building natural gas pipeline as per the following qualifying criteria, namely:-

(i) entity has on its own in the past laid and built either a hydrocarbon pipeline of a length not less than three hundred kilometers on a cumulative basis or a city or local natural gas distribution network;

(ii) entity has a joint venture with another entity (with at least eleven percent equity holding by that entity) which in the past has either laid and built a hydrocarbon pipeline of a length not less than three hundred kilometers on a cumulative basis or a city or local natural gas distribution network;

(iii) entity intends to lay and build proposed natural gas pipeline on lump sum turnkey or project management consultancy basis through one or more technically competent firms, which in the past have laid and built a hydrocarbon pipeline of a length not less than three hundred kilometers or a city or local natural gas distribution network and the entity shall also enclose a list of such firms along with aforesaid proof of their technical competence;

Provided that the entity shall have the freedom to choose from amongst such firms at the time of execution of the project and the Board reserves the right to cross verify the credential of the firms included in the list and seek clarifications; or

(iv) entity has an adequate number of technically qualified personnel with experience in construction, pre-commissioning and commissioning of hydrocarbon pipelines and also has a credible plan

to independently undertake and execute the natural gas pipeline project on a standalone basis.

*Explanation.*- The entity shall have at least three technically qualified personnel on its permanent rolls having experience of not less than one year in the following areas, namely:-

- (a) right of way acquisition or clearance securing;
  - (b) design and execution of a hydrocarbon pipeline project;
  - (c) pre-commissioning including hydro-testing and restoration; and
  - (d) safety of hydrocarbon pipeline and installations;
- (c) entity is technically capable of operating and maintaining natural gas pipeline as per the following qualifying criteria, namely:-
- (i) entity on its own has an experience of at least one year in operations and maintenance of a natural gas pipeline of a length not less than three hundred kilometers on a cumulative basis or a city or local natural gas distribution network;
  - (ii) entity has a joint venture with another entity (with at least eleven percent holding of that entity) which has an experience of at least one year in operations and maintenance of a natural gas pipeline or a city or local natural gas distribution network;
  - (iii) entity intends to operate and maintain the proposed natural gas pipeline through an appropriate firm technical assistance agreement for a period of at least one year with another party having experience of at least one year in operations and maintenance of a natural gas pipeline or a city or local natural gas distribution network; or

(iv) entity has an adequate number of technically qualified personnel with experience in commissioning and operation and maintenance (O&M) of natural gas pipeline and also has a credible plan to independently undertake the O&M activities of a natural gas pipeline on a standalone basis.

*Explanation.*—

1. In relation to sub-clause (iii), —

(a) the entity shall submit in its application-cum-bid an exhaustive list of proposed firms with whom it desires to have a technical assistance agreement alongwith the proof of relevant and credible experience of such firms and the entity may choose a firm or more from amongst the firms in this list for operation and maintenance of the proposed natural gas pipeline and the Board reserves the right to cross verify the credential of the firm or firms included in this list and seek any clarifications;

(b) the entity shall also submit a credible plan along with the bid to develop an in-house O&M team for the proposed natural gas pipeline.

2. In relation to sub-clause (iv), the entity shall have at least three technically qualified personnel on its permanent rolls having experience of not less than one year in the following areas; namely:-

(a) commissioning of a hydrocarbon pipeline;

(b) operation and maintenance of natural gas pipelines and natural gas installations including gas compressors;

- (c) commercial issues including gas pricing, gas measurement, accounting, billing and collection; and
- (d) safety of natural gas infrastructure;
- (d) the entity has agreed to abide by the relevant regulations for technical standards and specifications including safety standards;
- (e) the entity has adequate financial strength to execute the proposed natural gas pipeline project and operate and maintain the same and shall meet the following financial criterion to qualify for bidding for a single natural gas pipeline, namely:-

Range of estimated pipeline length including spur lines (in kilometers) (#)	Minimum combined net worth (*) of the entity along with its promoters available for investments in a single natural gas pipeline duly supported by letter of comfort from promoters (in million of rupees per kilometer of estimated pipeline length)
1,751 and above	7.50
1,001 -1,750	7.00
251-1,000	6.00
Up to 250	5.00

(\*) combined net worth (equity share capital plus free reserves, but excluding revaluation reserves) to be adequately represented by cash funds, which shall be available as bridge finance and as promoters equity contribution in the project as certified by a Chartered Accountant based on the latest financial position of the entity and its promoters. The promoters undertaking, in the form of letter of comfort, stating that promoters financial contribution in the project shall be converted in to equity share capital within three months of the date of grant of authorization must accompany the application.

(#) a fraction of the length in two decimals place and equal to 0.50 kilometer or more shall be rounded off to next 1 kilometer;

- (f) the entity, on being declared as a successful bidder and not being a company registered under the Companies Act, 1956, shall convert itself into a company registered under the Companies Act, 1956;
- (g) the entity shall have a credible plan for utilization of the capacity in the proposed natural gas pipeline;

- (h) the entity shall furnish a bid bond alongwith the submission of the application-cum-bid under sub-regulation (7) of an amount determined as per the length of the proposed natural gas pipeline as per the applicable category indicated below:-

Pipeline Length including spur lines (in kilometers) (#)	Amount of bid bond (in million of rupees)
equal to 2,501 or more	250
between 1,751 and 2,500	200
between 1,001 and 1,750	150
between 251 and 1,000	80
less than or equal to 250	20

(#) a fraction of the length in two decimals place and equal to 0.50 kilometer or more shall be rounded off to next 1 kilometer.

- (i) entity submitting the bid should not have been imposed any penalty under section 28 or punished under Chapter IX of the Act;
- (j) the entity agrees to build extra capacity in the natural gas pipeline as per the following basis, namely:-
- (i) the capacity of natural gas pipeline shall be an aggregate of the following, namely:-
- (A) capacity requirements of the entity;
- (B) firmed-up contracted capacity with other entities; and
- (C) at least thirty three percent of the sum of (A) and (B) as an extra capacity.

**Explanation.-**

The capacity shall be approved by the Board as per the basis specified in the relevant regulations for determining the capacity of natural gas pipeline.

- (ii) the capacity mentioned at item (C) of sub-clause (i) shall be available for use as common carrier by any third party on open access and non-discriminatory basis;
- (k) in case the entity submitting the bid does not fulfill the requirements of any criteria under clauses (a) to (j), the bid submitted by it shall be summarily rejected and a communication in this regard shall be sent to it and the financial bid shall not be opened for that entity;
- (l) the bid bond shall be –
- (i) encashed if an entity submitting the bid walks out;
  - (ii) released in respect of the unsuccessful entity submitting the bid;
  - (iii) retained till the specified performance bond is furnished at the time of authorization by the successful bidder.
- (7) The application-cum-bid shall be submitted in two parts in the form as specified in Schedule B in separate properly earmarked and sealed envelopes, namely:-
- (a) Part I (Technical bid) covering general particulars of the applicant and technical details of the project (including minimum eligibility criteria) under sub-regulation (6);
  - (b) Part II (Financial bid) covering the details under regulation 10.
- (8) A time period of sixty days shall be allowed for submission of the application-cum-bid for grant of authorization for laying, building, operating or expanding the natural gas pipeline and any application-cum-bid received after the notified date shall not be considered.

(9) The Board may extend the date of submission of bids upto a period of one month through an advertisement in the same manner as specified under sub-regulation (5), including in a situation where only a single application-cum-bid is received in response to the original advertisement.

**6. Invitation by Board for laying, building, operating or expansion of natural gas pipeline.**

The Board may *suo-motu* form a view regarding the development of a natural gas pipeline in a specific area, region or route, and in such a case, the procedure as specified in regulation 5 (except aspects relating to the expression of interest shall be replaced by project details as prepared by the Board) shall apply.

**7. Bidding criteria.**

(1) The Board shall tabulate and compare all financial bids meeting the minimum eligibility criteria, as per the bidding criteria given below, namely:-

(a) Lowness of the present value of the unit natural gas pipeline tariff bid under this clause for the first tariff zone in the natural gas pipeline for each year of the economic life of the project. [*natural gas pipeline tariff bid shall be for each year of the economic life of the project*].

This shall have a weightage of forty percent:

Provided that this criterion shall have a weightage of seventy percent in case the length of natural gas pipeline is not more than three hundred kilometers.

(b) Lowness of the percentage increase bid under this clause which when multiplied with the unit natural gas pipeline tariff bid for each of the year of the economic life of the project under clause (a) shall determine the incremental unit natural gas pipeline tariff for the second tariff zone over the first tariff zone for each of the year. [*a single number is to be bid*].

This criterion shall have a weightage of twenty percent.

Provided that this criterion shall have:

- (i) no weightage in case the length of the natural gas pipeline is not more than three hundred kilometers;
- (ii) a weightage of thirty percent in case the length of the natural gas pipeline is more than three hundred kilometers but not more than six hundred kilometers;
- (c) Lowness of the percentage increase bid under this clause which when multiplied with the unit natural gas pipeline tariff bid under clause (a) for each of the year of the economic life of the project and the percentage bid under clause (b) shall determine the incremental unit natural gas pipeline tariff for the third tariff zone over the second tariff zone for each of the year:

Provided that for each successive tariff zone, the incremental increase in the unit natural gas pipeline tariff for each of the year of the economic life of the project shall be determined by multiplying the percentage increase bid under clause (c) with the incremental increase in unit natural gas pipeline tariff for the immediate preceding tariff zone for each of the year; [a single number lower than one hundred percent is to be bid].

This criterion shall have a weightage of ten percent:

Provided further that this criterion shall have no weightage in case the length of the natural gas pipeline is not more than six hundred kilometers;

*Explanation.-*

An illustration for computation of unit natural gas pipeline tariff for different tariff zones on the basis of the bids quoted under clause (a), (b) and (c) by an entity is indicated in Schedule C.

- (d) Highness of the present value of the natural gas volumes (in million standard cubic meters per day) proposed to be transported in the natural gas pipeline over the economic life of the project. [*natural gas volumes bid for transporting in the natural gas pipeline shall be for each year of the economic life of the project*].

This shall have a weightage of thirty percent.

- (2) The present value in the criteria at clauses (a) and (d) of sub-regulation (1) shall be calculated by the entity using a discount rate equal to twelve percent.
- (3) The bids for the natural gas pipeline tariff under clauses (a) to (c) of sub-regulation and the volume under clause (d) of sub-regulation (1) by the entity shall be consistent with the assumptions considered by the entity in its approved DFR of the project.
- (4) Entity with the highest composite score considering the criteria under clauses (a) and (d) of sub-regulation (1) and as illustrated in Schedule C shall be declared as successful in the bid.

#### 8. Performance bond.

- (1) Grant of authorization shall be issued to the selected entity after it furnishes a performance bond of an amount equal to 2% of the estimated project cost in the approved bid.

*Explanation.*- The amount of the performance bond shall be revised by applying the above basis in case the estimated project cost undergoes a change on completion of the financial closure as per regulation 10.

- (2) The performance bond has been prescribed for guaranteeing the timely commissioning of the proposed natural gas pipeline as per the targets laid

down in sub-regulation (3) and also for meeting the service obligations by the selected entity during the operating phase of the project.

- (3) The entity shall be allowed a maximum period of thirty six months from the date of grant of authorization for commissioning of the natural gas pipeline project.

#### **9. Grant of authorization.**

- (1) The authorization shall be granted to the selected entity in the format at Schedule D within a period of thirty days of the last date of submitting the bid.
- (2) The grant of authorization is subject to the entity achieving a firm natural gas tie-up and a financial closure as per regulation 10.
- (3) The grant of authorization to the entity shall not be renounced by way of sale, assignment, transfer or surrender to any person or entity during the period of three years from the date of its issue.
- (4) The entity intending to renounce the authorization in favour of another entity after the end of the three years period shall submit a proposal to the Board at least thirty days in advance and shall provide all information as may be called for by the Board.
- (5) The Board after satisfying itself that the proposal will not adversely affect the existing or proposed activities of laying, building, operating or expansion of the natural gas pipeline shall either accept the proposal in full or with such modifications as it may deem fit and in a case where the entity is permitted by the Board to take over the activities of laying, building, operating or expanding the natural gas pipeline such entity shall abide by the existing or modified terms and conditions of the authorization including compliance with the service obligations:

Provided that the Board reserves the right to reject the proposal in public interest and in such a case the Board shall provide in writing the reasons for such rejection.

**10. Capacity booking, natural gas tie-up and financial closure.**

(1) The authorized entity shall achieve agreement for transport of natural gas with any entity equal to at least fifty percent of the natural gas pipeline volume bid as specified in clause (d) to sub-regulation (1) of regulation 7 for each of the first five years following the commissioning of the natural gas pipeline.

(2) The agreement specified under sub-regulation (1) shall be entered into a transparent manner and be based on the principle of *at an arm's length*:

Provided that up to ten percent of the throughput in the natural gas pipeline specified under sub-regulation (1) may be booked on firm and mutually agreed terms without insisting on physical delivery of natural gas.

(3) The entity shall submit copy of the agreement specified under sub-regulation (1) to the Board within a period of ninety days of the date of the issue of the authorization.

(4) The authorized entity shall obtain the financial closure of the project from a bank or financial institution within a period of one hundred and twenty days from the date of the authorization.

(5) In case of an internally financed project, the entity shall submit the approval of its Board of Directors' for the detailed feasibility report (hereinafter referred as DFR) of the project alongwith its financial plan within one hundred and twenty days of the authorization:

Provided that the Board may ask the entity to submit any further details or clarifications on the financial closure.

- (6) In case the entity fails to meet the requirements at sub-regulations (1) to (5), the authorization of the entity for laying, building, operating or expanding natural gas pipeline shall be cancelled and the performance bond shall be encashed and the Board reserves the right to re-award the authorization in a transparent manner and the entity shall have no right whatsoever against the Board for seeking any compensation or remedy on this account.

#### 11. Fixation and recovery of natural gas pipeline tariff.

- (1) The natural gas pipeline tariff shall be fixed on a zonal postalized basis, as per the bid by the entity namely under criteria (a) to (c) of sub-regulation (1) of regulation 7.
- (2) The natural gas pipeline tariff determined for different tariff zones on the basis specified in sub-regulation (1) shall be accordingly recovered by the entity from the customers located in different tariff zones.
- (3) The applicable natural gas pipeline tariff shall be recovered through an invoice on a non-discriminatory basis, that is, without any premium or discount, from all customers.
- (4) The authorized entity is expected to maintain the operating pressure in the natural gas pipeline at all times as per its detailed feasibility report (hereinafter referred as DFR) without impairing the deliverable pressure requirements as specified in the contracts with the existing customers and also in line with the relevant regulations for technical standards, specifications including safety standards:

Provided that the authorized entity may separately charge additional compression charge towards compression of natural gas to the extent not included in the natural gas pipeline tariff as specified under sub-regulation (1) from such customer, to whom the supply of natural gas is required at a specific deliverable pressure as defined in the contract and beyond the

operating pressure profile of the natural gas pipeline as envisaged in the DFR.

## **12. Expansion of capacity in natural gas pipeline.**

- (1) The entity may expand the authorized capacity in the natural gas pipeline upto ten percent and immediately inform the Board of its decision:

Provided that there shall be no change in the natural gas pipeline tariff post-expansion.

- (2) In case it is proposed to expand the capacity of the natural gas pipeline by more than ten percent of that authorized by the Board, the entity shall submit a proposal for consideration of the Board and the Board may allow for expansion of the capacity in the natural gas pipeline provided that the entity agrees to a reduction in the unit natural gas pipeline tariff by sharing fifty percent of the proposed incremental tariff revenue calculated based on the applicable unit natural gas pipeline tariff before expansion and the incremental volumes sought to be transported.

## **13. Post-authorization monitoring of activities (pre-commissioning).**

- (1) An authorized entity is required to provide, on a quarterly basis, a progress report detailing the clearances obtained, targets achieved, expenditure incurred, works-in-progress and any other relevant information in the form at Schedule E.
- (2) The Board shall seek compliance by the entity to the relevant regulations for technical standards and specifications including safety standards through conduct of technical and safety audits during the pre-commissioning phase, as well as on an on-going basis thereafter, for ensuring safe commissioning and operation of the natural gas pipeline.

- (3) The Board may allow re-routing of the natural gas pipeline provided that such re-routing does not result in increase in natural gas pipeline length by more than ten percent of the authorized length of the natural gas pipeline:

Provided further that the natural gas pipeline tariff remains the same as per the authorization.

- (4) The Board shall monitor the progress of the entity in achieving various targets with respect to the natural gas pipeline project, and, in case of any deviations or shortfall, advise remedial action to the entity.

**14. Service obligations of authorized entity (post commissioning).**

- (1) The entity shall meet the annual target of transporting natural gas equal to the volume of natural gas quoted in the bid and the Board shall monitor the actual progress in this regard on a quarterly basis:

Provided that non-fulfillment of the annual target by the entity shall result in default and encashment of the performance bond on the following basis, namely:-

- (a) twenty five percent of the amount of the performance bond for the first default;
- (b) fifty percent of the amount of the performance bond for the second default; and
- (c) one hundred percent of the amount of the performance bond for the third default:

Provided further that the entity shall make good the encashed performance bond in each of the cases at clause (a) to (c) within a week of encashment and in case of not meeting this requirement, the authorization shall be liable for termination.

- (2) The authorized entity shall not cause the activities of transport of natural gas in the natural gas pipeline and its delivery to any customer be made conditional to sourcing of the natural gas from the entity or any other entity.
- (3) The authorized entity shall give wide publicity of the capacity available in the natural gas pipeline for use on common carrier or contract carrier basis to encourage maximum utilization of the pipeline capacity and shall maintain information in this regard, on its official website, as specified in the relevant regulations on the access code.
- (4) The capacity available in natural gas pipeline for use as common carrier shall be allocated on the basis specified in the relevant regulations on the access code and declaring natural gas pipelines as contract carrier or common carrier.
- (5) The authorized entity shall strictly adhere to the provisions under the relevant regulations for affiliate code of conduct right from the stage of submission of the application-cum-bid and onwards including the operative phase of the natural gas pipeline.
- (6) The authorized entity shall adhere to the requirements of unbundling of the activity of transportation in the natural gas pipeline from the activities of distribution or marketing of natural gas transported in the natural gas pipeline as and when so decided by the Board.
- (7) The authorized entity shall be responsible for getting the technical and safety audits carried out by independent technical experts at intervals specified or directed by the Board during the pre-commissioning phase as well as on an on-going basis thereafter to ensure compliance with the relevant regulations for the technical standards and specifications including safety standards and the audit report along with the findings shall be submitted to the Board for its review and advise of remedial action, if any, to the entity.

- (8) The third party technical and safety audits shall be carried out by independent technical experts or accredited agencies out of the panel approved by or registered with the Board.

**15. Quality of service standards.**

- (1) The entity laying, building, operating or expanding a natural gas pipeline must comply with the quality of service standards as specified in Schedule F.
- (2) The performance of the entity in complying with the quality of service standards shall be periodically assessed by the Board and compared against the minimum prescribed benchmarks and a performance consistently below the minimum prescribed benchmark may lead to the consequences specified under regulation 16.

**16. Consequences of default and termination of authorization procedure.**

- (1) An authorized entity shall abide by all the terms and conditions specified in these regulations and any failure in doing so, except for the default of the service obligation under sub-regulation (1) of regulation 14 and *force majeure*, shall be dealt with as per the following procedure, namely:-
- (a) the Board shall issue a notice to the defaulting entity allowing it a reasonable time to fulfill its obligations under the regulations;
- (b) no further action shall be taken in case remedial action is taken by the entity within the specified period to the satisfaction of the Board;
- (c) in case of failure to take remedial action, the Board may encash the performance bond of the entity on the following basis, namely:-
- (i) twenty five percent of the amount of the performance bond for the first default;

(ii) fifty percent of the amount of the performance bond for the second default:

Provided that the entity shall make good the encashed performance bond in each of the cases at sub-clause (i) and (ii) within a week of encashment failing which the remaining amount of the performance bond shall also be encashed and authorization of the entity terminated;

(iii) one hundred percent of the amount of performance bond for the third default and simultaneous termination of authorization of the entity;

(d) the procedure for implementing the termination of an authorization shall be as provided in Schedule G.

(e) without prejudice to as provided in clauses (a) to (d), the Board may also levy civil penalty as per section 28 of the Act in addition to taking action as prescribed for offences and punishment under Chapter IX of the Act.

**17. Entities authorized by the Central Government for laying, building, operating or expanding natural gas pipeline before the appointed day.**

(1) The entity shall submit relevant information along with supporting documents in the form as per Schedule H.

(2) The entity shall abide by the technical standards, specifications including safety standards as specified under the relevant regulations.

(3) The Board shall monitor the actual progress made by the entity in the activities of laying, building or expanding the natural gas pipeline on a quarterly basis with reference to the period of commissioning, the targets specified in the DFR of the project, and the terms and conditions of the authorization with a view to avoiding any time or cost over-runs which may adversely affect the natural gas pipeline tariff:

Provided that in case of any delay in the commissioning of the natural gas pipeline or meeting any target beyond that specified in the authorization, the Board reserves the right to-

- (a) not consider the additional costs attributable to the time over-run while fixing the natural gas pipeline tariff as specified under clause (5); or
- (b) advise the Central Government for cancellation of the authorization and encashment of the performance bond or bank guarantee, if any.

(4) The Board shall approve the natural gas pipeline tariff to be charged by the entity based on the methodology as specified under the Petroleum and Natural Gas Regulatory Board (Determination of Natural Gas Pipeline Tariffs) Regulations, 2008.

(5) In case any natural gas pipeline has been authorized by the Central Government without prescribing the usage of the same as common carrier or contract carrier basis, the Board may intervene and declare the same as common carrier or contract carrier under the relevant regulations.

(6) The activities of the entity may be subject to such other regulations as may be applicable as per the provisions of the Act.

**18. Entity not authorized by the Central Government for laying, building, operating or expanding natural gas pipeline before the appointed day.**

(1) An entity laying, building, operating or expanding natural gas pipeline at any time before the appointed day but not duly authorized to do so by the Central Government shall apply immediately for obtaining an authorization in the form as per Schedule I.

(2) The Board may consider the following criteria while considering the application for grant of authorization, namely:-

(a) the entity meets the minimum eligibility criteria as specified in clauses (a) to (e) and (i) of sub-regulation (6) of regulation 5 before the appointed date and is possessing all necessary statutory clearances, permissions, no objection certificates from the Central and State Governments and other statutory authorities;

(b) an entity which is not registered under the Companies Act, 1956 at the time of submitting the application for grant of authorization shall undertake to become a company registered under the Companies Act, 1956:

Provided that the Board may exempt an entity to register under the Companies Act, 1956 on such conditions as it may deem appropriate;

(c) a satisfactory assessment of the actual physical progress made and the financial commitment thereof till immediately before the appointed day in comparison with the entity's DFR appraised by the financial institution funding the project. In case the project has not been funded by any financial institution, the Board may appraise the DFR. The DFR of the entity should clearly indicate the specified length, route and capacity of the proposed natural gas pipeline;

(d) in respect of the actual physical progress made and the financial commitment thereof referred to in clause (c), a physical progress of at least twenty five percent and a financial commitment of at least twenty five percent of the capital expenditure identified for the natural gas pipeline project as per the DFR immediately before the appointed day may be considered as adequate;

(e) the Board reserves the right to get the actual physical progress and the financial commitment certified and depending upon the progress achieved, the Board may consider authorizing the entity for laying, building, operating or expanding the natural gas pipeline-

- i) as per the route and length as specified in its DFR;
  - ii) as per the route or length actually covered under implementation till the appointed day; or
  - iii) the route or length as specified by the Board;
- (f) in relation to laying, building, operating or expanding the natural gas pipeline, it is for the entity to satisfy the Board on the adequacy of its ability to meet the applicable technical standards, specifications and safety standards as specified in the relevant regulations for technical standards and specifications including safety standards;
- (g) assessment of the financial position of the entity in timely and adequately meeting the financial commitments in developing the natural gas pipeline project as appraised by a financial institution and an examination of the audited books of accounts of the entity;
- (h) the booking of the capacity in the natural gas pipeline should be equal to at least fifty percent of the sum of the own capacity requirements of the entity and firmed-up contracted capacity and the agreements in this regard should have been entered in a transparent manner and based on the principle of *at an arm's length*;
- (i) the entity shall submit copies of the agreements for transportation or supplying of natural gas by the natural gas pipeline for the firmed-up contracted capacity specified under clause (h) to the Board; and
- (j) any other criteria considered as relevant by the Board based on the examination of the application.
- (3) The evaluation of the application in terms of the clauses (a) to (j) of sub-regulation (2) shall be done in totality considering the composite nature and the inter-linkages of the criteria.

- (4) The Board, after examining the application in terms of the criteria under sub-regulation (3) and also taking into account the requirements in other regulations, may form a *prima-facie* view as to whether the case should be considered for authorization.
- (5) In case of *prima-facie* consideration, the Board shall issue a public notice in one national and one vernacular daily newspaper (including webhosting) giving brief details of the project and seek comments and objections, if any, within thirty days from any person on the proposal.
- (6) The Board, after examining the comments and objections, if any, under sub-regulation (5), may either consider or reject the case for grant of authorization for the natural gas pipeline.
- (7) In case it is decided to grant authorization, the same shall be in the form at Schedule D;
- (8) In case of rejection of the application, the Board shall pass a speaking order after giving a reasonable opportunity to the concerned party to explain its case and proceed to select an appropriate entity for the project in terms of regulation 6.
- (9) In case the entity is selected for grant of authorization for laying, building, operating or expanding natural gas pipeline,-
  - (a) the natural gas pipeline tariff shall be determined under the Petroleum and Natural Gas Regulatory Board (Determination of Natural Gas Pipeline Tariff for Natural Gas Pipelines) Regulations, 2008;
  - (b) the entity shall abide by the technical standards, specifications including safety standards as specified under relevant regulations for technical standards and specifications including safety standards;

(c) the Board shall monitor the actual progress made by the entity in the activities of laying, building or expanding the natural gas pipeline on a quarterly basis with reference to the period of commissioning, the targets specified in the DFR of the project and the terms and conditions of the authorization with a view to avoiding any time or cost over-runs which may adversely affect the natural gas pipeline tariff:

Provided that in case of any delay in the commissioning of the natural gas pipeline or meeting any target beyond that specified in the authorization, the Board reserves the right to not consider the additional costs attributable to the time over-run while fixing the natural gas pipeline tariff as specified under sub-regulation (a);

(d) the entity shall abide by the provisions under the relevant regulations on access code and declaring natural gas pipelines as common carrier or contract carrier;

(e) the provisions under regulations 8, 9, 13, 14, 15 and 16 shall apply to the entity.

#### **19. Provisions relating to dedicated pipelines for transport of natural gas.**

(1) In respect of dedicated pipelines existing before the appointed day, the following provisions shall apply, namely:-

(a) entity having dedicated pipeline to transport natural gas to a specific customer before the appointed day shall submit details of the pipeline length, route, capacity and customers served along with the DFR of the project to the Board within thirty days of notification of these regulations;

(b) Board may web-host details of dedicated pipeline seeking comments of general public with a view to ascertain whether such pipeline needs to be converted into natural gas pipeline in public interest;

- (c) The Board may, based on the examination of the comments received, direct the entity to convert such pipeline into natural gas pipeline in overall public interest:

Provided that the entity shall be given an opportunity to present its case;

- (d) The entity may also submit its proposal to convert its dedicated pipeline into natural gas pipeline to the Board alongwith complete details and justifications and the Board may web-host details of dedicated pipeline seeking comments of general public with a view to ascertain whether such pipeline needs to be converted into natural gas pipeline in public interest and the Board may, based on the examination of the comments received and in overall public interest, issue grant of authorization to the entity for conversion into a natural gas pipeline.

- (2) In respect of dedicated pipelines proposed to be laid, built, operated or expanded after the appointed day, following provisions shall apply, namely:-

- (a) the entity proposing to lay, build, operate or expand a dedicated pipeline to transport natural gas to a specific customer after the appointed day shall submit details on pipeline length, route, capacity and details of the customers served along with the DFR of the project to the Board at least thirty days before the proposed commencement of laying and building of the dedicated pipeline;
- (b) Board may web-host details of the proposed dedicated pipeline seeking comments of general public with a view to ascertain whether, instead of a dedicated pipeline, the public interest would be better served if a natural gas pipeline is laid, built, operated or expanded;
- (c) in case, based on the examination of the comments received, the Board is of the view that instead of a dedicated pipeline natural gas pipeline would better serve the public purpose it may advise the entity

appropriately within thirty days of the receipt of the information from the entity;

- (d) in case, despite receiving the advice from the Board under clause (c), the entity still wishes to lay, build, operate or expand a dedicated pipeline, it may do so:

Provided that simultaneous to the entity building a dedicated pipeline, the Board may, on *suo-motu* basis, decide to issue an expression of interest for laying, building, operating or expanding a natural gas pipeline:

Provided further that the entity shall not be allowed to apply to the Board for conversion of its dedicated pipeline into a natural gas pipeline for a period of five years from the date of the commissioning of its dedicated pipeline;

- (e) any entity laying, building, operating or expanding a dedicated pipeline for which no advice has been issued by Board under clause (c) may apply to the Board at any time for converting it into natural gas pipeline and the Board may decide to authorize the entity for such conversion in line with the procedure under clause (d) of sub-regulation (1) and the moratorium period restriction of five years specified under clause (d) shall not be applicable in such case;

- (f) the Board may, in respect of a dedicated pipeline laid, built, operated or expanded after the appointed day, direct the entity to convert dedicated pipeline into natural gas pipeline as per the following procedure, namely:-

- (i) the Board may web-host details of dedicated pipeline seeking comments of general public with a view to ascertain whether such pipeline needs to be converted into natural gas pipeline in public interest;

(ii) the Board may, based on the examination of the comments received, direct the entity to convert such pipeline into natural gas pipeline in overall public interest:

Provided that the entity shall be given an opportunity to present its case.

(3) In case a dedicated pipeline is converted into a natural gas pipeline under sub-regulations (1) or (2), the provisions under the sub-regulation (9) of regulation 18 shall apply to such pipeline.

**20. Access and inter-connectivity to natural gas pipeline.**

The entity shall follow the access code and allow inter-connectivity to another natural gas pipeline as per the provisions of the relevant regulations for access code.

**21. Miscellaneous.**

If any dispute arises with regards to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final.

**Schedule A**

[see regulations 4 (1) and 5 (6)]

**Application form for submitting expression of interest by an entity desirous of laying, building, operating or expanding a natural gas pipeline.**

- A. Only an entity which complies with the minimum eligibility criteria as per regulation 5 (6) of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008 is eligible to submit its application for submission of expression of interest to the Board.
- B. Entities must enclose documentary proof in support of its meeting the minimum eligibility criteria.
- C. The entity submitting the expression of interest must submit the following information:

1	<b>General Details</b>
A	<b>Name of the Entity</b>
B	<b>Type of firm – Public Limited Company / Private Limited Company / Partnership firm / Proprietorship firm / Others (please specify)</b>
C	<b>Date of incorporation and date of commencement of business</b>
D	<b>Address of the Registered office</b>
2	<b>Basic Data</b>
A	<b>Point of origin and the end point of the proposed natural gas pipeline</b>
B	<b>Indicative route of the proposed natural gas pipeline indicating the likely natural gas injection points and likely delivery points depicted on a physical map</b>
C	<b>Natural gas availability position</b>
D	<b>Potential demand of natural gas enroute the national gas pipeline</b>
E	<b>Assessment of total gas volume for transportation in the proposed natural gas pipeline</b>
F	<b>Any other issue considered as relevant by the entity</b>
3	<b>Application fee of Rs. _____ paid vide demand draft/ pay order number &lt; ___ &gt; and dated &lt; ___ &gt; drawn on &lt;name of bank and branch&gt;.</b>

Date:

Place:

Name and signature of entity or authorized signatory

Official Seal

**Schedule B**

[see regulation 5 (7)]

**Application-cum-bid for grant of authorization for natural gas pipeline.**

To,  
 The Secretary,  
 Petroleum and Natural Gas Regulatory Board,  
 1st Floor, World Trade Centre  
 Babar Lane, Connaught Place,  
 New Delhi – 110 001.

Sub: Application-cum-bid for grant of authorization for laying, building, operating or expanding natural gas pipeline <name indicating the proposed route from the starting point till the end-point> under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008.

(Attach separate sheets for providing information wherever necessary)

<b>Part-I – General details of the entity and technical details of the project (to be submitted in a properly earmarked, sealed and separate envelope)</b>		
<b>1</b>	<b>Details of the entity</b>	
<b>A</b>	<b>Name of the entity</b>	
<b>B</b>	<b>Type of firm – Public Limited Company / Private Limited Company / Partnership firm / Proprietorship firm / others (please specify and attach copy of Articles of Association or Partnership deed, etc., as applicable).</b>	
<b>C</b>	<b>Date of incorporation and date of commencement of business.</b>	
<b>D</b>	<b>Address of registered office.</b>	
<b>E</b>	<b>Name, addresses, telephone numbers, e-mail ID of all directors / partners / proprietor (please provide full details with STD Code and Pin Code).</b>	
<b>2</b>	<b>Financial details</b>	
<b>A</b>	<b>Share capital or proprietor's own funds as applicable.</b>	
<b>B</b>	<b>Loans – amount, tenure, moratorium period, rate of interest, taken from and asset mortgaged or hypothecated for securing the same, if any.</b>	

C	Reserves, if any	
D	Fixed Assets	
E	Current Assets	
F	Current Liabilities	
G	Sales Turnover	
H	Profit After Tax	
	(Attach copies of audited Profit and Loss Account and Balance Sheet for last three financial years) - In case entity is a subsidiary company, copies of audited Profit and Loss Account and Balance Sheet for last three financial years of the parent company to be attached.	
<b>3 Business activities of the entity</b>		
A	Details of all existing natural gas pipelines, if any, and including design specifications, installed capacity, capital cost, year-wise details of operating cost, date of commissioning, gas volumes transported alongwith details of customer profile, map and drawings showing details of existing facilities and future plan, natural gas sources, unit natural gas pipeline tariff being charged, etc.	
B	Details of existing tie-up or collaboration with any entity for transport of natural gas for existing natural gas pipelines.	
C	Details of other business, if any, being carried out by the promoters for the last five years.	
<b>4 Ownership and affiliate details</b>		
A	Details of promoters	
B	Details of all affiliates of the entity mentioning the business relationship between the entity and the affiliates ("affiliate" means as defined in the relevant regulations for affiliate code of conduct).	
C	The entity undertakes to produce all relevant records or documents of itself and its related entities on	Yes / No

	<b>demand by the Board.</b>	
<b>D</b>	Is the entity a company registered under Companies Act, 1956?	Yes / No
<b>E</b>	Is the entity promoted by a company registered under Companies Act, 1956?	Yes / No
<b>F</b>	The entity undertakes to become a company, in case it is not a company at the time of submission of this application-cum-bid, under the Companies Act, 1956 on being selected for grant of authorization.	Yes / No
<b>G</b>	Promoters undertaking in the form of letter of comfort stating that their financial contribution in the project shall be converted in to equity share capital within three months of the date of grant of authorization. Enclose the letter of comfort from the promoters.	Yes / No
<b>5</b>	<b>Technical details of the proposed natural gas pipeline project</b>	
<b>A</b>	Name of the proposed natural gas pipeline project.	
<b>B</b>	Detailed map indicating the route of the proposed natural gas pipeline with following details: (a) tariff zones marked along the proposed route (b) depiction of district, city, town, taluka or any other area falling in each tariff zone either fully or partially (c) entry and exit points (d) spur line (e) inter-connection point (f) depiction of the proposed major facilities, such as compressors, tap-off points, etc.	
<b>C</b>	Technical specifications of the project attaching the copy of the DFR and covering full details of pipeline design, pressure, length of network, pipeline diameter, pipeline thickness, route, corrosion protection arrangements, natural gas injection points, tap-off points,	

	main block valves, isolation valves, emergency shutdown valves, metering arrangements, HSE measures, etc.	
D	Development plan envisaged for the proposed natural gas pipeline project - design and installed capacity along with details of phased-out capital expenditure plans including the projected dates of commencement of operations phase-wise and the details of the activities or targets associated with the completion of the project to be enclosed.	
E	Proposed plan for: (i) sourcing of natural gas for injection in the natural gas pipeline; (ii) phase-wise capacity tie-up in the proposed natural gas pipeline.	
F	Are all applicable technical standards, specifications including safety standards, as specified under the relevant regulations for technical standards and specifications, including safety standards have been considered and complied with in designing the proposed natural gas pipeline? Provide full details.	Yes / No
G	Attach copy of the Disaster Management Plan.	
H	Is the project entitled to any subsidy, exemption, deferment or waiver of any statutory levy (including income tax) from the Central or the State Governments? If yes, give complete details indicating the year-wise utilization plan of the entity.	Yes / No
I	Non-refundable Application fee under the regulation 5 (6).	Rs. < _____ >
	Demand draft or pay order	
	Demand draft or pay order number and date	
	Name of issuing bank and branch	

J	Bid bond	Rs. < >
	Demand draft or pay order	
	Demand draft or pay order number and date	
	Name of issuing bank and branch	
Part-II: Financial bid (to be submitted in a separate earmarked sealed envelope) to be opened for those entities qualifying the minimum eligibility criteria under regulation 5 (7)		
A	Present Value (PV) of the unit natural gas pipeline tariff bid under this criterion for the first tariff zone in the natural gas pipeline over the economic life of the project (which is twenty five years from the date of authorization). <i>[natural gas pipeline tariff bid shall be for each year of the economic life of the project].</i>	<p>PV of the unit natural gas pipeline tariff bid for the first tariff zone for each year of the economic life of the project using the discount rate of 12% is Rs.&lt; &gt; per MMBTU</p> <p>Year-wise unit natural gas pipeline tariff bid for first tariff zone-</p> <p>Year 1: Rs.&lt; &gt; per MMBTU</p> <p>Year 2: Rs.&lt; &gt; per MMBTU</p> <p>⋮</p> <p>Year 25: Rs.&lt; &gt; per MMBTU</p>
B	Percentage increase bid under this criterion which when multiplied with the unit natural gas pipeline tariff bid for each of the year of the economic life of the project under clause A shall determine the incremental unit natural gas pipeline tariff for the second tariff zone over the first tariff zone for each of the year. <i>[a single number is to be bid].</i>	< > % increase bid
C	Percentage increase bid under this criterion which when multiplied with the unit natural gas pipeline tariff bid under clause A for each of the year of the economic life of the project	< > % increase bid

	<p>and the percentage bid under clause B shall determine the incremental unit natural gas pipeline tariff for the third tariff zone over the second tariff zone for each of the year:</p> <p>Provided that for each successive tariff zone, the incremental increase in the unit natural gas pipeline tariff for each of the year of the economic life of the project shall be determined by multiplying the percentage increase bid under this criterion with the incremental increase in unit natural gas pipeline tariff for the immediate preceding tariff zone for each of the year. <i>[a single number lower than one hundred percent is to be bid].</i></p>	
D	<p>Present value of the natural gas volumes (in million standard cubic meters per day) proposed to be transported in the natural gas pipeline over the economic life of the project. <i>[natural gas volumes bid for transporting in the natural gas pipeline shall be for each year of the economic life of the project].</i></p>	<p>PV of the natural gas volumes bid for transport in the natural gas pipeline for each of the year of the economic life of the project discounted at twelve percent is &lt;___&gt; million standard cubic meters per day (MMSCMD).</p> <p>Year-wise natural gas volumes bid -</p> <p>Year 1: &lt;___&gt; MMSCMD</p> <p>Year 2: &lt;___&gt; MMSCMD</p> <p>⋮</p> <p>Year 25: &lt;___&gt; MMSCMD</p>
<p><b>Note:</b> Please enclose a copy of the approved DFR of the proposed natural gas pipeline project for the purpose of sub-regulation (3) of regulation 7.</p>		

**DECLARATION**

1. Certified that the above information is true to the best of my / our knowledge and belief and the information and data given in the annexure, attachments, enclosures and calculation sheets accompanying this application-cum-bid are correct, complete and truly stated, and if any statement made herein is found to be incorrect, the application-cum-bid shall be rejected, the application fee and the Bid Bond shall be forfeited and I / We shall be liable to be proceeded against and for punishment under the provisions of the Act.
2. I / We certify that the above application-cum-bid is the only application-cum-bid submitted and no other application-cum-bid has been or is being submitted separately for this natural gas pipeline by me / us.

Date:

Place:

Name and Signature of Entity/ Authorized Signatory

Official Seal

**Instructions for filling the Application-cum-bid:**

1. All entries in the form and annexed documents should be legible with no cuttings.
2. Details requiring separate statement may be enclosed giving clear reference of the point against which the same is being attached.
3. All pages of the application-cum-bid and the attachments and statements need to be serially numbered and initialed by the person or official authorized by the entity through a notarized power of attorney.
4. Any information filled in the application-cum-bid needs to be substantiated by attaching relevant proof of the same.
5. The entity is required to submit three true copies (two hard copies and one soft copy) of the application-cum-bid with all the enclosures in addition to the original.
6. Incomplete application-cum-bid is liable to be summarily rejected.

**Schedule C**

[see regulation 7 (4) and explanation under clause (a) to (c) of sub-regulation (1) of regulation 7]

**Illustration showing the basis of determining the highest composite score for ascertaining the successful bid for grant of authorization for natural gas pipeline.**

Let there be three entities whose bids need to be compared for determining the successful bid over the bidding criteria stated under clauses (a) to (d) of sub-regulation (1) of regulation 7.

(A) Natural gas pipeline tariff bid for first tariff zone in the natural gas pipeline, under clause (a) of sub-regulation (1) of regulation 7.

Let,

T1 = Present value of the unit natural gas pipeline tariff bid for the first tariff zone for twenty five years by the 1<sup>st</sup> entity.

T2 = Present value of the unit natural gas pipeline bid for the first tariff zone for twenty five years by the 2<sup>nd</sup> entity.

T3 = Present value of the unit natural gas pipeline tariff bid for the first tariff zone for twenty five years of the 3<sup>rd</sup> entity.

Assume that T1 is lower than T2 and T2 is lower than T3.

The least present value of the unit natural gas pipeline tariff bid for the first tariff zone (LT1) shall be given a score of 100% and the present value of the other unit natural gas pipeline tariff bids for the first tariff zone shall be given a score in relation to LT1 on a pro-rata basis as under-

$$\begin{aligned} \text{LT1} &= 100 \% \\ \text{LT2} &= 100 \% \times (\text{T1} \div \text{T2}) \\ \text{LT3} &= 100 \% \times (\text{T1} \div \text{T3}) \end{aligned}$$

(B) Percentage increase bid under clause (b) of sub-regulation (1) of regulation 7 which when multiplied with the unit natural gas pipeline tariff bid for each of the year of the economic life of the project under clause (a) of sub-regulation (1) of regulation 7 shall determine the incremental unit natural gas pipeline tariff for the second tariff zone over the first tariff zone for each of the year.

Let,

PF1 = Percentage increase bid under clause (b) of sub-regulation (1) of regulation 7 by the 1<sup>st</sup> entity.

PF2 = Percentage increase bid under clause (b) of sub-regulation (1) of regulation 7 by the 2<sup>nd</sup> entity.

PF3 = Percentage increase bid under clause (b) of sub-regulation (1) of regulation 7 by the 3<sup>rd</sup> entity.

Assume that PF1 is more than PF2 and PF2 is more than PF3.

The lowest percentage increase bid (PF3) shall be given a score of 100% and the other percentage increase bids shall be given a score in relation to LPF3 on a pro-rata basis as under-

$$\text{LPF1} = 100 \% \times (\text{PF3} \div \text{PF1})$$

$$\text{LPF2} = 100 \% \times (\text{PF3} \div \text{PF2})$$

$$\text{LPF3} = 100 \%$$

(C) Percentage increase bid under clause (c) of sub-regulation (1) of regulation 7 which when multiplied with the unit natural gas pipeline tariff bid under clause (a) of sub-regulation (1) of regulation 7 for each of the year of the economic life of the project and the percentage bid under clause (b) of sub-regulation (1) of regulation 7 shall determine the incremental unit natural gas pipeline tariff for the third zone over the second tariff zone for each of the year:

Provided that for each successive tariff zone, the incremental increase in the unit natural gas pipeline tariff for each of the year of the economic life of the project shall be determined by multiplying the percentage increase bid under clause (c) of sub-regulation (1) of regulation 7 with the incremental increase in the unit natural gas pipeline tariff for the immediate preceding tariff zone for each of the year.

Let,

PS1 = Percentage increase bid under clause (c) of sub-regulation (1) of regulation 7 by the 1<sup>st</sup> entity.

PS2 = Percentage increase bid under clause (c) of sub-regulation (1) of regulation 7 by the 2<sup>nd</sup> entity.

PS3 = Percentage increase bid and under clause (c) of sub-regulation (1) of regulation 7 by the 3<sup>rd</sup> entity.

Assume that PS1 is more than PS2 and PS2 is more than PS3.

The lowest percentage increase bid (PS3) shall be given a score of 100% and the other percentage increase bids shall be given a score in relation to LPS3 on a pro-rata basis as under-

$$LPS1 = 100 \% \times (LP3 + LP1)$$

$$LPS2 = 100 \% \times (LP3 + LP2)$$

$$LPS3 = 100 \%$$

(D) Bid for Natural gas volumes (in MMSCMD) proposed to be transported in the natural gas pipeline over the economic life, under clause (d) of sub-regulation (1) of regulation 7.

Let,

V1 = Present value of the bid for volumes bid for proposed to be transported in the natural gas pipeline by the 1<sup>st</sup> entity over the economic life of the project.

V2 = Present value of the bid for volumes proposed to be transported in the natural gas pipeline by the 2<sup>nd</sup> entity over the economic life of the project.

V3 = Present value of the bid for volumes proposed to be transported in the natural gas pipeline by the 3<sup>rd</sup> entity over the economic life of the project.

Assume that V1 is lower than V2 and V2 is lower than V3.

The highest present value of the volumes proposed to be transported (HPV3) shall be given a score of 100% and the present value of the other volume bids shall be given a score in relation to HPV3 on a pro-rata basis as under-

$$\text{HPV1} = 100 \% \times (\text{HPV1} + \text{HPV3})$$

$$\text{HPV2} = 100 \% \times (\text{HPV2} + \text{HPV3})$$

$$\text{HPV3} = 100 \%$$

Now, the composite score of three entities shall be computed by assigning the respective weights assigned to each of the bidding criterion as indicated below-

$$\text{Entity 1} = 0.40 \times \text{LT1} + 0.20 \times \text{LPF1} + 0.10 \times \text{LPS1} + 0.30 \times \text{HPV1}$$

$$\text{Entity 2} = 0.40 \times \text{LT2} + 0.20 \times \text{LPF2} + 0.10 \times \text{LPS2} + 0.30 \times \text{HPV2}$$

$$\text{Entity 3} = 0.40 \times \text{LT3} + 0.20 \times \text{LPF3} + 0.10 \times \text{LPS3} + 0.30 \times \text{HPV3}$$

**Note:**

This illustration assumes the natural gas pipeline length of more than six hundred kilometers.

The entity with the highest composite score shall be declared as successful in the bid.

**Illustration for computation of the natural gas pipeline tariff for different tariff zones.**

Assuming that the composite score of the entity 2 is the highest and this entity is selected for authorization, the natural gas pipeline tariff for the first and the subsequent tariff zones during the first year shall be determined as under:

First tariff zone =	Tariff bid for first tariff zone for first year
Second tariff zone =	Tariff bid for first tariff zone for first year X [1 + PF2 / 100]
Third tariff zone =	Tariff for first tariff zone for first year X [1+ (PF2/ 100) + (PF2/100) X (PS2 / 100)]
Fourth tariff zone =	Tariff for first tariff zone for first year X [1+ (PF2/ 100) + (PF2/ 100) X (PS2/ 100)+ (PF2/ 100) x (PS2/ 100)^2]
.....and so on...	

**Schedule D'**

[see regulations 9 (1) and 18 (7)]

Grant of authorization for laying, building, operating or expanding natural gas pipeline.

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To,  
<Name of the successful entity>  
<address>

**Subject:** Grant of authorization for laying, building, operating or expanding natural gas pipeline along the route of < name of starting point, name of states or union territories passing through and the name of the end point> under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008.

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Sir / Madam,

With reference to your application for grant of authorization for laying, building, operating or expansion of natural gas pipeline along the route of < name of starting point, name of states or union territories passing through and the name of the end point>, it has been decided to grant authorization to you, subject to the provisions under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008 on the following terms and conditions, namely:-

1. The route for laying, building, operating or expanding the natural gas pipeline shall be as depicted in the enclosed drawing [<name of the originating point>, <intermediate tap-off and interconnection points>, <name of spur line> and <name of the last delivery point> of the natural gas pipeline to be depicted ].
2. The entity shall complete the activities of laying, building or expansion activities of natural gas pipeline and commission the natural gas pipeline project as per the enclosed time schedule and targets. The entity is allowed a maximum period of thirty six months from the date of issue of the authorization letter for commissioning of the natural gas pipeline project. Any

failure on the part of the entity in complying with the targets prescribed in the time schedule shall lead to consequences as specified under regulation 16 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008.

3. The capacity in the natural gas pipeline shall be equal to < \_\_\_ > Million standard cubic meter per day (MMSCMD).
4. The extra capacity in the natural gas pipeline shall be equal to < \_\_\_ > MMSCMD as per the provisions specified in clause (j) of sub-regulation (6) of regulation 5 and shall be available for use on common carrier basis by any third party on open access and non-discriminatory basis.
5. The authorized entity shall be required to take prior approval from the Board for creation of any lien or charge or hypothecation on the assets of the natural gas pipeline to secure finances for the project and furnish details of utilization of funds. However, in case of raising funds from any financial institution or bank, the entity will be required to only inform the Board of the sanction of the funds, within a period of seven days.
6. The entity shall publish the approved tariffs for each of the tariff zone of the natural gas pipeline.
7. The entity shall submit a detailed and clear financial closure report to the Board within a period of one hundred and twenty days from the date of authorization issued by the Board under regulation 9 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008.
8. The furnishing of performance bond of Rs.< \_\_\_ > million is a guarantee for timely commissioning of the project as per the prescribed targets submitted in the bid and for meeting the performance undertakings during operating phase of the project.

9. The entity shall abide by the service obligations specified under regulation 14 and quality of service standards under regulation 15 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008.
10. In case the authorization of the entity is terminated, the Board may assign the rights and obligations to any agency or another entity on such terms and conditions, as it may deem fit. Further, the entity may be required, as per the directions of the Board, to continue the operations of the natural gas pipeline at the same level till another agency or entity appointed by the Board takes over the full control of the natural gas pipeline.
11. The entity shall comply with the provisions under-
  - (a) the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008;
  - (b) the Petroleum and Natural Gas Regulatory Board (Determination of Natural Gas Pipeline Tariff) Regulations, 2008;
  - (c) the service obligations specified in Schedule J to the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008;
  - (d) the relevant regulations for-
    - (i) the technical standards and specifications, including safety standards;
    - (ii) the access code;
    - (iii) determination of capacity for natural gas pipeline;
    - (iv) affiliate code of conduct;

(v) declaring natural gas pipelines as common carrier or contract carrier;

(e) any other regulations as may be applicable and the provisions of the Act.

12. The entity shall comply with any other term or condition which may be notified by the Board in public interest, from time to time.

You are requested to confirm your acceptance in the space provided below and return the same in original.

Yours

Faithfully,

Sd/-

Dated:

Name & Designation of Officer

On behalf of the PNGRB

Official Seal

Acceptance of Grant of Authorization

I / We hereby agree to the grant of authorization issued by the Board vide letter ref. <\_\_\_> dated <\_\_\_> and agree to comply with all the terms and conditions subject to which I / We have been granted authorization for laying, building, operating or expanding natural gas pipeline along the route of <\_\_\_> in the State or the Union Territory of <\_\_\_>.

Date:

Place:

Signature of the Entity or Authorized Signatory

Name and Official Seal

**Schedule E**

[see regulation 13 (1)]

**Quarterly submission of data by authorized entity.**

- A. The data and information required to be submitted by the entity in the following form shall be analyzed by the Board by comparing the –
- (1) actual progress made by the entity including commissioning of the project versus the physical and financial targets, identified in its DFR; and
  - (2) actual volume of natural gas transported in the natural gas pipeline versus the volume committed in the bid.
- B. Monitoring of the progress shall be taken up by the Board on a quarterly basis and the notice of deviations and shortfalls, if any, shall be sent to the entity on an annual basis for a prompt resolution. In case of any delay in meeting the yearly commitments within the notice period or in case of repeated violations, the entity may face the consequences specified under regulation 16 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Pipelines) Regulations, 2008.

A	Name of Authorized Entity		
B	Project Name		
C	Date of grant of authorization		
D	Date of commencement of operations		
E	Details of composition of the ownership of the entity (give details of variations, if any, since the date of authorization)		
F	Entity shall comply with the relevant regulations for affiliate code of conduct.  <u>Note:</u> Board reserves the right to seek any information or data from the entity, as it may deem to be fit, to satisfy itself to the compliance by the entity.		
	Information and data	For the Quarter	Cumulative for the year

		—	
<b>G</b>	<b>Financial Details (in Rs. Million)</b>		
<b>1</b>	<b>Capital Investment</b>		
	<b>(a) Fixed Assets</b>		
	Opening balance		
	Direct additions		
	Transfer from Capital Work-in-progress (CWIP)		
	Deletions, if any		
	Closing balance		
	<b>(b) CWIP</b>		
	Opening balance		
	Additions		
	Transfer to fixed assets		
	Deletions, if any		
	Closing balance		
<b>2</b>	<b>Operating expenses</b>		
	(a) Consumables and chemicals		
	(b) Utilities – Power and Fuel		
	(c) Salaries		
	(d) Repair and maintenance		
	(e) Gen administrative expenses		
	(f) Insurance		
	(g) Any other expenses (to be detailed)		
<b>3</b>	<b>Financial Expenses</b>		
	(a) Interest on Working capital borrowings (WCB)		
	(b) Interest on term loans		
<b>4</b>	<b>Depreciation</b>		
<b>5</b>	<b>Revenue Earned</b>		
	(a) Natural gas transportation		
	(b) Marketing of natural gas		
	(c) Other income - Interest, etc		
<b>6</b>	<b>Loans Status</b>		
	(a) Term Loans		

	Opening		
	Added		
	Repaid		
	Closing		
	(Provide details of each loan - interest rate, moratorium period, term of the loan, terms and conditions, etc.)		
	(b) Working Capital Loans		
	Opening		
	Added		
	Repaid		
	Closing		
	(Provide details of each loan - interest rate, moratorium period, term, terms and conditions, etc.)		
7	Natural Gas Pipeline Tariff charged		
	(a) Natural gas pipeline tariff charged zone-wise (in Rs./ MMBTU)		
	(b) Volume of natural Gas delivered customer-wise in each tariff zone (in both MMSCMD and in equivalent MMBTU)		
	(c) Amount of natural gas pipeline tariff charged zone-wise (in Rs. Million)		
H	Physical Details		
1	(a) Volume of natural transported in the natural gas pipeline (b) Volume committed in the bid and stated in the DFR (c) Variation in (a) versus (b) alongwith reasons (d) Volume delivered customer-wise at each of the delivery points.  (volume to be given in MMSCMD and MMBTU and the basis followed for energy equivalence to be indicated)		
2	Heat value of natural gas (in MMBTU per SCM) to be provided:		
	(a) at each of the points of injection or re-injection or interconnection in the natural gas pipeline;		
	(b) at each delivery point in the natural gas pipeline;		

3	Natural gas pipeline length (in kilometers):		
	(a) till last quarter		
	(b) laid and built in the current quarter		
	(c) length as at the end of the quarter		
	(details to be provided outer diameter and pressure rating-wise)		
4	Number of compressors, intermediate terminals and delivery Terminals		
	(a) Till last quarter		
	(b) Added now		
	(c) Total as on date		
5	Project completion status - actual achievements versus that as per the approved schedule (in % terms)		
	(Provide details for each of the target as per the approved time schedule to the Grant of authorization and reasons for deviation from the same, if any)		
6	Any other information / data as may be prescribed by the Board or may be considered relevant by the entity.		

Date:

Place:

Signature of the entity or authorized signatory,

Name and Seal

Note :

The Information and data in the above format should be certified by a Chartered Accountant.

**Schedule F****[see regulation 15 (1)]****Quality of Service Standards**

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**General.**

The purpose of specifying the quality of service standards is to specify the minimum level of performance expected of the entity in laying, building, operating or expanding the natural gas pipeline in terms of service to be provided to the customers and other entities. In order to enable the entity to satisfactorily comply with the quality of service standards, other stakeholders, like, customers and other entities are also expected to diligently fulfill certain minimum responsibilities. While the authorized entity shall have to mandatorily comply with the quality of service standards, it may widely advertise the minimum responsibilities expected of the customers and other entities and also incorporate the same suitably in the contracts. The quality of service standards are indicated below:-

**1. System upkeep and customer classification.****(1) Entity's responsibility:**

- (a) to ensure upkeep of the system as per the technical standards, specifications including safety standards specified under the relevant regulations for technical standards and specifications, including safety standards at all points of time;**
- (b) to ensure that in case of disruption of supplies in the natural gas pipeline, city or local natural gas distribution networks shall be accorded the first priority for use of the line pack volumes in the natural gas pipeline.**

The contracts with the customers should accordingly contain a specific clause on dealing with interruptibility in natural gas supplies;

- (c) to maintain the quality of natural gas in the natural gas pipeline as per the technical standards, specifications and safety standards in the relevant regulations for technical standards and specifications, including safety standards.

**(2) Customer's responsibility:**

- (a) to ensure safety of equipment and facilities, if any provided by the entity within the premises;
- (b) to clearly state the purpose of gas usage and ensure use against the same connection.

**2. Request for connection.**

**Entity's responsibility:**

- (a) after obtaining the authorization, entity to publish in newspaper and its official website its plan to lay, build, operate or expand natural gas pipeline as per the authorized route for the information of the general public;
- (b) to provide connectivity promptly provided the customer has necessary safety and statutory clearances;

**3. Metering and billing.**

**Entity's responsibility:**

- (a) responsible for ensuring delivery of natural gas, which is metered;
- (b) to make the customer aware of the specifications of the entity's metering unit;

- (c) to ensure accurate meter reading, and in case the customer demands-
- (i) institute a suitable mechanism to ensure periodic reconciliation of the readings as per the entity's metering unit with that as per the customer's metering unit, if any;
  - (ii) provide for joint meter reading as per the entity's metering unit;
- (d) to ensure correct billing for transport of natural gas as per the terms and conditions of the contract, indicating the applicable natural gas pipeline tariff. The bill should also contain customer name and address, serial number, volume (in both MMBTU and SCM), taxes/ levies, if any, amount, due date, etc;

#### 4. Disconnection of supply.

Entity's responsibility:

- (a) give proper notice explaining in detail the reason before disconnection;
- (b) ensure immediate disconnection, if proving hazardous to public safety;

#### 5. Interruptions in natural gas pipeline.

Entity's responsibility:

- (a) give due notice to customers for planned maintenance;
- (b) ensure the earliest possible resumption of supplies after interruption; and
- (c) ensure prompt recovery from unplanned interruptions;

## 6. Emergency response handling.

### (1) Entity's responsibility:

(a) to ensure in-position of the emergency response plan to -

(i) handle emergencies in co-ordination with the police, fire department, local administration and hospitals;

(ii) ensure 24X7 manning of emergency cell for handling emergencies;

(iii) put-in place a clear responsibility chart depicting roles for individuals in the times of emergency.

(b) ensure availability of disaster management plan, a copy of which should be made available to the Board as well as the local administration of the city or area through which the natural gas pipeline is passing.

### (2) Customer's responsibility:

(a) inform the entity of any potentially hazardous situation at the earliest;

(b) help the entity's personnel to contain the emergency situation, if required.

## 7. Information disclosure and customer awareness.

### Entity's responsibility:

(a) to provide on request information about the route of pipeline, pipeline capacities and specifications, like, pressure, calorific value of natural gas, etc.;

(b) to educate the customers through customer awareness campaigns on-

(i) appropriateness of burner configuration of the appliance in getting best results from usage of natural gas;

**8. Maintain database.**

Entity's responsibility:

to maintain a credible database management system to handle the data requirements of the Board and also the record of customer complaints received and action taken on the same.

**Schedule G**

[see regulation 16 (1) (d)]

**Procedure for the termination of grant of authorization of natural gas pipeline.**

The procedure for implementing the termination of the authorization of the entity to lay, build, operate or expand natural gas pipeline following default by the entity as per the provisions of regulation 16 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008, shall be as under:

1. On approval of termination of the authorization by the Board, the entity shall be required to submit a detailed statement of the ongoing activities in the natural gas pipeline, investments, liabilities and such other information as may be directed by the Board within a period of thirty days from the date of receipt of notice of termination by the entity.
2. The authorized entity shall be required to continue the operations of the natural gas pipeline at the same level till such time another agency or entity, as per the decision of the Board, takes over the full control of the natural gas pipeline. The Board reserves the right to appoint any other entity or agency to manage and operate the natural gas pipeline till such period of time and on such terms and conditions as it may deem fit.
3. The Board may, in any manner as it deems fit including through an issue of an advertisement, invite expression of interest or bids from entities interested in taking over the management and operation of the natural gas pipeline.
4. On receipt of expression of interest or bids, as the case may be, the Board may take an appropriate view on the procedure for evaluation and subsequent grant of authorization and an entity shall be selected to take over the operations of the natural gas pipeline from the defaulting entity.
5. The defaulting entity shall have to provide an undertaking to indemnify the newly authorized entity for any liability which may arise later as a result of its past actions.

**Schedule H**

[see regulation 17 (1)]

Information to be provided for natural gas pipeline authorized by Central Government before the appointed day.

To,  
Secretary,  
Petroleum and Natural Gas Regulatory Board,  
1st Floor, World Trade Centre  
Babar Lane, Connaught Place,  
New Delhi – 110 001.

Sub: Information in respect of Natural Gas Pipeline < Name> from <originating point> to <last delivery point>

(Attach separate sheets for providing information wherever necessary)

Part-I – General, technical and financial details of the entity and the natural gas pipeline project	
1	Details of the entity
A	Name of the entity
B	Type of firm – Public limited company / Private limited company / Partnership firm / Proprietorship firm / Others (please specify) (attach copy of articles of association / partnership deed, etc.)
C	Date of incorporation and date of commencement of business
D	Address of registered office
E	Name, addresses, telephone numbers, E-mail ID of all directors / partners / proprietor (please provide full details with STD code and pin code)
F	Particulars of the authorization granted by the Central Government for laying, building, operating or expanding the natural gas pipeline before the appointed day. Details of NOCs, clearances, etc. considered relevant by the entity to be provided. (Copies of the authorization and other documents to be enclosed).
2	Financial details
A	Share capital or proprietor's own Funds
B	Loans – amount, tenure, moratorium period, rate of interest, taken from, and asset mortgaged / hypothecated for securing the same (if any)
C	Reserves (if any)
D	Fixed Assets
E	Current Assets
F	Current Liabilities

<b>G</b>	<b>Sales Turnover</b>	
<b>H</b>	<b>Profit After Tax</b>	
	(Attach copies of audited Profit and Loss Account and Balance Sheet for the last 3 financial years) - In case the entity is a subsidiary company, copies of the audited Profit & Loss Account and Balance Sheet for the last three financial years of the parent company to be attached.	
<b>3</b>	<b>Business Activities of the entity</b>	
<b>A</b>	Original cost and WDV of assets along with year of commissioning, detailed break-up of the operating costs, natural gas pipeline tariff, during the last three years, etc.	
<b>B</b>	Details of technical or operational tie-up or collaboration with any other entity for laying, building, operating or expanding the natural gas pipeline	
<b>C</b>	Details of other business, if any, being carried out by the promoters for the last three years	
<b>4</b>	<b>Ownership and affiliate details</b>	
<b>A</b>	Details of promoters	
<b>B</b>	Details of affiliates of the entity mentioning the business relationship ("Affiliate" means as defined in the relevant regulations for affiliate code of conduct)	
<b>C</b>	The entity undertakes to produce all relevant records and documents of itself and its related entities on demand by the Board.	Yes / No
<b>D</b>	The entity undertakes to abide by the relevant regulations for affiliate code of conduct.	Yes / No
<b>E</b>	Is the entity a body corporate registered under Companies Act, 1956?	Yes / No
<b>F</b>	Is the entity promoted by company registered under Companies Act, 1956?	Yes / No
<b>G</b>	The entity undertakes to become a body corporate (in case it is not a body corporate at the time of providing the information herein) registered under the Companies Act, 1956 on the grant of authorization.	Yes / No
<b>5</b>	<b>Technical details of the natural gas pipeline</b>	
<b>A</b>	Name of the natural gas pipeline	
<b>B</b>	Physical map indicating the route of the natural gas pipeline including all spur-lines, entry and exit points for natural gas and the details of the existing and proposed points of inter-connection in the natural gas pipeline.	

C	<p>Technical specifications of the infrastructure in the natural gas pipeline.</p> <p><b>Note:</b></p> <p>(a) Attach copy of the DFR alongwith the management approval of the investments and</p> <p>(b) Provide full details of the natural gas pipeline design, pressure rating, diameter, thickness, class, etc., route details, pipeline corrosion protection arrangements, main block valves, isolation valves, emergency shutdown valves, metering arrangements, compressors, intermediate and delivery stations, technical standards and specifications including safety standards being complied with, etc.</p>	
D	<p>Development plan envisaged for the natural gas pipeline project - design and installed capacity of the natural gas pipeline along with the details of phased-out plans for augmentation of the capacity and capital expenditure to be provided.</p>	
E	<p>Has the entity obtained the Right-of-Way required for laying, building, operating or expanding the natural gas pipeline as on the appointed day?</p> <p><b>Note:</b></p> <p>(a) In case the answer is no, please give specific reasons.</p> <p>(b) If yes, documentary proof to be provided.</p>	Yes/ No
F	<p>Year-wise progress actually achieved by the entity in:</p> <p>(i) creation of the physical infrastructure in the natural gas pipeline is to be provided;</p> <p>(ii) the value of the fixed assets created head-wise and the capital work-in-progress corresponding to the physical infrastructure created till the appointed day is to be provided; and</p> <p>(iii) comparison of sub-clause (i) and (ii) with the levels as specified in the targets specified in the DFR of the project and the terms and conditions of authorization. The purpose being to avoid any time over-run or cost over-run, which may adversely affect the natural gas pipeline tariff.</p> <p><b>Note:</b></p> <p>(a) Documentary proof that the head-wise assets created and reflected as fixed assets in the books of accounts are ready for use is to be enclosed.</p>	Percentage completion to be indicated activity-wise with reference to the time schedule and the targets specified in the DFR.

	<p>(b) The stage of completion in respect of the capital work-in-progress is to be indicated and compared with that indicated in the DFR.</p> <p>(c) Details of the financial commitments actually made by the entity till the appointed day to be separately indicated and documentary proofs to be submitted.</p> <p>(d) Please state the specific reasons for shortfalls, if any, in meeting the time schedule and specific targets for completion of the activities of laying, building, operating or expanding natural gas pipeline as specified in the DFR.</p>	
G	Complete details of the arrangements made by the entity for sourcing of natural gas for the natural gas pipeline to be provided. In case the entity has secured any firm capacity tie-ups, copies of the agreements to be enclosed.	
H	<p>i) Volume of natural gas actually transported in the natural gas pipeline during the last three years till the appointed day;</p> <p>ii) Reasons for variations in the actual volumes transported versus the projections in the DFR;</p> <p>iii) Volume of natural gas proposed to be transported and sold on an annual basis during the rest of the economic life of the project.</p> <p><u>Note:</u></p> <p>(a) Volumes to be indicated in MMSCMD and MMBTU and the basis for energy equivalence to be provided.</p> <p>(b) Volume actually transported to be provided customer-wise for each of the tariff zone.</p> <p>(c) Details of arrangements to be made by the entity for securing capacity tie-ups for the natural gas pipeline to be clearly specified.</p> <p>(d) In case of the achievement of firm capacity tie-ups, copies of the agreements to be enclosed.</p>	
I	Have all applicable technical standards, specifications including safety standards, as notified by the Board been considered and complied with while designing, laying, building, expanding or operating the CGD network? Provide details.	Yes/ No
J	Copies of all the necessary statutory clearances, permissions and no objection certificates obtained by the entity from the Central and State	

	<b>Governments and other statutory authorities as applicable to the natural gas pipeline project to be attached.</b>	
<b>K</b>	<b>Attach copy of the Disaster Management Plan in place.</b>	
<b>L</b>	<b>Is the project entitled to any subsidy or entitled for any exemption or deferment or waiver of any statutory levy including income tax from the State / Central Government? If yes, give complete details indicating the year-wise utilization plan of the entity.</b>	<b>Yes / No</b>
<b>Part-II: Any other submission considered as relevant by the entity</b>		
<b>Note:</b>		
The Board shall monitor the actual progress made by entity against the targets fixed for the entity on a quarterly basis and take further action in case of any deviation or shortfall, which is to be determined on an annual basis in the manner as indicated in Schedule D.		

#### DECLARATION

1. Certified that the above information is true to the best of my / our knowledge and belief and the information and data given in the Annexure and statements are correct, complete and truly stated, and if any statement made herein is found to be incorrect, I / We shall be liable for proceeding and for punishment under the provisions of the Act.
2. I/ we also undertake to provide any further information or data as may be required by the Board within the stipulated time.

Date:

Place:

Name and Signature of Authorized Signatory

Official Seal

#### Instructions for providing information:

1. All entries in the form and annexed documents should be legible with no cuttings.
2. Details requiring separate statement shall be provided giving clear reference of the point against which the same is being attached.

3. All pages of the information format and all annexure, statements, etc need to be serially numbered and initialed by the person or official authorized by the applying entity through a notarized Power of Attorney.
4. Any information or data filled in the information format needs to be substantiated by attaching relevant proof of the same.
5. The information format is required to be submitted in three copies (two hardcopies and one soft copy) with all the enclosures in addition to the original.
6. Incomplete information format is liable to be summarily rejected.

**Schedule I**

[see regulation 18 (1)]

Application for grant of authorization for Natural Gas Pipeline to entities not authorized by Central Government.

To,  
The Secretary,  
Petroleum & Natural Gas Regulatory Board,  
1st Floor, World Trade Centre  
Babar Lane, Connaught Place,  
New Delhi – 110 001.

Sub: Application for Grant of Authorization for Natural Gas Pipeline <Name>  
from <originating point> to <last off-take/ delivery point>

(Attach separate sheets for providing information wherever necessary)

Part I - General, technical and financial details of the entity and the natural gas pipeline project		
1	Details of the entity	
A	Name of the entity	
B	Type of firm – Public limited company / Private limited company / Partnership firm / Proprietorship firm / Others (please specify) (Attach copy of articles of association / Partnership deed, etc.)	
C	Date of incorporation and date of commencement of business	
D	Address of registered office	
E	Name, addresses, telephone numbers, E-mail ID of all directors / partners / proprietor (please provide full details with STD Code and pin code)	
2	Information and data to be provided by the entity in support of the eligibility criteria as specified under sub-regulation (2) of regulation 18.	
A	Non-refundable application fee under regulation 5 (6) (a)	Rs. < _____ >
	Demand draft or pay order	
	Demand draft or pay order no. and date	
	Name of issuing bank and branch	
B	Entity is technically capable of laying and building natural gas pipeline	
	Documentary evidence in support of the technical capability of the entity in terms of the	

	qualifying criteria under regulation 5 (6) (b), (i) to (iv) to be attached.	
C	Entity is technically capable of operating and maintaining a natural gas pipeline.	
	Documentary evidence in support of the technical capability of the entity in terms of the qualifying criteria under regulation 5 (6) (c), (i) to (iv) to be attached.	
D	Entity agrees to abide by the relevant regulations for technical standards and specifications, including safety standards.	Yes/ No
E	Entity has adequate financial strength to execute the proposed natural gas pipeline, operate and maintain the same and meets the financial criterion in terms of having a minimum combined net worth as specified under regulation 5 (6) (e).  <u>Note:</u> All documents in support of the calculations of the minimum combined net worth duly certified by a Chartered Accountant to be attached.	
F	Has any penalty been imposed on the entity under section 28 or punished under Chapter IX of the Act? In case the answer is yes, please submit full details.	Yes/ No
G	Copies of all the necessary statutory clearances, permissions and no objection certificates obtained by the entity from the Central and State Governments and other statutory authorities as applicable for the proposed natural gas pipeline project to be attached.	
H	In case entity is not registered as a company under the Companies Act, 1956, the entity undertakes to become a company registered under the Companies Act, 1956 on grant of authorization. Full details of the promoters of the entity to be provided.  <u>Note:</u> In case the entity seeks an exemption from registering under the Companies Act, 1956, detailed justifications shall be submitted to the Board.	Yes/ No
I	Technical specifications of the natural gas pipeline	
	Details of route of the natural gas pipeline depicting the following in a physical map to be provided:	

	<p>(i) the entry and exit points for natural gas;  (ii) intermediate tap-off points;  (iii) spur lines;  (iv) compressors;  (v) point of inter-connection in the natural gas.</p> <p><b>Note:</b>  (a) Full technical details regarding the natural gas pipeline design, pressure rating, diameter, thickness, class, etc., route details, pipeline corrosion protection arrangements, main block valves, isolation valves, emergency shutdown valves, metering arrangements, compressors, intermediate and delivery stations, technical standards and specifications including safety standards being complied with, etc. to be provided separately.</p>	
J	Details of the physical and financial progress in laying, building, operating or expanding of natural gas pipeline as on the appointed day:	
	<p>i) Copy of the DFR of the project to be attached.</p> <p><b>Note:</b>  The entity shall also enclose the documentary proof of the formal approval of the investments as per the DFR of the project by its management.</p>	
	ii) Has the DFR of the proposed natural gas pipeline project for which authorization is being sought been appraised by any financial institution?	Yes/ No
	iii) Details of the development plan envisaged for the project to be provided with respect to the design and installed capacity of the natural gas pipeline along with details of phased-out plans for capital expenditure on augmentation of the installed capacity, if any.	
	<p>iv) Has the entity secured the right of way for laying, building, operating or expanding the proposed natural gas pipeline?</p> <p><b>Note:</b>  (a) If the answer is no, please state reasons.  (b) If yes, documentary proof to be submitted.</p>	Yes/ No
	v) Complete details of the arrangements	

	made by the entity for sourcing of natural gas for natural gas pipeline to be provided. In case any firm tie-up has been achieved, copy of the agreement to be enclosed.	
	<p>vi) Extent of physical progress in laying, building, operating or expanding of the natural gas pipeline project achieved by the entity till the day immediately before the appointed day as against the time schedules and targets specified in the DFR.</p> <p><u>Note:</u></p> <p>(a) The onus of proving the physical progress actually made by the entity lies with the entity and the entity shall submit all necessary documentary proofs in support.</p> <p>(b) The comparison of actual progress with the levels as specified in the time schedules and targets in the DFR of the project is with the purpose to avoid any time over-run or cost over-run, which may adversely affect the natural gas pipeline tariff.</p> <p>(c) Please provide specific reasons for shortfalls, if any.</p>	<in percentage terms>
	<p>vii) Extent of financial commitment actually made by the entity in the natural gas pipeline project till the day immediately before the appointed day as against the estimated capital expenditure identified in the feasibility report.</p> <p><u>Note:</u></p> <p>(a) Year-wise gross and net blocks of the physical infrastructure created to be separately provided asset-head wise.</p> <p>(b) Details of capital work-in-progress and the stage of completion to be indicated.</p> <p>(c) The onus of proving the financial commitment actually made by the entity lies with the entity and the entity shall submit all necessary documentary proofs in support.</p>	<in percentage terms>
	viii) Volume of natural gas transported in the natural gas pipeline during the last three years till the appointed day and the	<in percentage terms>

	<p>reasons for variations in actual volumes transported versus the projections made in this regard in the DFR.</p> <p><b>Note:</b></p> <p>(a) Data on volume indicated in sub-clause vii.) should also be separately provided zone-wise and customer-wise.</p> <p>(b) Volume of natural gas proposed to be transported and delivered zone-wise and customer-wise on an annual basis during the rest of the economic life of the project to be separately indicated.</p> <p>(c) Entity to disclose the arrangements for securing capacity tie-ups and enclose the copy of the agreement for firm capacity tie-up achieved, if any.</p> <p>(d) Volume to be indicated in MMSCMD and in MMBTU with the basis of energy equivalence.</p>	
	ix) Entity to enclose the copies of the internal procedures and guidelines as approved by its management prescribing the basis of compliance by the entity to any technical standards, specifications, including safety standards and the quality of service to customers, if any.	
<b>3</b>	<b>Financial details of the entity</b>	
<b>A</b>	<b>Share capital or proprietor's own funds</b>	
<b>B</b>	<b>Loans – amount, tenure, moratorium period, rate of interest, taken from and asset mortgaged or hypothecated for securing the same, if any.</b>	
<b>C</b>	<b>Reserves, if any</b>	
<b>D</b>	<b>Fixed Assets (head-wise asset details)</b>	
<b>E</b>	<b>Current Assets</b>	
<b>F</b>	<b>Current Liabilities</b>	
<b>G</b>	<b>Sales Turnover</b>	
<b>H</b>	<b>Profit after Tax</b>	
	(Attach copies of audited Profit and Loss Account and Balance Sheet for last three financial years) - In case applicant is a subsidiary company, copies of audited Profit & Loss Account & Balance Sheet for last three financial years of the parent company to be attached.	
<b>4</b>	<b>Business activities of the entity</b>	

A	Original cost and WDV of assets along with year of commissioning, detailed break-up of the operating costs, unit natural gas pipeline tariff charged during the last three years, etc.	
B	Details of technical or operational tie-up or collaboration with any other entity in respect of the natural gas pipeline project (enclose copies of such agreements, MOUs/ HOA)	
C	Details of other business, if any, being carried out by the promoters for the last three years	
<b>5 Ownership and affiliate details</b>		
A	Details of promoters	
B	Details of all affiliates of the entity mentioning the business relationship between the entity and the affiliates ("Affiliate" means as defined in the relevant regulations for affiliate code of conduct)	
C	The applicant undertakes to produce all relevant records and documents of itself and its related entities on demand by the Board.	Yes / No
D	The applicant undertakes to abide by the relevant regulations for affiliate code of conduct.	Yes / No
<b>6 Other details</b>		
A	Copy of Disaster Management Plan to be attached	
B	Is the project entitled to any subsidy, tax waiver or exemption or deferment of any levy including income tax from the State / Central Government? If yes, give details.	Yes / No
<b>Part-II:</b> Any other submission considered as relevant by the entity with regards to its application for grant of authorization for natural gas pipeline by the Board.		

## DECLARATION

1. Certified that the above information is true to the best of my / our knowledge and belief and the information, and data given in the Annexure and statements are correct, complete and truly stated, and if any statement made herein is found to be incorrect, I / We shall be liable for proceeding and for punishment under the provisions of the Act.
2. I/ we also undertake to provide any further information or data as may be required by the Board within the stipulated time.

Date:

Place:

Name and Signature of Authorized Signatory

Official Seal

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**Schedule J**

[see clause 11 (c) of the form of grant of authorization in Schedule D]

**Service Obligations of entity****1. General.**

- (a) The entity shall obtain all statutory permits, clearances and approvals from the concerned approving authorities and shall at all times ensure the validity of said permits, clearances and approvals.
- (b) During the continuance of the authorization, the entity shall transport natural gas along the authorized pipeline route in accordance with the terms of this authorization, charge the approved natural gas pipeline tariff and abide by the extant rules and regulations, including such revisions as the case may be.
- (c) The entity shall provide extra capacity in the natural gas pipeline as specified under clause (j) of sub-regulation (5) of regulation 6, which shall be available for use on common carrier basis by third party on open access and non-discriminatory basis.
- (d) The entity shall put in place an appropriate system and procedures for :
  - (i) protection of its property;
  - (ii) prevention of loss and waste in the operation of the natural gas pipeline;
  - (iii) safe operation of natural gas pipeline following the technical standards and specifications including safety standards as notified by the Board;
  - (iv) redressal of consumer grievances;

A documented copy of the said systems & procedures shall be provided by the authorized entity to the Board. Modifications, if any, suggested by the Board shall be carried out by the entity.

- (e) The authorized entity shall specify its own obligations as well those of the other entities in the contracts for sourcing and transport of natural gas as may be specified in the relevant regulations for access code.
- (f) In case the authorized entity laying, building, operating or expanding natural gas is also engaged in the activity of marketing of natural gas, it shall:
- (i) state the approved pipeline tariff to be paid under the contract for the transport of natural gas expressed in Rs./ MMBTU and other relevant terms proposed in the contract;
  - (ii) not exert undue pressure on the customer;
  - (iii) not make any offer or provide any promotional material to the customer that is inconsistent with the contract being offered to or entered into with the customer;
  - (iv) not make any representation or statement or give any answer or take any measure that is false or is likely to mislead a customer; and
  - (v) shall adhere to the provisions under the relevant regulations for affiliate code of conduct.
- (g) The entity shall be under an obligation to provide connectivity to the consumer within a tariff zone in a natural gas pipeline on receipt of a specific request, the consumer undertaking to pay the applicable natural gas pipeline tariff, subject to availability of capacity and the technical and economic viability of the proposed connectivity.

- (h) The entity shall insure all the assets used in the activity of transport of natural gas including on the line-fill volumes and the insurance policy in this regard shall also cover third party liabilities.

## **2. Construction, Operation & Maintenance.**

- (a) The entity shall not undertake any excavation or related work, which shall disturb or interfere with the surface of the traveled portion of any road / highway, water body, canal, river, railway crossing, forest, etc. unless a permit for the same has been first obtained from the appropriate authorities and the Government and all works subsequently undertaken by the entity shall be carried out in line with the terms of approval and to the satisfaction of the approving authority and the Government.
- (b) The entity shall not deviate from the permission granted in clause 2 (a) above without the prior approval of the approving authority and the Government.
- (c) The entity shall during the construction, maintenance and operation of the natural gas pipeline system use all reasonable precaution to avoid damage or injury to any person or property. The entity shall further be liable for any loss, injury or damage attributed to the negligence of the entity or its agents and shall indemnify the affected parties.
- (d) The entity shall establish a centralized control room for monitoring and control of the natural gas pipeline system, including the disaster management system.
- (e) The entity shall furnish on regular basis to the Board, the map including detailed "as built" drawings, accurately depicting the size, depth & location of pipelines, related equipment, location of marker posts indicating the route, pipeline gradient, etc. of the natural gas pipeline and regularly update the same for any change, addition or deletion.

- (f) The entity shall ensure compliance of all necessary quality checks and inspection certification before providing connectivity to any customer.
- (g) The entity shall properly purge, isolate, blind or dismantle any gas pipeline segment, equipment etc, which is not in use for long time or has been abandoned, to ensure complete safety and necessary modifications shall be carried out in the maps & drawings.
- (h) The entity shall have proper systems and procedures including designated facilities for undertaking inspection, testing, calibration and repair of meters and equipments, safety equipments, etc.
- (i) Put in position the disaster management plan including mutual aid system and offsite or onsite emergency plan.
- (j) Any other service obligation, which the Board may specify from time to time.

**3. Services and information to be maintained by the entity.**

- (a) The entity shall have a current mailing address and telephone number of all locations where the natural gas pipeline is being set-up and operated.
- (b) The entity shall maintain a database and provide to the Board on request:
  - (i) details of the customers and shippers of natural gas;
  - (ii) the copies of contracts with the customer and shippers of natural gas;  
and
  - (iii) details of renewal or extension of contracts at clause (a) and (b).

**4. Confidentiality of Consumer Information.**

- (a) The entity shall not disclose customer information to any person other than the Board, without the consent of the customer in writing, except when the information has been sufficiently aggregated such that an individual consumer's information cannot be separately identified, or where the consumer information is required to be disclosed:
- (i) for billing or market operation purposes;
  - (ii) for law enforcement purposes;
  - (iii) when past due accounts of the consumer have been passed to a debt collection agency.
- (b) The entity shall inform customers regarding the conditions described in paragraph 4 (a) under which customer information may be released to a third party without the consumer's consent.
- (c) The entity shall not use consumer information obtained for a purpose other than for which it was obtained.

#### **5. Complaints:**

- (a) The entity shall provide the address and telephone number of its customer service centre for lodging of any complaint and widely advertise the same from time to time.
- (b) The entity shall make all reasonable efforts in resolving the complaints received in a time bound manner.
- (c) The entity shall maintain and periodically provide to the Board, the details of:
- (i) complaint received by the entity or referred to by the Board;

- (ii) method and time of disposal of complaint;
- (iii) complaint pending for redressal; and
- (iv) comment on the quality of service provided by the entity and suggestions, if any.

[F. No. S-Admn./II/8/2007-Vol. I]

AJAY TYAGI, Secy.

**PETROLEUM AND NATURAL GAS REGULATORY BOARD  
NOTIFICATION**

New Delhi, the 7th June, 2010

**G.S.R. 476 (E).**—In exercise of the powers conferred by Section 61 of the Petroleum and Natural Gas Regulatory Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely :—

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Determining Capacity of Petroleum, Petroleum Products and Natural Gas Pipeline) Regulations, 2010.
- (2) They shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

- (1) In these regulations, unless the context otherwise requires,-
  - (a) "Act" means the Petroleum and Natural Gas Regulatory Board Act, 2006;
  - (b) "appointed day" means the date of October 1, 2007 when the Central Government notified the establishment of the Petroleum and Natural Gas Regulatory Board;
  - (c) "Board" means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of section 3 of the Act;
  - (d) "capacity assessment group" means a group comprising representatives of two transporters other than the entity of which the pipeline system capacity is to be certified and a representative of the Board, as decided by the Board on case to case basis or any agency or entity or authorized person or any approved third party authorized by the Board for determining the capacity of the petroleum, petroleum products and natural gas pipeline;

- (e) "critical customer" means a customer whose withdrawal conditions in the pipeline system could affect the capacity of the pipeline;
- (f) "extension of pipeline" means increase in length of pipelines in either direction for transportation of natural gas from an existing transmission or trunk pipeline or sub-transmission pipeline or spur line to another geographical location without increase in authorized capacity of the pipeline;
- (g) "expansion of pipeline" means increase in the capacity of existing pipeline beyond its previously authorized capacity due to installation of additional facilities such as compression facilities, addition of compressor stations or loop lines or extension to new sources of gas to tap additional volumes etc. Expansion of pipeline may also include extension of the existing pipeline in either direction as long as it increases the capacity of the pipeline and in that case it may be treated as expansion of the pipeline not extension;
- (h) "marginally higher pressure" means an entry point pressure at any intermediate location in the pipeline system which is higher than the system pressure at that location so that flow from new source can commence without disturbing existing upstream conditions in the pipeline system;
- (i) "Natural Gas Pipeline" means the pipeline as defined under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008;
- (j) "petroleum, petroleum products pipeline" means any pipeline including a branch or spur line for transport of petroleum, petroleum products and includes all connected infrastructure such as pumps, metering units, storage facilities at originating, delivery, tap off points, terminal station and the like connected to the common carriers or contract carriers including line balancing tanks and tankage required for unabsorbed interface essential for operating a pipeline system but excluding pipelines:

which are dedicated for supply of petroleum products to a specific consumer which are not for resale;

Provided that the transporter may own, hire, outsource or use on hospitality basis such connected facilities on non discriminatory basis;

Provided further for the purpose of capacity determination, these regulations shall apply to all petroleum, petroleum products pipelines including dedicated pipelines;

- (k) "capacity for the pipeline system" means the maximum quantity of petroleum, petroleum products or natural gas that can be injected into the system or off taken from the system at specific points, meeting all the technical and operational parameters fixed in each pipeline section in a steady state conditions , that is, all parameters like flow, pressure, temperature are in harmony and vary only along the length of pipeline but not with time;
- (l) "declared capacity of pipeline" means the volume of natural gas in MMSCMD (million standard cubic meters per day) that a pipeline is capable of transporting under the steady state operating conditions. For liquid pipeline the declared capacity of pipeline shall be the quantity of petroleum, petroleum products in MMTPA (million tones per annum), the pipeline is capable of transporting under the operating steady state conditions. Provided that the capacity has been determined based on the approved flow equation and the selected software package;
- (m) "section" means a portion of pipeline between any entry point to any exit point or any other entry point in the direction of flow. Provided the computation of successive section shall start from second entry point and so on;
- (n) "selected software package" means the software package used by the entity for determination of capacity of the pipeline system or the pipeline section;
- (o) "spur-line" means a pipeline necessarily originating or branching out from the trunk or transmission pipeline or sub-transmission line or another spur line or from a terminal station on the existing transmission or trunk pipeline with diameter and capacity not greater than the trunk or transmission pipeline but having no compression facility for supply of natural gas to one or more consumers. Any pipeline having a separate gas source or a compressor shall not be treated as a spur-line. The length of spur-line may not depend upon the length of the trunk pipeline. A spur-line must use the capacity of trunk pipeline in order to transport gas. Spur line includes branch line also;
- (p) "section capacity" means the capacity of a particular section of the pipeline which contains a supply source or a delivery source or both. In other words, the section capacity is the maximum flow that could be handled by the specific section without disturbing the connected supply or delivery condition of the shippers;
- (q) "steady state condition" means calculation carried out based on time-invariant pressure, temperature and flow profiles throughout a pipeline using specified

boundary conditions. In other words, the steady-state run calculates the hydraulic state of a pipeline system operating at equilibrium with input and output balance;

- (2) Words and expressions used and not defined in these regulations, but defined in the Act or in the rules or regulations made thereunder, shall have the meanings respectively assigned to them in the Act or in the rules or regulations, as the case may be.

### **3. Applicability.**

- (1) These regulations shall apply to an entity:-
- (a) which is laying, building, operating or expanding or which proposes to lay, build, operate or expand a petroleum, petroleum products and natural gas pipeline;
- (b) which proposes to lay a dedicated pipeline or is directed by the Board to convert a dedicated pipeline for supply of petroleum, petroleum products and natural gas into a common or contract carrier petroleum, petroleum products and natural gas pipeline; or
- (c) which proposes extension or expansion of pipeline resulting into increase in capacity of the petroleum, petroleum products and natural gas pipeline.
- (2) These regulations cover the procedure, parameters both constant and variable and frequency of declaration of pipeline capacity in MMSCMD for Natural Gas pipeline or in MMTPA for petroleum and petroleum products pipeline.

### **4. Intent.**

- (1) It is intended to apply these regulations to all new and existing petroleum, petroleum products and natural gas pipelines including dedicated pipelines for the purpose of declaration of capacity of the pipeline under steady state conditions.
- (2) The capacity of the petroleum, petroleum products and natural gas pipeline so determined shall be used for-
- (a) declaring pipeline as common carrier or contract carrier under the relevant regulation on declaring pipeline as common carrier or contract carrier;

(b) determining the tariff for petroleum, petroleum products and natural gas pipeline as per the methodology or formulae defined under relevant regulations.

(3) The capacity of the petroleum, petroleum products and natural gas pipeline so determined shall be used for providing access to available capacity on non discriminatory basis under the relevant regulations on access code.

**5. Determining capacity of a Petroleum, Petroleum Products and Natural Gas Pipeline.**

(1) The determination of capacity for the pipeline system and for each section of the petroleum, petroleum products and natural gas pipeline shall be based on selected software package and flow equation approved by the Board under this regulation. It is not necessary for the entities to buy and install any specific software package. As long as the software supports the flow equation approved by the Board, the entities may continue to use or operate the system based on the previously installed software but shall have to determine the capacity of the system based on the flow equation approved by the Board in any of the compatible software package for the purpose of these regulations.

(2) The entity while submitting the capacity of the pipeline system to the Board shall furnish a declaration that the capacity has been calculated using the approved flow equation. The entity shall also submit the detailed calculations of the capacity and the software used for the purpose within thirty days of the notification of these regulations and thereafter as per the periodicity for determining capacity of a Petroleum, Petroleum Products and Natural Gas pipeline defined in regulation 7 of these regulations.

(3) The parameters for the steady state simulation for determining the pipeline capacity shall be considered as given below, namely:-

(a) **Constant parameters** in the unit as specified in the approved flow equation as per sub-clause (v) of this clause.

(i) **Internal diameter** – The internal diameter shall be determined based on weighted average of internal diameters based on different pipe thicknesses used in different sections in the pipeline system.

(ii) **Length** – The actual length (for already installed pipeline) or proposed length (for yet to be installed pipeline) of the pipe in the pipeline system.

(iii) **Roughness** – This is a fixed value for a pipe which determines the unevenness inside a pipe. Depending on the pipe material the below given value for roughness factor shall be used :

Type of Material	Roughness (micron)
Steel – New Pipe	
- With internal coating	10-15
- Without internal coating	35-40
Steel – old Pipe( more than ten years)	
- With internal coating	15-20
- Without internal coating	40-45

For old pipelines already operating, roughness factor shall be determined by duly calibrating actual field data in the approved flow equation. These factors shall be assessed by the capacity assessment group. For new pipelines, roughness factor used shall be decided keeping in view the operating conditions and pipeline feature like bends, valves, or any other restrictions present in the system:

Provided that the entity shall declare in advance the roughness factor considered for the pipes with relevant operating data to support the value chosen in case it is different from the above values.

(iv) **Efficiency factor** –Efficiency factor within the range of 0.85 to 1.0 shall be used. For old pipelines already operating, efficiency factor shall be determined by duly calibrating actual field data in the approved flow equation. These factors shall be assessed by the capacity assessment group. For new pipelines efficiency factor used shall be decided keeping in view the operating conditions and pipeline feature like bends, valves, life of pipeline or any other restrictions present in the system:

Provided that the entity shall declare in advance the efficiency factor considered for the pipes with relevant operating data to support the value chosen in case it is different from the above values giving complete analysis. The Board may direct the entity to improve upon such design.

(v) **Formula** – For determination of friction factor in the pipeline the following flow equation shall be used;

Type of Pipeline	Name of Flow equation
Natural Gas	Panhandle Modified

	Panhandle A for Pipe size $\leq 24''$ Panhandle B for Pipe size $> 24''$
Petroleum and Petroleum Products	Colebrook White

Explanation: For the determination of capacity of petroleum and petroleum products pipelines, the roughness factor shall be used. For natural gas pipelines, the efficiency factor shall be used.

(vi) **Velocity** – The maximum allowable velocity of natural gas or petroleum product in the pipeline shall be 20 m/sec in case of natural gas pipeline and 2 m/sec in case of petroleum product pipelines or as per relevant regulations on Technical Standards and Specifications including Safety Standards whichever is lower, if specified.

(vii) **STP** – The pipeline capacity shall be determined at the designed MAOP or de-rated MAOP due to any condition, for the petroleum, petroleum products or natural gas pipelines and with the following standard Pressure and Temperature:

Standard pressure	:	1.01325 bar.
Standard temperature	:	15 °C

**(b) Variable parameters-**

(i) **Operating temperature** – This is the actual temperature that a pipe is exposed to throughout the year. This temperature will be considered, for the purpose of determining capacity, as per the table below:

Country Region	Temperature ( °C)	
	Winter	Summer
Tropical area such as North and North West India	20	30
Rest of India	30	30

(ii) **Inlet temperature** – This is the inlet temperature of the petroleum, petroleum products and natural gas from the source into the pipeline.

(iii) **Outlet temperature** – This is the outlet temperature of the petroleum, petroleum products and natural gas at the delivery point.

(iv) **Inlet pressure** – The maximum pressure that is available at the entry point to the pipeline system.

- (v) **Outlet pressure** – The minimum pressure that is required by the customer at the delivery or exit point as per access arrangement entered into by the shipper and the transporter.
- (vi) **Source Supply flow** - This is the maximum flow that can be available from the source.
- (vii) **Delivery flow** – This is the maximum flow that is required by the customer at the exit point as per access arrangement entered into by the shipper and the transporter.
- (viii) **Elevation difference** – Depending on the terrain of the ground profile, this factor will be considered from the mean sea level of the area.
- (ix) **Gas composition** – The gas composition indicating all components totaling 100% by volume is to be given with the level of impurities as per Schedule II of the Petroleum and Natural Gas Regulatory Board (Access Code for common or contract carrier Natural Gas Pipelines) Regulations, 2009. From this, necessary input to the flow equation shall be worked out.

In case of more than one source, the weighted average composition of comingled natural gas beyond the second source of entry point shall be considered. Notwithstanding interdependency of various parameters, the gas parameters as described in Schedule II of regulations of Access Code shall be declared before hand with reference to gas properties.

- (x) In case of natural gas pipeline, the gas quality at exit point shall be as per the Petroleum and Natural Gas Regulatory Board (Access Code for common or contract carrier Natural Gas Pipelines) Regulations, 2008. In case of petroleum products the entry point parameters shall be such that the deliveries of products at delivery point or tap off point or exit points shall be as per the prevalent BIS specifications applicable.

(4) All entities shall declare to the Board the constant parameters and the variable parameters for the pipeline:-

- (i) On first working day of April and first working day of October every year;  
or
- (ii) Whenever there is any addition or deletion of the supply source of petroleum, petroleum products or natural gas.

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The entities shall also provide on first working day of October and first working day of April every year the hydraulic gradient and system flow diagram for the pipeline.

(5) The methodology for calculation of pipeline capacity shall be as under:

**(a) Natural Gas Pipelines:**

- (i) The entire pipeline system shall be configured in the selected software package operating offline. The steady state condition of the pipeline hydraulics with contractual flow parameters (pressure, temperature and flow) at entry and exit points shall be simulated in the selected software package.
- (ii) At the originating point and at intermediate points in the direction of flow, set the pressure as a fixed parameter corresponding to the maximum allowable operating pressure (MAOP) or available compression facilities and compute the maximum pressure at all exit points with contractual flow.
- (iii) Thereafter, assuming gas at the entry point (single source of gas) is unlimited, the selected software will be run till any customer connected to the system reaches limiting condition of pressure required at the respective exit point or maximum flow capacity is reached at entry or intermediate compressor stations (if installed in the system) or the velocity of natural gas reaches limiting value as defined in these regulations. The capacity at this juncture would be the maximum system capacity achievable in the pipeline system and the customer at the exit point where pressure becomes limiting shall be the critical customer.
- (iv) Now simulate the flow from any other source considering the entry should take place at the pressure marginally higher than the available at that section. The exercise carried above shall be repeated to get threshold pressure limit at any location to calculate the flow exiting from each point in the entire pipeline system and the sum total of these flows shall be the pipeline capacity as determine by the approved flow equation and selected software. This would be the system capacity for multi source pipeline system.
- (v) The section wise capacity of the pipeline system shall be computed between an entry point and exit points. In case of multi entry, the section wise capacity may also be determined taking into account flow from each of the input points. Thus the first section is from first entry point to first exit point and second section shall be from first entry point to second exit point and another section and so on. This exercise shall be repeated for each of

- the entry point. However, in a real time working, the effect of each source will have to be worked out on the pipeline capacity and the flow parameters at intermediate points shall not be allowed to reduce the system or section capacity. The procedure mentioned above shall be applicable for determining the capacity of specific section of the pipeline.
- (vi) In a real time model of pipeline system, the flow at specific entry point shall be the actual available flow from that source. The gas supply from various sources at entry points and delivery at exit points shall be scheduled to optimize the pipeline system capacity.
- (vii) The obligatory or contractual requirement of pressure at any exit point shall determine the possible capacity within a particular section serving that exit points. Provided further that maintainability of a particular steady state hydraulics condition at any exit point shall be mutually determined between capacity determining authority and the transporter within the flexibility available in the system. The section wise capacity thus calculated with single or multiple entry and exit points shall be run with the approved flow equation and selected software package offline in the steady state operation of the system to arrive at capacities of various sections.
- (viii) This exercise shall be continued for computing section wise capacity of the pipeline system including the spur lines. In case of spur lines the tap off point shall be designated as the source point or entry point for spur line and computable (to be fed to the flow computing formula) or contractual hydraulics shall be allowable pressure at that point after accounting for the pressure drop from the tap off point to the consumer point of the spur line or branch line.
- (ix) For determining, de-rated MAOP of an existing pipeline, results based on the Instrumented pig survey shall be considered to calculate de-rating factor. In absence of results of the intelligent pig survey (IPS) in any pipeline, hydro testing shall be carried out to establish MAOP of that pipeline as per provisions in the relevant regulations on Technical Standard and Specifications including Safety Standards. Provided that in absence of hydro testing the entity may put up proposal for de-rating based on random thickness survey of the pipeline. Board reserves the right to check such survey data.
- (x) The entity shall submit the details of maximum achievable system capacity and section wise capacity of the natural gas pipeline so determined, under the steady state simulation with the details of variable or constant parameters, to the Board in the specified format at Schedule A along with the hydraulic gradient and system flow diagram for the pipeline system

including compressor stations, metering and regulating stations as applicable.

**(b) Petroleum Product Pipelines:**

- (i) In a multi product pipeline, the maximum achievable capacity shall be determined based on the characteristics of High Speed Diesel (HSD) whereas for pipelines dedicated for transportation of single product like LPG, Naphtha or ATF etc, characteristics of that product only shall be considered.
- (ii) The entire pipeline system shall be configured in the selected software package operating offline. The steady state of hydraulics of the pipeline shall be entered into the system.
- (iii) At the originating point and at intermediate points in the direction of flow set the pressure as a fixed parameter corresponding to maximum allowable operating pressure (MAOP) or pumping facilities available at these locations, as the case may be, and compute the maximum possible flow in the pipeline system. This shall be the capacity of the pipeline system under prevailing facilities and conditions.
- (iv) Thereafter, assuming products at the entry points as unlimited, the Station Discharge Head (SDH) at the pump station equal to Maximum Allowable Operating Pressure (MAOP) of the pipeline, the entire pipeline system shall be configured in the selected software package operating offline. The steady state of hydraulics of the pipeline shall be entered into the system for computing the maximum achievable flow in the pipeline system using the selected software and approved flow equation
- (v) At the first and subsequent withdrawal points in the direction of flow getting the required pressure or SDH as a fixed parameter, the maximum possible flow within that section shall be computed based on the methodology specified above. Similarly, the possible volume flow shall be calculated from section to section and tabulated up to the last exit point taking into account the quantity available from other injection points.
- (vi) If the capacity of a pipeline have been downgraded or decreased due to de-rating of the MAOP of the pipeline due to factors like metal loss, the de-rated capacity of such pipelines shall be determined considering results of Instrumented pig survey. In the absence of results of IPS in any pipeline, hydro testing shall be carried out to establish MAOP of that pipeline as per provisions in the relevant regulations on Technical Standard and Specifications including Safety Standards. Provided that in absence of hydro testing the entity may put up proposal for de-rating based on random

thickness survey of the pipeline. Board reserves the right to check such survey data.

- (vii) The requirement of a pressure or SDH at any exit point shall determine the possible capacity within a particular section serving that exit points. Provided further that maintainability of a particular hydraulics condition at any exit point shall be mutually determined between capacity determining authority and the transporter within the flexibility available in the system. The section wise capacity thus calculated with single or multiple entry and exit points shall be run with the selected software package offline in the steady state operation of the system to arrive at capacities of various sections.
- (viii) The entity shall submit the maximum achievable pipeline capacity as well as section wise capacity of the product pipeline so determined, under the steady state simulation with the details of variable or constant parameters, to the Board in the specified format at Schedule B along with the hydraulic gradient and system flow diagram for the pipeline system.
- (c) In case the contractual pressure at any entry and exit point is within a band, the arithmetic mean rounded upto first decimal point shall be considered.
- (d) The annual capacity of pipeline system and sections shall be as per the operation days specified in the Access Code for respective system.

**6. Declaring capacity of Petroleum, Petroleum Products and Natural Gas pipeline by the Board.**

- (a) The Board, after having satisfied with the data submitted by the entity regarding capacity of the pipeline, shall decide-
- (i) to reject the capacity so determined and direct the entity to revise the capacity calculations based on the revised parameters; or
- (ii) to go ahead with the proposal with or without modification:
- (b) The capacity so determined shall be declared by the Board as the declared capacity of pipeline system and specific sections and the same shall be available to the shippers or consumers. The Board shall declare the section wise capacity of the system in the format specified at Schedule C.
- (c) The entity, after declaring the pipeline capacity and section wise capacities by the Board, shall publish the same in line with the provisions of the relevant regulations on the Access Code for such pipeline as and when notified, on their website.

**7. Periodicity for determining capacity of a Petroleum, Petroleum Products and Natural Gas pipeline.**

- (i) The capacity of a pipeline shall be determined on first working day of April every year or whenever-
- (a) there is a major change in the injected quantity or off taken quantity of petroleum, petroleum products and natural gas;
- (b) contract carrier quantity period expires;
- (c) there is a change of plus or minus ten percent in gas composition or product quality or in other operating parameters from the operating conditions of the pipeline system within the parameters defined under the relevant regulations on the access code as and when notified;
- (d) there is addition or deletion of entry or exit point; or
- (e) there is addition or deletion of facilities, for example, compressor or pumping station, loop lines or any other facility;
- (ii) The entity shall submit the details of the so re-determined capacity of the pipeline to the Board in line with the provisions of these regulations for the purpose of declaration of capacity.

**8. Provisions relating to dedicated pipelines for transport of Petroleum, Petroleum Products and Natural Gas.**

- (1) In respect of existing dedicated pipelines, the following provisions shall apply, namely:-
- (a) entity having dedicated pipeline to transport petroleum, petroleum products and natural gas to a specific customer and which is not for resale before the appointed day shall submit details of the pipeline capacity as determined based on the provisions of these regulations to the Board within thirty days of notification of these regulations;
- (b) the Board may, based on the examination of the information received, declare the capacity of such pipeline as capacity of dedicated pipeline.

**9. Miscellaneous.**

- (1) If any dispute arises with regards to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final;
- (2) The Board may, either suo moto or on a complaint, refer the issue of determination of the capacity in a pipeline, to any external consultant or expert.

Cost in this regard shall be borne by the entity or the complainant or as deemed fit by the Board on a case specific basis. However, the recommendation of the consultant or expert shall be advisory in nature to the Board and shall not be binding;

- (3) The Board may validate the computed capacity with actual capacity as per the flow regime of the pipeline with actual flow conditions as and when desired.

**Schedule A**

[see regulation 5(5)(a)(x)]

Format for furnishing information regarding determining capacity of  
Natural Gas Pipeline

1	Name of Entity	
2	Address & Contact details of Entity	
3	Name of Natural Gas Pipeline	
4	Name of Software package used	
5	Approved Flow equation used (mention name of flow equation)	
6	Details of injection/entry point and delivery/exit points and sections on the pipeline	
7	Composition of natural gas	
8	Entity agrees to have considered the Technical standards, specifications and safety standards as specified by the Board	Yes/ No
9	Entity agrees to have considered the relevant provisions of Petroleum and Natural Gas Regulatory Board Regulations	Yes/ No
10	Constant and variable parameters used under steady state conditions for determining capacity of the pipeline	
11	Capacity of the pipeline under existing operating conditions	
12	Maximum achievable Capacity of the pipeline under steady state conditions as determined under section 5 of these regulations	
13	Section wise maximum achievable capacity of the pipeline as determined under section 5 of these regulations	
14	Expected addition of entry points and exit points scheduled in near future	

Note: Submit the system flow diagram & hydraulic gradient

**Schedule B**

[see regulation 5(5)(b)(viii)]

Format for furnishing information regarding determining capacity of  
Petroleum and Petroleum Products Pipeline

1	Name of Entity	
2	Address and Contact details of Entity	
3	Name of Petroleum and Petroleum Products Pipeline	
4	Name of Software package used for determining capacity	
5	Approved Flow equation used (mention name of flow equation)	
6	Details of injection/entry point and delivery/exit points and sections on the pipeline	
7	Quality of various products being transported in the pipeline	
8	Constant and variable parameters used under steady state conditions for determining capacity of the pipeline	
9	Entity agrees to have considered the Technical standards, specifications and safety standards as specified by the Board	Yes/ No
10	Entity agrees to have considered the relevant provisions of Petroleum and Natural Gas Regulatory Board Regulations	Yes/ No
11	Quality specifications considered for the purpose of capacity determination	
12	Capacity of the pipeline under existing operating conditions	
13	Maximum achievable Capacity of the pipeline under steady state conditions as determined under section 5 of these regulations	
14	Section wise maximum achievable capacity of the pipeline as determined under section 5 of these regulations	
	Expected addition of entry points and exit points scheduled in near future	

Note: Submit the system flow diagram & hydraulic gradient

**Schedule C**

[see regulation 6(b)]

Format for declaring capacity of Petroleum, Petroleum Products and Natural Gas Pipeline by the Petroleum and Natural Gas Regulatory Board

Date of declaration of capacity by the Board: .....

1	Name of Entity	
2	Address and Contact details of Entity	
3	Name of Pipeline	
4	Details of injection/entry point and delivery/exit points and sections on the pipeline	
5	Name of the software package used by the entity	
6	Flow equation used for the purpose	
7	Product Quality specifications/gas Parameters considered for the purpose of capacity determination	
8	Maximum achievable capacity of the pipeline under steady state conditions	
9	Section wise maximum achievable capacity of the pipeline	

Dated:

Secretary  
Petroleum and Natural Gas Regulatory Board

[ F. No. S-Admn/II/8/2010]  
RATAN P. WATAL, Secy.



# भारत का राजपत्र The Gazette of India

असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (i)

PART II—Section 3—Sub-section (i)

प्राधिकार से प्रकाशित

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पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड

अधिसूचना

नई दिल्ली, 7 जून, 2010

सा.का.नि. 481(अ).—पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड अधिनियम, 2006 (2006 का 19) की धारा 61 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए, पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड निम्नलिखित विनियम बनाता है, नामतः :—

1. संक्षिप्त शीर्षक और प्रारंभण

- (1) इन विनियमों को पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (पेट्रोलियम और प्राकृतिक गैस रजिस्टर) विनियम, 2010 कहा जाएगा।
- (2) यह सरकारी राजपत्र में अपने प्रकाशन की तारीख से प्रवृत्त होंगे।

2. परिभाषाएं

- (1) इन विनियमों में अन्यथा संदर्भ का उल्लेख अपेक्षित न हो, -
  - (क) “अधिनियम” का अर्थ पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड अधिनियम, 2006 से है;
  - (ख) “बोर्ड” का अर्थ अधिनियम की धारा 3 की उप-धारा (1) के अंतर्गत स्थापित पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड से है;
  - (ग) “रजिस्टर” का अर्थ बोर्ड द्वारा मुद्रित या इलेक्ट्रॉनिक रूप में रखे गए पेट्रोलियम और प्राकृतिक गैस रजिस्टर से है;
- (2) अन्य सभी शब्द और अभिव्यक्तियां, जिन्हें विनियमों में परिभाषित नहीं किया गया है किंतु अधिनियम में परिभाषित हैं, का अधिनियम में क्रमशः उन्हें दिया गया अर्थ होगा।

### 3. रजिस्टर की विषय-सूची

(1) रजिस्टर को निम्नलिखित पांच भागों में बांटा जाएगा नामतः-

- (क) भाग-I में उन सभी कंपनियों की सूची शामिल है जिन्हें अधिसूचित पेट्रोलियम, पेट्रोलियम उत्पादों और प्राकृतिक गैस का विपणन करने के लिए पंजीकृत किया गया है;
- (ख) भाग-II में उन सभी कंपनियों की सूची शामिल है जिन्हें एलएनजी टर्मिनलों की स्थापना और प्रचालन करने या प्रस्तावित एलएनजी टर्मिनलों की स्थापना और प्रचालन करने के लिए पंजीकृत किया गया है;
- (ग) भाग-III में उन सभी कंपनियों की सूची शामिल है जिन्हें विनियमों द्वारा विनिर्दिष्ट अनुसार ऐसी क्षमता से अधिक पेट्रोलियम, पेट्रोलियम उत्पादों या प्राकृतिक गैस की भण्डारण सुविधा स्थापित करने के लिए पंजीकृत किया गया है;
- (घ) भाग-IV में उन सभी कंपनियों की सूची शामिल है जिन्हें सामान्य वाहक या संविदा वाहक पाइपलाइन बिछाने, निर्माण, प्रचालन या विस्तार करने के लिए प्राधिकृत किया गया है; और
- (ङ.) भाग-V में उन सभी कंपनियों की सूची शामिल है जिन्हें नगर या स्थानीय प्राकृतिक गैस वितरण नेटवर्क बिछाने, निर्माण, प्रचालन या विस्तार करने के लिए प्राधिकृत किया गया है।

(2) रजिस्टर में प्रविष्टियां अनुलग्नक-I में दिए गए प्रपत्र के अनुसार की जाएंगी।

### 4. रजिस्टर तक पहुंच

- (1) पब्लिक का कोई सदस्य अनुलग्नक-II में दिए गए प्रपत्र के अनुसार आवेदन प्रस्तुत करते हुए विनियम 5 के उप-विनियम (1) के अंतर्गत निर्धारित शुल्क का भुगतान करके रजिस्टर का निरीक्षण कर सकता है।
- (2) रजिस्टर का निरीक्षण करने वाला कोई व्यक्ति इस संबंध में बोर्ड द्वारा इसके लिए विनिर्दिष्ट अधिकारी को एक आवेदन-पत्र प्रस्तुत करेगा, जिसमें मांगी गई सूचना ब्यौरा दिया जाएगा।
- (3) उप-विनियम (2) के अंतर्गत विनिर्दिष्ट अधिकारी रजिस्टर के निरीक्षण की अनुमति देगा तथा विनियम 5 के उप-विनियम (2) के अंतर्गत निर्धारित अनुसार शुल्क का भुगतान किए जाने पर रजिस्टर के संबंधित भाग का उद्धरण भी उपलब्ध कराएगा।

### 5. शुल्क और अन्य प्रभार लगाना

रजिस्टर के निरीक्षण के लिए तथा रजिस्टर से उद्धरण की प्रतियों के लिए शुल्क पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (शुल्क और अन्य प्रभार लगाना) विनियम, 2007 में उल्लेख किए गए अनुसार होगा।

### 6. सामान्य

यदि इन विनियमों के किसी प्रावधानों की व्याख्या के संबंध में कोई विवाद उत्पन्न होता है तो बोर्ड का निर्णय अंतिम और बाध्यकारी होगा।

## अनुलग्नक-I

1	कंपनी का ब्यौरा	
क	कंपनी का नाम:	
ख	फर्म का प्रकार - पब्लिक लिमिटेड कंपनी/प्राइवेट लिमिटेड कंपनी/भागीदार फर्म/प्रोप्राइटरशिप फर्म/अन्य (कृपया उल्लेख करें):	
ग	निगमन की तारीख और व्यवसाय शुरू करने के प्रमाण-पत्र की तारीख:	
घ	पंजीकृत कार्यालय का पता:	
ड.	संपर्क ब्यौरा - नाम, पदनाम, कार्यालय पता, दूरभाष संख्या (एसटीडी संहिता सहित), ई-मेल पता:	
2	व्यवसाय ब्यौरा	
क	कार्यकलाप का ब्यौरा जिसके लिए कंपनी पंजीकृत/प्राधिकृत है:	
ख	शामिल भौगोलिक क्षेत्र/स्थल - शहर/जिला/राज्य/देश:	
ग	प्राधिकृत क्षमता (जहां-कहीं लागू हो)	
घ	पंजीकरण संदर्भ दस्तावेज संख्या और तारीख:	
ड.	प्राधिकरण संदर्भ दस्तावेज संख्या और तारीख:	

## अनुलग्नक- II

व्यक्ति/कंपनी का ब्यौरा जो रजिस्टर की प्रामाणित प्रति का निरीक्षण/प्राप्त करना चाहते हैं।	
1	कंपनी/व्यक्ति का नाम
2	पूर्ण पता
3	ई-मेल आईडी, दूरभाष, फैक्स
4	पहचान प्रमाण और आवास का प्रमाण (व्यक्ति के मामले में)
5	कंपनी का नाम जिसके बारे में निरीक्षण या विनियम की प्रामाणित प्रति अपेक्षित है।
क)	सूचना प्राप्त करने का प्रयोजन
ख)	डिमांड ड्राफ्ट द्वारा जमा शुल्क का ब्यौरा

तारीख:

स्थान:

[फा. सं. एस-प्रशा/II/8/2009-खण्ड-I]

रतन पी. वातल, सचिव

## PETROLEUM AND NATURAL GAS REGULATORY BOARD

## NOTIFICATION

New Delhi, the 7th June, 2010

**G.S.R. 481(E).**—In exercise of the powers conferred by Section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely :—

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Petroleum and Natural Gas Register) Regulations, 2010.
- (2) They shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

- (1) In these regulations, unless the context otherwise requires, -
  - (a) "Act" means the Petroleum and Natural Gas Regulatory Board Act, 2006;
  - (b) "Board" means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of section 3 of the Act;
  - (c) "Register" means the Petroleum and Natural Gas Register maintained by the Board whether in print or electronic form;
- (2) All other words and expressions used and not defined in these regulations but defined in the Act shall have the meanings respectively assigned to them in the Act.

**3. Contents of the Register.**

- (1) Register shall be divided into following five parts namely:-
  - (a) Part I containing a list of all entities who have been registered for marketing notified petroleum, petroleum products and natural gas;
  - (b) Part II containing a list of all entities who have been registered for establishing and operating LNG terminals or proposing to establish and operate LNG terminals;
  - (c) Part III containing a list of all entities who have been registered for establishing storage facility for petroleum, petroleum products or natural gas exceeding such capacity as may be specified by regulations;
  - (d) Part IV containing a list of all entities who have been authorized for laying, building, operating or expanding a common carrier or contract carrier pipeline; and
  - (e) Part V containing a list of all entities who have been authorized for laying, building, operating or expanding a city or local natural gas distribution network.
- (2) The entries in the Register shall be made as per format in Annexure-I.

**4. Access to the Register.**

- (1) Register shall be open for inspection to any member of the public on payment of fee prescribed under sub-regulation (1) of regulation 5 and by submitting an application as per format at Annexure-II.
- (2) Any person seeking inspection of the Register shall make an application for the purpose to the officer designated for the purpose by the Board detailing in the application, the information sought.
- (3) The officer designated under sub-regulation (2) shall allow inspection of the Register and also make available extracts of the relevant portions of the Register on payment of such fee as prescribed under sub-regulation (2) of regulation 5.

**5. Levy of fees and other charges.**

Fee for inspection of the Register and for copies of extracts from the Register shall be as specified in the Petroleum and Natural Gas Regulatory Board (Levy of Fee and Other Charges) Regulations, 2007.

2179 G2/10-2

**6. General**

If any dispute arises with regard to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final and binding.

**Annexure I**

1	<b>Details of the Entity</b>	
A	Name of the Entity:	
B	Type of Firm - Public limited company / Private limited company / Partnership firm / Proprietorship firm / Others (please specify):	
C	Date of incorporation and date of certificate of commencement of business:	
D	Address of registered office:	
E	Contact details – Name, Designation, Office addresses, Telephone numbers (with STD code), E-mail address:	
2	<b>Business details</b>	
A	Details of activity for which the entity is registered/authorized:	
B	Geographical area covered/situated – Town/District/State/Country:	
C	Authorised capacity (wherever applicable)	
D	Registration reference document number and date:	
E	Authorization reference document number and date:	

**Annexure – II**

<i>Details of the individual/company intending to inspect/obtain certified copy of Register</i>		
1	Name of the entity / person	
2	Complete address	
3	E-mail ID, telephone, fax	
4	Identification proof and residence proof (in case of an individual person)	
5	Name of entity relating to which inspection or certified copy of Regulation is required	
a)	Purpose of seeking the information	
b)	Details of fee deposited by Demand Draft	

[F. No. S-Admn/II/8/2009-Vol. I]

RATAN P. WATAL, Secy.



**PETROLEUM AND NATURAL GAS REGULATORY BOARD  
NOTIFICATION**

New Delhi, the 17th July, 2008

**G.S.R. 540(E).**—In exercise of the powers conferred by section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely:—

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Affiliate Code of Conduct for Entities Engaged in Marketing of Natural Gas and Laying, Building, Operating or Expanding Natural Gas Pipeline) Regulations, 2008.
- (2) They shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

- (1) In these regulations, unless the context otherwise requires,
  - (a) “Act” means the Petroleum and Natural Gas Regulatory Board Act, 2006;
  - (b) “affiliate” means an associated person in relation to the entity or the entity in relation to an associated person—
    - (i) who participates directly or indirectly or through one or more intermediaries in the management or control or capital of the entity or an associated person, as the case may be;
    - (ii) who holds, directly or indirectly, shares carrying not less than 26% of the voting power in the entity or associated person, as the case may be;

- (iii) who appoints more than half of the board of directors or members of the governing board, or one or more executive directors or executive members of the governing board of the entity or the associated person, as the case may be; or
- (iv) who guarantees not less than 10% of the total borrowings of the entity or the associated person, as the case may be.
- (c) “appointed day” means the date of October 1, 2007 when the Central Government notified the establishment of the Petroleum and Natural Gas Regulatory Board;
- (d) “Board” means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of section 3 of the Act;
- (e) “capital cost” means cost in respect of creation of a fixed asset;
- (f) “cost” means the capital cost, direct cost, financial cost, fully allocated cost or operating cost, as the case may be.
- (g) “direct cost” means cost that can reasonably be identified as cost incurred for laying, building, operating or expanding a natural gas pipeline;
- (h) “financing cost” means the cost of financing the creation of an asset or for meeting the requirements of incurring an operating cost;
- (i) “fully allocated cost” means the sum of direct costs plus a proportional share of indirect costs derived on the basis of the level of activities carried out and on consistently applied basis of allocation;
- (j) “indirect cost” means such cost which cannot be directly identified with either laying, building, operating or expanding a natural gas pipeline or marketing of natural gas and includes, but are not limited to common overhead costs, common administrative expenses and taxes;

2705 GI/08-2

- (k) “marketing of natural gas” means the activity of selling or distribution of natural gas;
- (l) “natural gas pipeline” means natural gas pipeline as defined under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008.
- (m) “operating cost” means cost in respect of upkeep and maintenance of a fixed asset or service;
- (2) Words and expressions used and not defined in these regulations, but defined in the Act or in the rules or regulations made thereunder, shall have the meanings respectively assigned to them in the Act or in the rules or regulations, as the case may be.

### 3. Application.

These regulations shall apply to an entity-

- (1) which proposes to lay, build, operate or expand natural gas pipeline and is authorized to do so under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008;
- (2) which is laying, building, operating or expanding natural gas pipeline and has been authorized to do so under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008;
- (3) which is authorized by the Central Government before the appointed day for laying, building, operating or expanding natural gas pipeline; or
- (4) which is either authorized or is directed by the Board for conversion of a dedicated pipeline into a common carrier or contract carrier under the relevant regulations:

Provided that the entity is either engaged or proposes to engage in the activity of marketing of natural gas:

- (a) either on its own;
- (b) through a division, business unit or such other categorization made for different business segments by the entity but without separating the ownership and management control of the same into another entity; or
- (c) through its affiliate.

#### 4. Scope of affiliate code of conduct.

(1) The affiliate code of conduct referred to in these regulations and *hereinafter* referred to as the “code” sets out the manner of the-

- (a) interactions between the entity and its affiliate for the purposes of carrying out the activities of both transportation and marketing of natural gas based on the principle of “at an arm’s length”; or
- (b) engagement in both the activities of transportation and marketing of natural gas by the entity on its own by following the principle of “at an arm’s length”.

(2) The objectives of this code are to ensure-

- (a) protection of the interests of the consumers and other entities against the actions of an entity while dealing with its affiliate as also when the entity on its own is engaged in both the activities of transportation and marketing of natural gas;
- (b) prevention of cross-subsidization of the costs between the regulated activity and any other non-regulated activity including the activity of marketing of natural gas either by the entity on its own or through its affiliate which adversely affects or has the potential of adversely affecting fair trade and competition between the entities;

(c) that there is no preferential access allowed by the entity to itself or to its affiliate for the regulated activity; and

(d) development of a fair and competitive natural gas market.

**5. Degree of accounting separation.**

(1) The entity shall ensure accounting and financial separation by maintaining separate financial records and books of accounts in respect of the regulated activity in cases where-

a) the affiliate of the entity is engaged or proposes to engage in the marketing of natural gas; or

b) the entity on its own or proposes to engage in both the activities of transportation and marketing of natural gas.

(2) The entity shall ensure that while undertaking the accounting and financial segregation in respect of the regulated activity under sub-regulation (1), both direct and indirect costs are fully allocated to the regulated activity in a transparent manner and without any cross-subsidization of costs with any other non-regulated activity.

(3) The entity shall adhere to the accounting standards and guidelines of The Institute of Chartered Accountants of India as well as the Companies Act, 1956 and the Board may, if it deems fit, examine the appropriateness of the basis of cost allocation followed by the entity.

**6. Confidentiality of consumer information.**

(1) The entity shall not release to an affiliate any information relating to a consumer without his written consent except where such information is required to be disclosed for-

(i) billing or market operation purposes;

- (ii) law enforcement purposes;
  - (iii) processing of past due accounts of the consumer which have been passed on to a debt collection agency;
  - (iv) where the information has been sufficiently aggregated so that any individual consumer's information cannot reasonably be identified.
- (2) Where an entity shares information services with an affiliate, all information shall be protected from access by the affiliate and access to an entity's information services shall include appropriate computer data management and data access protocols as well as contractual provisions regarding the breach of any access protocols.

#### 7. Shared corporate services.

An entity may share employees with its affiliate only in relation to the shared core corporate services subject to the stipulation that such employees shall neither be directly or indirectly involved in collecting, storing, collating, processing, transmitting or having access to any information which is related to the regulated activities.

#### 8. Non-discriminatory access to services.

- (1) The entity shall treat all other entities engaged in natural gas marketing on the same non-discriminatory basis as it treats its own affiliate.
- (2) The entity shall take reasonable steps to ensure that its affiliate does not cause in its marketing or promotional material any favoured treatment or preferential access to the entity's system and in case the entity becomes aware of an inappropriate marketing or promotional activity by its affiliate, the entity shall-
  - (a) immediately notify affected consumers of such violation;
  - (b) take necessary steps to ensure that the affiliate is aware of the concern; and

- (c) inform the Board in writing of such activity, the remedial measures that were undertaken by the entity and the steps taken by the entity to prevent its recurrence in future.
- (3) The entity shall apply the natural gas pipeline tariff authorized under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008 to an affiliate in the same manner as is applicable to similarly placed non-affiliates.
- (4) The entity shall not transfer or assign to an affiliate a consumer for whom the entity is providing service of the regulated activity unless the consumer gives permission to such transfer or assignment in writing.
- (5) The entity and its affiliate shall not trade upon, promote, or suggest to any consumer, supplier or third-party that they may receive preferential treatment as a result of the affiliation.
- (6) The entity shall not provide to anyone any negative information about its affiliate or non-affiliate competitors.

**9. Compliance measures.**

- (1) The entity shall be responsible for ensuring compliance with this code and shall-
- (i) perform an internal review on a quarterly basis establishing compliance by the entity to the code;
- (ii) circulate the code to its employees and make them aware of its compliance;
- (iii) monitor compliance by its employees' to this Code; and
- (iv) maintain verifiable record of documentation establishing such compliance.
- (2) The entity shall submit the compliance report on an annual basis to the Board reporting the extent of compliance by the entity to the provisions under these regulations in case-

- (a) the entity is engaged or proposes to engage in both the activities of transportation and marketing of natural gas; or
- (b) of dealing by the entity with its affiliate which is marketing natural gas.

#### 10. Record keeping and reporting requirements.

- (1) The entity shall maintain updated records in a form and manner so as to be able to substantiate compliance with this code.
- (2) In addition to any other reporting requirements contained in this code, the entity shall provide the following information within a period of one month of the notification of these regulations, namely:-
  - (a) list of all affiliates with whom the entity transacts including business addresses, list of the officers and directors and description of the business of its affiliate;
  - (b) corporate organization chart indicating relationships and ownership percentages;
  - (c) costing policy of the entity with respect to the regulated activity including the basis followed by the entity for allocation of common expenditure; and
  - (d) any other relevant information as deemed fit by the Board:

Provided that the entity shall update the information provided to the Board under clauses (a) to (d) for any change within a period of one month of the occurrence of such a change.

- (3) The entity shall web-host the description of its regulated activities including that of its affiliates.

#### 11. Consequences of default and termination of authorization procedure.

The entity shall abide by all the provisions under these regulations and any failure in doing so may lead to termination of the authorization in the manner specified in the Petroleum and Natural Gas Regulations (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations 2008 including any other penal action under the Act.

**12. Miscellaneous.**

If any dispute arises with regards to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final.

[F, No. S-Admn./II/8/2007-Vol. 1]

AJAY TYAGI, Secy.

**अधिसूचना**

नई दिल्ली, 17 जुलाई, 2008

सा.का.नि. 541(अ).—पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड अधिनियम, 2006 (2006 का 19) की धारा 61 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड एतद्वारा निम्नलिखित विनियम बनाता है, नामतः -

**1. संक्षिप्त शीर्षक और प्रारंभ**

- (1) इन विनियमों को पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (सामान्य वाहक या निविदा वाहक प्राकृतिक गैस पाइपलाइनों की प्राप्ति संहिता) विनियम, 2008 कहा जाएगा।
- (2) ये सरकारी राजपत्र में प्रकाशन की तारीख से लागू होंगे।

**2. परिभाषाएं**

- (1) इन विनियमों में जब तक कि संदर्भ में अन्यथा अपेक्षित न हो,
  - (क) "प्राप्ति व्यवस्था" का अर्थ है ट्रांसपोर्टर का वह दस्तावेज जिसमें विशेष रूप से गैस पाइपलाइन तक प्राप्ति की निबंधन और शर्तों को परिभाषित किया गया हो और ट्रांसपोर्टर की वेबसाइट पर डाला गया हो;
  - (ख) "अधिनियम" का अर्थ है पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड अधिनियम, 2006;
  - (ग) "सदृश क्षेत्र" (एएचए) का अर्थ है पाइपलाइन का वह हिस्सा जिसके अंतर्गत कैलोरीयुक्त मूल्य सहित समान विशिष्टियों सहित गैस एक विनिर्दिष्ट समयावधि में प्राप्त की जाती है या सुपुर्द की जाती है;
  - (घ) "आबंटित क्षमता" का अर्थ है शिपर और ट्रांसपोर्टर के बीच सहमत अनुसूचित अधिकतम दैनिक मात्रा;
  - (ङ.) "नियत दिवस" का अर्थ है 01 अक्टूबर, 2007 का दिन, जब केन्द्र सरकार ने पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड की स्थापना करने की अधिसूचना जारी की थी;

**NOTIFICATION**

New Delhi, the 17th July, 2008

**G.S.R. 541(E).—**

In exercise of the powers conferred by section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely:-

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Access Code for Common Carrier or Contract Carrier Natural Gas Pipelines) Regulations, 2008.
  - (2) They shall come into force on the date of their publication in the Official Gazette.
-

## 2. Definitions.

- (1) In these regulations, unless the context otherwise require,
- (a) “access arrangement” means a document of the transporter specifically defining terms and conditions for the access to the gas pipeline and placed on the web site of the transporter;
  - (b) “Act” means the Petroleum and Natural Gas Regulatory Board Act, 2006”;
  - (c) “a homogeneous area” (AHA) means a part of the pipeline within which the gas of similar specifications including calorific value is received or delivered over a specified time period;
  - (d) “allocated capacity” means the scheduled maximum daily quantity agreed between the shipper and the transporter;
  - (e) “appointed day” means the date of October 1, 2007 when the Central Government notified the establishment of the Petroleum and Natural Gas Regulatory Board;
  - (f) “Board” means the Petroleum and Natural Gas Regulatory Board (PNGRB) established under the Petroleum and Natural Gas Regulatory Board Act 2006;
  - (g) “booked capacity” means maximum daily quantity (MDQ) of gas on any day to be delivered at an entry point or off taken at an exit point as per the contract between the shipper and the transporter;
  - (h) “contracted capacity” means the natural gas volume contracted for transportation through a pipeline system on daily, monthly or yearly basis;
  - (i) “custody transfer meter” means a device or a set of devices which measures the quantity of natural gas (in terms of volume and energy) for transfer of custody from one entity to another;
  - (j) “dispute” means any dispute or difference arising between the entities under or in connection with these regulations or the access arrangement;

- (k) “entry point” means the point at which the gas delivered by shipper is injected into the natural gas pipeline;
- (l) “exit point” means the point at which the gas is withdrawn from the natural gas pipeline for delivery to the shipper or end consumer as agreed between transporter and shipper;
- (m) “maximum daily quantity” means the maximum volume of natural gas contracted, booked or scheduled for delivery in a particular day within twenty four hours of the day;
- (n) “natural gas pipeline” means any pipeline including spur lines for transport of natural gas and includes all connected equipments and facilities, such as, compressors, storage facilities, metering units, etc. but excludes-
- (i) dedicated pipeline laid to transport natural gas to a specific customer to meet his requirement and not for resale;
- (ii) pipelines in a city or local natural gas distribution network which are regulated by the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.
- (o) “natural gas pipeline section” means a part of natural gas pipeline between an entry point and an exit point or between two exit points;
- (p) “marketeer” means an entity dealing with the marketing or trading of natural gas;
- (q) “off-spec natural gas” means the natural gas which does not conform to the parameters specified at sub-regulations (1), (4), (5) and (6) of regulations 5;
- (r) “operating pressure” means the pressure corresponding to a particular flow rate at which the natural gas pipeline is operated;
- (s) “shipper” means an entity and also includes a consumer who intends to utilize the capacity in the pipeline for transmission of gas;
- (t) “system use gas” (SUG) means the quantity of gas used by the transporter for the operation and maintenance of the pipeline system, including but not limited to,

compressors, gas heaters, close cycle vapour or thermo electric gas turbines for cathodic protection and supervisory control and data acquisition (SCADA) system;

(u) “transmission loss” (TL) means the quantity of gas which is unaccounted for whatsoever reason including blow downs, venting or releases during regular operation and maintenance of the pipeline system or due to inaccuracy of custody meter;

(v) “transporter” means an entity authorized by the Board or authorized by the Central Government prior to the appointed date for laying, building, operating or expanding a natural gas pipeline;

(w) “transmission service” means the service consisting of taking delivery of the gas made available by a shipper at one or more entry points along the pipeline system and delivering an equivalent quantity of gas in terms of energy at one or more exit points in accordance with the terms and conditions laid down in the access arrangement and contract signed between the shipper and the transporter and complying with the provisions of these regulations;

(x) “unit of measurement” means unit for measurement of quantity of gas and shall be in million British thermal units (MMBTU) or Kilo calories.

(2) All other words and expressions used herein but not defined shall have the same meanings respectively assigned to them in the Act.

### **3. Application.**

(1) These regulations shall apply to an entity operating or proposing to operate natural gas pipeline.

(2) Any entity authorized by the Board to lay, build, operate or expand a natural gas pipeline under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipeline) Regulations, 2008 or authorized to do so by the Central Government before the appointed day, can add new or abandon any existing entry and exit point on the pipeline on techno-economic considerations provided that the existing customers on the pipeline are not adversely affected by the decision of the entity.

**4. Declaration of capacity.**

- (1) The capacity of a natural gas pipeline shall be as authorized by the Board for new pipelines under The Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008 or as determined by the Board under relevant regulations for declaring natural gas pipelines as common carrier or contract carrier or under the Petroleum and Natural Gas Regulatory Board (Determination of Natural Gas Pipeline Tariff) Regulations, 2008 or as determined by the Board under the relevant Regulations.
- (2) The transporter shall declare for each natural gas pipeline section, entry and exit point-wise design and available capacity of the pipeline and host the same on its web site on the 1st of every month in the prescribed manner and format specified at Schedule I and shall send this information to the Board and the same shall also be hosted by the Board on its website.
- (3) The available capacity declared for the transporter under sub-regulation (2) shall be available for use on common carrier or contract carrier basis or both and shall be allocated in line with the provisions under regulation 12.

**5. Gas parameters.**

- (1) The authorized entity as referred to in sub-regulation (2) of regulation 3 shall formulate the calorific value (CV) band for the natural gas to be transported through natural gas pipeline keeping in view the following parameters, namely:-
  - (a) CV of its own natural gas proposed to be transported;
  - (b) CV of firm up contracted capacity of natural gas;
  - (c) requirements of downstream consumers of natural gas on the pipeline;
  - (d) technical requirement of the pipe line system; and
  - (e) CV band of the inter-state pipelines either supplying natural gas into the pipeline system or receiving natural gas from this pipeline system.
- (2) The transporter shall publish CV band referred to in sub-regulation (1) on its website within a period of one month of authorization by the Board, as referred to in sub-regulation (2) of regulation 3, under intimation to the Board.  
Provided that the entities authorized before the publication of these regulations shall publish the CV band within a period of one month of the date of publication of these regulations.

- (3) CV band referred to in sub-regulation (1) shall be applicable to all shippers on non-discriminatory basis.
- (4) The transporter may review the CV band for natural gas from time to time taking into account new major source of gas supplies or new consumers: Provided that CV band so updated shall not adversely affect any of the existing shippers:

Provided further that transporter shall immediately inform the Board as and when such up-dation is carried out by the transporter besides putting the same on its web site.

- (5) The threshold limits for other elements in natural gas like CO<sub>2</sub>, CO, H<sub>2</sub>S, N<sub>2</sub>, O<sub>2</sub>, water dew point, hydrocarbon dew point, etc. shall be as given in Schedule II.
- (6) The transporter shall define the gas parameters at entry points in terms of gas hydraulics specifying the acceptable range of pressure and temperature and the same shall be hosted on the website of the transporter.
- (7) Shipper shall supply gas conforming to all parameters specified in sub-regulations (1), (4) to (6) and the transporter shall deliver gas at exit point conforming to parameters of gas as specified in sub-regulations (1),(4) and (5):

Provided that the pressure and temperature shall be as per the contract between shipper and the transporter.

#### **6. System Use Gas (SUG), Line Pack (LP) and Transmission Losses (TL).**

A shipper shall sell or provide the gas, if required by the transporter, for SUG, LP and TL at the prevailing market price in proportion to its capacity booking in the pipeline:

Provided that, the transporter shall be free to arrange this gas from any other source.

#### **7. Measurement of gas.**

- (1) The transporter shall ensure the provision of the entry and exit point equipments to measure gas composition, calorific value, pressure and temperature on continuous basis as specified in regulation 9.

- (2) The transporter shall divide the natural gas pipeline into a number of “a homogenous area” (AHA) and shall continuously measure the quality parameters by Gas Chromatograph (GC) in each AHA.
- (3) Measurement of CV and gas quality as provided in sub-regulations (1) and sub-regulation (2) shall be sufficient for billing and other contractual purposes for all exit points served by the AHA.
- (4) Total error limit and accuracy of the measuring equipment shall be as agreed to between the entities subject to any mandatory specifications, if any, laid down by the Board through regulations.
- (5) The transporter shall carry out verification, calibration or proving of measuring equipment as per the relevant codes and standards.
- (6) Either shipper or transporter may instal check meters at requisite points with a pre-condition so as not to interfere with the measurement equipment installed by the entity for custody transfer purpose.
- (7) Gas accounting shall be done on daily basis and the gas reconciliation, billing & other terms shall be as decided between the entities.

**Obligations at entry point and exit point.**

- (1) At the entry point when the shipper delivers natural gas that does not meet the quality requirements as specified in sub-regulation (1), (4) to (6) of regulation 5, in respect of CV band and threshold level of other elements of gas, the transporter may-

(a) refuse to accept it; or

(b) accept any gas that does not meet the requirements of gas in terms of gas parameters-

(i) as specified at Schedule II:

Provided that transporter may charge reasonable cost of service from the shipper, as may be mutually agreed, for any additional facilities or treatment for cleaning up or integrity requirements of the pipeline and to upgrade gas to pipeline specifications;

Provided further that such off-spec natural gas does not adversely affect the existing customers' quality specifications committed by the transporter at the exit points;

- (ii) as specified in sub regulations (1) and (4) of regulation 5: Provided that the transporter may charge the reasonable cost of service for the capacity adjustment from the shipper for transportation of such gas and for capacity constraints in the system:

Provided further that such off-spec natural gas does not adversely affect the existing customers' quality specifications committed by the transporter at the exit points.

- (2) At the exit point when the transporter delivers gas that does not meet the quality requirements as specified in sub regulation (7) of regulation 5, the shipper may -
- (a) refuse to accept delivery and in such a case the transporter shall be liable to pay liquidated damages to the shipper as per their terms of contract; or
  - (b) accept the gas and in such case no charges shall be payable by transporter.

#### **9. Facilities at entry point and exit point.**

- (1) Shipper shall arrange to deliver gas at entry point on the pipeline system and shall provide all facilities, including measuring equipments, required for transfer of custody and delivery of gas to the transporter unless otherwise agreed to between shipper and transporter.
- (2) Transporter shall execute hooking up facility of shipper to the entry point at the cost of shipper.
- (3) Shipper or his authorized nominee shall own, operate and maintain facilities upstream of entry points at his own cost and risk unless the facilities are provided by the transporter under a separate contract.

- (4) The transporter shall own and operate facilities including measuring equipments at exit point for transfer of custody and delivery of gas to the shipper unless otherwise agreed to between shipper and transporter and the exit point gas parameters shall be mutually agreed to between shipper and transporter.
- (5) The transporter shall execute, at the cost of shipper, the facility of hooking up of shipper facility with that of transporter at exit point.
- (6) The shipper shall provide space and cooperate with the transporter in installing, operating, maintaining and modifying any specific exit point facilities when such exit point facilities are provided in the premises of the shipper.
- (7) The shipper may provide check meter, conforming to the applicable standard and specifications, at the delivery point in natural gas pipeline:

Provided that in case of any variation in the readings in the meter of transporter and shipper, the reading of the transporter meter shall be taken as final.

- (8) In case of any dispute in metering, the meter proving or certification shall be carried out by an accredited third party as approved by the Board.
- (9) In case of any fault in the meter of transporter, the expenses on this account shall be borne by the transporter and in case no fault is found in the meter, the expenses shall be borne by the shipper.

#### 10. Pipeline capacity booking.

- (1) More than one shipper can hold capacity at any entry or exit point.
- (2) The booked capacity shall be through a contract between shipper and transporter under "Access Arrangements" in the form of MDQ.
- (3) When a transporter receives a request for access from a shipper it shall respond within three days after receiving the request from the shipper-
  - (a) confirming that spare capacity exists to satisfy the request and specifying the charges and terms and conditions upon which it will make the service available;

- (b) advising that spare capacity does not exist to satisfy the request;
  - (c) advising that the data provided by the shipper require technical study to accommodate his request and such study shall be completed within seven days from the date of receipt of request; or
  - (d) advising that it is not technically or operationally feasible to provide access.
- (4) shipper may release the capacity in favour of other shippers to the extent of the capacity booked.
  - (5) The shipper may assign in part or full the capacity booked by him or trade in open market and the transporter shall deliver the capacity in physical terms to any person or entity which wishes to take physical delivery on the basis of a valid contract.
  - (6) The nomination of natural gas for transportation shall contain the expected gas flow details of one or more days daily-nominated quantities as per the agreed schedule between the shipper and the transporter.
  - (7) The accounting of the gas shall be in energy terms and shall be based on Gross calorific value as defined in ISO 6976-1:1983(E).

**11. Interconnection of two common carrier or contract carrier natural gas pipeline.**

- (1) The interconnection of two common carrier or contract carrier pipeline systems may be necessitated by either a transporter or a shipper and such interconnection shall be allowed subject to capacity available in the receiving common carrier pipeline and when it is operationally and technically feasible.
- (2) The gas quality specifications for interconnecting pipelines should be compatible.
- (3) The cost of such interconnection point shall be borne by the entity that has triggered such requirement for interconnection and the cost of interconnection may include the cost of compression equipments for meeting the operational requirements for receiving natural gas in the common carrier system.

- (4) The execution of the interconnection facilities shall be carried out by the transporter who owns the system which receives the gas.
- (5) The interconnection point shall be mutually agreed between transporter and the shipper.
- (6) Interconnection of pipeline network is like adding an exit point to the existing pipeline and all such provisions shall be applicable for such interconnection.
- (7) The authorized entity for receiving common carrier pipeline shall inform the Board in case any interconnection request is denied.

## 12. Methodology for providing access.

- (1) The contracted capacity between a shipper and a transporter shall be for a gas quantity not exceeding the own firm up capacity and aggregated volume contracted by the transporter for a period of more than a year.
- (2) The excess 33% capacity shall be allocated on common carrier principle on first come first serve basis:

Provided that in case any capacity out of the 33% excess capacity under sub-regulation (2) is available at any time due to non-existence of demand from any shipper, then, the same may be utilized either by the authorized entity itself or could be contracted for a period of more than a year subject to the stipulation that in the event of any requirement by another shipper for transportation of gas on a common carrier basis, the entity shall make available the required capacity to the shipper within a period of thirty days of such requirement.

## 13. System indiscipline and charges.

- (1) If the pipeline capacity has been utilized by the shipper without permission of the transporter over 110% of the capacity allocated, then, the shipper shall be charged for such unauthorized overrun by the transporter in a transparent manner on non-discriminatory basis.
- (2) If the shipper off-takes less quantity of gas from the pipeline system than injected

into it, then, the shipper is creating positive imbalance and it shall be allowed a cumulative positive imbalance of ten per cent of allocated capacity as tolerance limit.

- (3) Positive imbalance up to ten per cent of the booked capacity shall not attract any positive imbalance charges and the shipper shall be charged by the transporter for positive imbalance charges in a transparent manner on non discriminatory basis if it exceeds ten per cent.
- (4) If shipper off-takes more quantity of gas from the pipeline system than injected into it, then, the shipper is creating negative imbalance and the shipper shall be allowed a cumulative negative imbalance of five per cent of allocated capacity as a tolerance limit.
- (5) Negative imbalance of five per cent. of the allocated capacity shall not attract any negative imbalance charges and the shipper shall be charged by the transporter for negative imbalance charges in a transparent manner on non discriminatory basis if it exceeds five percent.
- (6) Charges for the system indiscipline, that is, for unauthorized overrun positive imbalance and negative imbalance shall be on daily basis in terms of maximum daily quantity.
- (7) Subject to sub-regulation (8), the transporter shall maintain the pipeline system in such a way that the allowed positive imbalance of 10% or negative imbalance of 5% does not interfere with the operations of the pipeline and shall ensure that the shippers get their allocated quantities within acceptable contractual variations, at specified gas parameters at exit points.
- (8) It shall be the responsibility of the defaulting shipper to cure imbalances beyond the permissible limit caused by it in transporter's pipeline and in case, the defaulting shipper is unable to cure such imbalances within a period of fifteen days, then, the transporter shall have the right to adjust daily-nominated quantity of such shipper to mitigate such imbalances to ensure safety and integrity of pipeline system.

- (9) In case the transporter and the shipper have entered into an agreement which recognizes an aggregated volume of natural gas on periodic basis and the shipper makes commitment to avail the capacity intermittently within a period less than one year, the imbalances and overrun charges shall be calculated on maximum daily quantity basis as scheduled by the shipper and the transporter.
- (10) There shall be established an escrow account to be maintained by the transporter which shall be credited with all charges received by the transporter on account of imbalances and overruns under this regulation and the transporter shall be eligible to withdraw from the escrow account the payment towards his contractual obligations with reference to supply or pay and extra efforts to compress gas in case of negative imbalance and system management of the pipeline system due to such imbalances created by the shippers.
- (11) The transporter shall submit audited statement of the escrow account referred to in sub-regulation (10) on an annual basis to the Board.
- (12) The balance amount available in the escrow account, after the eligible withdrawal by the transporter, under sub clause (10) may be utilized in such a manner and for such purposes as may be specified by the Board.

#### **14. Planned maintenance.**

- (1) The transporter is required to draw up and publish a maintenance plan well ahead of time for a defined period identifying those entry and exit points where gas flows may be restricted by maintenance works, the extent of the restrictions and the time of occurrence and the transporter shall plan such maintenance so as to minimize disruption to affected parties and can request information from shippers on their survival flows at entry and exit points to assist the transporter for such maintenance schedule.
- (2) Dates for scheduled maintenance shall be informed well in advance which can be adjusted on thirty days advance notice to and from affected shippers.
- (3) The planned maintenance period shall not exceed ten days in a year.

**15. Information about *force majeure*.**

- (1) The affected party shall on occurrence of any *force majeure*-
  - (a) as soon as reasonably practicable notify each of the other parties of the occurrence and nature of the *force majeure*, the expected duration thereof insofar as the same can reasonably be assessed and the obligations of the affected party performance of which is affected thereby; and
  - (b) from time to time thereafter provide to each other party reasonable details of the following, namely-
    - (i) developments in the matters notified under clause (a);
    - (ii) the steps being taken by the affected party to overcome the *force majeure* occurrence or its effects and to resume performance of its relevant obligations.
- (2) The entities shall be relieved of their respective obligations in the event of *force majeure* except for the obligation to pay when due.

**16. Operational planning.**

- (1) Shipper shall make daily, weekly or monthly nominations to the transporter for the quantities that it wishes to deliver to at a particular entry point and off-take at a particular exit point from the pipeline system on a daily basis in line with the provisions under these regulations.
- (2) (a) Transporter shall schedule the quantities of gas for transportation based on the nominations received and capacity available in the pipeline system.  
  
(b) Transporter may schedule the nomination for quantities over and above the booked capacity subject to a maximum of ten per cent of the declared pipeline capacity.
- (3) (a) Transporter shall allocate quantity of gas to various shippers as determined under clause (b) of sub-regulation (2) and as per the scheduling exercise.  
  
(b) Allocation scheduled shall be delivered to the shippers as per the destinationwise (exit point wise) schedule prepared.

**17. Emergencies.**

The procedures to be followed by shipper and the transporter in the event of an emergency shall be included in the access arrangements by shipper and transporter on mutually agreed terms.

**18. Confidentiality of information.**

All documentation, information, data, submissions and comments disclosed or delivered whether in writing or otherwise by any entity to the transporter, shipper or to any other party either in connection with or in consequence of the requirements of these regulations shall be regarded and treated as confidential and shall not be disclosed either in full or part of any or all of the documentation, information, data, submissions and comments including the contents and copies thereof in any form except in connection with any proceedings in any court.

**19. Miscellaneous.**

If any dispute arises with regards to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final.

.....

**Schedule – I****Format for declaring capacity of Pipeline**

(see regulation 4(2) )

1. Name of entity:
2. Name of pipeline:
3. Sectionwise capacity on the pipeline(to be furnished for each section separately) :
  - (a) Number of sections:
  - (b) Name of section with start and end point:
  - (c) Capacity – (i) Volume terms (ii) Energy terms
4. Number of AHAs:
5. Number of entry points on the pipeline route:
6. Location of entry points:
7. Number of exit points:
8. Location of exit points:

9. Entry point wise capacity(to be furnished separately for each entry point):
10. Exit pointwise capacity(to be furnished separately for each exit point):
11. Technical parameters:
  - (a) Inlet pressure at entry point:
  - (b) Calorific value band at entry point:
  - (c) Temperature:
  - (d) Other elements as per Schedule - II:
12. Status of extra capacity available in the pipeline system on common carrier basis:
13. Details of common carrier capacity being used by transporter itself or on contract carrier basis:
14. Any demand pending with the transporter for common carrier usage of the pipeline alongwith duration of such pendency:
15. Preference on entry and exit points:

#### Schedule – II

(see regulations 5(5), 8(1)(b)(i))

### Gas quality specifications

Parameters	Limit
Hydrocarbons dew pt (Degree Celsius, max.)*	0
Water dew pt(Degree Celsius, max )*	0
Hydrogen Sulphide (ppm by wt. max.)	5
Total Sulphur (ppm by wt. max.)	10
Carbon dioxide (mole % max.)	6
Total inerts (mole % )	8
Temperature ( Degree Celsius, max.)	55
Oxygen( % mole vol. max.)	0.2

\* At the pipeline operating pressure

[F.No. S-Admn./II/8/2007-Vol. 1]

AJAY TYAGI, Secy.

**NOTIFICATION**

New Delhi, the 17th July, 2008

**G.S.R. 541(E).—**

In exercise of the powers conferred by section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely:-

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Access Code for Common Carrier or Contract Carrier Natural Gas Pipelines) Regulations, 2008.
- (2) They shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

- (1) In these regulations, unless the context otherwise require,
- (a) “access arrangement” means a document of the transporter specifically defining terms and conditions for the access to the gas pipeline and placed on the web site of the transporter;
  - (b) “Act” means the Petroleum and Natural Gas Regulatory Board Act, 2006”;
  - (c) “a homogeneous area” (AHA) means a part of the pipeline within which the gas of similar specifications including calorific value is received or delivered over a specified time period;
  - (d) “allocated capacity” means the scheduled maximum daily quantity agreed between the shipper and the transporter;
  - (e) “appointed day” means the date of October 1, 2007 when the Central Government notified the establishment of the Petroleum and Natural Gas Regulatory Board;
  - (f) “Board” means the Petroleum and Natural Gas Regulatory Board (PNGRB) established under the Petroleum and Natural Gas Regulatory Board Act 2006;
  - (g) “booked capacity” means maximum daily quantity (MDQ) of gas on any day to be delivered at an entry point or off taken at an exit point as per the contract between the shipper and the transporter;
  - (h) “contracted capacity” means the natural gas volume contracted for transportation through a pipeline system on daily, monthly or yearly basis;
  - (i) “custody transfer meter” means a device or a set of devices which measures the quantity of natural gas (in terms of volume and energy) for transfer of custody from one entity to another;
  - (j) “dispute” means any dispute or difference arising between the entities under or in connection with these regulations or the access arrangement;

- (k) “entry point” means the point at which the gas delivered by shipper is injected into the natural gas pipeline;
- (l) “exit point” means the point at which the gas is withdrawn from the natural gas pipeline for delivery to the shipper or end consumer as agreed between transporter and shipper;
- (m) “maximum daily quantity” means the maximum volume of natural gas contracted, booked or scheduled for delivery in a particular day within twenty four hours of the day;
- (n) “natural gas pipeline” means any pipeline including spur lines for transport of natural gas and includes all connected equipments and facilities, such as, compressors, storage facilities, metering units, etc. but excludes-
- (i) dedicated pipeline laid to transport natural gas to a specific customer to meet his requirement and not for resale;
- (ii) pipelines in a city or local natural gas distribution network which are regulated by the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.
- (o) “natural gas pipeline section” means a part of natural gas pipeline between an entry point and an exit point or between two exit points;
- (p) “marketeer” means an entity dealing with the marketing or trading of natural gas;
- (q) “off-spec natural gas” means the natural gas which does not conform to the parameters specified at sub-regulations (1), (4), (5) and (6) of regulations 5;
- (r) “operating pressure” means the pressure corresponding to a particular flow rate at which the natural gas pipeline is operated;
- (s) “shipper” means an entity and also includes a consumer who intends to utilize the capacity in the pipeline for transmission of gas;
- (t) “system use gas” (SUG) means the quantity of gas used by the transporter for the operation and maintenance of the pipeline system, including but not limited to,

compressors, gas heaters, close cycle vapour or thermo electric gas turbines for cathodic protection and supervisory control and data acquisition (SCADA) system;

- (u) “transmission loss” (TL) means the quantity of gas which is unaccounted for whatsoever reason including blow downs, venting or releases during regular operation and maintenance of the pipeline system or due to inaccuracy of custody meter;
- (v) “transporter” means an entity authorized by the Board or authorized by the Central Government prior to the appointed date for laying, building, operating or expanding a natural gas pipeline;
- (w) “transmission service” means the service consisting of taking delivery of the gas made available by a shipper at one or more entry points along the pipeline system and delivering an equivalent quantity of gas in terms of energy at one or more exit points in accordance with the terms and conditions laid down in the access arrangement and contract signed between the shipper and the transporter and complying with the provisions of these regulations;
- (x) “unit of measurement” means unit for measurement of quantity of gas and shall be in million British thermal units (MMBTU) or Kilo calories.

(2) All other words and expressions used herein but not defined shall have the same meanings respectively assigned to them in the Act.

### **3. Application.**

- (1) These regulations shall apply to an entity operating or proposing to operate natural gas pipeline.
- (2) Any entity authorized by the Board to lay, build, operate or expand a natural gas pipeline under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipeline) Regulations, 2008 or authorized to do so by the Central Government before the appointed day, can add new or abandon any existing entry and exit point on the pipeline on techno-economic considerations provided that the existing customers on the pipeline are not adversely affected by the decision of the entity.

**4. Declaration of capacity.**

- (1) The capacity of a natural gas pipeline shall be as authorized by the Board for new pipelines under The Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Natural Gas Pipelines) Regulations, 2008 or as determined by the Board under relevant regulations for declaring natural gas pipelines as common carrier or contract carrier or under the Petroleum and Natural Gas Regulatory Board (Determination of Natural Gas Pipeline Tariff) Regulations, 2008 or as determined by the Board under the relevant Regulations.
- (2) The transporter shall declare for each natural gas pipeline section, entry and exit point-wise design and available capacity of the pipeline and host the same on its web site on the 1st of every month in the prescribed manner and format specified at Schedule I and shall send this information to the Board and the same shall also be hosted by the Board on its website.
- (3) The available capacity declared for the transporter under sub-regulation (2) shall be available for use on common carrier or contract carrier basis or both and shall be allocated in line with the provisions under regulation 12.

**5. Gas parameters.**

- (1) The authorized entity as referred to in sub-regulation (2) of regulation 3 shall formulate the calorific value(CV) band for the natural gas to be transported through natural gas pipeline keeping in view the following parameters, namely:-
  - (a) CV of its own natural gas proposed to be transported;
  - (b) CV of firmed up contracted capacity of natural gas;
  - (c) requirements of downstream consumers of natural gas on the pipeline;
  - (d) technical requirement of the pipe line system; and
  - (e) CV band of the inter-state pipelines either supplying natural gas into the pipeline system or receiving natural gas from this pipeline system.
- (2) The transporter shall publish CV band referred to in sub-regulation (1) on its website within a period of one month of authorization by the Board, as referred to in sub-regulation (2) of regulation 3, under intimation to the Board.  
Provided that the entities authorized before the publication of these regulations shall publish the CV band within a period of one month of the date of publication of these regulations.

- (3) CV band referred to in sub-regulation (1) shall be applicable to all shippers on non-discriminatory basis.
- (4) The transporter may review the CV band for natural gas from time to time taking into account new major source of gas supplies or new consumers: Provided that CV band so updated shall not adversely affect any of the existing shippers:
- Provided further that transporter shall immediately inform the Board as and when such up-dation is carried out by the transporter besides putting the same on its web site.
- (5) The threshold limits for other elements in natural gas like CO<sub>2</sub>, CO, H<sub>2</sub>S, N<sub>2</sub>, O<sub>2</sub>, water dew point, hydrocarbon dew point, etc. shall be as given in Schedule II.
- (6) The transporter shall define the gas parameters at entry points in terms of gas hydraulics specifying the acceptable range of pressure and temperature and the same shall be hosted on the website of the transporter.
- (7) Shipper shall supply gas conforming to all parameters specified in sub-regulations (1), (4) to (6) and the transporter shall deliver gas at exit point conforming to parameters of gas as specified in sub-regulations (1),(4) and (5):

Provided that the pressure and temperature shall be as per the contract between shipper and the transporter.

**6. System Use Gas (SUG), Line Pack (LP) and Transmission Losses (TL).**

A shipper shall sell or provide the gas, if required by the transporter, for SUG, LP and TL at the prevailing market price in proportion to its capacity booking in the pipeline:

Provided that, the transporter shall be free to arrange this gas from any other source.

**7. Measurement of gas.**

- (1) The transporter shall ensure the provision of the entry and exit point equipments to measure gas composition, calorific value, pressure and temperature on continuous basis as specified in regulation 9.

- (2) The transporter shall divide the natural gas pipeline into a number of “a homogenous area” (AHA) and shall continuously measure the quality parameters by Gas Chromatograph (GC) in each AHA.
- (3) Measurement of CV and gas quality as provided in sub-regulations (1) and sub-regulation (2) shall be sufficient for billing and other contractual purposes for all exit points served by the AHA.
- (4) Total error limit and accuracy of the measuring equipment shall be as agreed to between the entities subject to any mandatory specifications, if any, laid down by the Board through regulations.
- (5) The transporter shall carry out verification, calibration or proving of measuring equipment as per the relevant codes and standards.
- (6) Either shipper or transporter may instal check meters at requisite points with a pre-condition so as not to interfere with the measurement equipment installed by the entity for custody transfer purpose.
- (7) Gas accounting shall be done on daily basis and the gas reconciliation, billing & other terms shall be as decided between the entities.

**Obligations at entry point and exit point.**

- (1) At the entry point when the shipper delivers natural gas that does not meet the quality requirements as specified in sub-regulation (1), (4) to (6) of regulation 5, in respect of CV band and threshold level of other elements of gas, the transporter may-
  - (a) refuse to accept it; or
  - (b) accept any gas that does not meet the requirements of gas in terms of gas parameters-
    - (i) as specified at Schedule II:  
Provided that transporter may charge reasonable cost of service from the shipper, as may be mutually agreed, for any additional facilities or treatment for cleaning up or integrity requirements of the pipeline and to upgrade gas to pipeline specifications;

Provided further that such off-spec natural gas does not adversely affect the existing customers' quality specifications committed by the transporter at the exit points;

- (ii) as specified in sub regulations (1) and (4) of regulation 5: Provided that the transporter may charge the reasonable cost of service for the capacity adjustment from the shipper for transportation of such gas and for capacity constraints in the system:

Provided further that such off-spec natural gas does not adversely affect the existing customers' quality specifications committed by the transporter at the exit points.

- (2) At the exit point when the transporter delivers gas that does not meet the quality requirements as specified in sub regulation (7) of regulation 5, the shipper may -
- (a) refuse to accept delivery and in such a case the transporter shall be liable to pay liquidated damages to the shipper as per their terms of contract; or
  - (b) accept the gas and in such case no charges shall be payable by transporter.

**9. Facilities at entry point and exit point.**

- (1) Shipper shall arrange to deliver gas at entry point on the pipeline system and shall provide all facilities, including measuring equipments, required for transfer of custody and delivery of gas to the transporter unless otherwise agreed to between shipper and transporter.
- (2) Transporter shall execute hooking up facility of shipper to the entry point at the cost of shipper.
- (3) Shipper or his authorized nominee shall own, operate and maintain facilities upstream of entry points at his own cost and risk unless the facilities are provided by the transporter under a separate contract.

- (4) The transporter shall own and operate facilities including measuring equipments at exit point for transfer of custody and delivery of gas to the shipper unless otherwise agreed to between shipper and transporter and the exit point gas parameters shall be mutually agreed to between shipper and transporter.
- (5) The transporter shall execute, at the cost of shipper, the facility of hooking up of shipper facility with that of transporter at exit point.
- (6) The shipper shall provide space and cooperate with the transporter in installing, operating, maintaining and modifying any specific exit point facilities when such exit point facilities are provided in the premises of the shipper.
- (7) The shipper may provide check meter, conforming to the applicable standard and specifications, at the delivery point in natural gas pipeline:

Provided that in case of any variation in the readings in the meter of transporter and shipper, the reading of the transporter meter shall be taken as final.

- (8) In case of any dispute in metering, the meter proving or certification shall be carried out by an accredited third party as approved by the Board.
- (9) In case of any fault in the meter of transporter, the expenses on this account shall be borne by the transporter and in case no fault is found in the meter, the expenses shall be borne by the shipper.

#### 10. Pipeline capacity booking.

- (1) More than one shipper can hold capacity at any entry or exit point.
- (2) The booked capacity shall be through a contract between shipper and transporter under "Access Arrangements" in the form of MDQ.
- (3) When a transporter receives a request for access from a shipper it shall respond within three days after receiving the request from the shipper-
  - (a) confirming that spare capacity exists to satisfy the request and specifying the charges and terms and conditions upon which it will make the service available;

- (b) advising that spare capacity does not exist to satisfy the request;
  - (c) advising that the data provided by the shipper require technical study to accommodate his request and such study shall be completed within seven days from the date of receipt of request; or
  - (d) advising that it is not technically or operationally feasible to provide access.
- (4) shipper may release the capacity in favour of other shippers to the extent of the capacity booked.
  - (5) The shipper may assign in part or full the capacity booked by him or trade in open market and the transporter shall deliver the capacity in physical terms to any person or entity which wishes to take physical delivery on the basis of a valid contract.
  - (6) The nomination of natural gas for transportation shall contain the expected gas flow details of one or more days daily-nominated quantities as per the agreed schedule between the shipper and the transporter.
  - (7) The accounting of the gas shall be in energy terms and shall be based on Gross calorific value as defined in ISO 6976-1:1983(E).

**11. Interconnection of two common carrier or contract carrier natural gas pipeline.**

- (1) The interconnection of two common carrier or contract carrier pipeline systems may be necessitated by either a transporter or a shipper and such interconnection shall be allowed subject to capacity available in the receiving common carrier pipeline and when it is operationally and technically feasible.
- (2) The gas quality specifications for interconnecting pipelines should be compatible.
- (3) The cost of such interconnection point shall be borne by the entity that has triggered such requirement for interconnection and the cost of interconnection may include the cost of compression equipments for meeting the operational requirements for receiving natural gas in the common carrier system.

- (4) The execution of the interconnection facilities shall be carried out by the transporter who owns the system which receives the gas.
- (5) The interconnection point shall be mutually agreed between transporter and the shipper.
- (6) Interconnection of pipeline network is like adding an exit point to the existing pipeline and all such provisions shall be applicable for such interconnection.
- (7) The authorized entity for receiving common carrier pipeline shall inform the Board in case any interconnection request is denied.

## 12. Methodology for providing access.

- (1) The contracted capacity between a shipper and a transporter shall be for a gas quantity not exceeding the own firm up capacity and aggregated volume contracted by the transporter for a period of more than a year.
- (2) The excess 33% capacity shall be allocated on common carrier principle on first come first serve basis:

Provided that in case any capacity out of the 33% excess capacity under sub-regulation (2) is available at any time due to non-existence of demand from any shipper, then, the same may be utilized either by the authorized entity itself or could be contracted for a period of more than a year subject to the stipulation that in the event of any requirement by another shipper for transportation of gas on a common carrier basis, the entity shall make available the required capacity to the shipper within a period of thirty days of such requirement.

## 13. System indiscipline and charges.

- (1) If the pipeline capacity has been utilized by the shipper without permission of the transporter over 110% of the capacity allocated, then, the shipper shall be charged for such unauthorized overrun by the transporter in a transparent manner on non-discriminatory basis.
- (2) If the shipper off-takes less quantity of gas from the pipeline system than injected

into it, then, the shipper is creating positive imbalance and it shall be allowed a cumulative positive imbalance of ten per cent of allocated capacity as tolerance limit.

- (3) Positive imbalance up to ten per cent of the booked capacity shall not attract any positive imbalance charges and the shipper shall be charged by the transporter for positive imbalance charges in a transparent manner on non discriminatory basis if it exceeds ten per cent.
- (4) If shipper off-takes more quantity of gas from the pipeline system than injected into it, then, the shipper is creating negative imbalance and the shipper shall be allowed a cumulative negative imbalance of five per cent of allocated capacity as a tolerance limit.
- (5) Negative imbalance of five per cent. of the allocated capacity shall not attract any negative imbalance charges and the shipper shall be charged by the transporter for negative imbalance charges in a transparent manner on non discriminatory basis if it exceeds five percent.
- (6) Charges for the system indiscipline, that is, for unauthorized overrun positive imbalance and negative imbalance shall be on daily basis in terms of maximum daily quantity.
- (7) Subject to sub-regulation (8), the transporter shall maintain the pipeline system in such a way that the allowed positive imbalance of 10% or negative imbalance of 5% does not interfere with the operations of the pipeline and shall ensure that the shippers get their allocated quantities within acceptable contractual variations, at specified gas parameters at exit points.
- (8) It shall be the responsibility of the defaulting shipper to cure imbalances beyond the permissible limit caused by it in transporter's pipeline and in case, the defaulting shipper is unable to cure such imbalances within a period of fifteen days, then, the transporter shall have the right to adjust daily-nominated quantity of such shipper to mitigate such imbalances to ensure safety and integrity of pipeline system.

- (9) In case the transporter and the shipper have entered into an agreement which recognizes an aggregated volume of natural gas on periodic basis and the shipper makes commitment to avail the capacity intermittently within a period less than one year, the imbalances and overrun charges shall be calculated on maximum daily quantity basis as scheduled by the shipper and the transporter.
- (10) There shall be established an escrow account to be maintained by the transporter which shall be credited with all charges received by the transporter on account of imbalances and overruns under this regulation and the transporter shall be eligible to withdraw from the escrow account the payment towards his contractual obligations with reference to supply or pay and extra efforts to compress gas in case of negative imbalance and system management of the pipeline system due to such imbalances created by the shippers.
- (11) The transporter shall submit audited statement of the escrow account referred to in sub-regulation (10) on an annual basis to the Board.
- (12) The balance amount available in the escrow account, after the eligible withdrawal by the transporter, under sub clause (10) may be utilized in such a manner and for such purposes as may be specified by the Board.

#### **14. Planned maintenance.**

- (1) The transporter is required to draw up and publish a maintenance plan well ahead of time for a defined period identifying those entry and exit points where gas flows may be restricted by maintenance works, the extent of the restrictions and the time of occurrence and the transporter shall plan such maintenance so as to minimize disruption to affected parties and can request information from shippers on their survival flows at entry and exit points to assist the transporter for such maintenance schedule.
- (2) Dates for scheduled maintenance shall be informed well in advance which can be adjusted on thirty days advance notice to and from affected shippers.
- (3) The planned maintenance period shall not exceed ten days in a year.

**15. Information about *force majeure*.**

- (1) The affected party shall on occurrence of any *force majeure*-
  - (a) as soon as reasonably practicable notify each of the other parties of the occurrence and nature of the *force majeure*, the expected duration thereof insofar as the same can reasonably be assessed and the obligations of the affected party performance of which is affected thereby; and
  - (b) from time to time thereafter provide to each other party reasonable details of the following, namely-
    - (i) developments in the matters notified under clause (a);
    - (ii) the steps being taken by the affected party to overcome the *force majeure* occurrence or its effects and to resume performance of its relevant obligations.
- (2) The entities shall be relieved of their respective obligations in the event of *force majeure* except for the obligation to pay when due.

**16. Operational planning.**

- (1) Shipper shall make daily, weekly or monthly nominations to the transporter for the quantities that it wishes to deliver to at a particular entry point and off-take at a particular exit point from the pipeline system on a daily basis in line with the provisions under these regulations.
- (2) (a) Transporter shall schedule the quantities of gas for transportation based on the nominations received and capacity available in the pipeline system.  
  
(b) Transporter may schedule the nomination for quantities over and above the booked capacity subject to a maximum of ten per cent of the declared pipeline capacity.
- (3) (a) Transporter shall allocate quantity of gas to various shippers as determined under clause (b) of sub-regulation (2) and as per the scheduling exercise.  
  
(b) Allocation scheduled shall be delivered to the shippers as per the destinationwise (exit point wise) schedule prepared.

**17. Emergencies.**

The procedures to be followed by shipper and the transporter in the event of an emergency shall be included in the access arrangements by shipper and transporter on mutually agreed terms.

**18. Confidentiality of information.**

All documentation, information, data, submissions and comments disclosed or delivered whether in writing or otherwise by any entity to the transporter, shipper or to any other party either in connection with or in consequence of the requirements of these regulations shall be regarded and treated as confidential and shall not be disclosed either in full or part of any or all of the documentation, information, data, submissions and comments including the contents and copies thereof in any form except in connection with any proceedings in any court.

**19. Miscellaneous.**

If any dispute arises with regards to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final.

.....

**Schedule – I****Format for declaring capacity of Pipeline**

(see regulation 4(2) )

1. Name of entity:
2. Name of pipeline:
3. Sectionwise capacity on the pipeline(to be furnished for each section separately) :
  - (a) Number of sections:
  - (b) Name of section with start and end point:
  - (c) Capacity – (i) Volume terms (ii) Energy terms
4. Number of AHAs:
5. Number of entry points on the pipeline route:
6. Location of entry points:
7. Number of exit points:
8. Location of exit points:

9. Entry point wise capacity(to be furnished separately for each entry point):
10. Exit pointwise capacity(to be furnished separately for each exit point):
11. Technical parameters:
  - (a) Inlet pressure at entry point:
  - (b) Calorific value band at entry point:
  - (c) Temperature:
  - (d) Other elements as per Schedule - II:
12. Status of extra capacity available in the pipeline system on common carrier basis:
13. Details of common carrier capacity being used by transporter itself or on contract carrier basis:
14. Any demand pending with the transporter for common carrier usage of the pipeline alongwith duration of such pendency:
15. Preference on entry and exit points:

### Schedule – II

(see regulations 5(5), 8(1)(b)(i))

## Gas quality specifications

Parameters	Limit
Hydrocarbons dew pt (Degree Celsius, max.)*	0
Water dew pt(Degree Celsius, max )*	0
Hydrogen Sulphide (ppm by wt. max.)	5
Total Sulphur (ppm by wt. max.)	10
Carbon dioxide (mole % max.)	6
Total inerts (mole % )	8
Temperature ( Degree Celsius, max.)	55
Oxygen( % mole vol. max.)	0.2

\* At the pipeline operating pressure

[F. No. S-Admn./II/8/2007-Vol. 1]

AJAY TYAGI, Secy.

**PETROLEUM AND NATURAL GAS REGULATORY BOARD****NOTIFICATION**

New Delhi, the 27th August, 2008

**G.S.R. 612(E).**—In exercise of the powers conferred by Section 61 of the Petroleum and Natural Gas Regulatory Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely :—

**1. Short title and commencement.**

(1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Technical Standards and Specifications including Safety Standards for City or Local Natural Gas Distribution, Networks) Regulations, 2008.

(2) They shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

(1) In these regulations unless the context otherwise requires,-

(a) "Act" means the Petroleum and Natural Gas Regulatory Board Act, 2006;

(b) "active regulator" means a regulator in pressure regulating station (PRS) that normally controls the outlet pressure;

(c) "authorized person" means a competent person who is assigned by the owner or operator to carry out a specific job based on his competency level as laid down by the Board under regulations;

(d) "city or local natural gas distribution network" (hereinafter referred to as CGD network) means an interconnected network of gas pipelines and the associated equipments used for transporting natural gas from a bulk supply high pressure transmission main to the medium pressure distribution grid and subsequently to the service pipes supplying natural gas to domestic, industrial or commercial premises and CNG stations situated in a specified geographical area;

(e) "consumer meter" means a meter that measures gas delivered to a consumer at the consumer's premises;

(f) "creep relief valve" means a relief valve installed to relieve over pressure caused by creep in the downstream system and having maximum 1% flow capacity;

(g) "city gate station (CGS)" means the point where custody transfer of natural gas from natural gas pipeline to the CGD network takes place and this may also be referred to as City Gate Measuring and Pressure Regulating Station;

(h) "competent person" means an individual recognized by the CGD network

owner/operator based on his proficiency and skill set achieved by appropriate combination of education, training and practical experience in the critical traits as laid down by the Board under regulations;

(i) "Distribution Pressure Regulating Station or District Regulating Station (DPRS)" means a station located within authorized area for CGD network having isolation, pressure regulating and overpressure protection devices;

(j) "electro fusion joint" means a joint made in thermo plastic piping by passing the current through the electrical coil provided in the fitting and heating the parts sufficiently to permit adequate flow and fusion of the materials between the two surfaces put in contact;

(k) "Monitor and Active Regulators" means an arrangement of two regulating devices in series whose pressure settings are stepped so as to allow one (Active) normally to control the outlet pressure and the other (Monitor) to assume control in the event of failure of the active device:

(l) "operator" means an entity that operates CGD network with the authorization of the Board;

(m) "owner" means an entity that owns the CGD network and has been authorized by the Board;

(n) "primary network" means a part of CGD network that operates at pressure above 100 psig (7 bar) and below 711 psig (49 bar) and pipelines forming part of this network called Gas Main or Distribution Main or Ring Main shall be designed to ensure uninterrupted supply of gas from one or more City Gate Stations to supply gas to the secondary gas distribution network or service lines to bulk customers through service lines;

(o) "Slam Shut Valve" means a valve that is designed to close quickly in the event of an abnormal pressure (whether excess or low) being detected at a selected point in a gas system;

(p) "secondary network" means a part of CGD network that operates at a pressure below 100 psig (7 bar) and above 1.5 psig (100 mbar) and pipelines forming part of this network shall be called low-Pressure Distribution Mains which shall be designed to ensure uninterrupted supply to tertiary network or to industrial consumers through service lines;

(q) "sub-transmission pipeline" means a high pressure pipeline connecting the main transmission pipeline to the city gate station but is owned by the CGD entity;

(r) "tertiary network" means a part of CGD network that operates at pressure less than 1.5 psig(100 mbar) and pipelines forming part of this network to service Pressure Distribution Mains shall be designed to ensure uninterrupted gas supply to service lines;

(2) Words and expressions used and not defined in these regulations, but defined in the Act or in the rules or regulations made thereunder, shall have the meanings respectively assigned to them in the Act or in the rules or regulations, as the case may be;

### 3. Application.

Definitions, design, materials and equipment, welding, fabrication, installation, testing, operation and maintenance and corrosion control of CGD network shall be in accordance with requirements of ASME B31.8 except insofar as such requirements are specifically cancelled, replaced or modified by the requirements specified in these regulations.

### 4. Scope.

- (a) These regulations cover the design, materials, fabrication, installation, inspection and testing, commissioning, operation, maintenance, modifications and abandonment of CGD network for domestic, commercial and industrial users.
- (b) Requirements of these regulations shall apply to all pipelines, distribution mains and piping facilities downstream of inlet isolation valve of city gate station (CGS) up to and including consumer meter for commercial or industrial customer and up to final isolation valve including connecting hose to gas appliance for domestic consumer.
- (c) Design, materials, fabrication, installation, inspection and testing, commissioning, operation, maintenance, modifications and abandonment of steel pipeline between city gate station and natural gas pipeline (sub transmission pipeline) shall be as per separate regulations.
- (d) The CNG Station, CNG Mother Station, CNG On-Line Station and CNG Daughter Station shall be designed, operated and maintained in line with the requirements of the Chief Controller of Explosives as detailed in the Gas Cylinder Rules, 2004 as modified or amended from time to time. This includes compression, handling and transportation activities of compressed natural gas.
- (e) These regulations also cover safety aspects of operation and maintenance of CGD network and the requirements covered herein these regulations are meant to supplement the safety requirements already covered under ASME B 31.8.

### 5. Intent.

- (a) It is intended to apply these regulations to all new and such aspects of already existing networks as design, fabrication, installation, testing at the time of construction and commissioning. However, if an entity has laid, built, constructed or expanded the CGD infrastructure based on some other standard or is not meeting the standards specified in these regulations, the entity needs to carry out a detailed technical audit of its infrastructure through a Board authorized or approved third party agency by the Board. The entity thereafter shall submit the recommendations made by the third party along-with its time-based mitigation plan and implementation schedule to the Board for authorization within six months from the date of notification of these regulations.
- (b) The continuation of operation of existing CGD network shall be allowed only if it meets the following requirements, namely:-

- (i) The CGD system downstream of city gate station shall have been tested initially at the time of commissioning in accordance with ASME B 31.8 Chapter IV (with minimum test pressure of 1.4 times of MAOP for steel network and 1.4 time MAOP or 50 PSI whichever is higher for PE network). The entity should have proper records of the same. Such test record shall have been valid for the current operation. Alternatively, if such a record is not available, the entity should produce in service test record of the CGD network having tested at a pressure of 1.1 time of MAOP as per ASME B 31.8;
- (ii) The CGD system has leak detection system in position and is operative. For pipeline network it shall be odourisation based and for enclosures such as CGS, above ground DPRS, it shall be gas leak detection based.
- (iii) The CGD system has in position necessary pressure relief valves; and
- (iv) There shall be protection of the system against third party damages both in respect to steel pipe, PE pipe and copper tubing.

Provided that-

- (a) The entity shall submit self-certification in support of meeting the above requirements within a month of notification of these regulations and in addition the certification by the approved or authorised third party shall be made available to the Board within six months of notification;
- (b) Certifications referred to in para (a) shall be done both for operation and maintenance and infrastructure of the entity and shall be submitted to the Board with mitigation plan and implementation schedule;
- (c) The critical components of the system as identified by the Board for such existing networks shall be complied with these regulations within a period specified at Appendix-I and the authorized entity shall maintain the integrity of the existing system at all times; and
- (d) Provisions of these regulations related to operation and maintenance procedures shall also be applicable to all such existing installations.

#### 6. The standard.

Technical standards and specifications including safety standards (hereinafter referred to as standards) for city or local natural gas distribution networks are as specified in Schedule-I which cover material and equipment (Schedule-1A), welding (Schedule-1B), piping system components and fabrication (Schedule-1C), design, installation and testing (Schedule-1D), operating and maintenance procedures (Schedule-1E), corrosion control (Schedule-1F) and miscellaneous (Schedule-1G).

#### 7. Default and consequences.

- (1) There shall be a system for ensuring compliance to the provision of these regulations through conduct of technical and safety audits during the construction, commissioning and operation phase, as well as on an on-going basis as may be specified from time to time.
- (2) The Board shall monitor the compliance to Technical Standards and Specifications

including Safety Standards either directly or by accredited third party through separate regulations on third party conformity assessment.

(3) In case of any deviation or shortfall, in achieving the targets for implementing the specified standards, the entities shall be liable to face the following consequences, namely:-

- (i) in case of critical activities at Appendix-I, the entity shall be given a single notice by the Board specifying the time limit to remove the specified shortcoming and ensure compliance and if the entity fails to comply within the specified time limit, immediate suspension or termination, as deemed appropriate, of authorization shall be done;
- (ii) in other cases, the Board may issue a notice to defaulting entity allowing it a reasonable time to remove the specified short coming and ensure compliance and in case the entity fails to comply within the specified time or in case the entity defaults on more than three occasions, its authorization to lay, built, operate or expand the CGD network shall be liable for suspension or termination apart from taking legal action under the provision of the Act and regulations thereunder.

#### 8. Requirements under other statutes.

It shall be necessary to comply with all statutory rules, regulations and Acts in force as applicable and requisite approvals shall be obtained from the relevant competent authorities for the CGD network.

#### 9. Miscellaneous.

- (1) These standards are intended to ensure uniform application of design principles and to guide selection and application of materials and components. Though the standard primarily focuses on safety of employees, public and facilities associated with city or local natural gas distribution networks, it does not eliminate the need for a competent designer and good engineering judgment.
- (2) If any dispute arises with regards to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final. Further, the Board may at any time effect appropriate modifications in these regulations.

## APPENDIX-I

## LIST OF CRITICAL ACTIVITIES In CGD NETWORK {See regulation 7(3) (i)}

Sr. No.	Critical Infrastructure/ activity/ processes	Time period for Implementation	Implementation plan
1	Pressure reduction skid CGS (active / monitor combination) with a minimum 50% redundancy including slam shut valve for over pressure protection and creep relief valves.	1 year	Modification of CGS skid
2	On line odorisation equipment designed to minimize fugitive emissions during loading, operation and maintenance.	1 year	Automated odorisation systems to be used
3	Height of the vent shall be minimum 3 meters above working level	6 months	Increase height of vent
4	Gas detectors shall be installed at critical locations	1 year	Install gas detectors in the CGS and District Pressure Regulating Station.
5	Pressure reduction for DRS (active / monitor combination) skid with minimum 50% redundancy including two safety devices at least one of them shall be a slam shut valve for over pressure protection/under-pressure and inlet and outlet isolation valves.	2 years	Modification/ replacement
6	Steel reinforced rubber hose conforming to IS 9573 Type IV	6 months *	Replacement of all rubber hoses @ fifty thousand per year
7	Pipeline test record and joint radiography and cover in the form of pipe book	3 months	Can be submitted in stages
8	HSSE Management System	6 months	To be implemented
9	Emergency Response Plan, Disaster Management Plan and written emergency procedures. Also, provide for an Emergency Control Room, manned round the clock and equipped with effective communication system and emergency vehicles fitted with communication facilities, first aid equipment, fire extinguishers, gas detectors, repair kits and tools, maps, plans, material safety data sheets etc. at its disposal.	6 months	To be implemented

\* commencement of implementation

**Schedule – I**  
(See regulation 6)

**Technical Standards and Specifications  
including Safety Standards  
for  
City or Local Natural Gas Distribution Network**

**Schedule – 1A MATERIALS AND EQUIPMENT**

**Schedule - 1B WELDING**

**Schedule – 1C PIPING SYSTEM COMPONENTS  
AND FABRICATION DETAILS**

**Schedule – 1D DESIGN, INSTALLATION AND  
TESTING**

**Schedule – 1E OPERATING AND MAINTENANCE  
PROCEDURES**

**Schedule – 1F CORROSION CONTROL**

**Schedule – 1G MISCELLANEOUS**

**Schedule – 1A****MATERIALS AND EQUIPMENT****MATERIALS AND EQUIPMENT**

All materials and equipment forming a permanent part of the any piping system constructed according to this standard shall be qualified for conditions in which it is to be used.

**MATERIALS FOR USE IN COLD CLIMATES**

Materials to be used in facilities exposed to low ground or low atmospheric temperatures or low operating temperatures shall have adequate impact properties to prevent brittle fracture at low temperatures.

**MATERIAL SPECIFICATIONS**

In addition to standards and specifications covered in ASME B 31.8, standards and specifications listed in Annexure-I shall also be acceptable for manufacturing of various piping components forming part of the CGD network.

**Steel Pipe**

Carbon steel used in CGD networks shall meet following requirements:

**Carbon Equivalent**

For pipes having Carbon Content > 0.12%

$$CE(IIW) = C + \frac{Mn}{6} + \frac{Cr+Mo+V}{5} + \frac{Ni+Cu}{15}$$

CE (iiw) value shall be ≤ 0.43%.

For pipes having Carbon Content ≤ 0.12%

$$CE(Pcm) = C + \frac{Si}{30} + \frac{Mn}{20} + \frac{Cu}{20} + \frac{Ni}{60} + \frac{Cr}{20} + \frac{Mo}{15} + \frac{V}{10} + 5B$$

CE (Pcm) value shall be ≤ 0.25%.

**Notch Toughness**

For carbon steel pipes of size NPS 2 and above, notch toughness shall be specified.

Electric welded pipes used shall also meet additional requirements specified under Annexure-III of this standard.

**Ductile Iron Pipe**

Use of ductile iron pipe is not permitted for CGD networks for transport of natural gas.

**Plastic Pipe and Components**

Thermoplastic pipes, tubes and fittings are recommended for use in city gas distribution networks.

Polyethylene (PE) pipes conforming to IS 14885 or ISO 4437, and PE fittings conforming to ISO 8085 Part 3 shall be acceptable.

Reprocessed material shall not be used.

Colour of pipes used for gas service shall be yellow for PE 80 grade and Orange for PE 100 grade.

PE pipes shall be permanently marked (either impressed or embossed to a depth / height of 0.02 to 0.15 mm).

**Pipes and tubing for above ground service lines up to meter set assembly.**

Galvanized Iron (GI) pipes shall be used in above ground service lines up to consumer meter or meter control valve. The use of copper tubing shall only be after consumer meter such that this is not accessible to third party. GI pipes and copper tubing shall conform to the requirements given in Annexure-IV of this standard. Use of

non-galvanised pipes should be restricted as far as possible; however, in case they are used they shall be properly protected and painted.

PE pipe shall not be used for above ground gas pipes.

#### **Tubing / Hose pipe for connecting consumer meter set assembly and consumer appliance**

The connection between consumer meter set assembly and gas appliance (provided by consumer) may be made by GI pipes or copper tubing meeting requirements given in Annexure-IV of this standard or steel reinforced rubber hose.

Steel reinforced rubber hose shall conform to IS: 9573 Type IV.

#### **EQUIPMENT SPECIFICATIONS**

Equipment used in CGD network manufactured to standards listed in

Annexure-II of this standard shall also be acceptable.

#### **CONDITIONS FOR REUSE OF PIPE**

##### **Reuse of Ductile Iron Pipes**

Reuse of ductile iron pipes is not permitted.

##### **Reuse of Plastic Piping**

Reuse of plastic pipes is permitted subject to the following.

- a. Its original and manufacturing specifications are known and documented.
- b. It meets the requirements of new pipes conforming to its manufacturing specifications.
- c. The pipe is free from visible defects.
- d. It is installed and tested in accordance with requirements of this standard. All testing shall be carried out at recognized independent laboratory and records of the same are maintained.

## **Schedule - 1B**

### **WELDING**

#### **GENERAL**

These requirements apply to steel pipe and components only.

Notches or laminations on pipe ends are not permitted and must be removed by cutting the pipe as a cylinder and re-beveling of pipe end prior to welding.

#### **QUALIFICATION AND PROCEDURES OF WELDERS**

Welding procedures and welders for welding of gas pipelines shall be qualified as per API 1104 and shall include toughness testing requirements as applicable for the line pipe.

#### **INSPECTION OF WELDS**

All Non Destructive Testing (NDT) including radiographic examination shall be performed in accordance with the requirements of API 1104 except that no root crack shall be permitted.

Regardless of operating hoop stress as well as location class all carbon steel butt welds shall be 100% radiographed. In case radiography is not possible due to safety reasons, weld shall be examined by using ultra sonic techniques.

#### **REPAIR OR REMOVAL OF DEFECTIVE WELDS**

Welding procedures and welders, for station piping shall be qualified as per ASME Boiler and Pressure Vessel (BPV) Code Section IX or API 1104.

When welders qualified under API 1104 are employed for station piping, their qualification shall be based on destructive mechanical testing as per API 1104.

Welds having defects shall be removed or repaired in accordance with API 1104 or ASME BPV code Section IX as applicable. Welders employed for repairs shall be qualified in accordance with "Qualification and Procedures of Welders".

Weld repair areas shall be subjected to additional radiography or ultrasonic testing after repair.

## Schedule – 1C

# PIPING SYSTEM COMPONENTS AND FABRICATION DETAILS

## PIPING SYSTEM COMPONENTS

### General

In addition to standards and specifications covered under ASME B 31.8 for various piping components, piping components manufactured conforming to standards and specifications listed under Annexure-I of this standard shall also be acceptable.

### Valves and Pressure Reducing Devices

Valves body, bonnet, cover and/or end flanges components made of cast iron and / ductile iron (as per ASTM A 395) shall not be used in CGD networks.

Valves used in service lines of size NPS 2 and below shall conform to BS EN 331.

### Flanges

Flanges made of cast iron, ductile iron and non-ferrous materials (brass or bronze) shall not be used in CGD networks.

Use of flanges in natural gas transmission and distribution piping is not permitted except for station piping e.g. CGS, DRS, MRS etc.

### Fittings other than Valves and Flanges

Fittings made of cast iron and ductile iron shall not be used in CGD networks.

All plastic fittings used in CGD networks must have been type tested by an internationally recognized testing agency prior to their use.

Thermoplastic / thermosetting fittings shall not be used in above ground piping system. Thermoplastic fittings conforming to ISO 8085 Part 3 shall be acceptable and shall meet following requirements:

- a. Polyethylene resin used for manufacture of thermoplastic fittings shall be virgin, cadmium free pigmented compound. Anti-oxidant and UV stabilizers used in PE resin shall not exceed 0.3 and 0.5 percent respectively. Reprocessed material shall not be used.
- b. Grade of PE compound used for the fittings should not be less than that of PE pipes. In case fittings are of different grade than that of pipes, compatibility of the same with pipes shall be established prior to their use. However, in case of higher grade fittings separate compatibility test shall not be required. Heating element shall

For piping class 150 or above all the flanges shall be with raised face.

### Bolting

All stud bolts and nuts used in CGD networks shall be hot dipped galvanized as per ASTM A 153 or equivalent.

- of the body of the fitting and for size above 63 mm external alignment clamp shall be used.
- f. Each Electro Fusion fitting shall be bar coded. Fusion fittings shall have permanent fusion indicator or a data card conforming to ISO-7810/ISO-7811.
  - g. The fusion jointing shall be carried out as per the procedure outlined in the standard DVS 2202 or equivalent.
  - h. Carbon steel part of transition fittings used for connecting PE system with Carbon Steel system may have butt weld/plain/flanged ends.

### Special Fittings

Mechanical fittings for making hot taps on pipelines and mains shall not be used. Fittings for hot taps shall be welded type (for steel pipelines and mains) and electro fusion type (for thermoplastic mains and service lines).

- c. not be exposed and all coils are embedded into the body of the fittings. Colour of fittings shall be yellow or black.
- d. Electro-fusion fittings complying with ISO 8085 Part 3 / EN- 1555 -3 shall be used for all sizes of PE pipes. Fittings fabricated from pipe shall not be used. Only injection moulded fittings are recommended.
- e. For fusion fitting upto 63 mm, pipe fixation device shall be an integral part

## EXPANSION AND FLEXIBILITY

### Flexibility Requirements

When maximum gas temperature expected during operation is below 65°C, thermal expansion and stresses in the above ground steel piping shall be evaluated considering pipe temperature of 65°C.

## Schedule – 1D

# DESIGN, INSTALLATION AND TESTING

## DESIGN INSTALLATION AND TESTING

### General Provisions

The selection of design for city gas distribution network shall be based on the gas properties, required flow rates, operating pressures and the environment.

### CGD network Description

A typical CGD Network should comprise of one or more or all of the following:

i) *Primary network*: A medium Pressure Distribution System comprising of Pipelines, Gas Mains or Distribution Mains normally constructed using steel pipes and connects one or more Transmission Pipeline to respective CGS or one or more CGS to one or more DPRS. The maximum velocity in the pipeline network should be limited to 100 ft / sec (30 m/sec) immediately after pressure regulating instrument.

As far as practical, primary network should be fed through more than one city gate stations / sources of supply. The operating pressure shall be as defined under General Terms.

ii) *Secondary Network*: A low Pressure Distribution System comprising of Gas Mains or Distribution Mains usually constructed using thermoplastic piping (MDPE) and connects DPRS to various service regulators at commercial, industrial, and domestic consumers. The network shall be sized for maximum flow velocity of 100 ft / sec (30 m/sec).

iii) *Tertiary Network*: A service Pressure Distribution System comprising of Service Lines, Service Regulators and customer/ consumer Meter Set Assemblies constructed using a combination of

thermoplastic (MDPE) piping and GI/ copper tubing components.

[Note: For italicized terms used in description of above networks, definitions as per ASME B 31.8 shall apply]

iv) *City gate station (CGS)*: typically comprising of, but not limited to, the following facilities:

- Filters
- Separators (if required).
- Metering facilities.
- Heater (if required)
- Pressure reduction skid comprising active and monitor combination with a minimum 50% redundancy with stream discrimination arrangement, including slam shut valve for over and under pressure protection and creep relief valves (stream redundancy shall not be less than 2+1).
- Online odorization equipment designed to minimize fugitive emissions during loading, operation and maintenance.

v) *Distribution Pressure Regulating Station or District Regulating Station (DPRS)*: Located at various demand centers for domestic / commercial users typically consists of:

- Gas filter
- Heater (if required)
- Pressure reduction skid comprising active and monitor combination with minimum 50% redundancy with stream discrimination arrangement, including slam shut valve for over and under pressure protection with additional feature of under pressure protection if required (stream redundancy shall not be less than 2+1).
- Inlet and outlet isolation valves.

vi) *Individual Pressure Regulating Station (IPRS)*: Located at the premises of an individual customer and having facilities similar to DPRS however, monitor regulator may or may not be provided. Metering facilities may or may not be part of this station.

vii) *Service Regulators*: Usually located at customer premises for maintaining supply pressure and designed to maintain safe condition even in the event of rupture in the regulator downstream section.

#### Network Design Requirements

The design of CGD Networks and its components shall be such that it ensures:

- Supply of gas at constant volume into a system, which fluctuates in pressure between pre-determined upper and lower limits in the distribution network, or
- Supply of gas at a constant pressure at consumer end, and
- The design should recognize the need for safe guard against malfunction of any equipment and provide sufficient redundancy to ensure that the supply is secured against such malfunctions.

Facilities forming part of CGD networks shall be designed considering:

- Range of flow rates and pressures required in various sections of the network
- Quality of gas, including cleanliness in respect of both solid and liquid particles.
- Metering requirements.
- Noise control and
- Corrosion Protection

Necessary calculations shall be carried out to verify structural integrity and stability of the pipeline for the combined effect of pressure, temperature, bending, soil/pipe interaction, external loads, and other environmental parameters as applicable, during all phases of work from installation to operation. Such calculations shall include, but not limited to, the following:

- Buoyancy control and stability of pipeline in areas subjected to flooding / submergence,
- River crossing to be installed by trench less techniques, wherever soil data is favorable for such installations,
- Damage potential for steel pipeline from hazards associated with earthquake, if applicable.

#### Layout of Station Facilities

The following aspects are to be considered in deciding layout of facilities at CGS, DPRS, IPRS, etc.

- i. Type and size of equipment.
- ii. P&IDs
- iii. Utility requirement.
- iv. Venting wherever required.
- v. Operation and Maintenance philosophy.

#### (a) City Gate Station

As far as possible the city gate station (CGS) shall be installed at the periphery of populated area. The entity should make best endeavor to have more than one CGS for supply security.

Inter distance between various facilities required at CGS shall be as per Table - 1.

Sr. No.	From / To	1	2	3	4	5	6
1	Compound Wall	-	6	6	6	6	6
2	Control Room / Office Building / Store	6	-	12	12	2	15
3	Pressure Regulation and /or Metering	6	12	-	2	12	15
4	Odorant System	6	12	2	-	12	15
5	Electrical Sub Station	-	2	12	12	-	15
6	Gas fired heaters	6	15	15	15	15	-

**Notes :**

1. All distances are in meters. All distances shall be measured between the nearest points on the perimeter of each facility.
2. For all the distance from the compound wall, the distance mentioned in this table and the local byelaws, whichever is higher is to be considered.

#	As per State	Electricity	Board
	recommendations.		

Properly laid out roads around various facilities shall be provided within the installation area for smooth vehicular access.

Facility shall be provided with proper boundary wall / fencing with gate(s) in line with MHA (Ministry of Home Affairs) guidelines.

Buried piping inside the CGS area shall have a minimum depth of cover of 1.2 m. Where buried pipes come out of the ground, the underground coating on the pipe will continue for a length of at least 300 mm above ground.

Platforms and crossovers shall be provided for ease of operation and maintenance of equipment and piping where required.

Provision should be made for venting, purging and draining all sections of pipe work and equipment that may have to be isolated during construction or maintenance.

All vents shall be routed to a safe area and in a manner that gas vented out is blown away from the nearest building. Height of vent shall be minimum three (3) meters above working level. Distance between vent and boundary wall / fence shall be minimum five (5) meters.

Gas detectors shall be installed at strategic locations covering to detect any gas leakage.

In case fired gas heaters are installed for heating of gas, all other facilities handling gas should be located down wind from heaters.

**(b) Distribution Pressure Regulating Station (DPRS) and Individual Pressure Regulating Station (IPRS)**

DPRS facilities can be located above ground or below ground.

In case DPRS is located below ground, the facilities shall either be inside a enclosed chamber with a provisions for entry of authorized personnel or be a buried hermetically sealed module type with proper cathodic protection.

For below ground installations, the vent line shall be terminated at a minimum height of three (3) meters above the ground level.

IPRS shall normally be located above ground.

DPRS/IPRS installed above ground shall be provided with proper security fencing as per requirement of local authorities. The distance between fencing and the wall of nearest building / structure shall not be less than two (2) meters.

**[NOTES:**

- i. The consumer, shall be responsible for ensuring the separation distances for customer owned IPRS
- ii. Customer shall ensure that IPRS installation has been independently approved by certified third party agency before the entity supplies the gas.
- iii. The consumer shall ensure recertification once in 3 years.

**Requirements for Electrical Installations in CGD Network**

All electrical equipment / installations shall meet following requirements:

- Electrical area classification of installation, as basis for selection of Electrical Equipment, shall follow IS-5572.
- The specification of Electrical equipments shall be in line with IS - 5571, "Guide for selection of Electrical Equipment for Hazardous Area".

- Fire protection in Electrical installations shall be provided as per requirements specified in this standard.
- All electrical equipment, systems, structures and fencing, etc. shall be suitably earthed in accordance with IS 3043. The earthing system shall have an earthing network grid with required number of electrodes. All Electrical equipment operating above 250 volts shall have two separate and distinct connections to earth grids. Separate earthing grid shall be provided for instrument and electrical power.
- Lightning protection shall be provided as per the requirements of IS:2309. Self conducting structures having metal thickness of more than 4.8mm may not require lightning protection with aerial rod and down conductors. They shall, however, be connected to the earthing system, at least, at two points at the base.

#### *Instrument and Control System*

Instrumentation and control system for the CGD networks, shall in general meet the requirement of API Standards: API-RP-551, 552, 553, 554, 555 and 556 "Manual on Installation of Refinery Instruments and Control Systems" to the extent applicable.

#### **Buildings Intended for Human Occupancy and Location Classes for Design and Construction**

For the purpose of determining number of buildings for human occupancy and Location Classes, 1 - mile distance shall be replaced by 1600 m and fractions thereof.

In case of cluster of buildings, Location Class 2 or Location Class 3 may be terminated a distance of 200 m from the nearest building in the cluster.

Location Class 2 or 3 shall be terminated at least 200 m from the end dwelling i.e.

dwelling located at the boundary of the Location Class 2 or 3 as the case may be.

When presence of multi-story buildings alone result in Location Class 4, the Location Class 4 ends 200 m from the nearest building with 4 or more stories above ground.

This standard does not allow Design of pipelines and piping as per Location Class 1, Location Class 2 and Location class 3.

Location Class 1, 2 and 3 shall be used only for re-certification of existing Installations and facilities, which were laid/built/constructed before the date of notification of these regulations.

#### **STEEL PIPE**

##### **Additional Requirement for Nominal Wall Thickness**

Consideration shall also be given to loading due to following while selecting nominal wall thickness  $t$  as per ASME B 31.8 as appropriate:

- Overburden loads
- Dynamic and seismic loads
- Cyclic and vibratory loads
- Internal pressure fluctuations
- Geo-technical loads (including slides, differential settlement of piping, loss of support, and thermal effect of the pipeline on soil properties).

In any case minimum thickness of pipe permitted as per this standard shall not be less than 6.4mm, irrespective of the grade of the pipe material.

In all existing cases where thickness of pipe is less than 6.4 mm, Quantitative Risk Assessment shall be carried out and the risk level shall be reduced to ALARP (As low as reasonably possible).

##### **Design Factors F and Location Classes**

Design factor corresponding to Location Class 4 shall only be used.

All exceptions to basic design factors to be used in design formula shall be as per Table – 2 of this standard.

### Pipelines or Mains on Bridges

Pipeline on bridges should be avoided. Under unavoidable conditions, pipeline installed on railroad, vehicular, pedestrian, or other pipeline bridges, a design factor of 0.40 shall be used for Location Class 4.

In cities where crossing the river through HDD crossing is not possible, pipeline laying on river bridges is permitted.

### Metering Facilities

Upstream dry gas filter(s) shall be installed when rotary or turbine meters are used.

### Pressure / Flow Control Facilities

(a) Protection against over pressure of pipeline or mains downstream of city gate station (CGS) shall be provided as follows:

(1) The provision of *Active / Monitor Regulator System* (i.e. monitor regulator in series with a controlling (active) regulator) shall be the principal method of controlling pressure.

[Note : To avoid problems associated with a regulator being at rest for prolonged periods it is recommended that the monitor regulator is so impulsed that it can also operate as a first stage regulator.]

(2) Adequately sized pressure relief valve(s) could be used for overpressure protection downstream of controlling regulator(s) provided Quantitative Risk Assessment is made for environmental hazards (fire / explosions) associated with large release of gas volume of gas release and the risks are found within acceptable level.

Pressure relief valve(s) should be carefully sized to meet their required duty and to minimize the volume of gas released. The speed of relief valve opening should be adequate and they should re-seat cleanly when normal pressures are restored. The relief valve should be installed and provided

with test connections in the impulse pipe work in such a way as to enable them to be set up and tested in-situ.

(3) Over pressure shut-off valve(s) or Slam-Shut Valve(s) upstream of the controlling regulators are preferred as overpressure protective devices instead of pressure relief valves. Being ultimate overpressure protection for the pipeline system, it is essential that the Slam-Shut valves are fast closing, highly reliable and secure valve.

(b) The isolation valve of the sensing lines of regulators and slam shut valves should have provision for locking in open position.

(c) Additionally suitable gas heaters upstream of regulators / control valves/ pressure reduction system should be provided in case after pressure let down operating conditions would result in low temperatures beyond design conditions of downstream facilities.

(d) Sound pressure levels shall be limited to the values prescribed by Environmental Authorities but in no case it shall exceed 110dbA.

Table 2 - Design Factors for Steel Pipe Construction				
Facility	Location Class			
	1*	2*	3*	4
Pipelines	0.72	0.60	0.50	0.40
Crossings of roads, without casing:				
(a) Private roads	0.72	0.60	0.50	0.40
(b) Unimproved public roads	0.60	0.60	0.50	0.40
(c) Roads, highways, or public streets, with hard surface	0.60	0.50	0.50	0.40
Crossings of roads, with casing:				
(a) Private roads	0.72	0.60	0.50	0.40
(b) Unimproved public roads	0.72	0.60	0.50	0.40
(c) Roads, highways, or public streets, with hard surface and Railway crossings	0.72	0.60	0.50	0.40
Pipelines on bridges	0.60	0.60	0.50	0.40
Parallel Encroachment of pipeline on roads and railways				
(a) Private roads	0.72	0.60	0.50	0.40
(b) Unimproved public roads	0.72	0.60	0.50	0.40
(c) Roads, highways, or public streets, with hard surface and Railway crossings	0.60	0.60	0.50	0.40
Pipeline on bridges	0.50	0.50	0.50	0.40
River Crossing- open cut <sup>[1]</sup>	0.72	0.60	0.50	0.40
Horizontal Direction Drilling (HDD) <sup>[1]</sup>	0.72	0.60	0.50	0.40
Compressor station piping	0.50	0.50	0.50	0.40
Fabricated assemblies (scraper traps, SV stations, pressure/flow control and metering facilities, etc.) <sup>[2]</sup>	0.60	0.60	0.50	0.40
Near concentration of people in Location Classes 1 and 2 <sup>[3]</sup>	0.50	0.50	0.50	0.40

**Notes:**

- 1 Higher thickness may be used if required to control stresses or stability during installation and operation.
- 2 Thicker pipe in Location Class 1 is required throughout the assembly and for a distance equal to lesser of 5 diameters or 10 ft in each direction beyond the last fitting.
- 3 Near concentration in Location Class 1 and 2 means places of public assembly (school, temple, church, hospital, club, markets places etc.) used by 20 or more people frequently.

\* Location Class 1, 2 & 3 shall be used for the purpose of recertification of Existing installations only.

(e) Gas velocities in piping up to 20 m/sec before filter and 40 m/sec (120 ft / sec) after filter, at peak flow conditions, may be permitted provided care is taken to ensure that allowable sound pressure values are not exceeded and materials selected are suitable to prevent erosion at such high velocities.

However, the gas velocity shall not cross the recommended velocity given by the Original Equipment Manufacturer for the equipments used in the PRI.

(f) Gas filtration facilities with 100% redundancy shall be provided to avoid damage to instrumentation and other facilities.

(g) Immediately downstream of regulators or control valves, use of conical reducers is recommended.

(h) In order to prevent over pressurization of piping downstream of regulators / control valves, creep relief valve should be provided, if required.

(i) For isolation of the CGS during emergency, quick closing valve (with remote operation facility in case of unmanned station) shall be installed at the inlet of CGS.

#### Protection of pipelines and mains from hazards

When steel pipelines or mains are installed in areas that are normally under water, anti-buoyancy measures adopted shall be such that specific gravity of resulting installation is 1.10 or more.

Pipelines and mains installed on bridges and other locations where they are exposed to accidental damages due to vehicular traffic, suitable barricades / crash guards shall be installed for their protection.

The pipeline in close proximity to unstable structures, landfill sites or where construction could lead to damage to pipeline, should be avoided.

Pipelines and mains installed in the areas

normally under water or subject to flooding (i.e. lakes, bays, or swamps etc.) shall be provided with addition anti-buoyancy measures such as concrete weight coating, geo-textile bags filled with graded stones or anchorages, etc. to prevent floatation. Minimum specific gravity of installation shall be 1.2 after providing anti-buoyancy measures.

#### Cover, Clearance and Casing Requirements for Buried Steel Pipelines and Mains

Minimum depth of cover for buried steel pipelines shall be as per the table given below;

Location	Min. Cover <sup>[1]</sup> (m)
Normal / rocky terrain	1.0
Minor river / unlined canal / nala crossings, tidal areas and other watercourses <sup>[2]</sup>	1.5
Major river crossings <sup>[2]</sup>	2.5
Rivers with rocky bed	1.5
Lined canals / drains / nalas etc.	1.5
Drainage ditches at roadways and railroads	1.0
Rocky Areas	1.0
Cased / uncased road crossings <sup>[3]</sup>	1.2
Cased railroad crossings <sup>[3]</sup>	1.7

#### NOTES:

- Cover shall be measured from the top of coated pipe to the top of the undisturbed surface of soil or the top of graded working strip, whichever is lower. The fill material in the working strip shall not be considered in the depth of cover.
- For river / watercourses that are prone to scour and / or erosion, the specified cover shall be measured from the expected lowest bed profile after scouring / erosion. Where scour level cannot be established, an additional cover of minimum 1 meter shall be provided from the existing bed of the river/water course.
- The cover shall be measured from the top of road or top of rail, as the case may be.

Whenever the above provisions of cover cannot be provided due to site constraints, additional protection in form of casing/ concreting etc. shall be provided.

#### **Clearance between Pipelines or Mains and other underground structures**

(a) When a buried steel pipeline or main has to cross any existing underground pipeline, cable, drain or other services, the pipeline shall be laid at least 300 mm below from such services.

(b) When laid parallel to any existing underground cable, drain or other utilities, the pipeline or main shall be laid with a clear distance of at least 300 mm from existing utility.

(c) As far as practical, a minimum separation of three (3) meter should be maintained between the steel pipeline or main and footing of transmission tower.

(d) A clearance sufficiently large to avoid electrical fault current interference shall be maintained between the pipeline and the grounding facilities of electrical transmission lines.

(e) Clear distance between new steel pipeline or main running parallel to existing pipeline should be minimum 5.0 meters when heavy conventional construction equipment is expected to be utilized. This distance may be reduced, after careful assessment of construction methodologies, to three (3) meters, provided it does not result in unsafe conditions during construction. Existing pipeline should be clearly marked on the ground during construction. Bi-language (local language and Hindi / English) caution signs should be installed while working in such areas.

(f) While laying more than one new hydrocarbon pipelines or mains in the same trench, clear separation of minimum 500 mm shall be maintained between adjacent pipelines.

(g) No steel pipeline or main should be located within three (3) meters of any habitable dwelling or any industrial

building unless it is provided with at least 300 mm of cover over and above minimum cover specified under Table - 3 above or special protective measures such as concrete slab, steel casing are provided.

#### **Casing Requirements under Railroads, Highways, Roads or Streets**

Steel casing at road/railway crossings, when provided to meet statutory requirements, shall be designed in accordance with API 1102. Casing pipe diameter shall be minimum two pipe sizes bigger than carrier pipe. In case of PE, the casing can be RCC pipe of min NP3 class.

#### **Bends, Elbows and Milters In Steel Pipelines and Mains**

Milters bends and wrinkle bends are not permitted in pipelines and mains used in CGD networks regardless of operating hoop stress.

Cold field bend radius for pipes of size NPS 20 and larger shall be minimum 40 times the pipe diameter.

As far as possible use of short radius elbows should be avoided.

#### **Hot Taps**

Split tees designed to fully encircle the pipe shall be used for making hot taps. The split Tees shall be designed considering a minimum design factor  $F = 0.40$ .

However, in case of Hot taps of size upto  $1/4^{\text{th}}$  of the nominal bore of the main pipeline, use of weldolets is permitted in place of split tees.

Full bore ball valve shall be used when making branch connections using hot taps.

Recommendations as per API RP 2201 - Recommended Practice for Safe Hot Tapping Practices in the Petroleum and Petrochemicals Industry shall be followed while carrying out hot tapping works.

Where it is not possible to maintain the clearances, cover, vent locations etc. mentioned in this standard, the entity shall carryout special design and construction methodologies through experienced personnel/consultant and seek clearance from the Board.

### Testing after Construction

#### General Provisions

Proper communication facilities shall also be arranged for during testing.

Testing equipments / instruments shall be properly inspected and shall have valid calibration certificates before they are used for testing.

Test Required to Prove Strength of Pipelines and Mains to operate at Hoop Stresses of 30% or more of Specified Minimum Yield Strength of Pipe

All buried steel pipelines and mains shall be pressure tested after installation using water as a test medium. Minimum test pressure shall be equal to 1.4 times *Maximum Allowable Operating Pressure*.

Test procedure as per ASME B 31.8 Appendix N "Recommended Practice for Hydrostatic Testing of Pipelines in Place" shall be followed.

Hold-up time for the pressure testing shall be minimum 24 hours for underground and four hour aboveground pipeline.

#### Safety During Tests

Relevant Warning Signs shall be displayed at the test area.

The test area shall be properly cordoned to prevent any accidents.

A proper Emergency Response Plan shall be in place and emergency contact numbers of relevant agencies should be visible.

### Commissioning of Facilities

Appropriate Work Permit should be issued based on the kind of activity.

Fire fighting equipments should be available during commissioning.

Proper communication facilities should also be arranged for.

A proper Emergency Response Plan should be in place and emergency contact numbers of relevant agencies should be available.

### OTHER MATERIALS

#### Ductile Iron Piping System Requirements

Use of ductile iron piping is not permitted for CGD networks as per this standard.

#### Design of Plastic Piping

Plastic pipe shall not be used for *Pipeline and Distribution Mains* operating at pressure in excess of 100 psig.

Use of thermosetting plastic piping is not permitted as per this standard.

#### Plastic Pipe and Tubing Design Formula

Nominal wall thickness of plastic pipe shall be calculated as per following formula:

$$P = 2S * (t / (D-t)) * 0.32$$

Where

- D = Specified outside diameter in mm
- P = Design pressure in psig
- t = Nominal wall thickness in mm
- S = Long term hydrostatic strength in barg (psig) determined in accordance with applicable pipe specification at temperature equal to 73°F, 100°F or 120°F.

### Thermoplastic Design Limitations

The design pressure shall not exceed 100 psig (7 bar).

Thermoplastic pipe, tubing and fittings shall not be used where operating temperature of the materials will be:

- 1) Below 32°F (0 degree centigrade) or
- 2) Above 120°F (50 degree centigrade) or temperature at which long term hydrostatic strength used in design formula in para 842.31 of ASME B 31.8 is determined, (whichever is lower).

Minimum thickness shall not be less than 2.3 mm.

Pipe wall thickness selected shall be such that it corresponds to Standard Dimension Ratio indicated in Table – 4 below. Pipes with non standard SDR should not be used.

Table 4 - Wall Thickness and Standard Dimension Ratio for Thermoplastic pipes				
Nominal Outside Diameter in mm	Minimum wall thickness in mm for Standard Dimension Ratio, SDR			
	D	17.6	13.6	11
16	2.3	2.3	2.3	2.3
20	2.3	2.3	2.3	2.3
25	2.3	2.3	3.0	3.0
32	2.3	2.3	3.0	3.6
40	2.3	3.0	3.7	4.5
50	2.9	3.7	4.6	5.6
63	3.6	4.7	5.8	7.1
75	4.3	5.5	6.8	8.4
90	5.2	6.6	8.2	10.1
110	6.3	8.1	10.0	12.3
125	7.1	9.2	11.4	14.0
140	8.0	10.3	12.7	15.7
160	9.1	11.8	14.6	17.9
180	10.3	13.3	16.4	20.1
200	11.4	14.7	18.2	22.4

### Design Pressure of Plastic Fitting

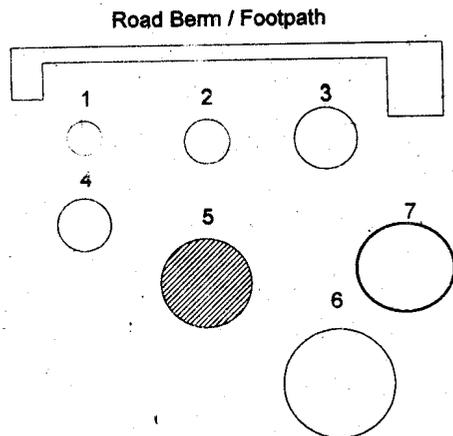
All fittings used shall be electro fusion type. Other types of fittings are not permitted. All PE fittings shall conform to ISO 8085 –Part 3. The wall thickness of the fittings shall be more or equal to the wall thickness of the pipe jointed.

### Protection from Hazards

In addition to requirements specified under Para titled *Protection of Pipelines and Mains from Hazards* in this standard, following additional requirements shall be complied with.

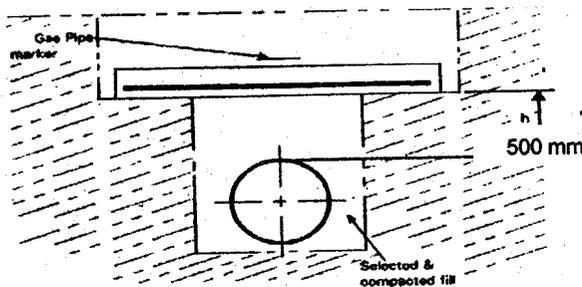
The relative position of CGD network with respect to other underground utilities shall be as given in Figure 1:

Where open cut techniques are used, a warning tape of Yellow colour shall be laid 200 mm above the pipe.

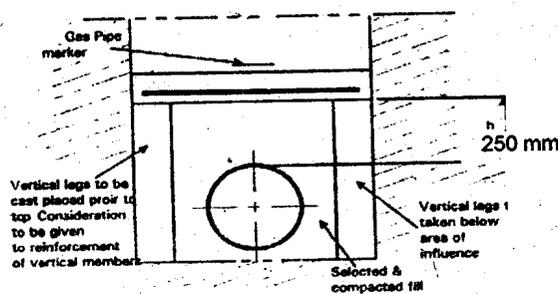


- 1 / 2 - Elec. Cable (Low Voltage)
- 3 Telecom Cable
- 4 Elec. Cable (High Voltage)
- 5 Gas Pipeline
- 6 Water Pipeline / sewage line
- 7 Other hydrocarbon product pipelines

**Figure 1 – Relative Position of Gas Pipeline and Distribution Mains**



**Figure 2 (a) - Concrete Slab**



**Figure 2 (b) - Concrete Slab with supports**

When insisted by the authorities at identified locations, a layer of brick / concrete or impact resistant tape may be laid over pipeline as a protection against excavating machinery as indicated in the Figure – 2 (a) or (b).

### Plastic Pipe and Tubing Joints and Connections

#### General Provisions

Threaded joints in plastic pipe are not permitted.

Plastic piping joints shall be made by Electro Fusion fittings only. Fusion fittings shall have inbuilt positioning provision upto 60 mm and beyond external clamp system. Jointing of plastic piping by butt fusion method, solvent cement method, adhesive method, heat fusion method or by means of compression couplings or flanges is not permitted. Recommendations of the fitting manufacturer shall be followed in this regard.

All electro fusion fittings shall be bar coded and the control unit shall be equipped with bar code reader to directly transfer fusion data to control unit. Bar coding shall be long lasting even when the joint is buried in corrosive soil, alternatively each fitting shall have a data card which can be read by the computer and thereafter the card is positioned with the joint.

### Installation of Plastic Piping

#### Installation Provision

Use of thermoplastic piping in above ground piping is not permitted unless the piping is completely protected against deterioration (e.g. high temperature, ultra violet degradation) by corrosion protected metallic or reinforced concrete or Glass Reinforced Plastic (GRP) enclosure.

### Direct Burial

Directly buried thermoplastic pipe shall have a minimum thickness of 2.3mm.

Trench width shall be at least 300 mm.

The bed of the trench shall be free of sharp objects, stones etc. In rocky areas trench shall be padded with soft soil or sand to minimum depth of 150 mm below the pipe.

### Bends and Branches

Branch connections shall be made only by socket type electro fusion tees or electro fused Saddle connections.

### Hot Taps

Use of special saddle or split tee type electro fusion fittings for hot tapping is permitted.

### Testing Plastic Piping after Construction

#### General Provisions

Testing equipments / instruments shall be properly inspected and shall have valid calibration certificates before they are used for testing.

Proper communication facilities shall be available during testing.

#### Test Requirements

Thermoplastic piping shall not be tested at material temperature above 120°F (50 degree centigrade).

Test medium shall be air or nitrogen for test pressure up to 100 psig. For test pressure higher than 100 psig, water shall be used as test medium.

Test duration shall be minimum 24 hours for plastic distribution mains of length greater than 1 km and minimum 4 hours for length shorter than 1 km.

In case water is used as test medium, test duration shall start after achieving thermal stabilization.

Suitable relief valve set at 5% higher than test pressure shall be fitted at the test heads to avoid over pressurization during testing.

### Test Requirements for DPRS and IPRS Piping

DPRS and IPRS piping shall be subjected to strength test and leak test, before commissioning, as given in table-5 below:

Design Pressure	Min. Test Pressure	Test medium	Min. Test Duration
Up to 138 mbarg (2 psig)	3.45 barg (50 psig)	Air	2 hours
From 138 mbarg to 4.14 barg (2 to 60 psig)	1.5 times Design Pressure	Air	2 hours
Above 4.14 barg (60 psig)	1.5 times Design Pressure	water	2 hours

Acceptance criteria shall be no pressure loss after accounting for temperature variation.

#### Safety During Testing

Relevant Warning Signs shall be displayed along the test section.

The test area should be properly cordoned to prevent any accidents.

A proper Emergency Response Plan shall be in place and emergency contact numbers of relevant agencies should be available.

### CONTROL AND LIMITING OF GAS PRESSURE

#### Control and Limiting of Gas Pressure in High Pressure Steel, Ductile iron, Cast Iron or Plastic Distribution system

Use of automatic shut-off device (slam shut valves) as a means of accidental over-pressure of high pressure distribution system is preferred over pressure relief

valves or weight-loaded relief valves or spring loaded diaphragm type relief valve.

DPRS/IPRS shall normally be equipped with minimum two safety devices. At least one of them shall be a slam shut valve operating on over pressure for those installations whose inlet operating pressure is more than 60 psig.

To prevent over pressurization of downstream system during periods of low flow, creep relief valve can be used. If a monitor regulator is installed in the system, it shall be such that it is the first acting device in the pressure safety system.

#### **Control and Limiting of Gas Pressure in Low Pressure Distribution Systems**

A combined Over Pressure Shut-Off (OPSO) regulator with built-in creep relief is also acceptable device for control and limiting of gas pressure in low pressure distribution system.

Control and limiting of pressure of gas delivered to domestic, small commercial, and small industrial consumers from high – pressure distribution system.

Service regulator with a built-in Under Pressure Shut-Off (UPS) regulator is also acceptable device for control and limiting of gas pressure to consumer.

#### **VALVES**

As far as practical, the valves in the distribution mains should be installed below ground with the valve operating device readily accessible. A stem extension may be used to elevate the valve operator above ground provided it does not cause obstruction to traffic and / or pedestrians. In such cases, sealant / lubrication points and vent pipe work shall also be extended above ground for ease of operation.

Valves of size 4 inches and above shall be fitted with double block and bleed facility.

Spacing between valves on distribution mains, whether for operating or emergency purpose shall be decided as follows:

#### **(a) High Pressure Distribution System:**

Based on operation and maintenance flexibility requirements, valves may be provided on:

- Either side of water body crossings.
- Strategic take-off points including future developments.

Based on risk associated with emergency situations requiring speedy isolation and resulting number and type of customers affected by such emergencies etc.

- In steel distribution mains valve spacing should normally not be more than 3 km,
- In plastic distribution mains valve spacing should normally not be more than 1 km.

The above spacing, however, may be increased or decreased based on risk assessment and to allow location of valve at an easily accessible location.

#### **(b) Low Pressure Distribution System:**

Valves in low pressure distribution system may be provided at locations requiring isolation for ease of maintenance in addition to those required as per following Para.

#### **Distribution System Valves**

A valve shall be installed on the inlet and outlet piping of each regulator station controlling flow or pressure of gas in distribution system. The distance between the valve and regulator(s) shall be adequate to allow operation of the valve during emergency (such as large leakage or fire). These valves should be located in a manner that they are easily accessible during emergency.

**VAULTS****Accessibility**

In case part of Vault or Pit extends above ground (e.g. to avoid water flooding in low lying areas that cannot be avoided), then, it shall be located such that it causes minimum interference / hindrance to the traffic / pedestrians.

**CUSTOMERS' METERS AND REGULATORS****Location for Customers' Meter and Regulator Installations**

Customer meter shall preferably be located on the wall outside the kitchen, however, when customers' meters and regulators are located inside the building, it should be located in a well ventilated area.

**GAS SERVICE LINES****General Provisions Applicable to Steel, Copper and Plastic Service Lines**

Service lines shall be sized for a maximum flow velocity of 15 m / sec.

**Installation of Service Lines**

All plastic pipe and fittings shall be laid underground and shall not be exposed.

The buried service lines shall be provided with a minimum cover of 1.0 m. Where it is impractical to provide 1.0 m cover due to physical constraints, additional protective measures such as concrete slabs or high impact resistance plastic sheets shall be installed at least 300 mm above the service line. In no case the depth of cover shall be less than 600mm.

For transition from plastic pipe to GI pipe, transition fittings shall be used. Plastic part of transition fitting protruding above ground shall be protected by encasing it with concrete guard.

In case carbon steel section beyond transition fitting is below ground, it shall be protected against corrosion by

minimum 400 micron thick 2 pack high build epoxy coating.

Above ground service piping shall be Galvanized Iron or copper or carbon steel protected by anti corrosive coating.

Wherever the service line riser is installed in confined spaces like basements, only welded risers shall be used. The gap between riser and wall shall be minimum 25 mm to and shall be supported at every 2 m. Ventilators shall be provided in confined space.

**Type of Valves Suitable for Service Line****Valves**

Soft seated valves in service lines are not permitted.

**Steel Service Lines****Design of Steel Service Lines**

All underground steel service lines shall be joined by welding using qualified welding procedure and welders.

**Installation of Service Lines into or Under Building**

Use of sleeve for laying steel pipe through wall, or under outer wall foundations of building or under the building is not recommended. Such underground lines shall be protected against corrosion by minimum 400 micron thick 2 pack high build epoxy coating.

**Ductile Iron Service Lines**

Use of ductile iron service lines is not permitted.

**Plastic Service Lines****Design of Plastic Service Lines**

Only electro fusion fittings shall be used in plastic service piping including pipe to pipe joints.

### Installation of Plastic Service Lines

Installation of plastic pipe above ground is not recommended. In case any section of plastic pipe extends above ground, it shall be completely encased in a concrete casing. Use of flexible conduit is not permitted.

### Installation of Plastic Service Lines into or Under Buildings

Installation of plastic service lines under or inside the building is not permitted as per this standard.

### Service Line Connections to Mains Service Lines Connections to Steel Mains

Service line connection to steel mains shall be as follows:

- In case of plastic service line, connection to underground steel main shall be by use of transition fitting in plastic piping with steel part of transition fitting welded to steel main piping.
- Direct connection of galvanized iron or copper service lines to underground steel mains is not permitted.

### Service Lines Connections to Plastic Mains

- In case of plastic service line, connection to plastic main shall be by

use of electro fusion fittings only.

- Direct connection of galvanized iron or copper service lines to underground plastic mains is not permitted.

### PIPING BEYOND CONSUMER METER SET ASSEMBLY TO GAS APPLIANCE

Piping connecting consumer meter set assembly to consumer gas appliance shall be either GI or copper up to last valve located near actual appliance.

A metal seated leak detection cum excess flow shut off valve shall be provided near the appliance located at easily accessible location by the authorised entity. The valve shall be designed to shut off in case of sudden leakage of gas from the hose or in case of burner flame-off condition.

Appliance shall be connected to gas line with a flexible and braided hose as per IS 9573. The hose shall not be exposed to internal or external temperature exceeding the recommended limits. Care shall be exercised not to exceed permissible bend radius specified in IS: 9573 (Table 1 - Dimensions and bend radii for rubber hoses).

Length of this hose shall be kept minimum. However, in no case the length shall be more than 1.5 meters. Both ends of the hose shall be firmly clamped on the nozzle by metallic clamps.

**Schedule – 1E****OPERATING AND MAINTENANCE PROCEDURES**

The present standard covers the City Gas Distribution, Design, Installations, Commissioning and Operation in general. The Operation and Maintenance Procedures prescribed herein under are for general guidelines to be implemented as per the provisions of the standard. The entities engaged in laying, building, operating and expending City or Local Gas Distribution Network will create an organization handling operating and maintenance including meeting the emergencies arising in the system.

The main operation area would be to handle gas receipt, odourisation and pressure reduction (including heating the gas, if required) and managing the district regulating station, field regulators and gas metering for all kind of customers such as domestic, commercial and industrial.

The gas measuring billing including energy balance shall be part of the operation. The safety, health and environment including compliance of regulatory measures shall be a part of the responsibility of the operating group. The maintenance activity shall cover the maintenance and upkeep of the City Gate Station(s), District Regulating Stations, Field Pressure regulating Stations and end consumers facilities, sectionalising valves and other assets and facilities. This inter-alia will evolve regular maintenance, route patrolling to contain third party damages and maintenance of safety provisions including offsite emergency plan and onsite emergency plan, mutual aid and disaster management plan. The following sections briefly refer to such activities:-

1. Operating and Maintenance Procedures affecting the safety of gas transmission and distribution facilities.
2. External Corrosion Control
3. Odourisation

**OPERATING AND MAINTENANCE PROCEDURES AFFECTING THE SAFETY OF GAS TRANSMISSION AND DISTRIBUTION FACILITIES****Basic Requirements**

The entity operating a CGD network shall have an effective Health, Safety and Environment Management System (HSE Management System) and Management of Change System in place to ensure overall safety during operation and emergencies.

The HSE Management System shall cover the following key elements.

- HSE Policy Statement
- Organizational objectives to ensure implementation of the policy
- Set of detailed processes supporting each activities of the HSE management system
- Implementation of control and monitoring activities
- Periodic monitoring, review and reporting of performance
- Audit of internal and external activities

Following processes shall be prepared as part of HSE Management System:

- Emergency Management System to safely handle emergencies with minimal risk.
- Disaster Management Plan encompassing offsite and onsite emergency response plans and mutual aid system
- Hazard Identification Processes such as HAZOP
- Risk Analysis and Risk Assessment Process such as QRA
- Safety and Technical Competency System.

- An Operational Health and Safety Legal applicability Matrix as well as Operational Health and Safety (OH&S) Legal Compliance matrix.
- An Environmental Legislative Register (ELR) to provide the user a register of practical implementation in terms of day-to-day activities with which the operation has to comply. Of particular relevance are the details of consents / permits / authorization or licenses required for an activity and from whom and how it is obtained.
- Additional practices like carrying out periodic Work Place Inspection of all Critical Activities by senior management team, implementation of Behavior Based Safety Programs and implementation of Safety Intervention System should be considered to improve the safety culture of the organization.

For Safe Control of Operations (SCO), a systematic *Management of Change* process shall be developed to identify and consider the impact of changes to pipeline systems and their integrity. Management of Change should address technical, physical, procedural and organizational changes of the system, whether permanent or temporary

**GIS based asset management system:**  
The entity operating a CGD network shall put in place a GIS (Geographical Information System) based system with the intention of capturing the entire underground gas network and customer database. This system shall include details of the entire pipe network. All the pipelines laid shall be identified in GIS through geo-referenced co-ordinates. All failures in the pipelines shall be mapped in GIS for investigations.

The system shall include the following features:-

- A) Entire network view ability on one platform to manage the huge database.
- B) All network extensions and expansions to be mapped and

updated in GIS with geo-referenced co-ordinates for better identification.

- C) Immediate availability of the new constructed pipeline locations and customer base information to the user groups allowing related analysis, planning and future projections of new possibilities of pipelines, customers, gas volumes and revenue including jobs to be undertaken by third party.

GIS shall be used during the entire life cycle of the asset.

### Essential Features of the Operating and Maintenance plan

Operating and Maintenance procedure should also address the following;

- Preventive maintenance plan and procedures required in accordance with recommendations of Original Equipment Manufacturer(s) (OEMs).
- A well-designed system of periodic inspection for all facilities.
- Calibration plan for meters, gauges and other instruments affecting quality and safety of system.
- Plan for functional testing of pressure regulation and control equipment (Active / Monitor Regulator, Slam Shut Valve, Pressure Relief Valves, control valves etc.).
- Isolation scheme (complete with drawings showing the orientation of the facilities, location of major services, power switches, entry and emergency exits, fire assembly points etc.). It should cover main components, including their identification number.
- Limits of operating parameters (pressure, temperature, flow, levels etc.)
- An Alarm Management System to monitor, analyze, segregate and appropriate action.
- "Work Permit" procedures to be followed by maintenance personnel for protection of property from damage and fire etc.
- Procedures to log operation and maintenance activities.

- Personal Protective Equipments (PPE) to be used by all operating personnel.
- Do's and Don'ts and safety precautions during operation and maintenance.

Provisions of periodic inspections along the route of steel pipelines or mains shall include all sections of pipelines and mains irrespective of operating hoop stress.

### Essential Features of the Emergency Plan

Entities operating CGD Networks shall provide for an Emergency Control Room, manned round the clock and equipped with effective communication system and emergency vehicles fitted with communication facilities, first aid equipment, fire extinguishers, gas detectors, repair kits and tools, maps, plans, material safety data sheets etc. at its disposal.

The CGD entity shall put in place an Emergency Response Plan, a Disaster Management Plan and a Pandemic Plan. While preparing these plans the entity shall take into confidence the various local authorities (i.e. The Fire authorities, Police authorities, Health authorities, local administration, Disaster Management authorities, Mutual aid, Factory inspectorate etc) and clearly elaborate on their role in case of an incident.

### Accident / emergency reporting procedures

The entity shall put in place a documented in house accident reporting procedure and its response plan for all kind of accidents/emergencies such as (i) near miss accidents, (ii) accidents without loss of production, supply or human life, (iii) accidents with loss of production, supply or human life, (iv) fire (v) explosion or other emergencies leading to disaster effecting outside public. The level of reporting shall also be mentioned in the procedure. The Board shall be informed in respect of the accidents/emergencies under category (iii), (iv) and (v) above with remedial measures

for avoiding recurrence in the format placed at Enclosure-I of Schedule -1E. The entities shall investigate and report each of the above incident/accident to different level as specified in the above enclosure.

Notwithstanding anything contained herein under, in case any incident escalates and gets media attention or gets published in newspapers, the entity shall proactively inform the Board of the same immediately with preliminary investigation report. Further, detailed report of the findings shall be furnished to the Board within a period of thirty days.

### Written Emergency procedures

Special attention should also be given to following while preparing Emergency procedures:

- "Do's and Don'ts" during and emergency and other safety instructions.
- Telephone numbers of emergency response team members, emergency services, mutual aid industries, district authorities, law enforcing agencies, contractors / vendors, fire services, district civic authorities, etc.
- Actions to be taken during an emergency including warning / cordoning off of affected area and informing the civil authorities and / or other utility companies affected by any emergency.

### Training

- Training shall be imparted to the CGD Network operating and maintenance staff at the time of induction followed by periodic refresher courses. The training program should cover following:
  - Hazardous characteristics of Gas.
  - Familiarization with commissioning, operation and maintenance procedures.
  - Hands on experience on operation of emergency and manual shut down systems.
  - Effective isolation of any gas leak.
  - Safety regulations and accident prevention.

- Firefighting equipment operation and its upkeep.
- First Aid and Housekeeping

The training process should be subjected to periodic internal audits to ensure effective implementation and improvement.

Training shall include mock safety drills, at least twice a year.

Training program shall also envision imparting training to employees and contractors of other utility companies sharing the same corridor to make them aware about hazards associated with leak / damages.

### **Liaison**

Entity owning or operating CGD networks should have designated personnel to liaison with other existing utility companies, district local administration and gas supplying companies. A utility co-ordination team consisting of representatives from all other utility companies and civil authorities can substantially improve safety records.

### **Educational Programs:**

Entities operating CGD Networks shall undertake a comprehensive public awareness program for consumers and general public. The educational material shall be prepared in local, Hindi and English language. Local audio visual media available should be used for such educational programmes.

### **Pipeline Failure Investigation**

Besides reporting and recording of all instances of asset related failures, damage to the environment and third party property shall also be recorded.

Failure investigating team shall comprise personnel trained in failure investigations.

The data from all failure occurrences should be analyzed for trends so that proper initiatives including training could be taken to minimize failures.

### **Prevention of Accidental Ignition**

Site Specific Risk Assessment should be carried out before commencing any repair activities. The outcome of such risk assessment should be documented and considered while preparing safety plan for the repair work.

No hot work should be undertaken without proper work permit issued by authorized personnel.

### **Blasting Effects**

No blasting should be carried out within city limits and near any third party structures or facilities. In any case blasting shall only be used after proper authorization from civil authorities even if it is safe to carryout such operations.

### **DISTRIBUTION PIPING MAINTENANCE.**

#### **Markers**

Markers shall be positioned along entire network at a maximum spacing of 100 meters in urban area and 200 meters within industrial parks for steel mains.

Additional warning signs or markers shall be installed to indicate the presence of a pipeline at road, highway, railroad, stream, canal, nala crossings and other locations where there is a possibility of damage or interference.

A marker shall be marked in bold and legible local language and Hindi / English with at least the following:

- Name of CGD Network Operating Company
- Contact Telephone Number to report emergency.
- Location Area Code
- Warning - "High Pressure Gas Line, Dial before Digging" etc.

Markers may not be installed for service pipeline within consumer premises, however, the Operating Company shall maintain such service pipeline routing drawings for easy reference. The operating

company shall provide minimum safety information to the consumer/customer before starting the gas supply.

It shall be mandatory for the group housing societies/cluster of houses etc. which are providing the inbuilt facilities for the natural gas connectivity to each and every dwelling unit in such buildings to have the line diagrams of the connection piping fixed at the main entrance of such premises.

### Patrolling

Patrolling schedule shall be such that entire primary network is inspected at least once in three (3) month and secondary network is inspected at least once every month to observe surface conditions, construction activity, encroachments, soil wash outs and any other factors that may affect the safety and operation of the network.

### Leakage Surveys

Operating company must have an effective method to identify and locate leakages in the system. Any one or combination of methods described in ASME B 31.8, Appendix M can be adopted based on their effectiveness for the specific areas.

Highly congested areas shall be surveyed using gas detectors at least once in three months. Other less congested areas shall be surveyed at least once a year.

Leakage Surveys using gas detectors shall be done in accordance with the requirements of ASME B 31.8.

Gas detectors, duly calibrated, shall be available at all times in ready use conditions for emergency surveys and use.

### Requirements for Abandoning, Disconnecting, and Reinstalling Distribution Facilities

Abandoning, disconnecting, or reinstalling distribution facilities shall be as per ASME B31.8.

Any activity associated with abandoning, disconnecting, or reinstalling of distribution

facilities shall require Work Permit issued by the authorized person.

### Plastic Pipe Maintenance

The following safety precautions shall be ensured during emergency repairs or breakdown maintenance of pipelines:

- All naked flames, sources of ignition and mobile phones shall not be allowed in the immediate work area.
- Gas level should be monitored during the repair work with gas detectors. The repair shall not be carried out in atmosphere which contains natural gas.
- Adequate fire extinguishing equipment shall be available during such repair.

### Squeezing-off and reopening of Thermoplastic Pipe or Tubing for Pressure Control

Location where Squeezing and reopening is done once shall be marked appropriately to identify that the pipe has been squeezed and reopened.

Squeezing of reopened pipe at the same location is not permitted. Minimum distance between consecutive squeeze-off locations shall not be less than five (5) meters.

### Repair of Plastic Pipe or Tubing

Damaged or defective plastic pipe shall be cut and replaced with new pipe.

Repair of damaged plastic pipe by using repair patches is not permitted.

Only repair method allowed is use of full encirclement split sleeves which shall be in accordance with ASME B 31.8.

### MISCELLANEOUS FACILITIES MAINTENANCE

Flexible steel braided hose used to connect consumer appliances should be inspected at least once every year for leakage, kinking, corrosion, abrasion or any other signs of wear and damage.

Any hose worn out or damaged must be removed from service and replaced.

### PIPELINE SERVICE CONVERSIONS

Steel pipelines and mains used in CGD Network shall not be used for dual service.

Conversion of existing steel pipelines, previously used for service other than natural gas, for use in CGD Networks is not permitted.

### RECORDS

Besides the details of leak records as covered under ASME B31.8 Para 851.6 and 852.6, the CGD Network Company shall also maintain following records/ documents:

- Design specification
- Alignment sheets for primary network of steel pipeline and associated pipe book and other installation and test records
- Surveillance inspection and maintenance records
- Material certification including dimension, metallurgy, destructive and non-destructive testing records, performance and functional test reports
- Welding records including PQR, WPS and welder qualification records
- Commissioning reports
- Non-conformance / deviation records
- Calibration records of Inspection, Measuring, Metering and Test equipment
- Audit compliance reports
- Statutory clearances
- Approved drawings /documents
- HAZOP / Risk Assessment reports and compliance to recommendations of such reports
- All operation and maintenance manuals

**Enclosure-1 of Schedule-1E****Reporting Format**

	Type-I Near Miss Incident	Type-II Without Loss of Production, Supply or Human life	Type-III With Loss of Production, Supply or Human Life	Type-IV Fire	Type-V Explosion /Fire/Gas Leakage/other emergencies involving public
Location	√	√	√	√	√
Time	√	√	√	√	√
First Witnessed by	√	√	√	√	√
Details of Incident	√	√	√	√	√
Action Taken	√	√	√	√	√
Reporting Authority	Operat or (O&M)	Operator (O&M)	Shift I/C	HSE Officer	Section I/C
Internal Investigating Authority	Head (HSE)	Head (HSE)	Head (O&M)	Head (HSE)	Head of Station
External Investigation	X	X	√	√	√
Report to PNGRB	X	X	√ (*)	√ (*)	√ (*)

√ To be filled in/reported

X Not required to be reported

(\*) Shall also include the history of Type-I &amp; Type-II incidents

**Schedule – 1F****CORROSION CONTROL****EXTERNAL CORROSION CONTROL****New Installation/Buried Steel Facilities  
Coating Requirements,**

Coatings shall fulfill following requirements:

- Coating shall provide good electrical isolation between external surface of the pipe and environment.
- Coating shall have sufficient resistance to moisture transmission.
- Coating shall have sufficient ductility to resist cracking;
- Coating shall have good mechanical strength or otherwise be protected to resist damage due to normal handling (including concrete coating application where applicable) and soil stress.
- Coating shall be compatible with Cathodic Protection system and field joint coatings.

For carbon steel pipelines or mains of size NPS 2 and above, 3 Layer Polyethylene or Fusion Bonded Epoxy coating is recommended.

All buried bends and fittings shall be coated with Heat Shrink Sleeves or two pack high build liquid epoxy coating with minimum DFT 450 microns.

**Cathodic Protection Requirement****Electrical Isolation**

Where insulating devices are installed to provide electrical isolation of pipeline systems to facilitate the application of corrosion control, they shall be properly rated for temperature, pressure, and electrical properties and shall be resistant to the gas carried in the pipeline systems. These devices shall not be installed in enclosed areas where combustible

atmospheres are likely to be present unless precautions are taken to prevent arcing.

Pipes shall be installed so that the below grade or submerged portions are not in electrical contact with any casing, foreign piping systems or other metallic structures. This shall not preclude the use of electrical bonds where necessary.

**Electrical Connection and Monitoring Points**

Where a higher current carrying capacity is required, a multi-strand conductor shall be used and the strands shall be arranged into groups no larger than No.6 AWG. Each group shall be attached to pipe with a separate charge. Attaching test leads directly to the pipe by other methods of brazing is prohibited.

When thermit welding process is used for electrical lead installation on pressurized pipelines or mains, precautions shall be taken to avoid possible failure of the pipeline or mains during installation due to loss of material strength at the elevated welding temperatures. Where a thermit welding process is not deemed suitable, consideration shall be given to other methods of installation.

**Electrical Interference**

Electrical interference due to following shall also be considered in cathodic protection design:-

*Fault Currents*

Fault current interference shall be taken into consideration.

Fault current resulting from lighting or upset conditions of electrical facilities

could result in serious damage to coating and pipe wall and danger to personnel. These adverse effects may occur where a pipeline or main is close to the grounding facilities of electrical transmission line structures, sub-stations, generating stations or other facilities that have high short circuit current-carrying grounding networks.

Where a buried pipeline or main is close to grounding facilities, remedial measures may be necessary to control the effect of these fault currents in order to reduce the resultant rise in potential gradient in the earth near the pipeline or main to an acceptable level.

#### *Induced Potential Interference*

Pipelines or mains paralleling alternating current electrical transmission lines are subject to induced potentials. When studies or tests show that alternating current potentials will be or are being induced on a buried pipeline or main, devices shall be installed to reduce these potentials to a tolerable level.

When such pipelines or mains are under construction, or when personnel are in contact with the pipelines or mains, special precautions shall be taken to nullify the possible effects of induced alternating current potentials.

Install bonding across points where the pipeline or main is to be separated and maintain this connection while the pipeline or main is separated.

Make a study in collaboration with the electric company on the common problems of personnel safety, corrosion, electrical interference and lighting problems.

#### **Existing Installations**

##### *Cathodically Protected Pipeline Systems Temporarily out of Service*

Cathodic Protection systems shall be

maintained on any pipeline or main temporarily out of service.

#### *Temporary Cathodic Protection System*

When considered necessary, a temporary Cathodic Protection system with sacrificial anodes shall be installed to ensure adequate protection of pipeline or mains from external corrosion from the time the pipeline or main is laid in the trench till the permanent Cathodic Protection system is commissioned.

The temporary cathodic protection system shall preferably be installed simultaneously keeping pace with the pipeline or main laying/installation work and shall be monitored periodically.

#### **RECORDS**

CGD Network Company shall also maintain following records / documents related to corrosion control:

- Cathodic Protection Design documents
- Soil Resistivity Survey Report
- Electrical Interference Report
- Inspection and maintenance reports
- Material certification including dimension, metallurgy, performance and functional report
- Material test reports
- Approved drawings/documents

**Schedule – 1G****MISCELLANEOUS****ODOURISATION**

Natural gas supplied through CGD Network shall have a distinct odour, strong enough to detect its presence in case of leakage.

A pre – determined quantity, equivalent to a max 12.5 ppm Ethyl Mercaptan, of any other odorant shall be dosed into the gas stream.

Odour level tests shall be carried out to recognise the odour imparted by the gas supplier/distribution company. These tests are to be carried out at various defined locations on the network and at network extreme ends. If odour level falls below the minimum acceptable level same shall have to be intimated to the control room of the gas supplier and accordingly corrective actions are to be taken.

The odorizing equipment shall be located in a separate area at CGS. There should be a clear safety distance of 1.5 m around the odorizing and other facilities at the station to facilitate easy maintenance and personnel movement.

The odorant unloading should be done in a safe way. Precautions for handling odorant shall be prominently displayed.

Odourant absorber like activated carbon saw dust, dry sand and odorant neutralizer like sodium hypochlorite for spillage handling of odourant shall be provided.

Provision should be made for eye wash or emergency shower near odorant handling and injection systems, in case ethyl mercaptan is used as odourant.

Use of personal protective equipment like face shield, mask, rubber hand gloves, gumboot, safety goggles etc. for handling of odourant spillage shall be ensured.

**References**

ASME B 31.8 – Gas Transmission and Distribution Piping Systems (ASME 3 Park Avenue, New York, NY USA 10016. www.asme.org).

API 1104 - Welding procedures and welders for welding of gas pipelines.

ASME Boiler and Pressure Vessel (BPV) Code Section IX - Welding procedures and welders, for station piping.

ASTM A 395 - Valves having shell (body, bonnet, cover and/or end flanges) components made of cast iron and / ductile iron (as per shall not be used in CGD networks).

BS EN 331 - Valves used in service lines of size NPS 2 and below.

ISO 8085 - Electro-fusion fittings for sizes up to NPS 8.

IS-5572 - Electrical area classification of Installation for selection of Electrical Equipment

IS - 5571, "Guide for selection of Electrical Equipment for Hazardous Area"

IS 3043 – For earthing of all electrical equipment, systems, structures and fencing, etc.

IS:2309 – for Lightning protection

IS 9573 – Steel braided Hose

**ANNEXURE - I****List of Specifications of Piping Materials used in CGD Network****Steel Pipe**

API 5L	Specification for Line pipes
ASTM A106	Seamless Carbon Steel Pipe for High Temperature Service
ASTM A333	Seamless and Welded Steel Pipe for Low-Temperature Service

**Galvanized Iron Pipes**

IS 1239 (Part-1)	Steel Tubes, Tubular and Other Wrought Steel Fittings - Specification - Part 1 : Steel Tubes
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**Valves**

API 6D	Pipeline Valves
ASME B16.34	Valves Flanged, Threaded and Welding End
BS 5352	Specification for steel wedge gate, globe and check valves 50 mm and smaller for the petroleum, petrochemical and allied industries
BS 5351	Specification for steel ball valves for the petroleum, petrochemical and allied industries - Small Floating ball valve
BS 1873	Specification for Steel globe and globe stop and check valves (flanged and butt-welding ends) for the petroleum, petrochemical and allied industries

**Flanges and Blanks**

ASME B16.5	Steel pipe flanges and flanged fittings - Size upto 24" NB.
ASME B16.36	Orifice Flange
MSS SP-44	Steel Pipeline Flanges
API 590	Steel Line Blanks

**Fittings**

ASME B16.9	Factory-Made Wrought Steel Butt welding Fittings
MSS SP-75	Specification for High Test, Wrought, Butt Welding Fittings
MSS SP 97	Integrally Reinforced Forged Branch Outlet Fittings - Socket Welding, Threaded and Butt welding Ends
IS 1239 (PART-2)	Steel Tubes, Tubular and Other Wrought Steel Fittings - Specification - Part 1 : Mild Steel Tubular and other wrought steel pipe fittings

**Stud Bolts and Nuts**

ASTM A194	Standard Specification for Carbon and Alloy Steel Nuts for Bolts for High Pressure or High Temperature Service, or both.
ASTM A193	Standard Specification for Alloy-Steel and Stainless Steel Bolting Materials for High Temperature or High Pressure Service and Other Special Purpose Applications

ASTM A153	Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
ASME B18.2.1	Square and Hex Bolts and Screws, Inch Series
ASME B18.2.2	Square and Hex Nuts
<b>Gaskets</b>	
ASME B16.20	Spiral-wound metal gaskets and metal jacketed gaskets for use with raised face and flat face flanges.
<b>Copper Tubes</b>	
BS EN 1057	Copper and copper alloys. Seamless, round copper tubes for water and gas in sanitary and heating applications
<b>Copper Fittings</b>	
BS EN 1254 PART 1	Copper and copper alloys. Plumbing fittings. Fittings with ends for capillary soldering or capillary brazing to copper tubes
<b>Plastic Pipes</b>	
ISO 4437	Buried polyethylene (PE) pipes for the supply of gaseous fuels – Metric series – Specifications
IS 14885	Specifications for polyethylene pipes the supply of Gaseous Fuels
<b>Plastic Valves</b>	
ASME B16.40	Manually- Operated Thermoplastic Gas Shutoffs and Valves in Gas Distribution Systems
EN 10204	Excess flow check valve
EN 1555-4	Plastic piping system for supply of gaseous fuels polyethylene – Part 4
<b>Plastic fittings</b>	
ISO -8085 -3	International Standard for thermoplastic fittings
EN – 1555-3	European standard for plastic piping system for supply of gaseous fuels – Polyethylene (PE) Part -3 : fittings
ISO/TC-138/SC4 N 521 & 523	– 1990 Thermoplastic fitting procurement requirements
<b>High Pressure SS Tubing and Fittings</b>	
ASTM A269	Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service
<b>Brass Ball Valves (Up To 2")</b>	
BS EN 331	Manually operated ball valves and closed bottom taper plug valves for gas installations in buildings
<b>Brass Fittings</b>	
IS 319	Free Cutting Leaded Brass Bars, Rods and Sections – Specification

**ANNEXURE - II****List of Specifications for Equipment used in CGD Network****Pressure Safety Equipment (Regulators, Slam Shut Valves and Creep Relief Valves)**

EN 334	Gas pressure regulators for inlet pressures up to 100 bar
EN 14382	
API 526	Safety devices for gas pressure regulating stations and installations - Gas safety shut-off devices for inlet pressures up to 100 bar
	Flanged Steel Pressure Relief Valves

**Filters**

ASME Section VIII	Boiler and Pressure Vessel Code
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**Metering Equipment**

AGA Report No. 3	Orifice Metering of Natural Gas and Other related Hydrocarbon fluids
AGA Report No. 5	Fuel Gas Energy Metering
AGA Report No. 9	Measurement of Gas by Multi-path Ultrasonic Meters
OIML R6 / OIML R31	Diaphragm gas meters
BS 1359 / BS 4161	Diaphragm gas meters
EN 12480	Gas meters - Rotary displacement gas meters
OIML R32	Rotary piston gas meters and turbine gas meters
AGA Report No. 7	Measurement of Gas by Turbine Meters
EN 12261	Gas meters - Turbine gas meters

**Pressure Measuring Equipment**

BS EN 837-1	Pressure gauges - Part 1: Bourdon tube pressure gauges; dimensions, metrology, requirements and testing
BS EN 837-2	Pressure Gauges - Part 2: Selection and Installation Recommendations for Pressure Gauges
BS EN 837-3	Pressure gauges - Part 3: Diaphragm and capsule pressure gauges; dimensions, metrology, requirements and testing

**Electro fusion machine for jointing PE pipe and fittings**

EN - 55014
EN - 50081-1
EN - 50082-1
EN - 61000-3
EN - 60335-1
EN - 60335-2-45
ISO- 12176-2

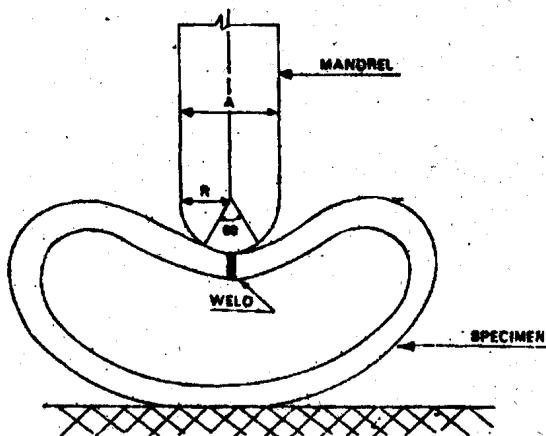
## ANNEXURE – III

### Additional Requirements for Electric Welded Pipes

Electric Welded pipes shall meet following requirements.

#### Reverse Bend Tests

Reverse bend tests shall be performed on the pipe piece cut from the crop end, selected from the front end of the first length and the back end of the last length produced from each coil. The specimen shall be 100mm to 115mm long and shall be reverse bend tested in accordance with procedure and figure given hereinafter.



The reverse bend test shall be carried out with a mandrel. Radius (R) and width (A) of mandrel shall be calculated for any combination of diameter, wall thickness and grade with the formula.

$$A = 2R = \frac{1.4 (D-t) t}{e (D-2t) - 1.4 t} - t$$

where,

- D - Outside diameter of pipe
- t - Wall thickness of pipe
- 1.4 - Peaking factor
- e - Strain

Minimum values of 'e' shall be as follows:

Grade of Steel	Min 'e' value
API 5L Gr. B	0.1425
API 5L X-42	0.1375
API 5L X-46	0.1325
API 5L X-52	0.1275
API 5L X-60	0.1225

#### Procedure

The mandrel is to be plugged into the specimen, with the weld in contact with mandrel, to such a depth that the angle of engagement between mandrel and specimen reaches 60° (see Figure). If the combination of diameter and wall thickness of pipe, and radius of mandrel is such that the angle of engagement does not reach 60°, the mandrel shall be plugged into the specimen until opposite walls of the specimen meet.

#### Acceptance Criteria

A specimen which fractures completely prior to the specified engagement of mandrel and specimen, or which reveals cracks and ruptures in the weld or heat affected zone longer than 4mm, shall be rejected. Cracks less than 6mm long at the edges of the specimen shall not be cause for rejection.

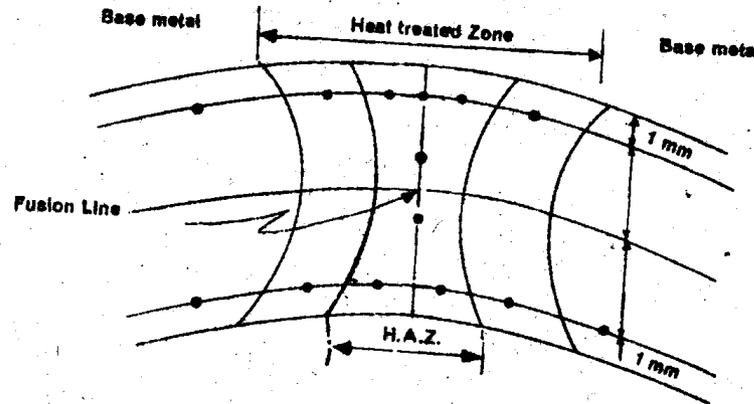
#### Micrographic and Hardness Examination

A test specimen shall be taken across the longitudinal weld from one length of finished pipe from each lot of maximum 100 lengths from the same heat manufactured from the same process.

These specimens shall be polished and etched for micro-examinations. The examinations shall provide evidence that heat treatment of weld zone is adequate and there is no un-tempered martensite left.

Hardness measurements on each specimen shall be made as indicated in figure given herein after in accordance with ASTM E-32. The maximum difference in

hardness between base material and any reading taken in the Heat Affected Zone (HAZ) shall be less than 80 points Vicker's HV<sub>10</sub>.



● — Locations where hardness measurement to be carried out.

## Minimum Requirements for GI Pipes and Copper Tubing used in service lines up to consumer appliance

### Galvanized Iron (GI) Pipes

Pipes shall be conforming to IS: 1239 (Part-1) – 1990. The manufacturer shall have a valid license to use ISI Monogram for manufacturing of pipes in accordance with the requirements of IS: 1239 (Part-1) – 1990.

NOMINAL BORE GRADE	15 mm	25 mm	50 mm	80 mm
	MEDIUM ('B' CLASS) or HEAVY ('C' CLASS)			
O.D. mm max.	21.8	34.2	60.8	89.5
Min.	21.0	33.3	59.7	88.0
THICKNESS mm	2.6 for B Class and 3.2 for C Glass	3.2 for B Class and 4.0 for C Glass	3.6 for B class and 4.5 for C Glass	4 for B class and 4.8 for C Glass
NOMINAL WEIGHT Kg / mtr:	1.21 for B Class and 1.44 for C Glass	2.41 for B Class and 2.93 for C Glass	5.03 for B class and 6.19 for C Glass	8.36 for B class and 9.90 for C Glass

#### Note :

Maximum tolerance on thickness (-) 10%, Tolerance on weight for single tube  $\pm 10\%$  and for quantities per load of 10 tones,  $\pm 7.5\%$

- Pipes shall be designed to withstand a test pressure of 5 MPa (50 bar), maintained for at least 3 second without showing any kind of defects.
- Eddy Current test may be done in place of hydrostatic test as per the procedure given in Annex - C of IS: 1239 (Part-1) - 1990.
- All Galvanized Tubes shall be Zinc coated by hot dip galvanizing in accordance with IS: 4736-1986 & its relevant parts.
- Minimum mass of zinc coating determined as per IS: 6745-1972 shall be 400 gms / m<sup>2</sup>.
- The zinc coating on external and internal surfaces shall be adherent, smooth and free from such imperfections as flux, ash and dross inclusions, bare patches, black spots, pimples, lumpiness, runs, rust stains, bulky white deposits and blisters.
- Rejection and acceptance for these defects shall be as per Appendix-A of IS: 2629-1985
- The galvanized coating when determined on a 100 mm long test piece in accordance with IS: 2633 - 1986 shall withstand 4, one - minute dips.
- The adherence of zinc coating on tubes above 50 mm nominal bore, shall be determined by the pivoted hammer test given in IS : 2629 - 1985.

Each pipe shall be legibly and durably marked at intervals of not more than one metre with the following information (i) Manufacturer's name or trade mark, (ii) Class of Pipe – HEAVY, (iii) Indian Standard mark – ISI, (iv) Batch No. of Production, if any.

Fittings conforming to the requirements of IS 1879 : 1987, IS 14329 : 1995 are permitted to be used in Tertiary network, operating at pressures 100 mbarg and below :

## **Copper Tubing**

For a copper service in domestic natural gas installations, materials supplied shall be in accordance with BS EN 1057:1996. It has replaced the copper tube standard BS 2871 Part 1. BS EN 1057 ensures the quality of the copper product by specifying the pipe in terms of its chemical composition, mechanical properties e.g. tensile strength, hardness, elongation etc., dimension and tolerance, surface quality, freedom from defects and suitability for pipe bending.

Copper pipe work shall be jointed by soldering or brazing, using mechanical compression or capillary type fittings. Fittings for use in joining copper tube shall be as per BS EN 1254 Parts 1 and 2. Fittings for capillary soldering and brazing are specified in Part 1 and compression fittings are specified in Part 2.

Soft soldering utilizes filler metals with melting points at temperatures up to 450°C. Filler metals shall be as per BS EN 29453:1994 - Soft solders alloys - Chemical compositions and forms. Solders for use with copper tube and fittings generally melt within the temperature range 180°C to 250°C. Compression fittings shall comply with BS 864 Part 2 or BS 2051 Part 1.

For capillary fittings:

- Soft solder shall not be used for pressure in excess of 75 mbar.
- If the operating pressure is to exceed 75 mbar, then, a solder with a melting point of not less than 600 degrees C shall be used. This shall also apply to brass fittings.

Height limit for copper risers: Although there is no specific guidance regarding maximum height of copper risers, IGE/UP/2 only allows the use of steel for risers above heights of 15 meter. Thus, unless local information is available to the contrary, 15-meter maximum height shall be considered safe due to weight and mechanical strength of material.

General guidance in BS 6891 also states that copper pipe work is not acceptable inside a protected shaft. Requirements for ventilation and fire stopping shall apply to ducts conveying copper pipe work. For an external copper riser system, protection against lightning conductors shall be considered.

A copper gas line shall never be used as a ground for an electrical system.

[F.No. S-Admn/II/8/2007-Vol. I].

RATAN P. WATAL, Secy.





# भारत का राजपत्र

## The Gazette of India

असाधारण

EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (i)

PART II—Section 3—Sub-section (i)

प्राधिकार से प्रकाशित

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### पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड

#### अधिसूचना

नई दिल्ली, 1 सितम्बर, 2010

सा.का.नि. 720(अ).—पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड अधिनियम, 2006 (2006 का 19) के खंड 61 द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड एतद्वारा निम्नलिखित विनियम बनाता है अर्थात् :—

#### 1. लघु शीर्ष और प्रारंभण

- (i) इन विनियमों को पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (नगर या स्थानीय प्राकृतिक गैस वितरण नेटवर्क के लिए गुणवत्ता सेवा संबंधी आचार पद्धति) विनियम, 2010 कहा जाएगा।
- (ii) ये विनियम सरकारी राजपत्र में प्रकाशन की तारीख से प्रवृत्त होंगे।

#### 2. परिभाषाएँ

- (i) इन विनियमों में जब तक कि संदर्भ में अन्यथा अपेक्षित न हो -
- (क) 'अधिनियम' का अर्थ है पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड अधिनियम, 2006;
- (ख) 'बोर्ड' का अर्थ है अधिनियम के खण्ड 3 के उप-खण्ड (1) के अन्तर्गत स्थापित पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड।
- (ग) "सीजीडी नेटवर्क" का अर्थ नगर या स्थानीय प्राकृतिक गैस वितरण नेटवर्क से है।
- (घ) "घरेलू उपभोक्ता" का अर्थ उस उपभोक्ता से है जिसे पीएनजी कनेक्शन खाना पकाने या अन्य निजी घरेलू उपयोग के लिए दिया गया है न कि वाणिज्यिक उपयोग के लिए;
- (ङ) "वाणिज्यिक उपभोक्ता" का अर्थ उस उपभोक्ता से है जिसे पीएनजी कनेक्शन वाणिज्यिक उद्देश्य के लिए प्रदान किया गया है;
- (च) "औद्योगिक उपभोक्ता" का अर्थ उस औद्योगिक स्थापना से है जिसे प्राधिकृत सीजीडी नेटवर्क के अंतर्गत पीएनजी कनेक्शन उपलब्ध कराया गया है;

(छ) "सीएनजी उपभोक्ता" का अर्थ उस उपभोक्ता से है जिसे सीएनजी स्टेशन के जरिए वाहन में ईंधन के प्रयोग के लिए सीएनजी की आपूर्ति की जाती है।

- (2) इन विनियमों में प्रयुक्त शब्द और अभिव्यक्तियाँ, जिन्हें इन विनियमों में परिभाषित नहीं किया गया है, लेकिन अधिनियम या उसके अंतर्गत बनाए गए नियमों और विनियमों में परिभाषित किया गया है, का अर्थ वही होगा जो अधिनियम या नियमों या विनियमों, जैसी भी स्थिति हो, में उनके लिए दिया गया है।

### 3. प्रयोज्यता

- (1) ये विनियम उस कंपनी पर लागू होंगे जिसे पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (कंपनियों को नगर या स्थानीय गैस वितरण नेटवर्क बिछाने, निर्माण, प्रचालन या विस्तार करने के लिए प्राधिकृत करना) विनियम, 2008 में विनिर्दिष्ट प्रावधानों के अनुसार नगर या स्थानीय प्राकृतिक गैस वितरण नेटवर्क बिछाने, निर्माण, प्रचालन या विस्तार करने के लिए प्राधिकृत किया गया है;
- (2) इन विनियमों में सीजीडी नेटवर्क बिछाने, निर्माण, प्रचालन या उसका विस्तार करने के लिए प्राधिकृत कंपनी द्वारा प्रदान की जाने वाली सेवा के न्यूनतम स्तर के अलावा उपभोक्ताओं को विश्वसनीय सेवा उपलब्ध कराने तथा जनता और उपभोक्ताओं के उत्तरदायित्वों के लिए आचरण पद्धति निर्धारित की गई है।
- (3) ये विनियम नियत तारीख के बाद नगर या स्थानीय प्राकृतिक गैस वितरण नेटवर्क को बिछाने, निर्माण, प्रचालन या विस्तार करने के लिए प्राधिकृत सभी कंपनियों को उनकी अधिसूचना की तारीख से लागू होंगे तथा ऐसी कंपनियाँ, जो नियत तारीख से पहले नगर या स्थानीय प्राकृतिक गैस वितरण नेटवर्क बिछाने, निर्माण, प्रचालन या विस्तार करने का कार्य कर रही थीं, पर ये विनियम इन विनियमों की अधिसूचना की तारीख से छः माह के बाद लागू होंगे।
- (4) इन विनियमों में गुणवत्ता सेवा मानकों से संबंधित प्रावधान पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (कंपनियों को नगर या स्थानीय गैस वितरण नेटवर्क बिछाने, निर्माण, प्रचालन या विस्तार करने के लिए प्राधिकृत करना) विनियम, 2008 में अंतर्निहित प्रावधानों के अतिरिक्त होंगे न कि उससे कम होंगे।

### 4. नए पीएनजी कनेक्शन के लिए सेवा मानक

- (1) नए पीएनजी घरेलू कनेक्शन के लिए प्रत्येक कंपनी निम्नलिखित सेवा मानकों का अनुपालन करेगी, अर्थात्:-
- (क) कंपनी नए घरेलू कनेक्शन के लिए आवेदन करने, आवेदन प्रपत्र, प्रतिदेय सुरक्षा जमा राशि तथा आवेदन के साथ प्रस्तुत किए जाने वाले अपेक्षित दस्तावेजों की

- सूची की पद्धति को अपने कार्यालय में प्रमुखता से प्रदर्शित करेगी, अपनी वेबसाइट पर डालेगी या समाचार-पत्र में विज्ञापन के जरिए प्रकाशित करेगी;
- (ख) कंपनी उपभोक्ताओं को आवश्यक अनुदेशों सहित अपनी वेबसाइट से आवेदन प्रपत्र डाउनलोड करने की सुविधा भी उपलब्ध कराएगी;
- (ग) कंपनी आवेदनों को ऑनलाइन प्रस्तुत करने और उन्हें ऑनलाइन स्वीकृत करने की सुविधा उपलब्ध कराने का भी प्रयास करेगी;
- (घ) कंपनी नए आवेदनों की प्राप्ति के लिए अपने प्रभार-क्षेत्र-वार रोल-आउट प्लान तथा अनंतिम तारीखें भी दर्शाएगी;
- (ङ.) कंपनी पेट्रोलियम और प्राकृतिक गैस विनियामक बोर्ड (नगर और स्थानीय गैस वितरण नेटवर्क बिछाने, निर्माण, प्रचालन या विस्तार करने के लिए प्राधिकृत करना) विनियम, 2008 के विनियम 14 के अंतर्गत विधिवत भरे गए आवेदन तथा प्रतिदेय सुरक्षा जमा राशि की प्राप्ति के लिए तारीख और नम्बर वाली एक रसीद जारी करेगी;
- (च) कंपनी आवेदन के प्राप्त होने पर -
- (i) कनेक्शन उपलब्ध कराने की प्रौद्योगिकी-वाणिज्यिक व्यवहार्यता का मूल्यांकन करेगी;
  - (ii) यदि कंपनी के मूल्यांकन में किसी आवेदन पर प्रथम दृष्टया किसी कारण से आपूर्ति करना संभव न हो, तो वह आवेदन पत्र की प्राप्ति के तीस दिनों के अंदर आवेदक को प्रतिदेय जमा राशि सहित कारण बताते हुए उसके आवेदन को रद्द करने की सूचना देगी;

**स्पष्टीकरण:-**

- कंपनी दिशा-निर्देशों को वेबसाइट पर डालेगी जिसके बाद उपभोक्ताओं को आवेदन प्रपत्र डाउनलोड करने के लिए प्रौद्योगिकी-वाणिज्यिक व्यवहार्यता का मूल्यांकन प्रारंभ करेगी;
- (iii) कंपनी उपभोक्ताओं को सूचित अनुसूची के अनुसार आवश्यक बिछाने और प्रचालन करने के लिए संबंधित एजेंसियों से अपेक्षित अनुमोदन प्राप्त करेगी;

**स्पष्टीकरण:-**

- कंपनी उपभोक्ताओं को सूचित रोल आउट प्लान के अनुसूची के अनुसार अपेक्षित सभी सांविधिक अनुमोदन पहले से प्राप्त करने का प्रयास करेगी;
- (iv) कंपनी पूरे आवेदन प्रपत्र की प्राप्ति से तीन माह के अंदर कनेक्शन उपलब्ध कराएगी बशर्ते कि उपभोक्ता कंपनी के अनुमोदित नेटवर्क में सूचित प्रभार क्षेत्र में स्थित हो तथा अपेक्षित अनुमति प्राप्त कर ले गई हो;

बशर्ते आगे यह भी कि अपेक्षित अनुमति प्राप्त करने में हुए किसी विलंब या तकनीकी कारणों के कारण कनेक्शन उपलब्ध कराने की अव्यवहार्यता की स्थिति में कंपनी आवेदक को आवेदन की प्राप्ति की तारीख से तीन महीने के अंदर इसकी सूचना देगी तथा सुरक्षा जमा राशि को लौटाएगी;

(v) तीन माह के अंदर कनेक्शन उपलब्ध न कराने तथा सुरक्षा जमा राशि को लौटा न पाने की स्थिति में कंपनी आवेदन प्रस्तुत करने से लेकर जमा राशि लौटाए जाने तक की तारीख तक भारतीय स्टेट बैंक द्वारा अधिसूचित प्रचलित आधार ऋण दर (पीएलआर) पर सुरक्षा जमा राशि पर ब्याज का भुगतान करेगी;

(ख) आवेदन विशेषकर परिसर के कानूनी मालिक द्वारा दिया जाना चाहिए तथा किराएदार द्वारा आवेदन देने की स्थिति में इसके साथ परिसर के कानूनी मालिक से एक "अनापत्ति प्रमाण-पत्र" संलग्न किया जाना चाहिए। कंपनी द्वारा निर्धारित "अनापत्ति प्रमाण-पत्र" के प्रपत्र को प्रदर्शित किया जाएगा;

(ज) जहाँ किसी आवेदक ने ऐसी संपत्ति खरीदी हो जिसमें गैस कनेक्शन कट रखा हो, तो वह कंपनी को "कोई बकाया नहीं प्रमाण-पत्र" के लिए आवेदन करेगा, यदि उसे पिछले मालिक द्वारा पहले प्राप्त न किया गया हो;

(i) कंपनी आवेदन प्राप्त होने की तारीख से सात दिनों के अंदर लिखित में बकाया की सूचना देगी या "कोई बकाया नहीं प्रमाण-पत्र" जारी करेगी।

2. कंपनी मौजूदा कनेक्शन में संशोधन या परिवर्तन के लिए आवेदन करने वाले मौजूदा घरेलू उपभोक्ताओं के लिए निम्नलिखित सेवा मानकों का अनुपालन करेगी:-

(क) परिसर में मौजूदा घरेलू कनेक्शन में परिवर्तन करने का अनुरोध करने की स्थिति में कंपनी -

(i) ऐसे अनुरोध के प्राप्त होने के पंद्रह दिनों के अंदर परिवर्तन के अनुरोध की तकनीकी व्यवहार्यता तथा इसमें लगने वाली लागत की जांच करेगी;

(ii) उपभोक्ता द्वारा वहन किए जाने वाले प्रभारों का आकलन उपलब्ध कराकर उपभोक्ता का अनुमोदन प्राप्त करेगी जो ऐसे परिवर्तन की वास्तविक लागत से अधिक नहीं होना चाहिए;

स्पष्टीकरण:

कंपनी इस संबंध में दिशा-निर्देशों, निर्धारित प्रपत्र तथा सामग्री एवं मजदूरी प्रभारों के विभिन्न बिलों की मानक अनुसूची दर को वेबसाइट पर आलेगी;

(iii) उपभोक्ता द्वारा स्वीकार करने पर तीस दिनों के अंदर कनेक्शन में परिवर्तन करने से संबंधित कार्यों को पूरा करेगी;

(iv) यदि कंपनी किसी घरेलू उपभोक्ता के अनुरोध को तकनीकी या सुरक्षा आधार पर ऐसा परिवर्तन करने से मना कर देती है, तो उसे पंद्रह दिनों

के अंदर उपभोक्ता को अस्वीकृति के कारण लिखित में सूचित करने होंगे;

- (ख) किसी उपभोक्ता पंजीकरण नम्बर पर उपभोक्ता के नाम को परिवर्तित करने के अनुरोध के मामले में कंपनी -
- (i) यह सत्यापन करेगी कि ऐसा अनुरोध करने वाला व्यक्ति परिसर का कानूनी रूप से नया मालिक हो या ऐसे आवेदन के साथ मौजूदा उपभोक्ता, जिसके नाम पर कनेक्शन पंजीकृत है, से कोई सहमति-पत्र संलग्न हो;
  - (ii) परिसर के पिछले मालिक से नए मालिक को प्रतिदेय सुरक्षा जमा राशि के अंतरण की स्थिति का सत्यापन करेगी;
  - (iii) सत्यापन के अध्यक्षीन अनुरोध के प्राप्त होने के सात दिनों की अवधि के अंदर उपभोक्ता पंजीकरण संख्या में नाम परिवर्तित करेगी; और
  - (iv) परिसर के पिछले और नए मालिक, दोनों को तीस दिनों के अंदर ऐसे परिवर्तन की सूचना देगी;  
बशर्ते कि ऐसे मामलों, जहाँ प्रतिदेय सुरक्षा जमा राशि अंतरण के लिए उपलब्ध न हो, वहाँ कंपनी विनियमों के अनुसार परिसर के नए मालिक से नई प्रतिदेय सुरक्षा जमा राशि प्राप्त करेगी।
- (ग) किसी मौजूदा घरेलू उपभोक्ता की मृत्यु होने की स्थिति में कनेक्शन को उसके कानूनी उत्तराधिकारी के नाम पर अंतरित किया जाएगा बशर्ते कि कंपनी द्वारा उल्लिखित ऐसी आवश्यकताएं पूरी होती हों।
- (घ) यदि घरेलू कनेक्शन को सीजीडी नेटवर्क के उसी भौगोलिक क्षेत्र में किसी नए परिसर में स्थानांतरित करने का अनुरोध प्राप्त होता है तो कंपनी -
- (i) अनुरोध करने वाले उपभोक्ता द्वारा नए परिसर के कानूनी मालिक का सत्यापन करेगी;
  - (ii) नए परिसर में कनेक्शन उपलब्ध कराने की तकनीकी व्यवहार्यता की जांच करेगी;
  - (iii) नए परिसर में 30 दिनों के अंदर कनेक्शन उपलब्ध कराएगी और उपभोक्ता से राशि लेगी जो स्थानांतरण की वास्तविक लागत से अधिक नहीं होनी चाहिए;
  - (iv) यदि नए परिसर में कनेक्शन उपलब्ध कराना किसी तकनीकी या सुरक्षा कारणों से संभव न हो तो ऐसे अनुरोध के 15 दिनों के अंदर उपभोक्ता को लिखित में सूचना देगी;
- (ङ.) मौजूदा घरेलू कनेक्शन वाले किसी परिसर के पूरी तरह ध्वस्त किए जाने की स्थिति में कंपनी उपभोक्ता से कनेक्शन काटने का अनुरोध प्राप्त होने पर उपभोक्ता के परिसर से 30 दिनों की अवधि के अंदर मीटर और अन्य उपकरण हटा लेगी और यदि उपभोक्ता चाहे तो उसे उपभोक्ता की लागत पर पुनर्निर्मित परिसर में दोबारा कनेक्ट कर सकती है।

### 5. उपभोक्ताओं का उत्तरदायित्व

- (1) उपभोक्ता केवल पंजीकृत परिसर पर ही पीएनजी आपूर्ति का इस्तेमाल करेगा और किसी भी स्थिति में अन्य किसी व्यक्ति को इसकी आगे आपूर्ति नहीं करेगा।
- (2) उपभोक्ता परिसर के स्वामित्व में किसी परिवर्तन से पहले कंपनी को सूचित करेगा तथा सभी लंबित बकाया का भुगतान करेगा और "कोई बकाया नहीं प्रमाण-पत्र" के लिए आवेदन करेगा तथा कंपनी से प्रतिदेय सुरक्षा जमा राशि प्राप्त करेगा।
- (3) परिसर का नया मालिक आवश्यक दस्तावेज और सुरक्षा जमा राशि सहित कंपनी में आवेदन कर सकता है।
- (4) उपभोक्ता कंपनी की सहमति के बिना परिसर में उपलब्ध कराए गए पीएनजी कनेक्शन में परिवर्तन नहीं करेगा।
- (5) उपभोक्ता गैस की आपूर्ति के संबंध में कंपनी या अन्य किसी सांविधिक प्राधिकारी द्वारा अधिसूचित सुरक्षा दिशा-निर्देशों पालन करेगा।
- (6) उपभोक्ता किसी उपकरण को हुई किसी क्षति या उससे होने वाले रिसाव की तुरंत सूचना देगा।
- (7) पीएनजी उपभोक्ता अनुमोदित किट की स्थापना सुनिश्चित करेगा और संबंधित प्राधिकारी द्वारा जारी सुरक्षा दिशा-निर्देशों का अनुपालन करेगा।

### 6. मीटर लगाना

- (1) प्रत्येक कंपनी घरेलू, वाणिज्यिक और औद्योगिक उपभोक्ता के मीटर के संदर्भ में निम्नलिखित आचरण पद्धति का अनुपालन करेगी, अर्थात्:-
  - (क) सभी कनेक्शनों में विधिवत प्रमाणित गैस मीटर उपकरण लगाए जाएंगे;
  - (ख) स्थापित मीटर उपकरण में निर्धारित तकनीकी मानकों तथा सही मानकों का अनुपालन किया जाएगा;
  - (ग) यदि मौजूदा घरेलू उपभोक्ताओं को बिना मीटर वाले उपकरण के गैस दी जा रही है तो गैस की आपूर्ति करने वाली कंपनी मीटर सहित ऐसी सेवाओं में सुधार करने के लिए बोर्ड को एक समय-अनुसूची प्रस्तुत करेगी तथा उसे निर्धारित समय-अनुसूची में लागू करेगी;
  - (घ) मीटर उपकरण पर सील लगाई जाएगी और उसके साथ हस्तक्षेप करने या छेड़छाड़ को रोकने का पता लगाने के लिए उपयुक्त सुरक्षात्मक उपकरण लगाए जाएंगे;
  - (ङ.) मीटर का रखरखाव किया जाएगा तथा इस हर समय चालू हालत में रखा जाएगा ताकि यह सुनिश्चित हो सके कि बिलिंग वास्तविक मीटर रीडिंग के अनुसार की जाए;

- (च) यदि किसी घरेलू उपभोक्ता के मीटर को कंपनी की वजह से किसी बिल चक्र के दौरान नहीं पढ़ा जाता है तो कंपनी उपभोक्ता से मीटर की चालू रीडिंग पर सूचना प्राप्त करेगी तथा उपभोक्ता से प्राप्त जानकारी पर अपनी बिलिंग का आधार बनाएगी;
- (छ) यदि किसी मीटर को घरेलू उपभोक्ता के कारण बिल चक्र के दौरान नहीं पढ़ा जाता है तो कंपनी पिछले छः बिल चक्र की औसत खपत के आधार पर एक अनंतिम बिल भेजेगी;
- (ज) अनंतिम बिलों के आधार पर उपभोक्ताओं द्वारा भुगतान की गई राशि या मीटर रीडिंग पर उपभोक्ता जानकारी पर आधारित बिलों को वास्तविक मीटर रीडिंग के अनुसार समायोजित किया जाएगा, जब कभी ऐसी रीडिंग ली जाएगी;
- (झ) वाणिज्यिक और औद्योगिक उपभोक्ताओं के लिए केवल वास्तविक बिल ही दिए जाने चाहिए।
- (ञ) कंपनी मासिक बीजक में क्षेत्रवार मीटर की रीडिंग के लिए अनुसूचित विंडो रखेगी ताकि उपभोक्ता तैयार हो जाएं और-
- (i) यदि किसी घरेलू उपभोक्ता द्वारा लगातार तीन बिल चक्र पर मीटर की रीडिंग करना संभव न हो तो कंपनी उपभोक्ता से उचित पावती लेकर सात दिन का नोटिस देगी ताकि वे नोटिस में दी गई तारीख और समय पर मीटर रीडिंग लेने के लिए परिसर को खुला रखें;
  - (ii) यदि उपभोक्ता ऐसे नोटिस का अनुपालन करने में असफल रहता है तो कंपनी गैस आपूर्ति को डिस्कनेट कर सकती है;
  - (iii) सामान्य कार्य घंटों के दौरान उपभोक्ता के उपलब्ध न होने के कारण यदि कार्य घण्टों के बाद या अवकाश के दिन मीटर की रीडिंग लेने का विशेष अनुरोध किया जाता है तो कंपनी ऐसा उपभोक्ता से उचित लागत लेकर कर सकती है;
- (ट) कंपनी नियमानुसार अनुसार मीटर का समय-समय पर निरीक्षण या जांच और अंशशोधन करेगी तथा खराब मीटरों को सात दिनों के अंदर बदलेगी;
- (ठ) कंपनी मीटर की सर्विस के दौरान निम्नलिखित रिकार्ड रखेगी, अर्थात्:-
- (i) मीटर की पहचान और स्थल;
  - (ii) स्थापना की तारीख;
  - (iii) क्रम संख्या या दिया गया मीटर का नम्बर;
  - (iv) मीटर की जांच या अंशशोधन रिकार्ड;
- (ड) कंपनी आवश्यक रूप से आपूर्तियों के संबंध में सभी मीटर सूचना कम से कम पिछले बारह महीनों की रखेगी, विवादित मामलों को छोड़कर जिसका विवाद के समाधान होने तक रिकार्ड रखना होगा।

- (2) उपभोक्ता पीएनजी के मीटर के संबंध में निम्नलिखित उत्तरदायित्वों का पालन करेगा, अर्थात्:-
- (क) उपभोक्ता मीटर की स्थापना तथा उसकी सुरक्षित अभिरक्षा के लिए उपयुक्त और पर्याप्त जगह उपलब्ध कराएगा;
- (ख) उपभोक्ता उपकरण की रीडिंग, मरम्मत, बदलने या जांच के प्रयोजनार्थ प्राधिकृत एजेंट को पहुंच का अधिकार उपलब्ध कराएगा तथा प्राधिकृत एजेंट पहचान और प्राधिकरण दस्तावेज प्रस्तुत करेगा, जिनके न होने पर उपभोक्ता परिसर में प्रवेश के लिए मना करने के लिए स्वतंत्र होगा;
- (ग) यदि कोई उपभोक्ता मीटर की सटीकता पर संदेह व्यक्त करता है -
- (i) तो वह निर्धारित परीक्षण शुल्क का भुगतान करके कंपनी से मीटर की जांच करा सकता है;
- (ii) कंपनी ऐसे अनुरोध के प्राप्त होने के पंद्रह दिनों के अंदर उपभोक्ता को पहले से कम से कम सात दिन का नोटिस देकर मीटर की जांच करेगी;
- (iii) कंपनी दस दिनों के अंदर उपभोक्ता को विधिवत प्राधिकृत जांच के परिणाम उपलब्ध कराएगी;
- (iv) यदि मीटर खराब पाया जाता है तो उपभोक्ता द्वारा दिया गया जांच शुल्क लौटा दिया जाएगा और शोधन के आधार पर बकाया राशि, यदि कोई हो, भी कंपनी द्वारा उपभोक्ता को लौटाई जाएगी।
- (v) यदि कंपनी द्वारा स्वयं या उपभोक्ता की शिकायत पर निरीक्षण के दौरान मीटर खराब या क्षतिग्रस्त पाया जाता है तो उसे दस दिनों के अंदर बदल दिया जाएगा और यदि मीटर को मरम्मत या बदलने के लिए हटाया जाता है, तो उपभोक्ता गैस आपूर्ति की जारी रहेगी तथा उस अवधि के लिए बिलिंग पिछले छः बिलिंग चक्र के औसत पर आधारित होगी;
- (vi) यदि यह स्थापित हो जाता है कि मीटर उपभोक्ता की वजह से जल गया है या क्षतिग्रस्त हुआ है या उसके साथ छेड़छाड़ की जाती है तो उसका परिणाम उसे भुगतना होगा।

## 7. बिलिंग

- (1) प्रत्येक कंपनी घरेलू, वाणिज्यिक और औद्योगिक कनेक्शनों की बिलिंग के संदर्भ में निम्नलिखित आचरण पद्धति का पालन करेगी, अर्थात्:-
- (क) घरेलू उपभोक्ताओं को बिल देगी जिसका बिलिंग चक्र द्विमासिक से अधिक नहीं होगा;

- (ख) क्षेत्र या जिला या मण्डलवार बिल तथा भुगतान अनुसूची को अधिसूचित करेगी तथा केवल वास्तविक मीटर रीडिंग के आधार पर किसी बिल चक्र के लिए बिल देगी;
- (ग) अग्रिम एकमुश्त भुगतान, ऑनलाइन भुगतान, स्मार्ट कार्ड या ऐसी अन्य कोई योजना को लागू करने के लिए समय-समय पर बिल की प्रक्रिया में सुधार करेगी जिससे उपभोक्ताओं को भुगतान की सुविधा मिल सके और अपनी वेबसाइट पर ऐसी प्रक्रिया का ब्यौरा भी उपलब्ध कराएगी;
- (घ) घरेलू उपभोक्ता के लिए भुगतान की निर्धारित तारीख से कम से कम पंद्रह दिन पहले तथा वाणिज्यिक और औद्योगिक उपभोक्ताओं के लिए निर्धारित तारीख से सात दिन पहले बिल देगी;
- (ङ.) पहला बिल कनेक्शन के चालू होने के बाद जारी किया जाएगा;
- (च) उपभोक्ता द्वारा अनुरोध करने पर बिल की डुप्लीकेट प्रति निःशुल्क जारी की जाएगी;
- (छ) यदि यह प्रमाणित हो जाता है कि बिल में मीटर रीडिंग को सही नहीं दर्शाया गया है तो कंपनी मामले का दस दिनों के अंदर समाधान करेगी;
- (ज) उपभोक्ता द्वारा किए गए किसी अतिरिक्त भुगतान का बाद के बिलों में समायोजन करेगी, और ऐसा न करने पर कंपनी द्वारा भारतीय स्टेट बैंक द्वारा प्रचालित अधिसूचना आधार ऋण दर (पीएलआर) के अनुसार अतिरिक्त भुगतान करेगी;
- (झ) बिल में निम्नलिखित ब्यौरा शामिल होगा, अर्थात्-
- (i) उपभोक्ता ब्यौरा : खाता संख्या, नाम, पता, दूरभाष संख्या;
  - (ii) खपत ब्यौरा : उपभोक्ता श्रेणी, खपत ब्यौरा, रीडिंग की तारीख (पुरानी, नई और अगली देय तारीख);
  - (iii) नेटवर्क प्रशुल्क, अंतिम मील की कनेक्टिविटी के लिए प्रभार, यदि लागू हो, कर, शुल्क, गैस की आपूर्ति के लिए लिया गया बिक्री मूल्य, निर्धारित तारीख के बाद भुगतान हेतु लगाया गया दण्ड तथा कुल देय बकाया राशि;
  - (iv) सीएनजी उपभोक्ता के मामले में कंपनी सीएनजी के लिए कंप्रेशन प्रभार भी दर्शाएगी;
  - (v) घरेलू उपभोक्ताओं के मामले में कंपनी अतिरिक्त मानदण्ड दर्शाएगी, अर्थात् पिछले छः महीने में औसत खपत; उपभोक्ता द्वारा किया गया अतिरिक्त भुगतान, यदि कोई हो, अन्य प्रभार, यदि कोई हो, जिसे कंपनी द्वारा बिलिंग चक्र के दौरान उपभोक्ता से लिया गया हो, आदि।
  - (vi) बीजक में कंपनी संबंधित ब्यौरा, जैसे बिल एकत्रीकरण केन्द्र का नाम, पता, और दूरभाष संख्या, उनका समय, प्रभारी-शिकायत

- प्राप्त प्रकोष्ठ, नोडल अधिकारी और उपभोक्ता शिकायतों से निपटने के लिए अपीलीय प्राधिकरण दर्शाया जाएगा;
- (ज) यदि मीटर दोषपूर्ण पाया जाता है और आपूर्ति जारी रहती है तो ऐसी अवधि का बिल पिछले छः बिलिंग चक्रों का औसत खपत पर आधारित होगा;
- (ट) कंपनी बिलिंग पर उपभोक्ता द्वारा दर्ज किसी शिकायत पर तत्काल कार्रवाई करेगी;
- (ठ) उपभोक्ता को ई-मेल के जरिए शिकायत दर्ज कराने का भी प्रावधान होना चाहिए;
- (ड) शिकायत का समाधान दस दिन के अंदर किया जाएगा तथा यदि किसी अतिरिक्त समय की आवश्यकता होती है, तो कारण बताते हुए इसकी सूचना उपभोक्ता को दी जाएगी;
- (ढ) यदि उपभोक्ता द्वारा अंतिम बिल का भुगतान करने का अनुरोध किया जाता है तो कंपनी सात दिनों के अंदर अंतिम बिल के लिए विशेष मीटर रीडिंग की व्यवस्था करेगी और -
- (क) अंतिम बिल गैस आपूर्ति के बंद होने के सात दिनों के अंदर दिया जाना चाहिए;
- (ख) अंतिम बिल देने के बाद कंपनी को अंतिम बिल में दी गई राशि के अलावा अन्य कोई प्रभार लेने का कोई अधिकार नहीं होगा।

## 8. पीएनजी कनेक्शन को बंद कराना

### (1) कंपनी द्वारा कनेक्शन काटना

- (क) घरेलू उपभोक्ता द्वारा भुगतान में चूक करने की स्थिति में कंपनी नोटिस जारी कर सकती है, जिसकी अवधि पंद्रह दिन से कम नहीं होगी, और यदि नोटिस की अवधि के अंदर भुगतान प्राप्त नहीं होता है तो कनेक्शन काट सकती है।
- (ख) कंपनी निम्नलिखित में से किसी कारण से सर्विस को डिस्कनेक्ट करने से पहले कम से कम सात दिन पहले लिखित नोटिस देगी, अर्थात् :
- (i) ठेके की शर्तों का उल्लंघन करने पर;
- (ii) ऐसे उपकरण का इस्तेमाल करने के लिए, जिससे अन्य उपभोक्ताओं की सेवाएं प्रभावित होती हों;

(iii) मीटर की रीडिंग के लिए लगातार तीन बार बिलिंग चक्र पर न मिलने पर।

(2) कनेक्शन काटना (उपभोक्ता-पहल)

- (क) घरेलू उपभोक्ता द्वारा कनेक्शन को अस्थायी रूप से काटने का अनुरोध करने की स्थिति में कंपनी कनेक्शन के लिए रखरखाव लागत का प्रभार ले सकती है लेकिन सुरक्षा जमा राशि लौटाई नहीं जाएगी।
- (ख) कनेक्शन के स्थायी रूप से कटने की स्थिति में उपभोक्ता निर्धारित प्रपत्र में सुरक्षा जमा राशि को लौटाने के लिए आवेदन करेगा, और
- (i) ऐसे उपभोक्ताओं के लिए कंपनी द्वारा अंतिम बिल उपर्युक्त विनियमों में दर्शाई गई प्रक्रिया के अनुसार दिया जाएगा।
- (ii) कनेक्शन काटने की कार्रवाई उपभोक्ता से अनुरोध प्राप्त होने की तारीख से पंद्रह दिनों के अंदर की जाएगी।

(3) गैस कनेक्शन की चोरी और उसका अनधिकृत उपयोग

- (क) उपभोक्ता द्वारा गैस की आपूर्ति की चोरी करने की स्थिति में कंपनी आपूर्ति करना बंद कर देगी और परिसर से सभी सामग्री साक्ष्य जब्त कर लेगी तथा उपभोक्ता के खिलाफ मामला दर्ज करेगी जिसकी एक प्रति उपभोक्ता को दी जाएगी।

9. सीएनजी स्टेशन से संबंधित सेवा गुणवत्ता

(1) फिलिंग का समय

- (क) कंपनी फिलिंग हेतु लिए जाने वाले समय को न्यूनतम करने का प्रयास करेगी;
- (ख) यदि किसी उपभोक्ता को गैस के अभाव में या दबाव की कमी या उपकरण के खराब होने के कारण लौटा दिया जाता है तो ऐसे ब्यौरों को दर्ज किया जाएगा तथा अनुसूची-1 में वार्षिक विवरणी सहित प्रस्तुत किया जाएगा जिसे कंपनी द्वारा बोर्ड को सूचित किया जाएगा।

(2) सीएनजी स्टेशनों को निम्नलिखित बुनियादी सुविधाएं उपलब्ध कराई जाएंगी:

- (क) सुरक्षित पेयजल;
- (ख) मुफ्त हवा;
- (ग) स्वच्छ और कार्यरत शौचालय;
- (घ) उपभोक्ता शिकायत बॉक्स;
- (ङ.) सुरक्षा किट, अग्निशामक और अन्य सुरक्षा संबंधी उपकरण;
- (च) उत्कृष्ट प्रयास द्वारा वाहनों की रिफिलिंग से पहले उतरने वाले यात्रियों के लिए शेल्टर।

- (3) कंपनी आपातकाल के मामले में जिम्मेदार व्यक्तियों के नाम और संपर्क संख्या को प्रमुखता से प्रदर्शित करेगी।

#### 10. नेटवर्क बाधा

- (1) कंपनी नियोजित नेटवर्क बाधा के संदर्भ में निम्नलिखित आचरण पद्धति का अनुपालन करेगी, अर्थात्
- (क) वितरण से संबंधित कोई नियोजित बाधा, जिससे उपभोक्ताओं को गैस की आपूर्ति की आंशिक या पूर्ण कटौती होती हो को कम रखा जाएगा;
- (ख) कंपनी गैस आपूर्ति में किसी नियोजित बाधा से पहले उपभोक्ताओं को कम से कम दो दिनों का नोटिस देगी;
- (ग) कंपनी निम्नानुसार न्यूनतम गारंटी लेखा का विश्वसनीय स्तर सुनिश्चित करेगी:-

उपभोक्ता श्रेणी	एक वर्ष में बाधाओं की अधिकतम संख्या
घरेलू	6
वाणिज्यिक और औद्योगिक	10
सीएनजी स्टेशन	12

- (घ) ऊपर दर्शाई गई इन बाधाओं में प्रतिकूल परिस्थितियां या ठेकागत बाधाएं शामिल नहीं हैं।
- (ड.) प्रत्येक कंपनी अनियोजित नेटवर्क बाधाओं के संदर्भ में निम्नलिखित आचरण पद्धति का अनुपालन करेगी जिसमें अपर्याप्त नेटवर्क क्षमता, रिसाव, यांत्रिक पाइप या संयंत्र असफलता, तृतीय पार्टी कार्रवाई या ऐसा कोई अन्य कारण शामिल होगा, अर्थात् :-
- (i) किसी अनियोजित रुकावट से निपटने के लिए एक आपात प्रतिक्रिया दल की स्थापना करेगी तथा आपात स्थिति में अपने अधिकारियों के लिए विशेष उत्तरदायित्व चार्ट का उल्लेख करेगी;
- (ii) प्रणाली को सुरक्षित करने के लिए पहली प्रतिक्रिया के रूप में किसी आपात स्थिति से निपटने के लिए आपात प्रतिक्रिया समय की स्थापना करेगी;
- (iii) रुकावट की प्रकृति तथा रुकावट की संभावित अवधि के बारे में प्रभावित पार्टियों को समय रहते सूचना देगी।

## 11. शिकायत निपटना

- (1) कंपनी यह सुनिश्चित करेगी कि सभी शिकायतों का समाधान उचित ढंग से और निर्धारित समय में हो जाए।
- (2) कंपनी निम्नलिखित प्रबंधन के साथ एक उपभोक्ता शिकायत प्रकोष्ठ उपलब्ध कराएगी, अर्थात्:-
  - (क) चौबीस घंटे उपभोक्ता शिकायत प्रकोष्ठ, जहां शिकायतकर्ता अपनी शिकायतों को व्यक्तिगत तौर पर या दूरभाष या ई-मेल के जरिए दर्ज करा सके।
  - (ख) कंपनी यह सुनिश्चित करेगी कि उपभोक्ता शिकायत प्रकोष्ठ:-
    - (i) प्रत्येक शिकायत को एक अद्वितीय पहचान संख्या आबंटित करके प्रत्येक शिकायत को दर्ज करे जिसे डॉकेट नम्बर कहा जाएगा तथा डॉकेट नम्बर उपभोक्ता को सूचित किया जाएगा।
    - (ii) उपभोक्ता को शिकायत पर की गई कार्रवाई की दूरभाष या अन्य इलेक्ट्रॉनिक उपायों या अन्य किसी उपाय के जरिए सूचना दी जाएगी।
    - (iii) उपभोक्ता को नोडल अधिकारी (उनका नाम, दूरभाष संख्या और पता सहित) का संपर्क ब्यौरा दें जिसके लिए उपभोक्ता शिकायत का संतोषजनक ढंग से समाधान न करने की स्थिति में सीधे संपर्क कर सकते हैं;
  - (ग) कंपनी एक लोकपाल, जो कंपनी का कर्मचारी नहीं होता, को बोर्ड के पूर्व अनुमोदन से भी नामित करेगी;
  - (घ) इस प्रकार नियुक्त लोकपाल को नोडल अधिकारी स्तर पर समाधान न की गई शिकायतों का समाधान करने का उपयुक्त अधिकार होगा;
  - (ङ.) यद्यपि लोकपाल का निर्णय कंपनी पर बाध्यकारी होगा, फिर भी वह लोकपाल के निर्णय से संतुष्ट न होने पर अपनी शिकायत पर कार्रवाई करने के लिए किसी उपयुक्त मंच से संपर्क करने के लिए उपभोक्ता के अधिकार से नहीं चूकेगा।
- (3) कंपनी शिकायतों के समाधान के संबंध में सूचना का डाटाबेस तैयार करेगी तथा अनुसूची-1 के अनुसार विनियामक को "वार्षिक विवरणी" प्रस्तुत करेगी।
- (4) कंपनी उपभोक्ताओं के वैज्ञानिक नमूने पर वार्षिक उपभोक्ता संतुष्टि संरक्षण करने के लिए बोर्ड की पूर्व अनुमति से एक स्वतंत्र तृतीय पक्षकार की नियुक्ति करेगी;
  - (क) कंपनी द्वारा तृतीय पक्षकार परामर्शदाता के सहयोग से सर्वेक्षण प्रश्नावली बनाई जाएगी;
  - (ख) इनके निष्कर्षों का पूर्णयोग और विश्लेषण किया जाएगा तथा उसे बोर्ड को प्रस्तुत किया जाएगा।

**अनुसूची-1 वार्षिक विवरणी**  
[देखें विनियम 9(1) (ख) और 11(3)]

वार्षिक विवरणी में प्रस्तुत की जाने वाली अपेक्षित सूचना

1. तकनीकी:
  - (1) प्रत्येक स्रोत से वितरण प्रणाली में प्रवेश करने वाली गैस के प्रत्येक प्रकार की मात्रा और विशिष्ट
    - (क) मीटर की सटीकता का पता लगाने के लिए कराए गए परीक्षण के परिणामों का सार
    - (ख) निम्नलिखित के संबंध में सूचना:
      - (i) वर्ष के दौरान दुर्घटनाएं या आपातकाल, आगजनी, विस्फोट, बाल-बाल बचने वाली घटनाएं, रिसाव, यदि कोई हो;
      - (ii) रुकावट की संख्या, रुकावट के कारण, ऐसी घटनाओं की संख्या, जहाँ गैस आपूर्ति को छः घंटे के अंदर बहाल नहीं किया जा सका था;
      - (iii) उपभोक्ताओं के विभिन्न वर्गों को वितरित गैस की कम मात्रा।
2. उपभोक्ता
  - (क) उपभोक्ता संख्या:
    - (i) उपभोक्ताओं की कुल संख्या;
    - (ii) वार्षिक गैस खपत सहित प्रत्येक खण्ड में शामिल नए उपभोक्ताओं की संख्या;
    - (iii) वर्ष के दौरान निर्धारित तारीख के बाद एकत्रित भुगतान के लिए नेटवर्क प्रशुल्क, संपीड़न प्रभार, दण्ड प्रभार;
    - (iv) मासिक-वार भारित औसत मूल्य, जिस पर कंपनी द्वारा गैस खरीदी गई थी और माह के दौरान गैस की आपूर्ति के लिए प्रत्येक उपभोक्ता खण्ड हेतु लिया गया बिक्री मूल्य;
  - (ख) भुगतान न करने पर कनेक्शन काटना तथा पुनः कनेक्शन देना:
    - (i) प्रत्येक उपभोक्ता खण्ड को भेजे गए अनुस्मारक नोटिस की संख्या;
    - (ii) कनेक्शन काटने के लिए भेजे गए नोटिस की संख्या;
    - (iii) वास्तविक रूप से काटे गए कनेक्शन की संख्या;
    - (iv) एक ही नाम पर वास्तव में दोबारा दिए गए कनेक्शन की संख्या;
  - (ग) अन्य आधार पर कनेक्शन काटना और दोबारा कनेक्शन देना।
    - (i) प्रत्येक उपभोक्ता खण्ड के लिए भेजे गए कनेक्शन काटने के नोटिस की संख्या;
    - (ii) वास्तव में काटे गए कनेक्शन की संख्या;

3. शिकायतें

- (क) प्रत्येक उपभोक्ता खण्ड से उपभोक्ता की शिकायतों की कुल संख्या;
- (ख) उपभोक्ता की शिकायतों को विभिन्न उपभोक्ता खण्ड के अंतर्गत वर्गीकृत किया जाए तथा शिकायतों पर की गई कार्रवाई नीचे दिए गए प्रपत्र के अनुसार प्रस्तुत की जाएगी:-

गुणवत्ता सेवा मापदण्ड (बैंचमार्क)	प्रतिमाह 100 कनेक्शनों पर शिकायतों की संख्या	एक सप्ताह में समाधान शिकायतों का प्रतिशत	कुल समय शिकायत का समाधान करने हेतु लिया गया औसत समय	एक माह से अधिक के लिए लंबित शिकायतों की संख्या
सतर्कता/वसूली विलंब				
चूक/बाधा/पुनरुद्धार में विलंब				
दबाव/गुणवत्ता/ गैस के अन्य मापदण्ड				
बिलिंग/भुगतान				
अन्य				

4. विनियामक अनुपालन योजना:

- (क) सेवा उत्तरदायित्व के अनुसार बोर्ड द्वारा मानकों, संकेतकों और जारी लक्ष्यों पर कंपनी के वास्तविक निष्पादन का ब्यौरा;
- (ख) यदि निष्पादन विनिर्दिष्ट लक्ष्यों से कम हो, तो कंपनी लक्ष्यों को प्राप्त करने के लिए लक्ष्यों तथा रणनीतियों को पूरा करने में असफल रहने के कारण उपलब्ध कराएगी।

5. आपूर्ति की विश्वसनीयता

- (क) आपूर्ति में अनियोजित बाधा - प्रत्येक घटना के लिए:
- (1) रुकावट के कारण
  - (2) अवधि
  - (3) प्रभावित उपभोक्ताओं की संख्या
- (ख) आपूर्ति में नियोजित बाधा - प्रत्येक घटना के लिए
- (i) रुकावट के कारण
  - (ii) अवधि
  - (iii) प्रभावित उपभोक्ताओं की संख्या।
- (ग) घटनाओं की मासिक-वार संख्या जिसमें ऐसे सीएनजी उपभोक्ता शामिल हैं जिन्हें गुणवत्ता, मात्रा और दबाव मुद्दों या वितरण केन्द्र में उपकरण असफलता के कारण गैस की आपूर्ति नहीं की जा सकी थी।

**PETROLEUM AND NATURAL GAS REGULATORY BOARD  
NOTIFICATION**

New Delhi, the 1st September, 2010

G.S.R. 720(E).—In exercise of the powers conferred by section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely:-

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Code of Practice for Quality of Service for City or Local Natural Gas Distribution Networks) Regulations, 2010.
- (2) These shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

- (1) In these regulations, unless the context otherwise requires,-
  - (a) "Act" means the Petroleum and Natural Gas Regulatory Board Act, 2006;
  - (b) "Board" means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of section 3 of the Act;
  - (c) "CGD network" means city or local natural gas distribution network
  - (d) "domestic consumer" means a consumer who is provided PNG connection for the purpose of cooking or for other own domestic use and not for commercial use;
  - (e) "commercial consumer" means a consumer who is provided PNG connection for commercial purpose;
  - (f) "industrial consumer" means an industrial establishment which is provided PNG connection within the authorized CGD network;
  - (g) "CNG consumer" means consumer who is supplied CNG for use as fuel for vehicle through CNG station.
- (2) All other words and expressions used and not defined in these regulations but defined in the Act or in the rules or regulations thereunder shall have the meanings respectively assigned to them in the Act or in the rules or regulations as the case may be.

**3. Application.**

- (1) These regulations shall apply to an entity authorized for laying, building, operating or expanding city or local natural gas distribution network in accordance with the provisions specified in the Petroleum and Natural Gas

Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.

- (2) These regulations lay down code of practice for promoting reliable service to consumers and the public and obligations of consumers besides conforming to minimum levels of service to be provided by the entity authorized for laying, building, operating or expanding CGD Networks.
- (3) These regulations shall apply from the date of their notification to all entities authorized for laying, building, operating or expanding city or local natural gas distribution network after the appointed day and in case of entities which were carrying on the activity of laying, building, operating or expanding city or local natural gas distribution network before the appointed day, these shall apply after six months from the date of notification of these regulations.
- (4) Provisions in relation to quality of service standards in these regulations shall be in addition to and not in derogation of provisions contained in the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.

#### **4. Service norms for new PNG connections.**

- (1) Every entity shall comply with the following service standards for new PNG domestic connection applicants, namely :-
  - (a) shall prominently display at its office and also on its website or through newspaper advertisement, the procedure for applying for a new domestic connection, the application format, amount of refundable security deposit and the list of documents required to be submitted alongwith the application;
  - (b) shall also provide consumers the facility to download application form from its websites alongwith necessary instructions thereof;
  - (c) shall also endeavour to provide facility for online submission of applications as well as online acceptance;
  - (d) shall also indicate its charge-area-wise roll-out plan and the tentative dates for receipt of new applications;
  - (e) shall issue a dated and numbered receipt to the applicant acknowledging receipt of the duly-filled application and the amount of refundable security deposit prescribed under regulation 14 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Gas Distribution Networks) Regulations, 2008;
  - (f) the entity, on receipt of an application, shall -
    - (i) assess the techno-commercial feasibility of providing the connection;
    - (ii) if in the assessment of the entity an application is not prima facie feasible for supply due to any reason, it shall convey its rejection of application with reasons thereof alongwith the refundable deposit to the applicant within thirty days of receipt of the application form;

34609/10-3

**Explanation:-**

The entity shall webhost the guidelines which would be followed in assessing Techno Commercial feasibility for commencing supply;

- (iii) obtain requisite approval from the concerned agencies for laying and operating the network in line with the schedule indicated to the consumers;

**Explanation:-**

The entity shall endeavour to obtain in advance all statutory approvals required in consonance with the rollout plan indicated to consumers;

- (iv) provide connection within three months from the receipt of completed application form provided the consumer is located within the charge area indicated in the approved network plan of the entity and required permission are obtained:

Provided further that in case of any delay in obtaining the requisite permission or non-feasibility of providing connection due to technical reasons, the entity shall inform the applicant of the same within three months from the date of receipt of application and refund the security deposit;

- (v) in case of non-feasibility of providing connection and non-refund of security deposit within three months, the entity shall pay interest on the security deposit at the prevailing Prime Lending Rate (PLR) notified by the State Bank of India from the date of submission till the date of refund;

- (g) the application shall preferably be made by the lawful owner of the premises and in case of tenant making the application; it shall be accompanied by a "No Objection Certificate" from the lawful owner of the premises. The format of the "No Objection Certificate" prescribed by the entity shall be displayed by the entity;

- (h) where an applicant has purchased a property with gas connection lying disconnected, he shall apply to the entity for "No dues certificate", if not obtained earlier by the previous owner;

- (i) the entity shall intimate in writing, the dues or issue "No dues certificate" within seven days from the date of receipt of application.

- (2) The entity shall comply with the following service standards for existing domestic consumers applying for modifications or alteration in existing connection, namely:-

- (a) in case of request for alteration in the existing domestic connection in the premises, the entity shall-

- (i) examine the technical feasibility and cost of carrying out the requested alteration within fifteen days of receiving such request ;

- (ii) seek the approval of the consumer by providing an estimate of the charges to be borne by the consumer which shall not exceed the actual cost of such alteration;

**Explanation:**

the entity shall webhost the guidelines, prescribed form and standard schedule of rate for various bills of material and labour charges in this regard;

- (iii) on acceptance by the consumer, complete the works relating to the alteration in the connection within thirty days;
- (iv) In case the entity rejects the request of the domestic consumer for such alteration on technical or safety considerations, it shall inform in writing, such reasons for rejection within fifteen days.

- (b) in case of a request for change of consumer's name against consumer registration number, the entity shall-

- (i) verify that the person making such a request is the new lawful owner of the premises or such application is accompanied by a consent letter from the existing consumer in whose name the connection is registered;
- (ii) verify the status of transfer of refundable security deposit from the previous owner of the premises to the new owner;
- (iii) subject to verification, carry out the change in the name against the consumer registration number within a period of seven days of receiving the request; and
- (iv) inform both previous and new owner of the premises of such change within thirty days:

Provided that in such cases where refundable security deposit is not available for transfer, the entity may seek fresh refundable security deposit from the new owner of the premises as per regulations.

- (c) in case of death of an existing domestic consumer, the connection may be transferred to his legal successor subject to such requirements as the entity may specify.

- (d) in case of request to shift the domestic connection to new premises within the same geographical area of the CGD network, the entity shall-

- (i) verify the lawful ownership of the new premises by the consumer making the request;
- (ii) examine the technical feasibility of providing connection in the new premises;
- (iii) provide the connection within 30 days in the new premises and charge the consumer an amount not exceeding the actual cost of such shifting;
- (iv) inform the consumer in writing in case providing connection in the new premises is not found feasible on any technical or safety consideration within 15 days of such request;

- (e) in case of complete demolition of a premises with an existing domestic connection, the entity, on receipt of a request for disconnection from the consumer, shall remove the meter and other equipment within a period of 30 days from the premises of the consumer and in case the consumer so desires, reconnect the same in the reconstructed premises at the cost of consumer.

#### **5. Obligations of Consumers.**

- (1) Consumer shall make use of the PNG supply for the registered premises only and shall not re-supply to any other person under any circumstances.
- (2) Consumer shall inform the entity before any change of ownership of premises and clear all pending arrears and apply for "No dues Certificate" and obtain refundable of security deposit from the entity.
- (3) The new owner of the premises may apply to the entity alongwith necessary documentation and security deposit.
- (4) The consumer shall not alter the PNG connection that has been provided within the premises without the consent of the entity.
- (5) The consumer shall follow the safety guidelines notified by the entity or any other statutory authority regarding supply of gas.
- (6) The consumer shall promptly report about any damage to or leakage from any of the equipment.
- (7) The CNG consumer shall ensure installations of approved kit and comply with safety guidelines issued by the concerned authority.

#### **6. Metering.**

- (1) Every entity shall comply with the following code of practice with reference to metering of domestic, commercial and industrial consumer, namely:-
  - (a) all connections shall have duly certified gas metering equipment;
  - (b) metering equipment installed shall comply with the prescribed technical standards as well as accuracy standards;
  - (c) in case of existing domestic consumers being served without metering equipment, the supplying entity shall submit a time schedule to the Board for upgradation of such services with meters and implement the same within the prescribed time schedule;
  - (d) metering equipment shall be sealed and have appropriate protective devices to prevent or detect interference or tampering;
  - (e) meter shall be maintained and kept in working condition at all times to ensure that the billing is to be done as per actual meter readings;
  - (f) in case the meter of a domestic consumer is not read during any billing cycle due to reasons attributable to the entity, the entity may seek information on current reading of the meter from the

- consumer and base its billing on the feedback received from the consumer.
- (g) in case the meter is not read during any billing cycle due to reasons attributable to domestic consumer, the entity shall send a provisional bill based on average consumption of the last six billing cycles;
- (h) the amount paid by consumers against provisional bills or bills based on consumer feedback on meter readings shall be adjusted against actual meter readings, as and when such readings are taken;
- (i) only actual bills shall be raised for the commercial and industrial consumers.
- (j) the entity shall indicate in the monthly invoice the schedule window for reading of meter area wise so that consumers would be prepared and-
- (i) if meter is rendered inaccessible on three consecutive billing cycles by a domestic consumer, the entity shall serve a seven days' notice to consumer under proper receipt to keep open the premises for taking meter reading on dates and time indicated in the notice;
- (ii) if the consumer fails to comply with such notice, the entity may disconnect the gas supply;
- (iii) in case of request for a special reading of meters beyond working hours or on a holiday due to non availability of consumer during the normal working hours, the entity may do so at reasonable cost to consumer;
- (k) the entity shall conduct periodic inspection or testing and calibration of the meters as applicable and replace defective meters within seven days;
- (l) the entity shall keep the following records while the meter is in service, namely:-
- (i) identification and location of the meter;
- (ii) date of installation;
- (iii) serial or assigned meter number;
- (iv) meter testing or calibration records;
- (m) the entity must retain all metering information regarding supplies for at least previous twelve months except for disputed cases for which records have to be retained till resolution of dispute.
- (2) consumer shall comply with the following obligations with respect to metering of PNG, namely:-
- (a) consumer shall provide suitable and adequate space for installation of meter and its safe custody;
- (b) consumer shall provide right of access to the authorized agent for the purpose of reading, repairing, replacing or testing of the equipment and the authorized agent shall carry proper identification and

authorisation documents failing which the consumer shall be at liberty to deny access;

- (c) in case a consumer disputes the meter accuracy-
- (i) he may, after paying prescribed testing fees, get the meter tested by the entity;
  - (ii) the entity shall test the meter within fifteen days of receiving such request by giving at least seven days advance notice to the consumer;
  - (iii) the entity shall provide the duly authenticated test results to the consumer within ten days;
  - (iv) in case the meter is found to be defective, the testing fee paid by the consumer shall be refunded and dues, if any, based on the correction is also to be refunded to the consumer by the entity;
  - (v) if upon inspection by the entity either *suo motu* or on consumer's complaint, the meter is found to be defective or damaged, it shall be replaced within ten days and if the meter is removed for repair or replacement, consumer shall continue to get gas supply and the billing for the period shall be based on average of last six billing cycles;
  - (vi) if it is established that the meter got burnt or damaged or tampered with due to reasons attributable to the consumer, he shall bear the consequent liabilities.

## 7. BILLING.

- (1) Every entity shall comply with the following code of practice with reference to billing of domestic, commercial and industrial connections, namely :-
- (a) raise bills for domestic consumers with a billing cycle not longer than bimonthly;
  - (b) notify area or district or circle wise billing and payment schedule and raise the bill for any billing cycle based on actual meter readings only;
  - (c) upgrade billing procedures from time to time to accommodate advance lump-sum payments, online payments, smart cards or any other such schemes which would facilitate consumers' payments and also provide details of such procedure on its website;
  - (d) raise the bill at least fifteen days before the due date of the payment for domestic consumer and seven days before due date for commercial and industrial consumers;
  - (e) issue the first bill only after energizing the connection;
  - (f) issue a duplicate bill free of cost, if requested by the consumer;
  - (g) resolve the issue within ten days in case it is established that the meter reading is not correctly reflected in the bill;
  - (h) reflect adjustment of any excess payment made by the consumer in the subsequent bill failing which interest on the excess payment

shall be payable by the entity at the prevailing Prime Lending Rate (PLR) notified by the State Bank of India;

- (i) the bill shall contain following details, namely:-
  - (i) Consumer details: Account Number, Name, Address. Phone number;
  - (ii) Consumption details: consumer category, consumption details, date of reading (old, new and next due on);
  - (iii) Network Tariff, Charges for the last mile connectivity if applicable, taxes, levies, the sale price charged for supply of gas, penalty chargeable for payment after due date and total dues payable;
  - (iv) in the case of CNG consumer, the entity shall also indicate the compression charges for CNG;
  - (v) in the case of domestic consumers, the entity shall indicate additional parameters, namely, average consumption in the last six months, excess payments made by consumer, if any, other charges if any, collected by the entity from the consumer during the billing cycle etc;
  - (vi) the invoice shall also indicate the entity related details like Name, Address and Telephone numbers of Bill Collection Centre, their timings, Incharge-Complaint Receiving Cell, Nodal Officer and Appellate Authority for dealing with consumer complaints;
- (j) if the meter is found to be defective and the supply is continuing the bill for such period shall be based on average consumption of the last six billing cycles;
- (k) the entity shall acknowledge immediately any complaints filed by the consumer on billing;
- (l) there shall be a provision for the consumer to lodge the complaint through email also;
- (m) the complaint shall be addressed within ten days and if additional time is required, then, it has to be conveyed to the consumer along with reasons thereof;
- (n) in case of consumer's request for final bill settlement, the entity shall arrange a special meter reading for final bill within seven days and -
  - (a) final bill shall be generated within seven days of the closure of gas supply;
  - (b) once the final bill is raised, the entity shall not have any right to recover any charge other than those in the final bill.

## **8. Disconnection of PNG Connection.**

### **(1) Disconnection by the entity**

- (a) In case of a domestic consumer defaulting on payments, the entity may issue a notice for a period of not less than fifteen days and disconnect if the payment is not received within the notice period.

- (b) The entity shall give written notice of not less than seven days before service is disconnected on any one of the following reasons, namely:-
- (i) for violation of the terms of contract;
  - (ii) for using the equipment which adversely affects the entity's services to other consumers;
  - (iii) on rendering the premises inaccessible to the entity for three consecutive billing cycles for reading of meters.
- (2) Disconnections (consumer- initiated)
- (a) In case of temporary disconnection requested by a domestic consumer, the entity may charge maintenance costs for the connection but the security deposit shall not be refunded.
  - (b) In case of permanent disconnection, the consumer shall apply for refund of security deposit in the prescribed pro-forma and
    - (i) the final bill for such consumers shall be raised by the entity as per procedure indicated in regulations above;
    - (ii) the disconnection shall take place within fifteen days from the date of receipt of consumer request.
- (3) Theft and unauthorized use of gas connection
- (a) In case of theft of gas supply by the consumer, the entity shall disconnect the supply and seize all material evidence from the premises and file a case against the consumer with a copy to the consumer.

## 9. Quality of Service pertaining to CNG station.

- (1) Filling time
  - (a) the entity shall endeavour to minimize the time taken for filling;
  - (b) in case any consumer is turned away either for want of gas or inadequate pressure or failure of equipment, such details shall be recorded and submitted alongwith Annual Returns in Schedule I to be filed by the entity with the Board.
- (2) The following basic amenities shall be provided at CNG stations:
  - (a) safe and potable drinking water;
  - (b) free air;
  - (c) clean and functional toilets;
  - (d) consumer complaint box;
  - (e) safety kits, fire extinguishers and other safety related equipment;
  - (f) shelter for passengers off loaded before refilling of vehicles on a best endeavour basis.
- (3) The entity shall also prominently display names and contact numbers of persons responsible in case of emergency.

## 10. Network interruptions.

- (1) The entity shall comply with the following code of practice with reference to planned network interruptions, namely:-

- (a) any planned interruptions concerning distribution resulting in partial or full curtailment of gas supply to consumers shall be kept at the minimum;
- (b) the entity shall serve at least two days' notice to consumers before any planned interruption in gas supply;
- (c) the entity shall ensure minimum guaranteed service reliability level as below:

Consumer category	Maximum number of interruptions in a year
domestic	6
commercial and industrial	10
CNG station	12

- (d) these interruptions indicated above are excluding any interruptions due to *force majeure* or contractual interruptions.
- (e) every entity shall comply with the following code of practice with reference to unplanned network interruptions which include non-contractual interruptions resulting from inadequate network capacity, leakages, mechanical pipe or plant failure, third party actions or any other such cause;, namely:-
- (i) set up an emergency response team for handling any unplanned interruptions and specify responsibility chart for its officials in times of emergency;
  - (ii) set an emergency response time to address an emergency situation as a first response to make the system safe;
  - (iii) provide real time information to affected parties about nature of interruptions and expected duration of interruption.

## 11. Complaint Handling.

- (1) The entity shall ensure that all complaints are resolved in a reasonable manner and time frame
- (2) the entity shall provide a Consumer Complaints Cell with the following arrangements, namely :-
  - (a) a twenty four hour Consumer Complaint Cell where the complainants can register their complaints either personally or through telephone or through e-mail;
  - (b) the entity shall ensure that Consumer Complaint Cell:-

- (i) register each complaint by allotting a unique identification number to be called the docket number and communicate docket number to the consumer.
  - (ii) intimate the action taken on the complaint to the consumer through telephone or other electronic means or any other means.
  - (iii) intimate contact details of the Nodal Officer (including his name, telephone number and address) to the consumer to whom the consumers may approach directly in case the complaint is not resolved to the satisfaction of the consumer;
  - (c) the entity shall also nominate an Ombudsman, who is not an employee of the entity, with the prior approval of the Board;
  - (d) the Ombudsman so appointed shall have appropriate jurisdiction to address consumer complaints not resolved at the Nodal Officer's level;
  - (e) while the Ombudsman's decision shall be binding on the entity, it shall not detract from the consumer's right to approach an appropriate forum for pursuing his complaint if he is not satisfied with the Ombudsman's decision.
- (3) The entity shall maintain a database of information regarding complaints redressal and submit an "Annual Returns" to the regulator as per Schedule -I.
- (4) The entity shall appoint an independent third party with the prior approval of the Board to carry out annual consumer satisfaction surveys on a scientific sample of consumers;
- (a) the survey questionnaire shall be formulated by the entity in association with the third party consultant;
  - (b) the findings of the same shall have to be aggregated, analyzed and submitted to the Board.

**Schedule I - Annual Returns**  
**[See regulations 9(1) (b) and 11(3)]**

Information required to be submitted in the Annual Returns

1. Technical:

- (1) The quantity and specification of each type of gas entering the distribution system from each source
  - (a) summary of results of tests conducted to ascertain metering accuracy
  - (b) information in respect of:
    - (i) accidents or emergencies, fire, explosion, near-miss incidents, leakages if any, during the year;
    - (ii) the number of disruptions, the causes for disruption, the number of incidents where gas supply could not be restored within six hours;

- (iii) total quantity of gas distributed to different segments of consumers.

2. Consumers:

(a) Consumer Numbers:

- (i) total number of consumers;  
(ii) number of new consumers added in each segment along with annual gas consumption;  
(iii) Network Tariff, , compression charges, penalty charges for payment after due date collected during the year;  
(iv) month wise weighted average price at which the gas was purchased by the entity and the sale price charged for each of the consumer segments for supply of gas during the month;

(b) disconnection for non-payment and re-connection:

- (i) number of reminder notices dispatched to each consumer segment;  
(ii) number of disconnection notices dispatched;  
(iii) number of actual disconnections;  
(iv) number of actual re-connections on the same name.

(c) Disconnection and re-connection on other grounds

- (i) number of disconnection notices dispatched to each consumer segment;  
(ii) number of actual disconnection carried out;

3. Complaints:

- (a) total number of consumers' complaints from each consumer segment;  
(b) consumer complaints shall be categorized under different consumer segments and action taken on complaints shall be submitted as per format given below:

QoS Parameter (Benchmark)	No. of complaints per 100 connections per month	percentage complaints resolved within week	Mean Time: the average time taken to resolve a complaint	Number of complaints pending for over a month
Activation / Refund delays				
Faults/ Disruption/ Delay in restoration				
Pressure/Quality/other parameters of gas				

Billing/ Payment				
Others				

4. Regulatory Compliance Plan:

- (a) details of the entity's actual performance against the standards, indicators and targets issued by the Board as per service obligation;
- (b) if the performance is below the targets specified, the entity shall provide the reasons for the failure to meet the targets and strategies for achieving the targets.

5. Reliability of Supply:

- (a) unplanned interruptions to supply- for each incident
  - (1) reasons for the interruption;
  - (2) duration;
  - (3) number of consumers affected.
- (b) planned interruptions to supply- for each incident
  - (i) reasons for the interruption;
  - (ii) duration;
  - (iii) number of consumers affected.
- (c) month wise number of incidents in which CNG Consumers who could not be supplied gas due to quality, quantity and pressure issues or equipment failure at the dispensing station.

[F. No. S-Admn./II/8/2010]

RATAN P. WATAL, Secy.

**PETROLEUM AND NATURAL GAS REGULATORY BOARD****NOTIFICATION**

New Delhi, the 1st September, 2010

G.S.R. 720(E).—In exercise of the powers conferred by section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely:—

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Code of Practice for Quality of Service for City or Local Natural Gas Distribution Networks) Regulations, 2010.
- (2) These shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

- (1) In these regulations, unless the context otherwise requires,—
  - (a) “Act” means the Petroleum and Natural Gas Regulatory Board Act, 2006;
  - (b) “Board” means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of section 3 of the Act;
  - (c) “CGD network” means city or local natural gas distribution network
  - (d) “domestic consumer” means a consumer who is provided PNG connection for the purpose of cooking or for other own domestic use and not for commercial use;
  - (e) “commercial consumer” means a consumer who is provided PNG connection for commercial purpose;
  - (f) “industrial consumer” means an industrial establishment which is provided PNG connection within the authorized CGD network;
  - (g) “CNG consumer” means consumer who is supplied CNG for use as fuel for vehicle through CNG station.
- (2) All other words and expressions used and not defined in these regulations but defined in the Act or in the rules or regulations thereunder shall have the meanings respectively assigned to them in the Act or in the rules or regulations as the case may be.

**3. Application.**

- (1) These regulations shall apply to an entity authorized for laying, building, operating or expanding city or local natural gas distribution network in accordance with the provisions specified in the Petroleum and Natural Gas

Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.

- (2) These regulations lay down code of practice for promoting reliable service to consumers and the public and obligations of consumers besides conforming to minimum levels of service to be provided by the entity authorized for laying, building, operating or expanding CGD Networks.
- (3) These regulations shall apply from the date of their notification to all entities authorized for laying, building, operating or expanding city or local natural gas distribution network after the appointed day and in case of entities which were carrying on the activity of laying, building, operating or expanding city or local natural gas distribution network before the appointed day, these shall apply after six months from the date of notification of these regulations.
- (4) Provisions in relation to quality of service standards in these regulations shall be in addition to and not in derogation of provisions contained in the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Natural Gas Distribution Networks) Regulations, 2008.

#### **4. Service norms for new PNG connections.**

- (1) Every entity shall comply with the following service standards for new PNG domestic connection applicants, namely :-
  - (a) shall prominently display at its office and also on its website or through newspaper advertisement, the procedure for applying for a new domestic connection, the application format, amount of refundable security deposit and the list of documents required to be submitted alongwith the application;
  - (b) shall also provide consumers the facility to download application form from its websites alongwith necessary instructions thereof;
  - (c) shall also endeavour to provide facility for online submission of applications as well as online acceptance;
  - (d) shall also indicate its charge-area-wise roll-out plan and the tentative dates for receipt of new applications;
  - (e) shall issue a dated and numbered receipt to the applicant acknowledging receipt of the duly-filled application and the amount of refundable security deposit prescribed under regulation 14 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Gas Distribution Networks) Regulations, 2008;
  - (f) the entity, on receipt of an application, shall -
    - (i) assess the techno-commercial feasibility of providing the connection;
    - (ii) if in the assessment of the entity an application is not prima facie feasible for supply due to any reason, it shall convey its rejection of application with reasons thereof alongwith the refundable deposit to the applicant within thirty days of receipt of the application form;

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**Explanation:-**

The entity shall webhost the guidelines which would be followed in assessing Techno Commercial feasibility for commencing supply;

- (iii) obtain requisite approval from the concerned agencies for laying and operating the network in line with the schedule indicated to the consumers;

**Explanation:-**

The entity shall endeavour to obtain in advance all statutory approvals required in consonance with the rollout plan indicated to consumers;

- (iv) provide connection within three months from the receipt of completed application form provided the consumer is located within the charge area indicated in the approved network plan of the entity and required permission are obtained:

Provided further that in case of any delay in obtaining the requisite permission or non-feasibility of providing connection due to technical reasons, the entity shall inform the applicant of the same within three months from the date of receipt of application and refund the security deposit;

- (v) in case of non-feasibility of providing connection and non-refund of security deposit within three months, the entity shall pay interest on the security deposit at the prevailing Prime Lending Rate (PLR) notified by the State Bank of India from the date of submission till the date of refund;
- (g) the application shall preferably be made by the lawful owner of the premises and in case of tenant making the application; it shall be accompanied by a "No Objection Certificate" from the lawful owner of the premises. The format of the "No Objection Certificate" prescribed by the entity shall be displayed by the entity;
- (h) where an applicant has purchased a property with gas connection lying disconnected, he shall apply to the entity for "No dues certificate", if not obtained earlier by the previous owner;
- (i) the entity shall intimate in writing, the dues or issue "No dues certificate" within seven days from the date of receipt of application.

- (2) The entity shall comply with the following service standards for existing domestic consumers applying for modifications or alteration in existing connection, namely:-

- (a) in case of request for alteration in the existing domestic connection in the premises, the entity shall-
- (i) examine the technical feasibility and cost of carrying out the requested alteration within fifteen days of receiving such request ;

- (ii) seek the approval of the consumer by providing an estimate of the charges to be borne by the consumer which shall not exceed the actual cost of such alteration;
- Explanation:**  
the entity shall webhost the guidelines, prescribed form and standard schedule of rate for various bills of material and labour charges in this regard;
- (iii) on acceptance by the consumer, complete the works relating to the alteration in the connection within thirty days;
- (iv) In case the entity rejects the request of the domestic consumer for such alteration on technical or safety considerations, it shall inform in writing, such reasons for rejection within fifteen days.
- (b) in case of a request for change of consumer's name against consumer registration number, the entity shall-
- (i) verify that the person making such a request is the new lawful owner of the premises or such application is accompanied by a consent letter from the existing consumer in whose name the connection is registered;
- (ii) verify the status of transfer of refundable security deposit from the previous owner of the premises to the new owner;
- (iii) subject to verification, carry out the change in the name against the consumer registration number within a period of seven days of receiving the request; and
- (iv) inform both previous and new owner of the premises of such change within thirty days:
- Provided that in such cases where refundable security deposit is not available for transfer, the entity may seek fresh refundable security deposit from the new owner of the premises as per regulations.
- (c) in case of death of an existing domestic consumer, the connection may be transferred to his legal successor subject to such requirements as the entity may specify.
- (d) in case of request to shift the domestic connection to new premises within the same geographical area of the CGD network, the entity shall-
- (i) verify the lawful ownership of the new premises by the consumer making the request;
- (ii) examine the technical feasibility of providing connection in the new premises;
- (iii) provide the connection within 30 days in the new premises and charge the consumer an amount not exceeding the actual cost of such shifting;
- (iv) inform the consumer in writing in case providing connection in the new premises is not found feasible on any technical or safety consideration within 15 days of such request;

- (e) in case of complete demolition of a premises with an existing domestic connection, the entity, on receipt of a request for disconnection from the consumer, shall remove the meter and other equipment within a period of 30 days from the premises of the consumer and in case the consumer so desires, reconnect the same in the reconstructed premises at the cost of consumer.

#### **5. Obligations of Consumers.**

- (1) Consumer shall make use of the PNG supply for the registered premises only and shall not re-supply to any other person under any circumstances.
- (2) Consumer shall inform the entity before any change of ownership of premises and clear all pending arrears and apply for "No dues Certificate" and obtain refundable of security deposit from the entity.
- (3) The new owner of the premises may apply to the entity alongwith necessary documentation and security deposit.
- (4) The consumer shall not alter the PNG connection that has been provided within the premises without the consent of the entity.
- (5) The consumer shall follow the safety guidelines notified by the entity or any other statutory authority regarding supply of gas.
- (6) The consumer shall promptly report about any damage to or leakage from any of the equipment.
- (7) The CNG consumer shall ensure installations of approved kit and comply with safety guidelines issued by the concerned authority.

#### **6. Metering.**

- (1) Every entity shall comply with the following code of practice with reference to metering of domestic, commercial and industrial consumer, namely:-
- (a) all connections shall have duly certified gas metering equipment;
  - (b) metering equipment installed shall comply with the prescribed technical standards as well as accuracy standards;
  - (c) in case of existing domestic consumers being served without metering equipment, the supplying entity shall submit a time schedule to the Board for upgradation of such services with meters and implement the same within the prescribed time schedule;
  - (d) metering equipment shall be sealed and have appropriate protective devices to prevent or detect interference or tampering;
  - (e) meter shall be maintained and kept in working condition at all times to ensure that the billing is to be done as per actual meter readings;
  - (f) in case the meter of a domestic consumer is not read during any billing cycle due to reasons attributable to the entity, the entity may seek information on current reading of the meter from the

- consumer and base its billing on the feedback received from the consumer.
- (g) in case the meter is not read during any billing cycle due to reasons attributable to domestic consumer, the entity shall send a provisional bill based on average consumption of the last six billing cycles;
- (h) the amount paid by consumers against provisional bills or bills based on consumer feedback on meter readings shall be adjusted against actual meter readings, as and when such readings are taken;
- (i) only actual bills shall be raised for the commercial and industrial consumers.
- (j) the entity shall indicate in the monthly invoice the schedule window for reading of meter area wise so that consumers would be prepared and-
- (i) if meter is rendered inaccessible on three consecutive billing cycles by a domestic consumer, the entity shall serve a seven days' notice to consumer under proper receipt to keep open the premises for taking meter reading on dates and time indicated in the notice;
  - (ii) if the consumer fails to comply with such notice, the entity may disconnect the gas supply;
  - (iii) in case of request for a special reading of meters beyond working hours or on a holiday due to non availability of consumer during the normal working hours, the entity may do so at reasonable cost to consumer;
- (k) the entity shall conduct periodic inspection or testing and calibration of the meters as applicable and replace defective meters within seven days;
- (l) the entity shall keep the following records while the meter is in service, namely:-
- (i) identification and location of the meter;
  - (ii) date of installation;
  - (iii) serial or assigned meter number;
  - (iv) meter testing or calibration records;
- (m) the entity must retain all metering information regarding supplies for at least previous twelve months except for disputed cases for which records have to be retained till resolution of dispute.
- (2) consumer shall comply with the following obligations with respect to metering of PNG, namely:-
- (a) consumer shall provide suitable and adequate space for installation of meter and its safe custody;
  - (b) consumer shall provide right of access to the authorized agent for the purpose of reading, repairing, replacing or testing of the equipment and the authorized agent shall carry proper identification and

authorisation documents failing which the consumer shall be at liberty to deny access;

(c) in case a consumer disputes the meter accuracy-

- (i) he may, after paying prescribed testing fees, get the meter tested by the entity;
- (ii) the entity shall test the meter within fifteen days of receiving such request by giving at least seven days advance notice to the consumer;
- (iii) the entity shall provide the duly authenticated test results to the consumer within ten days;
- (iv) in case the meter is found to be defective, the testing fee paid by the consumer shall be refunded and dues, if any, based on the correction is also to be refunded to the consumer by the entity;
- (v) if upon inspection by the entity either *suo motu* or on consumer's complaint, the meter is found to be defective or damaged, it shall be replaced within ten days and if the meter is removed for repair or replacement, consumer shall continue to get gas supply and the billing for the period shall be based on average of last six billing cycles;
- (vi) if it is established that the meter got burnt or damaged or tampered with due to reasons attributable to the consumer, he shall bear the consequent liabilities.

## 7. BILLING.

- (1) Every entity shall comply with the following code of practice with reference to billing of domestic, commercial and industrial connections, namely :-
  - (a) raise bills for domestic consumers with a billing cycle not longer than bimonthly;
  - (b) notify area or district or circle wise billing and payment schedule and raise the bill for any billing cycle based on actual meter readings only;
  - (c) upgrade billing procedures from time to time to accommodate advance lump-sum payments, online payments, smart cards or any other such schemes which would facilitate consumers' payments and also provide details of such procedure on its website;
  - (d) raise the bill at least fifteen days before the due date of the payment for domestic consumer and seven days before due date for commercial and industrial consumers;
  - (e) issue the first bill only after energizing the connection;
  - (f) issue a duplicate bill free of cost, if requested by the consumer;
  - (g) resolve the issue within ten days in case it is established that the meter reading is not correctly reflected in the bill;
  - (h) reflect adjustment of any excess payment made by the consumer in the subsequent bill failing which interest on the excess payment

shall be payable by the entity at the prevailing Prime Lending Rate (PLR) notified by the State Bank of India;

- (i) the bill shall contain following details, namely:-
  - (i) Consumer details: Account Number, Name, Address. Phone number;
  - (ii) Consumption details: consumer category, consumption details, date of reading (old, new and next due on);
  - (iii) Network Tariff, Charges for the last mile connectivity if applicable, taxes, levies, the sale price charged for supply of gas, penalty chargeable for payment after due date and total dues payable;
  - (iv) in the case of CNG consumer, the entity shall also indicate the compression charges for CNG;
  - (v) in the case of domestic consumers, the entity shall indicate additional parameters, namely, average consumption in the last six months, excess payments made by consumer, if any, other charges if any, collected by the entity from the consumer during the billing cycle etc;
  - (vi) the invoice shall also indicate the entity related details like Name, Address and Telephone numbers of Bill Collection Centre, their timings, Incharge-Complaint Receiving Cell, Nodal Officer and Appellate Authority for dealing with consumer complaints;
- (j) if the meter is found to be defective and the supply is continuing the bill for such period shall be based on average consumption of the last six billing cycles;
- (k) the entity shall acknowledge immediately any complaints filed by the consumer on billing;
- (l) there shall be a provision for the consumer to lodge the complaint through email also;
- (m) the complaint shall be addressed within ten days and if additional time is required, then, it has to be conveyed to the consumer along with reasons thereof;
- (n) in case of consumer's request for final bill settlement, the entity shall arrange a special meter reading for final bill within seven days and -
  - (a) final bill shall be generated within seven days of the closure of gas supply;
  - (b) once the final bill is raised, the entity shall not have any right to recover any charge other than those in the final bill.

## **8. Disconnection of PNG Connection.**

### **(1) Disconnection by the entity**

- (a) In case of a domestic consumer defaulting on payments, the entity may issue a notice for a period of not less than fifteen days and disconnect if the payment is not received within the notice period.

- (i) register each complaint by allotting a unique identification number to be called the docket number and communicate docket number to the consumer.
  - (ii) intimate the action taken on the complaint to the consumer through telephone or other electronic means or any other means.
  - (iii) intimate contact details of the Nodal Officer (including his name, telephone number and address) to the consumer to whom the consumers may approach directly in case the complaint is not resolved to the satisfaction of the consumer;
  - (c) the entity shall also nominate an Ombudsman, who is not an employee of the entity, with the prior approval of the Board;
  - (d) the Ombudsman so appointed shall have appropriate jurisdiction to address consumer complaints not resolved at the Nodal Officer's level;
  - (e) while the Ombudsman's decision shall be binding on the entity, it shall not detract from the consumer's right to approach an appropriate forum for pursuing his complaint if he is not satisfied with the Ombudsman's decision.
- (3) The entity shall maintain a database of information regarding complaints redressal and submit an "Annual Returns" to the regulator as per Schedule -I.
- (4) The entity shall appoint an independent third party with the prior approval of the Board to carry out annual consumer satisfaction surveys on a scientific sample of consumers;
- (a) the survey questionnaire shall be formulated by the entity in association with the third party consultant;
  - (b) the findings of the same shall have to be aggregated, analyzed and submitted to the Board.

**Schedule I - Annual Returns**  
**[See regulations 9(1) (b) and 11(3)]**

Information required to be submitted in the Annual Returns

1. Technical:

- (1) The quantity and specification of each type of gas entering the distribution system from each source
- (a) summary of results of tests conducted to ascertain metering accuracy
  - (b) information in respect of:
    - (i) accidents or emergencies, fire, explosion, near-miss incidents, leakages if any, during the year;
    - (ii) the number of disruptions, the causes for disruption, the number of incidents where gas supply could not be restored within six hours;

- (iii) total quantity of gas distributed to different segments of consumers.

2. Consumers:

(a) Consumer Numbers:

- (i) total number of consumers;  
(ii) number of new consumers added in each segment along with annual gas consumption;  
(iii) Network Tariff, , compression charges, penalty charges for payment after due date collected during the year;  
(iv) month wise weighted average price at which the gas was purchased by the entity and the sale price charged for each of the consumer segments for supply of gas during the month;

(b) disconnection for non-payment and re-connection:

- (i) number of reminder notices dispatched to each consumer segment;  
(ii) number of disconnection notices dispatched;  
(iii) number of actual disconnections;  
(iv) number of actual re-connections on the same name.

(c) Disconnection and re-connection on other grounds

- (i) number of disconnection notices dispatched to each consumer segment;  
(ii) number of actual disconnection carried out;

3. Complaints:

- (a) total number of consumers' complaints from each consumer segment;  
(b) consumer complaints shall be categorized under different consumer segments and action taken on complaints shall be submitted as per format given below:

QoS Parameter (Benchmark)	No. of complaints per 100 connections per month	percentage complaints resolved within week	Mean Time: the average time taken to resolve a complaint	Number of complaints pending for over a month
Activation / Refund delays				
Faults/ Disruption/ Delay in restoration				
Pressure/Quality/other parameters of gas				

Billing/ Payment				
Others				

4. **Regulatory Compliance Plan:**

- (a) details of the entity's actual performance against the standards, indicators and targets issued by the Board as per service obligation;
- (b) if the performance is below the targets specified, the entity shall provide the reasons for the failure to meet the targets and strategies for achieving the targets.

5. **Reliability of Supply:**

- (a) unplanned interruptions to supply- for each incident
  - (1) reasons for the interruption;
  - (2) duration;
  - (3) number of consumers affected.
- (b) planned interruptions to supply- for each incident
  - (i) reasons for the interruption;
  - (ii) duration;
  - (iii) number of consumers affected.
- (c) month wise number of incidents in which CNG Consumers who could not be supplied gas due to quality, quantity and pressure issues or equipment failure at the dispensing station.

[F. No. S-Admn./II/8/2010]

RATAN P. WATAL, Secy.

**PETROLEUM AND NATURAL GAS REGULATORY BOARD****NOTIFICATION**

New Delhi, the 1st, September, 2010

**G.S.R. 722(E).**—In exercise of the powers conferred by section 61 of the Petroleum and Natural Gas Regulatory Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely:-

**1. Short title and commencement.**

- (1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipelines) Regulations, 2010.
- (2) These shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**

(1) In these regulations, unless the context otherwise requires,-

- (a) "Act" means the Petroleum and Natural Gas Regulatory Board Act, 2006;
- (b) "appointed day" means the date of October 1, 2007 when the Central Government notified the establishment of the Petroleum and Natural Gas Regulatory Board;
- (c) "Board" means the Petroleum and Natural Gas Regulatory Board established under sub-section (1) of section 3 of the Act;
- (d) "development of petroleum and petroleum products pipeline" means laying, building, operating or expanding a petroleum and petroleum products pipeline;
- (e) "economic life" of petroleum, petroleum products pipeline shall be a period of twenty five years commencing from-
  - (i) the date of grant of authorization to the entity by the Board in case an entity proposes to lay, build or expand a petroleum and petroleum products pipeline on or after the appointed day;
  - (ii) the start-up date of the commencement of physical activities of laying, building or expanding the petroleum and petroleum products pipeline in case an entity started up laying, building or expanding a petroleum and petroleum products pipeline before the appointed day and the entity has either an authorization from the Central Government before the appointed day or an authorization from the Board under these regulations:

Provided that at the end of the aforesaid period of twenty five years, extension of the period of economic life may be considered by the Board for a block of ten years at a

time depending on the satisfactory compliance of the service obligations under these regulations and on such terms and conditions, as it may deem fit at that point in time;

- (f) "extension of pipeline" means increase in length of pipeline in either direction for transportation of petroleum and petroleum products from an existing pipeline or branch line to another geographical location without increase in capacity of the pipeline as determined by the Board under relevant regulations;
- (g) "expansion of pipeline" means increase in the capacity of existing pipeline beyond its previously authorized capacity due to installation of additional facilities such as pumping capacity, addition of pumping stations or loop lines etc. Expansion of pipeline may also include extension of the existing pipeline in either direction as long as it increases the capacity of the pipeline and in that case it shall be treated as expansion of the pipeline and not extension;
- (h) "line balancing tanks" means such intermediate petroleum products tanks as are required to be provided at the pipelines converging or diverging at a common point of two or more pipelines of one or more entities to balance out the product batch size or flow rates, or both;
- (i) "petroleum and petroleum products pipeline" means any pipeline including a branch or spur lines for transport of petroleum and petroleum products and includes all connected infrastructure such as pumps, metering units, storage facilities at originating, delivery, tap off points or terminal stations and the like connected to the common carriers or contract carriers including line balancing tanks and tankage required for unabsorbed interface, essential for operating a pipeline system but excluding pipelines, which are dedicated for supply of petroleum products to a specific consumer which are not for resale:
- Provided that the transporter may own, hire, outsource or use on hospitality basis such connected facilities on non discriminatory basis;
- (j) "petroleum and petroleum products pipeline tariff" means the unit rate of tariff for a petroleum and petroleum products pipeline (excluding statutory taxes and levies) in rupees per metric tonnes or in rupees per metric tonnes per kilo meter (Rs./MT/KM) for transport of petroleum and petroleum products and for the purpose of determination of tariff for petroleum and petroleum products pipeline, the Board shall be guided by the provisions of section 22 of the Act;
- (k) "originating pump station" means facilities installed at the start of the pipeline system for developing required fluid pressure so as to achieve desired flow rates in the pipeline system;
- (l) "intermediate pump station" means the installation located at any place between starting point and the terminal point having pumps to enhance the pressure of the fluid to achieve desired flow rate;
- (m) "tap off point(TOP)" means a facility on the pipeline from where the petroleum products are diverted into a delivery terminal or into a spur line or another pipeline and this may also be called the intermediate delivery station;

- (n) "terminal station" means a facility to receive products at the end of the pipeline and this may include the tankage for storage of petroleum and petroleum products;
- (o) "unsuccessful entity" means an entity which participated in the bid but could not succeed in getting authorization;
- (p) "shipper" means an entity and also includes a consumer who intends to utilize the capacity in the pipeline for transmission of petroleum and petroleum products;
- (2) Words and expressions used and not defined in these regulations, but defined in the Act or in the rules or regulations made there under, shall have the meanings respectively assigned to them in the Act or in the rules or regulations, as the case may be.

### **3. Applicability.**

These regulations shall apply to an entity-

- (a) which is laying, building, operating or expanding or which proposes to lay, build, operate or expand a petroleum and petroleum products pipeline for transporting one or more petroleum products including LPG and LNG; or
- (b) which proposes or is directed by the Board to convert a dedicated or contract carrier pipeline for supply of petroleum products to a specific consumer into a common or contract carrier petroleum and petroleum products pipeline, as the case may be.

### **4. Initiation of proposal through expression of interest route or suo-motu by Board.**

- (1) An entity desirous of laying, building, operating or expanding a petroleum and petroleum products pipeline shall submit an expression of interest to the Board in the form of an application at Schedule A along with an application fee as specified under the Petroleum and Natural Gas Regulatory Board (Levy of Fee and Other Charges) Regulations, 2007 as amended from time to time by the Board.
- (2) The Board may suo-motu initiate a proposal inviting entities to participate in the process of selection of an entity for laying, building, operating or expanding petroleum and petroleum products pipeline along any route.

### **5. Criteria for selection of entity for expression of interest route.**

- (1) In case the expression of interest fulfills the minimum eligibility criteria and the requirements list out at sub-regulation 6, the Board shall issue an open advertisement in at least one national and one vernacular daily newspaper (including webhosting) publishing receipt of an expression of interest and commencement of public consultation period of thirty days;
- (2) During the period of public consultation process, any person, authority or entity may submit in writing to the Board its views, if any, on the expression of interest;

(3) The Board may web-host all comments received to facilitate possible contracts for capacity booking by different entities with the entities that may be interested in the development of petroleum and petroleum products pipeline so as to facilitate coming up of an optimum sized petroleum and petroleum products pipeline through the bidding process as stated in regulation 7;

(4) The Board shall, based on the views received, within a period of thirty days after the last day of the public consultation period decide-

(a) not to allow the proposed petroleum and petroleum products pipeline if it is convinced that, instead of laying, building or expanding the proposed petroleum and petroleum products pipeline, the projected potential demand could be better met in cost-effective manner by expansion of an existing pipeline or any other ground; or

(b) to go ahead with the proposal with or without modification:

Provided that the Board in deciding so shall be guided by one or more of the following objectives, namely:-

(i) promoting competition among entities;

(ii) avoiding infructuous investment;

(iii) maintaining or increasing supplies or for securing equitable distribution or ensuring adequate availability of petroleum products throughout the country;

(iv) protection of consumer interest;

(v) facilitating rapid development of petroleum and petroleum products pipeline infrastructure.

(5) The Board may, within the period specified in sub-regulation (4), publish through an open advertisement in at least one national and one vernacular daily newspaper (including webhosting), the proposal for the development of petroleum and petroleum products pipeline and invite bids for the same.

(6) The Board shall scrutinize the bids received in response to the advertisement in respect of only those entities which fulfill the following minimum eligibility criteria, namely:-

(a) entity has paid the application fee along with the application-cum-bid as specified for trunk lines as specified under regulation 3 of the Petroleum and Natural Gas Regulatory Board (Levy of Fee and Other Charges) Regulations, 2007 as amended from time to time by the Board:

(b) entity is technically capable of laying and building petroleum and petroleum products pipeline as per the following qualifying criteria, namely:-

(i) entity has on its own, either departmentally or through contractors hired by it in the past, laid and built either a hydrocarbon pipeline of a length not less than three

hundred kilometers on a cumulative basis or a city or local natural gas distribution network;

- (ii) entity has a joint venture with another entity (with at least eleven per cent. equity holding by that entity) which in the past has either laid and built a hydrocarbon pipeline of a length not less than three hundred kilometers on a cumulative basis or a city or local natural gas distribution network;
- (iii) entity intends to lay and build proposed petroleum, petroleum products pipeline on lump sum turnkey or project management consultancy basis through one or more technically competent firms, which in the past have laid and built a hydrocarbon pipeline of a length not less than three hundred kilometers or a city or local natural gas distribution network and the entity shall also enclose a list of such firms along with aforesaid proof of their technical competence:

Provided that the entity shall have the freedom to choose such firms at the time of execution of the project and the Board reserves the right to cross verify the credential of the firms included in the list and seek clarifications; or

- (iv) entity has an adequate number of technically qualified personnel with experience in construction and pre-commissioning of hydrocarbon pipelines to independently undertake and execute the petroleum and petroleum products pipeline project on a standalone basis;

*Explanation.*- The entity shall have at least three technically qualified personnel on its permanent rolls having experience of not less than one year in the following areas, namely:-

- (a) right of way acquisition or clearance securing;
  - (b) design and execution of a hydrocarbon pipeline project;
  - (c) pre-commissioning including hydro-testing and restoration; and
  - (d) safety of hydrocarbon pipeline and installations;
- (c) entity is technically capable of operating and maintaining petroleum and petroleum products pipeline as per the following qualifying criteria, namely:-
- (i) entity on its own has an experience of at least one year in operations and maintenance of a petroleum and petroleum products pipeline of a length not less than three hundred kilometers on a cumulative basis;
  - (ii) entity has a joint venture with another entity (with at least eleven per cent. holding of that entity) which has an experience of at least one year in operations and maintenance of a petroleum and petroleum products pipeline;
  - (iii) entity intends to operate and maintain the proposed petroleum, petroleum products pipeline through an appropriate firms' technical assistance agreement for a period of at least one year with another party having experience of at least one year in operations and maintenance of a petroleum and petroleum products pipeline; or

- (iv) entity has an adequate number of technically qualified personnel with experience in commissioning and operation and maintenance (O&M) of petroleum, petroleum products pipeline and also has a plan to independently undertake the O&M activities of a petroleum, petroleum products pipeline on a standalone basis;

*Explanation-*

1. In relation to sub-clause (iii), –
  - (a) the entity shall submit in its application-cum-bid an exhaustive list of proposed firms with whom it desires to have a technical assistance agreement along with the proof of relevant experience of such firms and the entity may choose a firm or more from amongst the firms in this list for operation and maintenance of the proposed petroleum and petroleum products pipeline and the Board reserves the right to cross verify the credential of the firm or firms included in this list and seek any clarifications;
2. In relation to sub-clause (iv), the entity shall have at least three technically qualified personnel on its permanent rolls having experience of not less than one year in the following areas, namely:-
  - (a) commissioning of a hydrocarbon pipeline;
  - (b) operation and maintenance of petroleum and petroleum products pipelines and petroleum products installations;
  - (c) commercial and transport management issues including pricing, measurement, accounting, billing and collection; and
  - (d) safety of petroleum products infrastructure;
- (d) the entity has adequate financial strength to execute the proposed petroleum, petroleum products pipeline project and operate and maintain the same and shall meet the following financial criterion to qualify for bidding for a single petroleum, petroleum products pipeline, namely:-

<b>Range of estimated pipeline length including branch lines (in kilometers) (#)</b>	<b>Minimum combined net worth (*) of the entity along with its promoters available for investments in a single petroleum and petroleum products pipeline duly supported by letter of comfort from promoters (in million of rupees per kilometer of estimated pipeline length)</b>
1,001 and above	7.00
251-1000	6.00
Up to 250	5.00

- (\*) combined net worth (equity share capital plus free reserves, but excluding revaluation reserves) to be adequately represented by cash funds, which shall be available as bridge finance and as promoters equity contribution in the project as certified by a

Chartered Accountant based on the latest financial position of the entity and its promoters.

- (#) a fraction of the length in two decimals place less than 0.50 kilometer shall be ignored and equal to 0.50 kilometer or more shall be rounded off to next 1 kilometer;
- (e) the entity, on being declared as a successful bidder and not being a company registered under the Companies Act, 1956, shall convert itself into a company registered under the Companies Act, 1956;
- (f) the entity shall have a plan for utilization of the capacity in the proposed petroleum and petroleum products pipeline;
- (g) the entity shall furnish a bid bond in the form of Bank Guarantee along with the submission of the application-cum-bid under sub-regulation (7) of an amount determined as per the length of the proposed petroleum and petroleum products pipeline as per the applicable category indicated below:-

Pipeline Length including branch lines (in kilometers) (#)	Amount of bid bond (in million of rupees)
equal to 1,001 or more	150
between 251 and 1000	80
less than or equal to 250	20

- (#) a fraction of the length in two decimals place less than 0.50 kilometer shall be ignored and equal to 0.50 kilometer or more shall be rounded off to next 1 kilometer.
- (h) entity submitting the bid should not have charges framed under Chapter IX of the Act or have been punished or imposed any penalty under section 28;
- (i) the entity agrees to build extra capacity in the petroleum and petroleum products pipeline as per the following basis, namely:-
- (i) the capacity of petroleum and petroleum products pipeline shall be an aggregate of the following, namely:-
- (A) capacity requirements of the entity;
- (B) firmed-up contracted capacity with other entities; and
- (C) at least twenty five per cent. of the sum of (A) and (B) as an extra capacity.

*Explanation-*

The capacity shall be approved by the Board as per the basis specified in the relevant regulations for determining the capacity of petroleum and petroleum products pipeline.

- (ii) the capacity mentioned at item (C) of sub-clause (i) shall be available for use as common carrier by any third party on open access and non-discriminatory basis;

- (j) in case the entity submitting the bid does not fulfill the requirements of any criteria under clauses (a) to (j), the bid submitted by it shall be summarily rejected and a communication in this regard shall be sent to it and the financial bid shall not be opened for that entity;
- (k) the bid bond shall be –
- (i) encashed if an entity submitting the bid walks out;
  - (ii) released in respect of the unsuccessful entity submitting the bid;
  - (iii) retained till the specified performance bond is furnished at the time of authorization by the successful bidder.
- (7) The application-cum-bid shall be submitted in two parts in the form as specified in Schedule B in separate properly earmarked and sealed envelopes, namely:-
- (a) Part I (Technical bid) covering general particulars of the applicant and technical details of the project (including minimum eligibility criteria) under sub-regulation (6);
  - (b) Part II (Financial bid) covering the details under regulation 10.
- (8) A time period of one hundred and twenty days shall be allowed for submission of the application-cum-bid for grant of authorization for laying, building, operating or expanding the petroleum and petroleum products pipeline and any application-cum-bid received after the notified date and time shall not be considered. However, the Board may extend the date for submission of bid as deemed fit.
- (9) The Board may extend the date of submission of bids upto a period of one month through an advertisement in the same manner as specified under sub-regulation (5), in a situation where only a single application-cum-bid is received in response to the original advertisement.
- 6. Invitation by Board for laying, building, operating or expansion of petroleum and petroleum products pipeline.**
- The Board may *suo-moto* by inviting interested parties either through submission of expression of interest (EOI) or through participation in the process of selection, through an open advertisement, form a view regarding the development of a petroleum and petroleum products pipeline in a specific area, region or route, and in such a case, the procedure as specified in regulation 5 shall apply.
- 7. Bidding criteria.**
- (1) The Board shall tabulate and compare all financial bids meeting the minimum eligibility criteria as per the bidding criteria given below, namely:-
- (a) Lowness of the present value of the fixed unit petroleum and petroleum products pipeline tariff bid under this clause for the petroleum and petroleum products pipeline Petroleum and petroleum products pipeline tariff (Rs/MT) for the purpose of bidding

shall be for a period of ten years from the date of start of the operation of the pipeline. The Board shall review the tariff after ten years and fix for a block of five years thereafter on prospective basis.

The tariff shall be bid for each of the ten years.

This shall have a weightage of fifty per cent.:

- (b) Lowness of the present value of the variable unit petroleum, petroleum products pipeline tariff bid under this clause for the petroleum, petroleum products pipeline Petroleum and petroleum products pipeline tariff (Rs/MT/KM) for the purpose of bidding shall be for a period of ten years from the date of the start of operation of the pipeline. The Board shall review the tariff after ten years and fix for a block of five years thereafter on prospective basis.

The tariff shall be bid for each of the ten years.

This shall have a weightage of twenty per cent.:

- (c) Highness of the present value of the petroleum and petroleum products pipeline capacity (MMTPA) proposed to be created for transportation of petroleum and petroleum products in the petroleum and petroleum products pipeline over the economic life of the project. Petroleum and petroleum products pipeline capacity bid for transporting petroleum and petroleum products in the pipeline shall be for a period of twenty five years. The present value shall be computed for such stage wise, year wise capacity build up.

This shall have a weightage of thirty per cent.

- (2) The present value in the criteria at clauses (a) to (c) of sub-regulation (1) shall be calculated by the entity using a discount rate equal to twelve per cent. To bring all accruals or tariff at the end of the first year, that is, the first year tariff or capacity shall not be discounted. In other words, the discount factor for the first year shall be taken as unity.
- (3) The bids for the petroleum and petroleum products pipeline tariff under clauses (a) to (b) of sub-regulation and the volume under clause (c) of sub-regulation (1) by the entity shall be consistent with the assumptions considered by the entity in its approved DFR of the project.
- (4) Entity with the highest composite score considering the criteria under clauses (a) to (c) of sub-regulation (1) and as illustrated in Schedule C shall be declared as successful in the bid.

#### **8. Performance bond.**

- (1) Acceptance to the Central Government authorization as referred to in proviso to sub-section (1) of section 17 and grant of authorization by the Board under section 19 of the Act shall be issued to the entity after it furnishes a performance bond of an amount equal to 1% of the estimated project cost for the projects under execution or 1% of the project capitalized cost for the completed projects rounded off to the nearest lakh rupees or rupees twenty crores, whichever is less,

and it shall be applicable to all pipelines authorized under regulation 4, 17, 18 or 19:

Provided that in case the pipeline capacity is expanded for more than fifty per cent. of its authorized capacity, the performance bond shall be increased in proportion to the increase and shall be rounded off to the nearest lakh rupees subject to a total ceiling of rupees thirty crores.

*Explanation.*— The amount of the performance bond shall be revised by applying the above basis in case the estimated project cost undergoes a change on completion of the financial closure as per regulation 10 and subsequently based on the project capitalized cost. Whenever there is expansion or extension of the pipeline system the modified project capitalized cost shall be taken into account. The performance bond shall be initially valid for a period of three or five years and shall be renewed by the entity for the next block of three or five years, at least one month before the due date, upto the end of the economic life of the project.

- (2) The performance bond has been prescribed for guaranteeing the timely commissioning of the proposed petroleum and petroleum products pipeline as per the targets laid down in sub-regulation (3) and also for meeting the service obligations by the entity during the operating phase of the project, as the case may be. The performance bond shall be en-cashed by the Board for all pipelines in the similar manner as prescribed under regulation 14(1) under the bidding process.
- (3) The entity shall be allowed a maximum period of thirty six months from the date of grant of authorization for commissioning of the petroleum and petroleum products pipeline project as the case may be. However, if the Board is of the opinion that the reasons for delay are beyond the control of the entity implementing the project, the Board may take an appropriate view after giving reasonable time to the entity of being heard, and may also allow certain extension period which it may deem fit for the commissioning of the project.

#### **9. Grant of authorization.**

- (1) The letter of intent (LOI) shall be issued to the selected entity within a period of thirty days from the last date of opening of financial bid.
- (2) The authorization shall be granted to the selected entity in the format at Schedule D within a period of thirty days of the last date of submitting the performance bond.
- (3) The entity shall achieve a firm petroleum products tie-up and a financial closure as per regulation 10.
- (4) The grant of authorization to the entity shall not be renounced by way of sale, assignment, transfer or surrender to any person or entity during the period of three years from the date of its issue. However, an entity may induct new partner as long as it remains a lead partner.

- (5) The entity intending to renunciate the authorization in favour of another entity after the end of the three years period shall submit a proposal to the Board at least thirty days in advance and shall provide all information as may be called for by the Board.
- (6) The Board after satisfying itself that the proposal will not adversely affect the existing or proposed activities of laying, building, operating or expansion of the petroleum and petroleum products pipeline shall either accept the proposal in full or with such modifications as it may deem fit and in a case where the entity is permitted by the Board to take over the activities of laying, building, operating or expanding the petroleum and petroleum products pipeline, such entity shall abide by the existing or modified terms and conditions of the authorization including compliance with the service obligations:

Provided that the Board reserves the right to reject the proposal in public interest and in such a case the Board shall provide in writing the reasons for such rejection.

#### **10. Capacity booking, petroleum products tie-up and financial closure.**

- (1) The authorized entity may achieve agreement for transport of petroleum products with any entity equal to at least fifty per cent. of the petroleum and petroleum products pipeline capacity considered in clause (c) to sub-regulation (1) of regulation 7 for each of the first five years following the commissioning of the petroleum and petroleum products pipeline other than common carrier capacity.

- (2) The agreement specified under sub-regulation (1) shall be entered into a transparent manner and be based on the principle of at an arm's length:

Provided that up to ten per cent. of the throughput capacity in the petroleum and petroleum products pipeline specified under sub-regulation (1) may be booked on firm and mutually agreed terms without insisting on physical delivery of petroleum and petroleum products.

- (3) The entity shall submit copy of the agreement [Heads of Agreement (HOA)/ Memorandum of Understanding (MOU)] specified under sub-regulation (1) to the Board within a period of one hundred and eighty days of the date of the issue of the authorization.

- (4) The authorized entity shall obtain the financial closure of the project from a scheduled bank or financial institution within a period of one hundred and eighty days from the date of the authorization.

- (5) In case of an internally financed project, the entity shall submit the approval of its Board of Directors' for the detailed feasibility report (hereinafter referred as DFR) of the project along with its financial plan within one hundred and twenty days of the authorization:

Provided that the Board may ask the entity to submit any further details or clarifications on the financial closure.

- (6) In case the entity fails to meet the requirements at sub-regulations (1) to (5), the authorization of the entity for laying, building, operating or expanding petroleum,

petroleum products pipeline shall be cancelled and the performance bond shall be encashed and the Board reserves the right to re-award the authorization in a transparent manner and the entity shall have no right whatsoever against the Board for seeking any compensation or remedy on this account.

#### **11. Fixation and recovery of petroleum and petroleum products pipeline tariff.**

- (1) The petroleum and petroleum products pipeline tariff shall be fixed on entry, exit point basis, as per the bid by the entity, namely, under criteria (a) to (b) of sub-regulation (1) of regulation 7.
- (2) The petroleum and petroleum products pipeline tariff determined for different TOPs on the basis specified in sub-regulation (1) shall be accordingly recovered by the entity from the customers located in different tariff zones.
- (3) The applicable petroleum and petroleum products pipeline tariff shall be recovered through an invoice on a non-discriminatory basis, that is, without any premium. The tariff for the pipeline so bid shall be the ceiling tariff. The entity is free to charge less than the tariff bid on a non discriminatory basis.
- (4) The authorized entity is expected to maintain the operating pressure or flow in the petroleum and petroleum products pipeline at all times as per its detailed feasibility report (hereinafter referred as DFR) without impairing the deliverable pressure requirements as specified in the contracts with the existing customers and also in line with the relevant regulations for technical standards, specifications including safety standards:

Provided that the authorized entity may separately charge additional pumping charge to the extent not included in the petroleum and petroleum products pipeline tariff as specified under sub-regulation (1) from such customer, to whom the supply of petroleum products is required at a specific deliverable pressure as defined in the contract and beyond the operating pressure profile of the petroleum and petroleum products pipeline as envisaged in the DFR.

#### **12. Expansion of capacity in petroleum and petroleum products pipeline.**

- (1) The entity may transport upto ten per cent. extra volume or expand the authorized capacity in the petroleum and petroleum products pipeline upto ten per cent. and immediately inform the Board of its decision:

Provided that there shall be no increase in the petroleum and petroleum products pipeline tariff post-expansion.

- (2) In case it is proposed to expand the capacity of the petroleum and petroleum products pipeline by more than ten per cent. of that authorized by the Board, the entity shall submit a proposal for consideration of the Board and the Board may allow for expansion of the capacity in the petroleum and petroleum products pipeline provided that the entity agrees to a reduction in the unit petroleum and petroleum products pipeline tariff by sharing fifty per cent. of the proposed incremental tariff revenue calculated based on the applicable unit petroleum and petroleum products pipeline tariff before expansion and the incremental volumes sought to be transported.

Explanation: The above provision of sharing fifty per cent. of the proposed incremental tariff revenue shall be applicable for the bidding period of ten years.

Provided that the Board shall review the tariff after ten years and fix for a block of five years thereafter on prospective basis. Any expansion beyond the period of bidding shall be submitted to the Board for authorization in line with the provisions of relevant regulations.

### 13. Post-authorization monitoring of activities (pre-commissioning).

- (1) An authorized entity is required to provide, on a quarterly basis, a progress report detailing the clearances obtained, targets achieved, expenditure incurred, works-in-progress and any other relevant information in the form at Schedule E.
- (2) The Board, directly or through an approved third party agency, shall seek compliance by the entity to the relevant regulations for technical standards and specifications including safety standards through conduct of technical and safety audits during the pre-commissioning phase, as well as on an on-going basis thereafter, for ensuring safe commissioning and operation and maintenance of the petroleum and petroleum products pipeline.
- (3) The Board may allow re-routing of the petroleum and petroleum products pipeline provided that such re-routing does not result in increase in petroleum and petroleum products pipeline length by more than ten per cent. of the authorized length of the petroleum and petroleum products pipeline:

Provided that the petroleum and petroleum products pipeline tariff remains the same as per the authorization.

- (4) The Board shall monitor the progress of the entity in achieving various targets with respect to the petroleum and petroleum products pipeline project, and, in case of any deviations or shortfall, advise remedial action to the entity.

### 14. Service obligations of authorized entity (post commissioning).

- (1) The entity shall meet the annual target of transporting petroleum and petroleum products equal to the volume of petroleum and petroleum products quoted in the bid and the Board shall monitor the actual progress in this regard on a quarterly basis:

Provided that non-fulfillment of the annual target by the entity shall result in default and encashment of the performance bond on the following basis, namely:-

(a) For the first default :

- a. ten per cent, of the amount of the performance bond for the default upto ten per cent. of annual target of transporting petroleum and petroleum products;
- b. twenty per cent. of the amount of the performance bond for the default upto fifty per cent. above ten per cent. of annual target of transporting petroleum and petroleum products;

- c. twenty five per cent. of the amount of the performance bond for the default above fifty per cent. of annual target of transporting petroleum and petroleum products;
- (b) For the second default :
- a. twenty per cent. of the amount of the performance bond for the default upto ten per cent. of annual target of transporting petroleum and petroleum products;
  - b. forty per cent. of the amount of the performance bond for the default upto fifty per cent. above ten per cent. of annual target of transporting petroleum and petroleum products;
  - c. fifty per cent. of the amount of the performance bond for the default above fifty per cent. of annual target of transporting petroleum and petroleum products;
- (c) one hundred per cent. of the amount of the performance bond for the third default:

Provided further that the entity shall make good the encashed performance bond in each of the cases at clause (a) to (c) within a week of encashment and in case of not meeting this requirement, the authorization shall be liable for termination.

- (2) The authorized entity shall not make it conditional to the sourcing of petroleum and petroleum products from itself or its affiliates to any shipper which intends to transport petroleum and petroleum products in the petroleum and petroleum products pipeline.
- (3) The authorized entity shall give wide publicity of the capacity available in the petroleum and petroleum products pipeline for use on common carrier or contract carrier basis to encourage maximum utilization of the pipeline capacity and shall maintain information in this regard, on its official website, as specified in the relevant regulations on the access code for petroleum and petroleum products pipelines.
- (4) The capacity available in petroleum and petroleum products pipeline for use as common carrier shall be allocated on the basis specified in the relevant regulations on the access code and declaring petroleum and petroleum products pipelines as contract carrier or common carrier.
- (5) The authorized entity shall strictly adhere to the provisions under the relevant regulations for affiliate code of conduct right from the stage of submission of the application-cum-bid and onwards including the operative phase of the petroleum and petroleum products pipeline.
- (6) The authorized entity shall adhere to the requirements of unbundling of the activity of transportation in the petroleum and petroleum products pipeline from the activities of distribution or marketing of petroleum products transported in the petroleum and petroleum products pipeline as and when so decided by the Board.
- (7) The authorized entity shall be responsible for getting the technical and safety audits carried out by independent technical experts at intervals specified or directed by the Board during the pre-commissioning phase as well as on an on-going basis thereafter to ensure compliance with the relevant regulations for the technical standards and specifications including safety standards and the audit report along with the findings

shall be submitted to the Board for its review and advise of remedial action, if any, to the entity.

- (8) The third party technical and safety audits shall be carried out by independent technical experts or accredited agencies out of the panel approved by or registered with the Board in compliance with the relevant regulations.

#### 15. Quality of service standards.

- (1) The entity laying, building, operating or expanding a petroleum and petroleum products pipeline must comply with the quality of service standards as specified in Schedule F.
- (2) The performance of the entity in complying with the quality of service standards shall be periodically assessed by the Board and compared against the minimum prescribed benchmarks and a performance consistently below the minimum prescribed benchmark may lead to the consequences specified under regulation 16.

#### 16. Consequences of default and termination of authorization procedure.

An authorized entity shall abide by all the terms and conditions specified in these regulations and any failure in doing so, except for the default of the service obligation under sub-regulation (1) of regulation 14 and *force majeure*, shall be dealt with as per the following procedure, namely:-

- (a) the Board shall issue a notice to the defaulting entity allowing it a reasonable time to fulfill its obligations under the regulations;
- (b) no further action shall be taken in case remedial action is taken by the entity within the specified period to the satisfaction of the Board;
- (c) in case of failure to take remedial action, the Board may encash the performance bond of the entity on the following basis, namely:-
- (i) twenty five percent of the amount of the performance bond for the first default;
  - (ii) fifty percent of the amount of the performance bond for the second default;

Provided that the entity shall make good the encashed performance bond in each of the cases at sub-clause (i) and (ii) within a week of encashment failing which the remaining amount of the performance bond shall also be encashed and authorization of the entity terminated;

- (iii) one hundred percent of the amount of performance bond for the third default and simultaneous termination of authorization of the entity;
- (d) the procedure for implementing the termination of an authorization shall be as provided in Schedule G.

(e) without prejudice to as provided in clauses (a) to (d), the Board may also levy civil penalty as per section 28 of the Act in addition to taking action as prescribed for offences and punishment under Chapter IX of the Act.

**17. Entities authorized by the Central Government for laying, building, operating or expanding petroleum and petroleum products pipeline before the appointed day.**

- (1) The entity shall submit relevant information along with supporting documents in the form as per Schedule H.
- (2) The entity shall abide by the technical standards, specifications including safety standards as specified under the relevant regulations.
- (3) The Board shall monitor the actual progress made by the entity in the activities of laying, building or expanding the petroleum and petroleum products pipeline on a quarterly basis with reference to the period of commissioning, the targets specified in the DFR of the project, and the terms and conditions of the authorization with a view to avoiding any time or cost over-runs which may adversely affect the petroleum and petroleum products pipeline tariff:

Provided that in case of any delay in the commissioning of the petroleum and petroleum products pipeline or meeting any target beyond that specified in the authorization, the Board reserves the right to-

- (a) not consider the additional costs attributable to the time over-run while fixing the petroleum and petroleum products pipeline tariff as specified under clause (5); or
  - (b) encash the performance bond or bank guarantee, if any and advise the Central Government for cancellation of the authorization.
- (4) The Board shall approve the petroleum and petroleum products pipeline tariff to be charged by the entity based on the methodology as specified under the relevant regulations on determination of petroleum and petroleum products pipeline tariff.
  - (5) The activities of the entity may be subject to such other regulations as may be applicable as per the provisions of the Act.

**18. Entity not authorized by the Central Government for laying, building, operating or expanding petroleum and petroleum products pipeline before the appointed day.**

- (1) An entity laying, building, operating or expanding petroleum and petroleum products pipeline at any time before the appointed day but not duly authorized to do so by the Central Government shall apply immediately for obtaining an authorization in the form as per Schedule I.
- (2) The Board may consider the following criteria while considering the application for grant of authorization, namely:-
  - (a) the entity meets the minimum eligibility criteria as specified in clauses (a) to (e) and (i) of sub-regulation (6) of regulation 5 before the appointed date and is possessing all

necessary statutory clearances, permissions, no objection certificates from the Central and State Governments and other statutory authorities;

- (b) an entity which is not registered under the Companies Act, 1956 at the time of submitting the application for grant of authorization shall undertake to become a company registered under the Companies Act, 1956:

Provided that the Board may exempt an entity to register under the Companies Act, 1956 on such conditions as it may deem appropriate;

- (c) a satisfactory assessment of the actual physical progress made and the financial commitment thereof till immediately before the appointed day in comparison with the entity's DFR appraised by the financial institution funding the project. In case the project has not been funded by any financial institution, the Board may appraise the DFR. The DFR of the entity should clearly indicate the specified length, route and capacity of the proposed petroleum and petroleum products pipeline;
- (d) in respect of the actual physical progress made and the financial commitment thereof referred to in clause (c), a physical progress of at least twenty five percent and a financial commitment of at least twenty five percent of the capital expenditure identified for the petroleum and petroleum products pipeline project as per the DFR immediately before the appointed day may be considered as adequate;
- (e) the Board reserves the right to get the actual physical progress and the financial commitment certified and depending upon the progress achieved, the Board may consider authorizing the entity for laying, building, operating or expanding the petroleum and petroleum products pipeline-
- (i) as per the route and length as specified in its DFR;
  - (ii) as per the route or length actually covered under implementation till the appointed day; or
  - (iii) as per the route or length specified by the Board;
- (f) in relation to laying, building, operating or expanding the petroleum and petroleum products pipeline, it is for the entity to satisfy the Board on the adequacy of its ability to meet the applicable technical standards, specifications and safety standards as specified in the relevant regulations for technical standards and specifications including safety standards;
- (g) assessment of the financial position of the entity in timely and adequately meeting the financial commitments in developing the petroleum and petroleum products pipeline project as appraised by a financial institution and an examination of the audited books of accounts of the entity;
- (h) the booking of the capacity in the petroleum and petroleum products pipeline should be equal to at least fifty percent of the sum of the own capacity requirements of the entity and firmed-up contracted capacity and the agreements in this regard should have been entered in a transparent manner and based on the principle of *at an arm's length*;

- (i) the entity shall submit copies of the agreements for transportation or supplying of petroleum products by the petroleum and petroleum products pipeline for the firm-ed-up contracted capacity specified under clause (h) to the Board; and
  - (j) any other criteria considered as relevant by the Board based on the examination of the application.
- (3) The evaluation of the application in terms of the clauses (a) to (j) of sub-regulation (2) shall be done in totality considering the composite nature and the inter-linkages of the criteria.
  - (4) The Board, after examining the application in terms of the criteria under sub-regulation (3) and also taking into account the requirements in other regulations may form a *prima-facie* view as to whether the case should be considered for authorization.
  - (5) In case of *prima-facie* consideration, the Board shall issue a public notice in one national and one vernacular daily newspaper (including webhosting) giving brief details of the project and seek comments and objections, if any, within thirty days from any person on the proposal.
  - (6) The Board, after examining the comments and objections, if any, under sub-regulation (5), may either consider or reject the case for grant of authorization for the petroleum and petroleum products pipeline.
  - (7) In case it is decided to grant authorization, the same shall be in the form at Schedule D;
  - (8) In case of rejection of the application, the Board shall pass a speaking order after giving a reasonable opportunity to the concerned party to explain its case and proceed to select an appropriate entity for the project in terms of regulation 6.
  - (9) In case the entity is selected for grant of authorization for laying, building, operating or expanding petroleum and petroleum products pipeline,-
    - (a) the petroleum and petroleum products pipeline tariff shall be determined under the relevant regulations on determination of petroleum and petroleum products pipeline tariff;
    - (b) the entity shall abide by the technical standards, specifications including safety standards as specified under relevant regulations for technical standards and specifications including safety standards;
    - (c) the Board shall monitor the actual progress made by the entity in the activities of laying, building or expanding the petroleum and petroleum products pipeline on a quarterly basis with reference to the period of commissioning, the targets specified in the DFR of the project and the terms and conditions of the authorization with a view to avoiding any time or cost over-runs which may adversely affect the petroleum and petroleum products pipeline tariff:

Provided that in case of any delay in the commissioning of the petroleum and petroleum products pipeline or meeting any target beyond that specified in the

authorization, the Board reserves the right to not consider the additional costs attributable to the time over-run while fixing the petroleum and petroleum products pipeline tariff as specified under sub-regulation (a);

(d) the entity shall abide by the provisions under the relevant regulations on access code and declaring petroleum and petroleum products pipelines as common carrier or contract carrier;

(e) the provisions under regulations 8, 9, 13, 14, 15 and 16 shall apply to the entity.

**19. Provisions relating to dedicated pipelines for transport of petroleum products.**

(1) In respect of dedicated pipelines existing before the appointed day, the following provisions shall apply, namely:-

(a) entity having dedicated pipeline to transport petroleum products to a specific customer before the appointed day shall submit details of the pipeline length, route, capacity and customers served along with the DFR of the project to the Board within sixty days of notification of these regulations;

(b) Board may web-host details of dedicated pipeline seeking comments of general public with a view to ascertain whether such pipeline needs to be converted into petroleum and petroleum products pipeline in public interest;

(c) The Board may, based on the examination of the comments received, direct the entity to convert such pipeline into petroleum and petroleum products pipeline in overall public interest:

Provided that the entity shall be given an opportunity to present its case;

(d) The entity may also submit its proposal to convert its dedicated pipeline into petroleum and petroleum products pipeline to the Board along with the complete details and justifications and the Board may web-host details of dedicated pipeline seeking comments of general public with a view to ascertain whether such pipeline needs to be converted into petroleum and petroleum products pipeline in public interest and the Board may, based on the examination of the comments received and in overall public interest, issue grant of authorization to the entity for conversion into a petroleum and petroleum products pipeline.

(2) In respect of dedicated pipelines proposed to be laid, built, operated or expanded after the appointed day, following provisions shall apply, namely:-

(a) the entity proposing to lay, build, operate or expand a dedicated pipeline to transport petroleum products to a specific customer and is not for resale after the appointed day shall submit details on pipeline length, route, capacity and details of the customers served along with the DFR of the project to the Board at least thirty days before the proposed commencement of laying and building of the dedicated pipeline;

(b) Board may web-host details of the proposed dedicated pipeline seeking comments of general public with a view to ascertain whether, instead of a dedicated pipeline, the

public interest would be better served if a petroleum and petroleum products pipeline is laid, built, operated or expanded;

- (c) in case, based on the examination of the comments received, the Board is of the view that instead of a dedicated pipeline, petroleum and petroleum products pipeline would better serve the public purpose the Board shall advise the entity appropriately within sixty days of the receipt of the information from the entity;
- (d) in case, despite receiving the advice from the Board under clause (c), the entity still wishes to lay, build, operate or expand a dedicated pipeline, it may do so:

Provided that simultaneous to the entity building a dedicated pipeline, the Board may, on *suo-motu* basis, decide to issue an expression of interest for laying, building, operating or expanding petroleum and petroleum products pipeline:

Provided further that the entity shall not be allowed to apply to the Board for conversion of its dedicated pipeline into petroleum and petroleum products pipeline for a period of five years from the date of the commissioning of its dedicated pipeline;

- (e) the Board may, in respect of a dedicated pipeline laid, built, operated or expanded after the appointed day, direct the entity to convert dedicated pipeline into petroleum, petroleum products pipeline as per the following procedure, namely:-
- (i) the Board may web-host details of dedicated pipeline seeking comments of general public with a view to ascertain whether such pipeline needs to be converted into petroleum and petroleum products pipeline in public interest;
- (ii) the Board may, based on the examination of the comments received, direct the entity to convert such pipeline into petroleum and petroleum products pipeline in overall public interest:

Provided that the entity shall be given an opportunity to present its case.

- (3) In case a dedicated pipeline is converted into petroleum and petroleum products pipeline under sub-regulations (1) or (2), the provisions under the sub-regulation (9) of regulation 18 shall apply to such pipeline.

## **20. Access and inter-connectivity to petroleum and petroleum products pipeline.**

The entity shall follow the access code and allow inter-connectivity to another petroleum and petroleum products pipeline as per the provisions of the relevant regulations for access code for petroleum and petroleum products pipelines. The entity shall abide by an affiliate code of conduct notified by the Board for the purpose.

## **21. Provisions regarding modifications or expansion or extension in a petroleum and petroleum products pipeline.**

- (1) An entity proposing to
- i) carry out any modification or expansion or extension in a petroleum and petroleum products pipeline, or

- ii) discontinue the operations in the petroleum and petroleum products pipeline or any segment thereof, or
- iii) add a new tap off point or discontinue an existing tap off point, or
- iv) provide a new connectivity or discontinue an existing connectivity with the receiving terminal or with the dispatch terminal-

which is likely to affect the installed capacity of the petroleum and petroleum products pipeline, whether in part or in full, shall seek a prior approval from the Board in this regard and shall contain full particulars, map of all facilities and justification for the proposed modification in line with the requirements of the access code for such pipelines and relevant provisions of these regulations and any other regulations applicable in this respect:

Provided that proposal for any increase in length beyond 10 percent of the authorized length of the trunk or transmission pipeline or 50 kilometer whichever is lower, shall be submitted to the Board for authorization in line with the provisions of the Act as well as regulations:

Provided further that there shall be no change in the pipeline tariff post-extension of pipeline and it will not adversely affect the existing customers.

- (2) The entity may expand the authorized capacity in the petroleum and petroleum products pipeline upto ten per cent. and immediately inform the Board of its decision:

Provided that there shall be no change in the pipeline tariff post-expansion.

- (3) In case it is proposed to expand the capacity of the pipeline by more than ten per cent. of that authorized by the Board, the entity shall submit a proposal for consideration of the Board and the Board may allow for expansion of the capacity in the pipeline without adversely affecting the customers served by the pipeline. The financial implications for the same shall be considered in the next review period for tariff in line with the provisions of the relevant regulations on tariff for pipelines.
- (4) In case of suo moto proposal for extension or expansion of the pipeline the first right of refusal shall be with the owner of the pipeline.
- (5) The Board may examine that the proposal is not prejudicial to fair trade and competition between the entities, and shall give a decision on the proposal within a period of sixty days of receipt of such proposal.

## 22. Miscellaneous.

- (1) These regulations shall apply to all other petroleum and petroleum products pipeline proposals which have been granted provisional authorization by the Board before the notification of these regulations. The entities shall comply with all the provisions of these regulations for such proposals and submit the details within a period of thirty days from notifications of these regulations.
- (2) If any dispute arises with regards to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final.
- (3) Time limits specified for the various activities may be relaxed by the Board in a transparent manner.

**Schedule A**

[see regulations 4 (1) and 5 (6)]

Application form for submitting expression of interest by an entity desirous of laying, building, operating or expanding a petroleum and petroleum products pipeline.

A. Only an entity which complies with the minimum eligibility criteria as per regulation 5 (6) of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipelines) Regulations, 2010 is eligible to submit its application for submission of expression of interest to the Board.

B. Entities must enclose documentary proof in support of its meeting the minimum eligibility criteria.

C. The entity submitting the expression of interest must submit the following information:

1	General Details
A	Name of the Entity
B	Type of firm – Public Limited Company / Private Limited Company / Partnership firm / Proprietorship firm / Others (please specify)
C	Date of incorporation and date of commencement of business
D	Address of the Registered office
E	Name, addresses, telephone numbers, e-mails of all directors / partners / proprietor.
2	Primary Technical Data
A	Point of origin and the end point of the proposed petroleum and petroleum products pipeline
B	Indicative route of the proposed petroleum and petroleum products pipeline indicating the likely petroleum products injection points and likely delivery points depicted on a physical map
C	Petroleum products availability position
D	Potential demand of petroleum products enroute the petroleum and petroleum product pipeline
E	Assessment of total volume for transportation in the proposed petroleum and petroleum products pipeline
F	Any other issue considered as relevant by the entity
3	Application fee of Rs. _____ paid vide demand draft/ pay order number < ___ > and dated < ___ > drawn on <name of bank and branch>.

Date:

Place:

Name and signature of entity or authorized signatory

Official Seal

**Schedule B**

[see regulation 5 (7)]

Application-cum-bid for grant of authorization for petroleum and petroleum products pipeline.

To  
The Secretary,  
Petroleum and Natural Gas Regulatory Board,  
1<sup>st</sup> Floor, World Trade Centre, Babar Road,  
New Delhi – 110 001.

Sub: Application-cum-bid for grant of authorization for laying, building, operating or expanding petroleum and petroleum products pipeline <name indicating the proposed route from the starting point till the end-point> under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipelines) Regulations, 2010.

(Attach separate sheets for providing information wherever necessary)

Part-I – General details of the entity and technical details of the project (to be submitted in a properly earmarked, sealed and separate envelope)	
1	Details of the entity
A	Name of the entity
B	Type of firm – Public Limited Company/Private Limited Company/Partnership firm/Proprietorship firm / others.
C	Date of incorporation and date of commencement of business.
D	Address of registered office.
E	Name, addresses, telephone numbers, e-mails of all directors / partners / proprietor.
2	Financial details
A	Share capital or proprietor's own funds as applicable.
B	Loans – amount, tenure, moratorium period, rate of interest, taken from and asset mortgaged or hypothecated for securing the same, if any.
C	Reserves, if any
D	Fixed Assets
E	Current Assets
F	Current Liabilities
G	Sales Turnover
H	Profit After Tax
	(Attach copies of audited Profit and Loss Account and Balance Sheet for last three financial years).
3	Business activities of the entity
A	Details of all existing petroleum and petroleum products pipelines, if any, and including design specifications, installed capacity, capital cost, year-wise details of operating cost, date of commissioning, volumes transported along with details of

	customer profile, map and drawings showing details of existing facilities and future plan, petroleum products sources, unit tariff being charged, etc.	
B	Details of existing tie-up or collaboration with any entity for transport of petroleum products for existing petroleum and petroleum products pipelines.	
C	Details of other business, if any, being carried out by the promoters for the last five years.	
<b>4</b>		
Ownership and affiliate details		
A	Details of promoters	
B	Details of all affiliates of the entity mentioning their business relationship.	
C	The entity undertakes to produce all relevant records or documents of itself and its related entities.	Yes / No
D	Is the entity a company registered under the Companies Act, 1956?	Yes / No
E	The entity undertakes to become a company, in case it is not a company at the time of submission of this application-cum-bid, under the Companies Act, 1956 on selection for grant of authorization.	Yes / No
F	Promoters undertaking in the form of letter of comfort stating that their financial contribution in the project shall be infused if required within three months of the date of grant of authorization. Enclose the letter of comfort from the promoters.	Yes / No
<b>5</b>		
Technical details of the proposed petroleum and petroleum products pipeline		
A	Name of the proposed petroleum and petroleum products pipeline project.	
B	Detailed map indicating the route, section-wise length of the proposed petroleum and petroleum products pipeline with following details: (a) branch line (b) inter-connection points, if any (c) depiction of the proposed major facilities, such as pump stations, receiving terminal, delivery terminal, tap-off points, etc.	
C	Technical specifications of the project attaching the copy of the DFR etc.	
D	Development plan envisaged for the proposed petroleum, petroleum products pipeline project - design and installed capacity along with details of phased-out capital expenditure plans including the dates of commencement of operations phase-wise.	
E	Proposed plan for: (i) sourcing of petroleum products for injection in the petroleum and petroleum products pipeline; (ii) phase-wise capacity tie-up in the proposed petroleum and	

petroleum products pipeline.		
F	Are all applicable technical standards, specifications including safety standards (T4S), as specified under the relevant regulations for T4S have been complied with in designing the proposed petroleum and petroleum products pipeline? Provide full details.	Yes / No
G	Undertaking to develop Emergency response and Disaster Management Plan before commissioning of the pipeline.	Yes / No
H	Is the project entitled to any subsidy, exemption, deferment or waiver of any statutory levy (including income tax) from the Central or the State Governments? If yes, give complete details indicating the year-wise utilization plan of the entity.	Yes / No
I	Non-refundable Application fee under the regulation 5 (8).	Rs. < >
	Demand draft or pay order number and date	
	Name of issuing bank and branch	
J	Bid bond	Rs. < >
	Demand draft or pay order or Bank Guarantee number and date	
	Name of issuing bank and branch	
Part-II: Financial bid (to be submitted in a separate earmarked sealed envelope) to be opened for those entities qualifying the minimum eligibility criteria under regulation 5 (8)		
A	Present value (PV) of the fixed unit petroleum, petroleum products pipeline tariff bid for the petroleum and petroleum products pipeline [petroleum and petroleum products pipeline tariff (Rs/MT) for the purpose of bidding for a period of ten years. The Board shall review the tariff after ten years and fix for a block of five years thereafter on prospective basis.	using the discount rate of 12% is Rs.< > per MT  Year-wise unit petroleum and petroleum products pipeline tariff-  Year 1: Rs.< > per MT Year 2: Rs.< > per MT : : Year 10: Rs.< > per MT
B	Present value (PV) of the variable unit petroleum and petroleum products pipeline tariff bid for the petroleum and petroleum products pipeline [petroleum and petroleum products pipeline tariff (Rs/MT/KM) for a period of ten years. The Board shall review the tariff after ten years and fix for a block of five years thereafter on prospective basis.	using the discount rate of 12% is Rs.< > per MT per KM  Year-wise unit petroleum and petroleum products pipeline tariff-  Year 1: Rs.< > per MT per KM Year 2: Rs.< > per MT per KM: : Year 10: Rs.< > per MT

C	Present value (PV) of the petroleum products pipeline capacity (in million tons per annum) proposed to be created for transported in the petroleum and petroleum products pipeline over the economic life of the project. [petroleum products pipeline capacity created for transporting in the petroleum and petroleum products pipeline shall be for each year of the economic life of the project].	per KM using discount rate of twelve percent is < ___ > million tons per annum (MMTPA).  Year-wise petroleum and petroleum products capacity bid -  Year 1: < ___ > MMTPA  Year 2: < ___ > MMTPA : : Year 25: < ___ > MMTPA
<p><b>Note:</b> Please enclose a copy of the approved DFR of the proposed petroleum and petroleum products pipeline project for the purpose of sub-regulation (3) of regulation 7.</p>		

### DECLARATION

1. Certified that the above information is true to the best of my / our knowledge and belief and the information and data given in the annexure, attachments, enclosures and calculation sheets accompanying this application-cum-bid are correct, complete and truly stated, and if any statement made herein is found to be incorrect, the application-cum-bid shall be rejected, the application fee and the Bid Bond shall be forfeited and I / We shall be liable to be proceeded against and for punishment under the provisions of the Act.
2. I / We certify that the above application-cum-bid is the only application-cum-bid submitted and no other application-cum-bid has been or is being submitted separately for this petroleum, petroleum products pipeline by me / us.

Date:

Place:

Name and Signature of Entity/ Authorized Signatory

Official Seal

### Schedule C

[see regulation 7 (4) and the provisions under clause (a) to (c) of sub-regulation (1) of regulation 7]

Illustration for determining the highest composite score for ascertaining the successful bid for grant of authorization for petroleum and petroleum products pipeline.

Let there be three entities whose bids need to be compared for determining the successful bid over the bidding criteria stated under clauses (a) to (c) of sub-regulation (1) of regulation 7.

(A) Lowness of the present value of the fixed unit petroleum and petroleum products pipeline tariff bid for the petroleum and petroleum products pipeline [petroleum and petroleum products pipeline tariff (Rs/MT) for the purpose of bidding for a period of ten years].

Let,

FT1 = Present value of the fixed unit petroleum and petroleum products pipeline tariff bid (Rs/MT) for ten years by the 1<sup>st</sup> entity.

FT2 = Present value of the fixed unit petroleum and petroleum products pipeline tariff bid (Rs/MT) for ten years by the 2<sup>nd</sup> entity.

FT3 = Present value of the fixed unit petroleum and petroleum products pipeline tariff bid (Rs/MT) for ten years by the 3<sup>rd</sup> entity.

Assume that FT1 is lower than FT2 and FT2 is lower than FT3.

The lowest fixed unit petroleum and petroleum products pipeline tariff bid (LFT1) shall be given a score of 100% and the other fixed unit petroleum and petroleum products pipeline tariff bids shall be given a score in relation to LFT1 on a pro-rata basis as under-

$$\begin{aligned} \text{LFT1} &= 100 \% \\ \text{LFT2} &= 100 \% \times (\text{FT1} + \text{FT2}) \\ \text{LFT3} &= 100 \% \times (\text{FT1} + \text{FT3}) \end{aligned}$$

(B) Lowness of the present value of the variable unit petroleum and petroleum products pipeline tariff bid for the petroleum and petroleum products pipeline [petroleum and petroleum products pipeline tariff (Rs/MT/KM) for a period of ten years.].

Let,

VT1 = Present value of the variable unit petroleum and petroleum products pipeline tariff bid (Rs/MT/KM) for ten years by the 1<sup>st</sup> entity.

VT2 = Present value of the variable unit petroleum and petroleum products pipeline tariff bid (Rs/MT/KM) for ten years by the 2<sup>nd</sup> entity.

VT3 = Present value of the variable unit petroleum and petroleum products pipeline tariff bid (Rs/MT/KM) for ten years by the 3<sup>rd</sup> entity.

Assume that VT1 is more than VT2 and VT2 is more than VT3.

The lowest variable unit petroleum and petroleum products pipeline tariff bid (LVT3) shall be given a score of 100% and the other variable unit petroleum and petroleum

products pipeline tariff bids shall be given a score in relation to LVT3 on a pro-rata basis as under-

$$\begin{aligned} \text{LVT1} &= 100 \% \times (\text{VT3} + \text{VT1}) \\ \text{LVT2} &= 100 \% \times (\text{VT3} + \text{VT2}) \\ \text{LVT3} &= 100 \% \end{aligned}$$

(C) Highness of the present value of the petroleum products pipeline capacity (in million tons per annum) proposed to be created for transported in the petroleum and petroleum products pipeline over the economic life of the project [petroleum products pipeline capacity created for transporting in the petroleum and petroleum products pipeline shall be for each year of the economic life of the project].

Let,

- C1 = Present value of the petroleum products pipeline capacity bid (MMTPA) for twenty five years by the 1<sup>st</sup> entity.  
 C2 = Present value of the petroleum products pipeline capacity bid (MMTPA) for twenty five years by the 2<sup>nd</sup> entity.  
 C3 = Present value of the petroleum products pipeline capacity bid (MMTPA) for twenty five years by the 3<sup>rd</sup> entity.

Assume that C1 is lower than C2 and C2 is lower than C3.

The highest present value of the petroleum products pipeline capacity bid proposed to be created (HC3) shall be given a score of 100% and the present value of the other petroleum products pipeline capacity bids shall be given a score in relation to HC3 on a pro-rata basis as under-

$$\begin{aligned} \text{HC1} &= 100 \% \times (\text{HC1} + \text{HC3}) \\ \text{HC2} &= 100 \% \times (\text{HC2} + \text{HC3}) \\ \text{HC3} &= 100 \% \end{aligned}$$

Now, the composite score of three entities shall be computed by assigning the respective weights assigned to each of the bidding criterion as indicated below-

$$\begin{aligned} \text{Entity 1} &= 0.50 \times \text{LFT1} + 0.20 \times \text{LVT1} + 0.30 \times \text{HC1} \\ \text{Entity 2} &= 0.50 \times \text{LFT2} + 0.20 \times \text{LVT2} + 0.30 \times \text{HC2} \\ \text{Entity 3} &= 0.50 \times \text{LFT3} + 0.20 \times \text{LVT3} + 0.30 \times \text{HC3} \end{aligned}$$

The entity with the highest composite score shall be declared as successful in the bid.

**Schedule D**

[see regulations 9 (2) and 18 (7)]

Grant of authorization for laying, building, operating or expanding petroleum and petroleum products pipeline.

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To

&lt;Name of the successful entity&gt;

&lt;address&gt;

Subject: Grant of authorization for laying, building, operating or expanding petroleum and petroleum products pipeline along the route of < name of starting point, name of states or union territories passing through and the name of the end point> under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipelines) Regulations, 2010.

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Sir / Madam,

With reference to your application for grant of authorization for laying, building, operating or expansion of petroleum and petroleum products pipeline along the route of < name of starting point, name of states or union territories passing through and the name of the end point>, it has been decided to grant authorization to you, subject to the provisions under the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipelines) Regulations, 2010 on the following terms and conditions, namely:-

1. The route for laying, building, operating or expanding the petroleum and petroleum products pipeline shall be as depicted in the enclosed drawing [<name of the originating point>, <intermediate tap-off and interconnection points>, <name of branch line> and <name of the last delivery point> of the petroleum and petroleum products pipeline to be depicted ].
2. The entity shall complete the activities of laying, building or expanding activities of petroleum and petroleum products pipeline and commission the petroleum and petroleum products pipeline project as per the enclosed time schedule and targets. The entity is allowed a maximum period of thirty six months from the date of issue of the authorization letter for commissioning of the petroleum and petroleum products pipeline project. Any failure on the part of the entity in complying with the targets prescribed in the time schedule shall lead to consequences as specified under regulation 16 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipelines) Regulations, 2010.
3. The capacity in the petroleum and petroleum products pipeline shall be equal to < \_\_\_ > Million tons per annum (MMTPA).

4. The extra capacity in the petroleum and petroleum products pipeline shall be equal to < \_\_\_ > MMTPA as per the provisions specified in clause (j) of sub-regulation (6) of regulation 5 and shall be available for use on common carrier basis by any third party on open access and non-discriminatory basis.
5. The authorized entity shall be required to take prior approval from the Board for creation of any lien or charge or hypothecation on the assets of the petroleum and petroleum products pipeline to secure finances for the project and furnish details of utilization of funds. However, in case of raising funds from any financial institution or bank, the entity will be required to only inform the Board of the sanction of the funds, within a period of seven days.
6. The entity shall publish on its website the approved tariffs for each of the tariff zone of the petroleum and petroleum products pipeline.
7. The entity shall submit a detailed and clear financial closure report to the Board within a period of one hundred and twenty days from the date of authorization issued by the Board under regulation 9 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipelines) Regulations, 2010.
8. The furnishing of performance bond of Rs.< \_\_\_ > million is a guarantee for timely commissioning of the project as per the prescribed targets submitted in the bid and for meeting the performance undertakings during operating phase of the project.
9. The entity shall abide by the service obligations specified under regulation 14 and quality of service standards under regulation 15 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipelines) Regulations, 2010.
10. In case the authorization of the entity is terminated, the Board may assign the rights and obligations to any agency or another entity on such terms and conditions, as it may deem fit. Further, the entity may be required, as per the directions of the Board, to continue the operations of the petroleum and petroleum products pipeline at the same level till another agency or entity appointed by the Board takes over the full control of the petroleum and petroleum products pipeline.
11. The entity shall comply with the provisions under-
  - (a) the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipelines) Regulations, 2010;
  - (b) the Petroleum and Natural Gas Regulatory Board (Determination of Petroleum and Petroleum Products Pipeline Tariff) Regulations, whenever notified;
  - (c) the service obligations specified in Schedule J to the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipelines) Regulations, 2010;

(d) the relevant regulations for-

- (i) the technical standards and specifications, including safety standards;
- (ii) the access code;
- (iii) determination of capacity for petroleum and petroleum products pipeline;
- (iv) affiliate code of conduct;
- (v) declaring petroleum and petroleum products pipelines as common carrier or contract carrier;

(e) any other regulations as may be applicable and the provisions of the PNGRB Act, 2006.

12. The entity shall comply with any other term or condition which may be notified by the Board in public interest, from time to time.

You are requested to confirm your acceptance in the space provided below and return the same in original.

Yours Faithfully,

Sd/-

Dated:

Name & Designation of Officer  
On behalf of the PNGRB  
Official Seal

Acceptance of Grant of Authorization

I / We hereby agree to the grant of authorization issued by the Board vide letter ref. <\_\_\_> dated <\_\_\_> and agree to comply with all the terms and conditions subject to which I / We have been granted authorization for laying, building, operating or expanding petroleum and petroleum products pipeline along the route from the originating station <\_\_\_> in the State or the Union Territory of <\_\_\_> to the terminating station <\_\_\_> in the State or the Union Territory of <\_\_\_>.

Date:

Place:

Signature of the Entity or Authorized Signatory  
Name and Official Seal

**Schedule E**

[see regulation 13 (1)]

**Quarterly submission of data by authorized entity.**

- A. The data and information required to be submitted by the entity in the following form shall be analyzed by the Board by comparing the –
- (1) actual progress made by the entity including commissioning of the project versus the physical and financial targets, identified in its DFR; and
  - (2) actual volume of petroleum products transported in the petroleum and petroleum products pipeline versus the volume committed in the bid.
- B. Monitoring of the progress shall be taken up by the Board on a quarterly basis and the notice of deviations and shortfalls, if any, shall be sent to the entity for a prompt resolution. In case of any delay in meeting the yearly commitments within the notice period or in case of repeated violations, the entity may face the consequences specified under regulation 16 of the Petroleum and Natural gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand City or Local Petroleum and Petroleum Products Pipelines) Regulations, 2010.

A	Name of Authorized Entity		
B	Project Name		
C	Date of grant of authorization		
D	Date of commencement of operations		
E	Details of composition of the ownership of the entity (give details of variations, if any, since the date of authorization)		
	Information and data	For the Quarter	Cumulative for the year
F	Financial Details (in Rs. Million)		
1	Capital Investment		
	(a) <u>Fixed Assets</u>		
	Opening balance		
	Direct additions		
	Transfer from Capital Work-in-progress (CWIP)		
	Deletions, if any		
	Closing balance		
	(b) <u>CWIP</u>		
	Opening balance		
	Additions		

	Transfer to fixed assets		
	Deletions, if any		
	Closing balance		
2	Operating expenses(after commissioning of pipeline)		
	(a) Consumables and chemicals		
	(b) Utilities – Power and Fuel		
	(c) Salaries		
	(d) Repair and maintenance		
	(e) General administrative expenses		
	(f) Insurance		
	(g) Any other expenses (to be detailed)		
3	Financial Expenses		
	(a) Interest on Working capital borrowings (WCB)		
	(b) Interest on term loans		
4	Depreciation		
5	Revenue Earned(after commissioning of pipeline)		
	(a) Petroleum products transportation		
	(b) Marketing of petroleum products		
	(c) Other income - Interest, etc		
6	Loans Status		
	(a) Term Loans and Working capital loans		
	Opening		
	Added		
	Repaid		
	Closing		
	(Provide details of each loan - interest rate, moratorium period, term of the loan, terms and conditions, etc.)		
H	Physical Details		
1	(a) Volume transported in the petroleum and petroleum products pipeline (b) Volume committed in the bid and stated in the DFR (c) Variation in (a) versus (b) along with reasons (d) Volume delivered customer-wise at each of the delivery points.		
2	Petroleum and petroleum products pipeline length (in kilometers):		
	(a) till last quarter		
	(b) laid and built in the current quarter		
	(c) length as at the end of the quarter		
	(details to be provided outer diameter and pressure rating-wise)		

3	Number of pumping stations, intermediate delivery stations, TOPs etc		
	(a) Till last quarter		
	(b) Added now		
	(c) Total as on date		
4	Project completion status - actual achievements versus that as per the approved schedule (in % terms)		
	(Provide details for each of the target as per the approved time schedule to the grant of authorization and reasons for deviation from the same, if any)		
5	Any other information / data as may be prescribed by the Board or may be considered relevant by the entity.		

Date:

Place:

Signature of the entity or authorized signatory  
Name and Seal

Note :

The Information and data in the above format should be certified by a Chartered Accountant.

### Schedule F

[see regulation 15 (1)]

### Quality of Service Standards

#### General.

The purpose of specifying the quality of service standards is to specify the minimum level of performance expected of the entity in laying, building, operating or expanding the petroleum and petroleum products pipeline in terms of service to be provided to the customers and other entities. In order to enable the entity to satisfactorily comply with the quality of service standards, other stakeholders, like, customers and other entities are also expected to diligently fulfill certain minimum responsibilities. While the authorized entity shall have to mandatorily comply with the quality of service standards, it may widely advertise the minimum responsibilities expected of the customers and other entities and also incorporate the same suitably in the contracts. The quality of service standards are indicated below:-

#### 1. System upkeep and customer classification.

##### (1) Entity's responsibility:

- (a) after obtaining the authorization, entity shall publish in newspaper and its official website its plan to lay, build, operate or expand petroleum and petroleum products pipeline as per the authorized route for the information of the general public;
- (b) to ensure upkeep of the system as per the technical standards, specifications including safety standards specified under the relevant regulations;

- (c) to ensure that in case of disruption of supplies, the petroleum and petroleum products pipeline shall be accorded the first priority for use of the line pack volumes in the petroleum and petroleum products pipeline.

The contracts with the customers should accordingly contain a specific clause on dealing with interruptibility in petroleum products supplies;

- (d) to maintain the quality of petroleum products in the petroleum and petroleum products pipeline as per the technical standards, specifications and safety standards in the relevant regulations for technical standards and specifications, including safety standards.

(2) Customer's responsibility:

- (a) to ensure safety of equipment and facilities, if any provided by the entity within the premises;

2. Metering and billing.

Entity's responsibility:

- (a) responsible for ensuring delivery of petroleum products;
- (b) to ensure correct billing for transport of petroleum products as per the terms and conditions of the contract, indicating the applicable petroleum and petroleum products pipeline tariff. The bill should also contain customer name and address, serial number, volume, taxes/ levies, if any, amount, due date, etc;

3. Interruptions in petroleum and petroleum products pipeline.

Entity's responsibility:

- (a) give due notice to customers for planned maintenance;
- (b) ensure the earliest possible resumption of supplies after interruption; and
- (c) ensure prompt recovery from unplanned interruptions;

4. Emergency response handling.

(1) Entity's responsibility:

- (a) to ensure in-position of the emergency response plan to -
- (i) handle emergencies in co-ordination with the police, fire department, local administration and hospitals;
- (ii) ensure 24X7 manning of emergency cell for handling emergencies;
- (iii) put in place a clear responsibility chart depicting roles for individuals in the times of emergency.
- (b) ensure availability of disaster management plan, a copy of which should be made available to the Board as well as the local administration and State Governments of the area through which the petroleum and petroleum products pipeline is passing.

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**(2) Customer's responsibility:**

- (a) inform the entity of any potentially hazardous situation at the earliest;**
- (b) help the entity's personnel to contain the emergency situation, if required.**

**5. Maintain database.****Entity's responsibility:**

to maintain a credible database management system to handle the data requirements of the Board and also the record of customer complaints received and action taken on the same.

**Schedule G**

[see regulation 16 (1) (d)]

**Procedure for the termination of grant of authorization of petroleum and petroleum products pipeline.**

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The procedure for implementing the termination of the authorization of the entity to lay, build, operate or expand petroleum and petroleum products pipeline following default by the entity as per the provisions of regulation 16 of the Petroleum and Natural Gas Regulatory Board (Authorizing Entities to Lay, Build, Operate or Expand Petroleum and Petroleum Products Pipelines) Regulations, 2010 shall be as under:

1. On approval of termination of the authorization by the Board, the entity shall be required to submit a detailed statement of the ongoing activities in the petroleum and petroleum products pipeline, investments, liabilities and such other information as may be directed by the Board within a period of thirty days from the date of receipt of notice of termination by the entity.
2. The authorized entity shall be required to continue the operations of the petroleum and petroleum products pipeline at the same level till such time another agency or entity, as per the decision of the Board, takes over the full control of the petroleum and petroleum products pipeline. The Board reserves the right to appoint any other entity or agency to manage and operate the petroleum and petroleum products pipeline till such period of time and on such terms and conditions as it may deem fit.
3. The Board may, in any manner as it deems fit including through an issue of an advertisement, invite expression of interest or bids from entities interested in taking over the management and operation of the petroleum and petroleum products pipeline.
4. On receipt of expression of interest or bids, as the case may be, the Board may take an appropriate view on the procedure for evaluation and subsequent grant of authorization and an entity shall be selected to take over the operations of the petroleum and petroleum products pipeline from the defaulting entity.
5. The defaulting entity shall have to provide an undertaking to indemnify the newly authorized entity for any liability which may arise later as a result of its past actions.

**Schedule H**

[see regulation 17 (1)]

Information to be provided for petroleum and petroleum products pipeline authorized by Central Government before the appointed day.

To  
Secretary,  
Petroleum and Natural Gas Regulatory Board,  
1<sup>st</sup> Floor, World Trade Centre  
Babar Road,  
New Delhi – 110 001.

Sub: Information in respect of petroleum and petroleum products pipeline < Name> from <originating point> to <last delivery point>

(Attach separate sheets for providing information wherever necessary)

<b>Part-I – General, technical and financial details of the entity and the petroleum and petroleum products pipeline project</b>		
<b>1</b>	<b>Details of the entity</b>	
<b>A</b>	<b>Name of the entity</b>	
<b>B</b>	<b>Type of firm – Public limited company / Private limited company / Partnership firm / Proprietorship firm / Others (please specify) (attach copy of articles of association / partnership deed, etc.)</b>	
<b>C</b>	<b>Date of incorporation and date of commencement of business</b>	
<b>D</b>	<b>Address of registered office</b>	
<b>E</b>	<b>Name, addresses, telephone numbers, e-mails of all directors / partners / proprietor (please provide full details with STD code and pin code)</b>	
<b>F</b>	<b>Particulars of the authorization granted by the Central Government for laying, building, operating or expanding the petroleum and petroleum products pipeline before the appointed day. Details of NOCs', clearances, etc. considered relevant by the entity to be provided. (Copies of the authorization and other documents to be enclosed).</b>	
<b>2</b>	<b>Financial details</b>	
<b>A</b>	<b>Share capital or proprietor's own Funds</b>	
<b>B</b>	<b>Loans – amount, tenure, moratorium period, rate of interest, taken from and asset mortgaged / hypothecated for securing the same (if any)</b>	
<b>C</b>	<b>Reserves (if any)</b>	
<b>D</b>	<b>Fixed Assets</b>	
<b>E</b>	<b>Current Assets</b>	
<b>F</b>	<b>Current Liabilities</b>	

G	Sales Turnover	
H	Profit After Tax	
	(Attach copies of audited Profit and Loss Account and Balance Sheet for the last financial year) - In case the entity is a subsidiary company, copies of the audited Profit & Loss Account and Balance Sheet for the last three financial years of the parent company to be attached.	
3	Business Activities of the entity	
A	Original cost and WDV of assets along with year of commissioning, detailed break-up of the operating costs, petroleum and petroleum products pipeline tariff during the last three years, etc.	
B	Details of technical or operational tie-up or collaboration with any other entity for laying, building, operating or expanding the petroleum and petroleum products pipeline	
C	Details of other business, if any, being carried out by the promoters for the last three years	
4	Ownership and affiliate details	
A	Details of promoters	
B	Details of affiliates of the entity mentioning the business relationship	
C	The entity undertakes to produce all relevant records and documents of itself and its related entities on demand by the Board.	Yes / No
D	The entity undertakes to abide by the relevant regulations for affiliate code of conduct.	Yes / No
E	Is the entity a body corporate registered under the Companies Act, 1956?	Yes / No
F	Is the entity promoted by company registered under the Companies Act, 1956?	Yes / No
G	The entity undertakes to become a body corporate (in case it is not a body corporate at the time of providing the information herein) registered under the Companies Act, 1956 on the grant of authorization.	Yes / No
5	Technical details of the petroleum and petroleum products pipeline	
A	Name of the petroleum and petroleum products pipeline	
B	Physical map indicating the route, section-wise length of the petroleum and petroleum products pipeline including all branch-lines, entry and exit points for petroleum products and the details of the existing and proposed points of inter-connection in the petroleum and petroleum products pipeline.	

3461 GF/10 - 13B

C	<p>Technical specifications of the infrastructure in the petroleum and petroleum products pipeline.</p> <p><u>Note:</u></p> <p>(a) Attach copy of the DFR along with the management approval of the investments and</p> <p>(b) Provide full details of the petroleum and petroleum products pipeline capacity, design, pressure rating, diameter, thickness, class, etc., route details, pipeline corrosion protection arrangements, main block valves, isolation valves, emergency shutdown valves, metering arrangements, MLPU, intermediate and delivery stations, technical standards and specifications including safety standards being complied with, etc.</p>	
D	<p>Development plan envisaged for the petroleum and petroleum products pipeline project - design and installed capacity of the petroleum and petroleum products pipeline along with the details of phased-out plans for augmentation of the capacity and capital expenditure to be provided.</p>	
E	<p>Has the entity obtained the Right-of-Way required for laying, building, operating or expanding the petroleum and petroleum products pipeline as on the appointed day?</p> <p><u>Note:</u></p> <p>(a) In case the answer is no, please give specific reasons.</p> <p>(b) If yes, documentary proof to be provided.</p>	Yes/ No
F	<p>Year-wise progress actually achieved by the entity in:</p> <p>(i) creation of the physical infrastructure in the petroleum and petroleum products pipeline is to be provided;</p> <p>(ii) the value of the fixed assets created head-wise and the capital work-in-progress corresponding to the physical infrastructure created till the appointed day is to be provided; and</p> <p>(iii) comparison of sub-clause (i) and (ii) with the levels as specified in the targets specified in the DFR of the project and the terms and conditions of authorization. The purpose being to avoid any time over-run or cost over-run, which may adversely affect the petroleum and petroleum products pipeline tariff.</p> <p><u>Note:</u></p> <p>(a) Documentary proof that the head-wise assets created and reflected as fixed assets in the books of accounts are ready for use is to be enclosed.</p>	Percentage completion to be indicated activity-wise with reference to the time schedule and the targets specified in the DFR.

	<p>(b) The stage of completion in respect of the capital work-in-progress is to be indicated and compared with that indicated in the DFR.</p> <p>(c) Details of the financial commitments actually made by the entity till the appointed day to be separately indicated and documentary proofs to be submitted.</p> <p>(d) Please state the specific reasons for shortfalls, if any, in meeting the time schedule and specific targets for completion of the activities of laying, building, operating or expanding petroleum and petroleum products pipeline as specified in the DFR.</p>	
G	Complete details of the arrangements made by the entity for sourcing of petroleum products for the petroleum and petroleum products pipeline to be provided. In case the entity has secured any firm capacity tie-ups, copies of the agreements to be enclosed.	
H	<p>i) Volume of petroleum products actually transported in the petroleum and petroleum products pipeline during the last three years till the appointed day with capacity utilization;</p> <p>ii) Reasons for variations in the actual volumes transported versus the projections in the DFR;</p> <p>iii) Volume of petroleum products proposed to be transported and sold on an annual basis during the rest of the economic life of the project.</p> <p><u>Note:</u></p> <p>(a) Volumes to be indicated in MMTPA or TMT.</p> <p>(b) Volume actually transported to be provided TOP wise, customer-wise for each of the tariff zone.</p> <p>(c) Details of arrangements to be made by the entity for securing capacity tie-ups for the petroleum and petroleum products pipeline to be clearly specified.</p> <p>(d) In case of the achievement of firm capacity tie-ups, copies of the agreements to be enclosed.</p>	
I	Have all applicable technical standards, specifications including safety standards, as notified by the Board been considered and complied with while designing, laying, building, expanding or operating the petroleum and petroleum pipeline? Provide details.	Yes/ No
J	Copies of all the necessary statutory clearances, permissions and no objection certificates obtained by the entity from the Central and State Governments and other statutory authorities as applicable to the petroleum and petroleum products pipeline project to be attached.	

K	Attach copy of the Emergency Response and Disaster Management Plan in place.	
L	Is the project entitled to any subsidy or entitled for any exemption or deferment or waiver of any statutory levy including income tax from the State / Central Government? If yes, give complete details indicating the year-wise utilization plan of the entity.	Yes / No
<b>Part-II: Any other submission considered as relevant by the entity</b>		
<b>Note:</b>		
The Board shall monitor the actual progress made by entity against the targets fixed for the entity on a quarterly basis and take further action in case of any deviation or shortfall, which is to be determined on an annual basis in the manner as indicated in Schedule D.		

**DECLARATION**

1. Certified that the above information is true to the best of my / our knowledge and belief and the information and data given in the Annexure and statements are correct, complete and truly stated, and if any statement made herein is found to be incorrect, I / We shall be liable for proceeding and for punishment under the provisions of the Act.
2. I/ we also undertake to provide any further information or data as may be required by the Board within the stipulated time.

Date:

Place:

Name and Signature of Authorized Signatory

Official Seal

**Schedule I****[see regulation 18 (1)]**

Application for grant of authorization for petroleum and petroleum products pipeline to the entities not authorized by Central Government.

To  
The Secretary,  
Petroleum & Natural Gas Regulatory Board,  
1<sup>st</sup> Floor, World Trade Centre  
Babar Road,  
New Delhi – 110 001.

Sub: Application for grant of authorization for petroleum and petroleum products pipeline <Name> from <originating point> to <last off-take/ delivery point>

(Attach separate sheets for providing information wherever necessary)

Part I - General, technical and financial details of the entity and the petroleum and petroleum products pipeline project		
1	Details of the entity	
A	Name of the entity	
B	Type of firm – Public limited company / Private limited company / Partnership firm / Proprietorship firm / Others (please specify) (Attach copy of articles of association / Partnership deed, etc.)	
C	Date of incorporation and date of commencement of business	
D	Address of registered office	
E	Name, addresses, telephone numbers, e-mails of all directors / partners / proprietor (please provide full details with STD Code and pin code)	
2	Information and data to be provided by the entity in support of the eligibility criteria as specified under sub-regulation (2) of regulation 18.	
A	Non-refundable application fee under regulation 5 (6) (a)	Rs. < ___ >
	Demand draft or pay order	
	Demand draft or pay order no. and date	
	Name of issuing bank and branch	
B	Entity is technically capable of laying and building petroleum and petroleum products pipeline	
	Documentary evidence in support of the technical capability of the entity in terms of the qualifying criteria under regulation 5 (6) (b), (i) to (iv) to be attached.	
C	Entity is technically capable of operating and maintaining a petroleum and petroleum products pipeline.	
	Documentary evidence in support of the technical capability of the entity in terms of the qualifying criteria under regulation 5 (6) (c), (i) to (iv) to be attached.	
D	Entity agrees to abide by the relevant regulations for technical	Yes/ No

	standards and specifications, including safety standards.	
E	Entity has adequate financial strength to execute the proposed petroleum and petroleum products pipeline, operate and maintain the same and meets the financial criterion in terms of having a minimum combined net worth as specified under regulation 5 (6) (e).  <u>Note:</u> All documents in support of the calculations of the minimum combined net worth duly certified by a Chartered Accountant to be attached.	
F	Has any penalty been imposed on the entity under section 28 or punished under Chapter IX of the Act? In case the answer is yes, please submit full details.	Yes/ No
G	Copies of all the necessary statutory clearances, permissions and no objection certificates obtained by the entity from the Central and State Governments and other statutory authorities as applicable for the proposed petroleum and petroleum products pipeline project to be attached.	
H	In case entity is not registered as a company under the Companies Act, 1956, the entity undertakes to become a company registered under the Companies Act, 1956 on grant of authorization. Full details of the promoters of the entity to be provided.  <u>Note:</u> In case the entity seeks an exemption from registering under the Companies Act, 1956, detailed justifications shall be submitted to the Board.	Yes/ No
I	Technical specifications of the petroleum and petroleum products pipeline	
	Details of route, section-wise length of the petroleum and petroleum products pipeline depicting the following in a physical map to be provided: (i) the entry and exit points for petroleum products; (ii) intermediate tap-off points; (iii) branch lines; (iv) pumping stations; (v) points of inter-connection with other petroleum and petroleum products pipelines.  <u>Note:</u> (a) Full technical details regarding the petroleum and petroleum products pipeline capacity, design, pressure rating, diameter, thickness, class, etc., route details, pipeline corrosion protection arrangements, main block valves, isolation valves, emergency shutdown valves, metering arrangements, intermediate and delivery stations, technical standards and specifications including safety standards being complied with, etc. to be provided separately.	

J	Details of the physical and financial progress in laying, building, operating or expanding of petroleum and petroleum products pipeline as on the appointed day:	
	<p>i) Copy of the DFR of the project to be attached.</p> <p><u>Note:</u> The entity shall also enclose the documentary proof of the formal approval of the investments as per the DFR of the project by its management.</p>	
	ii) Has the DFR of the proposed petroleum, petroleum products pipeline project for which authorization is being sought been appraised by any financial institution?	Yes/ No
	iii) Details of the development plan envisaged for the project to be provided with respect to the design and installed capacity of the petroleum and petroleum products pipeline along with details of phased-out plans for capital expenditure on augmentation of the installed capacity, if any.	
	<p>iv) Has the entity secured the right of way for laying, building, operating or expanding the proposed petroleum and petroleum products pipeline?</p> <p><u>Note:</u> (a) If the answer is no, please state reasons. (b) If yes, documentary proof to be submitted.</p>	Yes/ No
	v) Complete details of the arrangements made by the entity for sourcing of petroleum products for petroleum and petroleum products pipeline to be provided. In case any firm tie-up has been achieved, copy of the agreement to be enclosed.	
	<p>vi) Extent of physical progress in laying, building, operating or expanding of the petroleum and petroleum products pipeline project achieved by the entity till the day immediately before the appointed day as against the time schedules and targets specified in the DFR.</p> <p><u>Note:</u> (a) The onus of proving the physical progress actually made by the entity lies with the entity and the entity shall submit all necessary documentary proofs in support. (b) The comparison of actual progress with the levels as specified in the time schedules and targets in the DFR of the project is with the purpose to avoid any time over-run or cost over-run, which may adversely affect the petroleum and petroleum products pipeline tariff. (c) Please provide specific reasons for shortfalls, if any.</p>	<in percentage terms>
	vii) Extent of financial commitment actually made by the entity in the petroleum and petroleum products pipeline project till the day immediately before the appointed day as against the estimated capital expenditure identified in the feasibility	<in percentage terms>

	<p>report.</p> <p><u>Note:</u></p> <p>(a) Year-wise gross and net blocks of the physical infrastructure created to be separately provided asset-head wise.</p> <p>(b) Details of capital work-in-progress and the stage of completion to be indicated.</p> <p>(c) The onus of proving the financial commitment actually made by the entity lies with the entity and the entity shall submit all necessary documentary proofs in support.</p>	
	<p>viii) Volume of petroleum products transported in the petroleum and petroleum products pipeline during the last three years till the appointed day and the reasons for variations in actual volumes transported versus the projections made in this regard in the DFR.</p> <p><u>Note:</u></p> <p>(a) Data on volume should be separately provided TOP wise, zone-wise and customer-wise.</p> <p>(b) Volume of petroleum products proposed to be transported and delivered zone-wise and customer-wise on an annual basis during the rest of the economic life of the project to be separately indicated.</p> <p>(c) Entity to disclose the arrangements for securing capacity tie-ups and enclose the copy of the agreement for firm capacity tie-up achieved, if any.</p> <p>(d) Volume to be indicated in MMTPA or TMT.</p>	<in percentage terms>
	<p>ix) Entity to enclose the copies of the internal procedures and guidelines as approved by its management prescribing the basis of compliance by the entity to any technical standards, specifications, including safety standards and the quality of service to customers, if any.</p>	
<b>3</b>	<b>Financial details of the entity</b>	
<b>A</b>	<b>Share capital or proprietor's own funds</b>	
<b>B</b>	<b>Loans – amount, tenure, moratorium period, rate of interest, taken from and asset mortgaged or hypothecated for securing the same, if any.</b>	
<b>C</b>	<b>Reserves, if any</b>	
<b>D</b>	<b>Fixed Assets (head-wise asset details)</b>	
<b>E</b>	<b>Current Assets</b>	
<b>F</b>	<b>Current Liabilities</b>	
<b>G</b>	<b>Sales Turnover</b>	
<b>H</b>	<b>Profit after Tax</b>	
	(Attach copies of audited Profit and Loss Account and Balance Sheet for last three financial years) - In case applicant is a subsidiary company, copies of audited Profit & Loss Account & Balance Sheet for last three financial years of the parent company to be attached.	
<b>4</b>	<b>Business activities of the entity</b>	
<b>A</b>	<b>Original cost and WDV of assets along with year of</b>	

	commissioning, detailed break-up of the operating costs, unit petroleum and petroleum products pipeline tariff charged during the last three years, etc.	
B	Details of technical or operational tie-up or collaboration with any other entity in respect of the petroleum and petroleum products pipeline project (enclose copies of such agreements, MOU or HOA)	
C	Details of other business, if any, being carried out by the promoters for the last three years	
<b>5 Ownership and affiliate details</b>		
A	Details of promoters	
B	Details of all affiliates of the entity mentioning the business relationship between the entity and the affiliates ("Affiliate" means as defined in the relevant regulations for affiliate code of conduct)	
C	The applicant undertakes to produce all relevant records and documents of itself and its related entities to the Board.	Yes / No
D	The applicant undertakes to abide by the relevant regulations for affiliate code of conduct.	Yes / No
<b>6 Other details</b>		
A	Copy of Emergency Response and Disaster Management Plan to be attached	
B	Is the project entitled to any subsidy, tax waiver or exemption or deferment of any levy including income tax from the State / Central Government? If yes, give details.	Yes / No
<b>Part-II:</b> Any other submission considered as relevant by the entity with regards to its application for grant of authorization for petroleum, petroleum products pipeline by the Board.		

**DECLARATION**

1. Certified that the above information is true to the best of my / our knowledge and belief and the information and data given in the Annexure and statements are correct, complete and truly stated, and if any statement made herein is found to be incorrect, I / We shall be liable for proceeding and for punishment under the provisions of the Act.
2. I/ we also undertake to provide any further information or data as may be required by the Board within the stipulated time.

Date:

Place:

Name and Signature of Authorized Signatory

Official Seal

3461 GI/16 - 14B

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**Schedule J**

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[see clause 11 (c) of the form of grant of authorization in Schedule D]

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**Service Obligations of entity**

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**1. General.**

- (a) The entity shall obtain all statutory permits, clearances and approvals from the concerned approving authorities and shall at all times ensure the validity of said permits, clearances and approvals.
- (b) During the continuance of the authorization, the entity shall transport petroleum products along the authorized pipeline route in accordance with the terms of this authorization, charge the approved petroleum and petroleum products pipeline tariff and abide by the extant rules and regulations, including such revisions as the case may be.
- (c) The entity shall provide extra capacity in the petroleum and petroleum products pipeline as specified under clause (j) of sub-regulation (5) of regulation 6, which shall be available for use on common carrier basis by third party on open access and non-discriminatory basis.
- (d) The entity shall put in place an appropriate system and procedures for :
  - (i) protection of its property;
  - (ii) prevention of loss and waste in the operation of the petroleum and petroleum products pipeline;
  - (iii) safe operation of petroleum and petroleum products pipeline following the technical standards and specifications including safety standards as notified by the Board;
  - (iv) redressal of consumer grievances;

A documented copy of the said systems & procedures shall be provided by the authorized entity to the Board. Modifications, if any, suggested by the Board shall be carried out by the entity.

- (e) The authorized entity shall specify its own obligations as well those of the other entities in the contracts for sourcing and transport of petroleum products as may be specified in the relevant regulations for access code.
- (f) In case the authorized entity laying, building, operating or expanding petroleum and petroleum products pipeline is also engaged in the activity of marketing of petroleum and petroleum products, it shall:

- (i) state the approved pipeline tariff to be paid under the contract for the transport of petroleum products expressed in Rs/MT or in Rs./MT/KM and other relevant terms proposed in the contract;
  - (ii) not exert undue pressure on the customer;
  - (iii) not make any offer or provide any promotional material to the customer that is inconsistent with the contract being offered to or entered into with the customer;
  - (iv) not make any representation or statement or give any answer or take any measure that is false or is likely to mislead a customer; and
  - (v) shall adhere to the provisions under the relevant regulations for affiliate code of conduct.
- (g) The entity shall provide connectivity to the consumer, if technically feasible, within a tariff zone in petroleum and petroleum products pipeline on receipt of a specific request, the consumer undertaking to pay the applicable petroleum and petroleum products pipeline tariff, subject to availability of capacity and the technical and economic viability of the proposed connectivity.
- (h) The entity shall insure all the assets used in the activity of transport of petroleum products including on the line-fill volumes and the insurance policy in this regard shall also cover third party liabilities.

## 2. Construction, Operation & Maintenance.

- (a) The entity shall not undertake any excavation or related work, which shall disturb or interfere with the surface of the traveled portion of any road / highway, water body, canal, river, railway crossing, forest, etc. unless a permit for the same has been first obtained from the appropriate authorities and the Government and all works subsequently undertaken by the entity shall be carried out in line with the terms of approval and to the satisfaction of the approving authority and the Government.
- (b) The entity shall not deviate from the permission granted in clause 2 (a) above without the prior approval of the approving authority and the Government.
- (c) The entity shall, during the construction, maintenance and operation of the petroleum and petroleum products pipeline system, use all reasonable precaution to avoid damage or injury to any person or property. The entity shall further be liable for any loss, injury or damage attributed to the negligence of the entity or its agents and shall indemnify the affected parties.
- (d) The entity shall establish a centralized control room for monitoring and control of the petroleum and petroleum products pipeline system, including the disaster management system.

- (e) The entity shall furnish on regular basis to the Board, the map including detailed "as built" drawings, accurately depicting the size, depth & location of pipelines, related equipment, location of marker posts indicating the route, pipeline gradient, etc. of the petroleum and petroleum products pipeline and regularly update the same for any change, addition or deletion.
- (f) The entity shall ensure compliance of all necessary quality checks and inspection certification before providing connectivity to any customer.
- (g) The entity shall properly purge, isolate, blind or dismantle any pipeline segment, equipment etc, which is not in use for long time or has been abandoned, to ensure complete safety and necessary modifications shall be carried out in the maps & drawings.
- (h) The entity shall have proper systems and procedures including designated facilities for undertaking inspection, testing, calibration and repair of safety equipments, etc.
- (i) Put in position the disaster management plan including mutual aid system and offsite or onsite emergency plan.
- (j) Any other service obligation, which the Board may specify from time to time.

**3. Services and information to be maintained by the entity.**

- (a) The entity shall have a current mailing address and telephone number of all locations where the petroleum and petroleum products pipeline is being set-up and operated.
- (b) The entity shall maintain a database and provide to the Board on request:
  - (i) details of the customers and shippers of petroleum products;
  - (ii) the copies of contracts with the customer and shippers of petroleum products; and
  - (iii) details of renewal or extension of contracts at clause (a) and (b).

**4. Confidentiality of Consumer Information.**

- (a) The entity shall not disclose customer information to any person other than the Board, without the consent of the customer in writing, except when the information has been sufficiently aggregated such that an individual consumer's information cannot be separately identified, or where the consumer information is required to be disclosed:
  - (i) for billing or market operation purposes;
  - (ii) for law enforcement purposes;

- (iii) when past due accounts of the consumer have been passed to a debt collection agency.
- (b) The entity shall inform customers regarding the conditions described in paragraph 4 (a) under which customer information may be released to a third party without the consumer's consent.
- (c) The entity shall not use consumer information obtained for a purpose other than for which it was obtained.

**5. Complaints:**

- (a) The entity shall provide the address and telephone number of its customer service centre for lodging of any complaint and widely advertise the same from time to time.
- (b) The entity shall make all reasonable efforts in resolving the complaints received in a time bound manner.
- (c) The entity shall maintain and periodically provide to the Board, the details of:
  - (i) complaint received by the entity or referred to by the Board;
  - (ii) method and time of disposal of complaint;
  - (iii) complaint pending for redressal; and
  - (iv) comments on the quality of service provided by the entity and suggestions, if any.

[F. No. S-Admn/II/8/2010]

RATAN P. WATAL, Secy.



# भारत का राजपत्र

## The Gazette of India

असाधारण  
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (i)  
PART II—Section 3—Sub-section (i)

प्राधिकार से प्रकाशित  
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नई दिल्ली, सोमवार, नवम्बर 26, 2007/अग्रहायण 5, 1929  
NEW DELHI, MONDAY, NOVEMBER 26, 2007/AGRAHAYANA 5, 1929

### पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड अधिसूचना

नई दिल्ली, 26 नवम्बर, 2007

सा.का. नि. 731 (अ)—पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड अधिनियम, 2006 (2006 का 19) के खंड 61 के उप-खंड (2) की धारा (क) में वर्णित शक्तियों का प्रयोग करते हुए पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड नामतः निम्नलिखित नियम बनाता है :

#### अध्याय 1 आरंभिक

1. संक्षिप्त शीर्ष और प्रारंभ : (1) इन नियमों को पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड (बोर्ड की बैठकें) नियामक, 2007 कहा जाएगा ।

(2) ये नियम सरकारी राजपत्र में इनके प्रकाशित होने की तिथि से प्रभावी होंगे ।

2. परिभाषाएं : इन नियमों में जब तक संदर्भ में अन्यथा अपेक्षित न हो, तब तक—

(क) "अधिनियम" का अर्थ है पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड अधिनियम, 2006 ।

(ख) "बोर्ड" का अर्थ है इस अधिनियम के खंड 3 के उप-खंड (1) के अधीन स्थापित पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड ।

(ग) "अध्यक्ष" का अर्थ है इस अधिनियम के खंड 4 के अंतर्गत नियुक्त बोर्ड का अध्यक्ष ।

(घ) "सदस्य" का अर्थ है इस अधिनियम के खंड 4 के अंतर्गत नियुक्त बोर्ड का सदस्य ।

(2) यहाँ पर प्रयुक्त अन्य वे सभी शब्द एवं अभिव्यक्तियाँ जिनको परिभाषित नहीं किया गया है उनका वही अर्थ होगा जो अधिनियम में दिया गया है ।

(3) जब तक इन नियमों में अथवा अधिनियम में परिभाषित न हो सामान्य धारा अधिनियम के समय-समय पर यथासंशोधित प्रावधान इन नियमों पर लागू होंगे ।

#### अध्याय II

##### बोर्ड की बैठकें

3. बोर्ड की बैठकें बुलाना.—(1) अध्यक्ष द्वारा अथवा उनका पद खाली होने से या उनके निदेशानुसार बोर्ड के वरिष्ठतम सदस्य द्वारा, जिसका निर्धारण बोर्ड में नियुक्ति की तिथि से होगा, वर्ष की प्रत्येक तिमाही में कम से कम एक बार बोर्ड की बैठक बुलाई जाएगी ।

यह भी प्रावधान होगा कि सदस्यों की नियुक्ति की तिथि एक ही होने की स्थिति में आयु में वरिष्ठ सदस्य को दूसरे सदस्य से वरिष्ठ माना जाएगा ।

(2) अध्यक्ष को बैठक बुलाने के लिए किन्हीं दो सदस्यों की आवश्यकता होगी तथा तदनुसार अध्यक्ष कभी भी बोर्ड की बैठक बुला सकता है ।

4. बोर्ड की बैठकों की अध्यक्षता : अध्यक्ष या यदि अध्यक्ष किसी कारण से बैठक में उपस्थित नहीं है तो उपस्थित वरिष्ठतम सदस्य बैठक की अध्यक्षता करेगा।

5. बोर्ड की बैठक का स्थान एवं समय : बोर्ड की बैठक भारत में ऐसे स्थान एवं समय पर होगी जैसा कि बैठक बुलाने की सूचना में विनिर्दिष्ट किया गया है।

6. बोर्ड की बैठक के लिए सूचना : (1) बोर्ड की प्रत्येक बैठक के लिए सचिव अथवा किसी अन्य अधिकारी द्वारा जिसे अध्यक्ष द्वारा प्राधिकृत किया गया हो, कम से कम 7 दिन की सूचना दी जाएगी तथा यह सूचना कार्यसूची के कागजात सहित सभी सदस्यों को कम से कम 7 दिन पूर्व परिचालित की जाएगी।

यह भी प्रावधान है कि यदि बोर्ड की कोई आपातकालीन बैठक बुलाई जानी है तो 7 दिन की सूचना आवश्यक नहीं होगी। तथापि, सदस्यों को इतना पर्याप्त समय दिया जाएगा कि वह बैठक में भाग ले सकें।

यह भी प्रावधान किया गया है कि सदस्यों को परिचालन के माध्यम से भी कोई संकल्प पारित किया जा सकता है अथवा कोई निर्णय लिया जा सकता है।

(2) अध्यक्ष अथवा बैठक की अध्यक्षता करने वाले सदस्य और उपस्थित सदस्यों के बहुमत की सहमति के बिना बोर्ड की बैठक में उस कारोबार के अतिरिक्त जिसके लिए यह बैठक बुलाई गई है, किसी अन्य कारोबार पर चर्चा नहीं की जाएगी।

7. आवश्यक कोरम और मतदान : (1) कारोबार के लेन-देन के लिए बोर्ड की किसी बैठक में अध्यक्ष अथवा उनकी अनुपस्थिति में बैठक की अध्यक्षता करने वाले सदस्य सहित तीन सदस्यों की उपस्थिति को कोरम माना जाएगा।

(2) बोर्ड की किसी बैठक में प्रस्तुत सभी प्रश्न उपस्थित एवं मतदान करने वाले सदस्यों के बहुमत से तय किए जाएंगे तथा बराबर मत होने पर अध्यक्ष, अथवा उसकी अनुपस्थिति में बैठक की अध्यक्षता करने वाले सदस्य को दूसरा अथवा निर्णायक मत डालने का अधिकार होगा।

8. अनुपस्थिति अवकाश : बैठक में अनुपस्थित किसी सदस्य को बोर्ड अनुपस्थिति अवकाश दे सकता है और इस प्रकार के अवकाश को बैठक के कार्यवृत्त में दर्ज दिया जाएगा।

9. बैठक का कार्यवृत्त : (1) बोर्ड सभी बैठकों का कार्यवृत्त इस उद्देश्य हेतु रखी गई बही में रखेगा जिसे विधिवत क्रमांकित खुले पन्नों के बाइंडर के रूप में भी रखा जा सकता है।

(2) बोर्ड की प्रत्येक बैठक के कार्यवृत्त की एक प्रति यथासंभव शीघ्र सदस्यों को परिचालित की जाएगी। कार्यवृत्त अध्यक्ष अथवा आगामी बैठक की अध्यक्षता करने वाले सदस्य द्वारा हस्ताक्षरित की जाएगी तथा उसे उसके बाद अभिलेख पर लिया जाएगा।

10. कार्यवृत्त बही, सामान्य मुहर आदि की अभिरक्षा : बोर्ड का सचिव सामान्य मुहर, बैठक का उपस्थिति रजिस्टर, कार्यवृत्त बही तथा बोर्ड की बैठक से संबंधित अन्य दस्तावेज/अभिलेख आदि की अभिरक्षा रखेगा।

### अध्याय III

#### सदस्यों की बाध्यताएं

11. कुछ मामलों में सदस्यों की सहभागिता का न होना : प्रत्येक सदस्य बोर्ड की किसी बैठक में विचारार्थ आने वाले ऐसे किसी मामले में जिसमें वह प्रत्यक्ष अथवा अप्रत्यक्ष रूप से संबंधित है, इसकी जानकारी होते ही बोर्ड की ऐसी बैठक में अपने हित की प्रकृति का खुलासा कर देगा तथा इस प्रकार से खुलासे को बोर्ड की कार्यवाही में अभिलेखित किया जाएगा तथा ऐसे मामले के संबंध में सदस्य बोर्ड की किसी चर्चा या निर्णय में भाग नहीं लेगा।

व्याख्या : इस नियामक में संदर्भित प्रत्यक्ष अथवा अप्रत्यक्ष में किसी सदस्य का स्वयं का या कंपनी अधिनियम, 1956 (1956 का 1) की खंड 6 की परिभाषा के अर्थ के दायरे में उसके किसी रिश्तेदार के माध्यम से अथवा उस कंपनी का भागीदार या निदेशक होना शामिल है।

12. अयोग्यता की सूचना देने के लिए सदस्य की बाध्यता : (1) कोई भी सदस्य इस अधिनियम के खंड 7 में विनिर्दिष्ट किसी अयोग्यता का शिकार हो जाने पर यथाशीघ्र उसकी सूचना बोर्ड को देगा।

(2) किसी सदस्य द्वारा उपर्युक्त (1) में वर्णित अयोग्यता को आकर्षित करने की स्थिति में बोर्ड इसकी सूचना केन्द्र सरकार को देगा।

[एस. प्रशा./II/8/8007-खण्ड-1]

अजय त्यागी, सचिव

### PETROLEUM AND NATURAL GAS REGULATORY BOARD NOTIFICATION

New Delhi, the 26th November, 2007

S.O. 731 (E).—In exercise of the powers conferred by clause (a) of Sub-section of (2) Section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely :—

#### CHAPTER I PRELIMINARY

1. Short title and commencement.—(1) These regulations may be called The Petroleum and Natural Gas Regulatory Board (Meetings of the Board) Regulations, 2007.

(2) These regulations shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**—(1) In these regulations, unless the context otherwise requires,—

- (a) "Act", means the Petroleum and Natural Gas Regulatory Board Act, 2006;
- (b) "Board", means the Petroleum and Natural Gas Regulatory Board established under Sub-section (1) of Section 3 of the Act;
- (c) "Chairperson", means the Chairperson of the Board appointed under Section 4 of the Act;
- (d) "Member", means a Member of the Board appointed under Section 4 of the Act.

(2) All other words and expressions used herein but not defined shall have the same meanings respectively assigned to them in the Act.

(3) Unless defined herein or in the Act, the provisions of the General Clauses Act, 1897 as amended from time to time shall apply to these regulations.

## CHAPTER II Meetings of the Board

**3. Convening of Board meetings.**—(1) Meetings of the Board shall be convened at least once in each quarter of the year by the Chairperson or in his absence on account of the post being vacant or as may be directed by him/her, by the senior most Member reckoned from the date of appointment to the Board :

Provided that in case of common date of appointment of Members, the Member senior in age shall be considered as senior to the other Members.

(2) Any two Members may require the Chairperson to convene a meeting of the Board at any time and the Chairperson shall convene the meeting of the Board accordingly.

**4. Presiding over Board meetings.**—The Chairperson or if he is unable to attend the meeting of the Board, for any reason, the senior most Member present shall preside over the meeting.

**5. Place and time of Board meetings.**—Meetings of the Board shall be held at such times and places in India as may be specified in the notice convening the meeting.

**6. Notice for Board meetings.**—(1) Not less than seven days notice shall ordinarily be given for each meeting of the Board by the Secretary (or any other Officer designated by the Chairperson) and such notice along with agenda papers shall be circulated to every Member, seven working days in advance :

Provided that if any emergency meeting of the Board is to be convened, seven days notice may not be required. However, sufficient notice shall be given to the Member to enable him to attend the meeting :

Provided further that a resolution may be passed or a decision may be taken by circulation of an agenda to the Members.

(2) No business other than that for which the meeting was convened shall be discussed at a meeting of the Board, except with the consent of the Chairperson or the Member presiding over the meeting and a majority of the Members present.

**7. Quorum required and voting.**—(1) Three Members of the Board including Chairperson or in his absence the Member presiding over the meeting, shall constitute the Quorum for transaction of business at a meeting of the Board;

(2) All questions which come before any meeting of the Board shall be decided by a majority vote of the Members present and voting and in the event of any equality of votes, the Chairperson, or in his absence, the Member presiding over, shall have a second or casting vote.

**8. Leave of absence.**—The Board may grant leave of absence to a Member not present in the meeting and such leave of absence shall be recorded in the minutes of the meeting.

**9. Minutes of the meeting.**—(1) The Board shall cause the minutes of all the meetings to be maintained in the books kept for the purpose, which may be in the form of binders containing loose leaves, duly numbered.

(2) A copy of the minutes of each meeting of the Board shall be circulated as soon as possible to the Members. The minutes shall be signed by the Chairperson or the Member presiding over the succeeding meeting, and taken on record thereafter.

**10. Custody of the minutes book, common seal, etc.**—Secretary of the Board shall keep custody of common seal, register of attendance of the meetings, minutes book, and other documents/records, etc. pertaining to the meetings of the Board.

## CHAPTER III Obligations of the Members

**11. Member not to participate in meetings in certain cases.**—Every Member, who is directly or indirectly concerned or interested in any matter coming up for consideration at a meeting of the Board, shall, as soon as possible, after the relevant circumstances have come to his knowledge, disclose the nature of his interest at such meeting and such disclosure shall be recorded in the proceedings of the Board and the Member shall not take any part in any deliberation or decision of the Board with respect to that matter.

**Explanation.**—The expression “directly or indirectly” referred to in this regulation shall include any concern or interest of a Member either by himself or through his relatives within the meaning of definition of Section 6 of the Companies Act, 1956 (1 of 1956) or by reason of being a partner, director of that concern.

**12. Obligation of a Member to give information of disqualification.**—(1) A Member, as soon as may be, inform the Board if he becomes subject to any of the disqualifications specified in Section 7 of the Act.

(2) The Board shall inform the Central Government, if it comes to the notice of the Board that any Member has attracted the disqualifications referred to in (1) above.

[S-Admn/II/8/8007-Vol.I]

AJAY TYAGI, Secy.

### अधिसूचना

नई दिल्ली, 26 नवम्बर, 2007

सा. का. नि. 732 (अ)—पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड अधिनियम, 2006 (2006 का 19) के खंड 61 के उप-खंड (2) की धारा (क) में वर्णित शक्तियों का प्रयोग करते हुए, पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड नामतः निम्नलिखित नियम बनाता है :

1. संक्षिप्त शीर्षक और प्रारंभ : (1) इन नियमों को पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड (शुल्क एवं अन्य प्रभार उगाही) नियामक, 2007 कहा जाएगा ।

(2) ये नियम सरकारी राजपत्र में इनके प्रकाशित होने की तिथि से प्रभावी होंगे ।

2. परिभाषाएं : इन नियमों में जब तक संदर्भ में अन्यथा अपेक्षित न हो, तब तक—

(क) “अधिनियम” का अर्थ है पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड अधिनियम, 2006 ।

(ख) “बोर्ड” का अर्थ है इस अधिनियम के खंड 3 के उप-खंड (1) के अधीन स्थापित पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड ।

(ग) यहाँ पर प्रयुक्त अन्य वे सभी शब्द एवं अभिव्यक्तियाँ जिनको परिभाषित नहीं किया गया है उनका वही अर्थ होगा जो अधिनियम में दिया गया है ।

3. शुल्क उगाही—(1) अधिनियम के विभिन्न प्रावधानों के अंतर्गत प्रत्येक आवेदन के लिए निम्नानुसार विनिर्दिष्ट शुल्क लिया जाएगा :

अधिनियम के प्रावधानों के अंतर्गत गतिविधियाँ	शुल्क (रुपए)
अधिनियम के खंड 15 के उप-खंड (2) के अंतर्गत पंजीकरण	5,00,000
अधिनियम के खंड 17 के उप-खंड (3) के अंतर्गत प्राधिकरण	5,00,000
<b>सीजीडी प्रस्ताव :</b>	
ए श्रेणी के शहर*	12,00,000
अन्य शहर**	8,00,000
<b>पाइप लाइन प्रस्ताव :</b>	
स्पर लाइन	10,00,000
ट्रंक लाइन > या=500 किलोमीटर	15,00,000
ट्रंक लाइन > या=500 किलोमीटर	20,00,000
अधिनियम के खंड 14 के उप-खंड (4) के अंतर्गत किसी प्रविष्टि की प्रमाणित पतिलिपि प्राप्त करना	1,000 प्रति प्रविष्टि
अधिनियम के खंड 25 के उप-खंड (2) के अंतर्गत शिकायत दर्ज कराना	हस्तियाँ : 10,000 प्रति शिकायत अन्य : 1,000 प्रति शिकायत

\* 2001 की जनगणना के अनुसार एक मिलियन या अधिक जनसंख्या वाले शहर ।

\*\* 2001 की जनगणना के अनुसार एक मिलियन से कम जनसंख्या वाले शहर ।

(2) शुल्क का भुगतान पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड के पक्ष में नई दिल्ली में देय डिमांड ड्राफ्ट या भुगतान आदेश द्वारा किया जाएगा ।

(3) प्राप्त शुल्क की प्रविष्टि बोर्ड द्वारा बनाए गए एक रजिस्टर में की जाएगी तथा उसमें भुगतान जमा करने वाली हस्ती या शिकायतकर्ता का नाम, जमा करने का उद्देश्य, रकम, डिमांड ड्राफ्ट या भुगतान आदेश की संख्या एवं दिनांक आदि विवरण भरा जाएगा।

4. अन्य प्रभारों की उगाही.—(1) प्रचालन अवधि : जो हस्ती इस अधिनियम के प्रावधानों में शामिल पंजीकरण और/अथवा प्राधिकरण से संबंधित किसी गतिविधि का प्रचालन कर रही है वे बोर्ड को निम्नलिखित फार्मुले के अनुसार अपने टर्न ओवर पर आधारित अन्य प्रभारों का भुगतान करेगी :

टर्न ओवर	अन्य प्रभार
20,000 करोड़ रुपए तक	0.01% (2 करोड़ रुपए)
20,001 करोड़ रुपए से 50,000 करोड़ रुपए तक	0.008% (2 करोड़ रुपए + > 20,000 करोड़ का 0008%)
50,001 करोड़ रुपए से 100,000 करोड़ रुपए तक	0.005% (4.4 करोड़ रुपए + > 50,000 करोड़ का 0005%)
1,00,000 करोड़ रुपए से अधिक	0.004% (4.9 करोड़ रुपए + > 100,000 करोड़ का 0004%)

(2) निर्माण अवधि : (क) इस अधिनियम के प्रावधानों में शामिल पंजीकरण और/अथवा प्राधिकरण से संबंधित किसी गतिविधि से संबंधित हस्ती निर्माण अवधि में वित्तीय वर्ष में परियोजित निवेश के आधार पर परियोजना पर अपने पूंजी व्यय (सीएपीईएक्स) के 0.2 प्रतिशत की दर से बोर्ड को वार्षिक आधार पर अन्य प्रभारों का भुगतान करेगी जिसे वर्ष के अंत में वास्तविक व्यय के अनुसार संशोधित कर लिया जाएगा।

(ख) उपर्युक्त उप-धारा (क) के अंतर्गत किसी हस्ती द्वारा भुगतान दिए गए अन्य प्रभारों को ब्याज जमा माना जाएगा तथा जैसे ही यह हस्ती नियमित प्रचालन प्रारंभ कर देती है तथा उपर्युक्त उप-धारा (1) के अनुसार लागू अन्य प्रभारों के उपयुक्त स्तर को प्रतिस्थापित कर देती है जैसे ही बोर्ड इसे वापिस कर देगा।

(3) उपर्युक्त प्रभार का भुगतान वार्षिक आधार पर हस्ती द्वारा वार्षिक लेखा विवरण तैयार किए जाने के 15 दिन के अंदर कर दिया जाएगा।

(4) अन्य प्रभारों का भुगतान पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड के पक्ष में नई दिल्ली में देय डिमांड ड्राफ्ट या भुगतान आदेश द्वारा किया जाएगा।

(5) प्राप्त अन्य प्रभारों की प्रविष्टि बोर्ड द्वारा बनाए गए एक रजिस्टर में की जाएगी तथा उसमें भुगतान जमा करने वाली हस्ती का नाम, तथा क्या जमा उप-धारा (1) के अंतर्गत हुआ है अथवा उप-धारा (2) के अंतर्गत, रकम, डिमांड ड्राफ्ट या भुगतान आदेश की संख्या एवं दिनांक तथा यदि भुगतान उप-धारा (2) के अंतर्गत हुआ है तो धन वापसी का विवरण भरा जाएगा।

5. शुल्क एवं अन्य प्रभारों की समीक्षा एवं संशोधन की शक्तियां : इन नियामकों के अंतर्गत भुगतान किए जाने वाले शुल्क एवं अन्य प्रभार के ढांचे की बोर्ड समय-समय पर समीक्षा एवं इसमें संशोधन कर सकता है। बोर्ड किसी भी समय किसी प्रभावित पक्ष के संदर्भ पर तथा पर्याप्त एवं उचित कारणों से इन नियामकों के अंतर्गत भुगतान किए जाने वाले शुल्क एवं अन्य प्रभार के ढांचे की समीक्षा एवं इसमें संशोधन कर सकता है।

6. व्याख्यापक ज्ञापन : इन नियामकों की पृष्ठभूमि तथा इन्हें जारी करने का कारण अनुबंध क में व्याख्यापक ज्ञापन में दिया गया है।

7. विवेचना : यदि इन नियामकों के प्रावधानों की विवेचना के संबंध में कोई विवाद उत्पन्न होता है तो बोर्ड का निर्णय अंतिम एवं बाध्यकारी होगा।

[एस. प्रशा./II/8/8007-खण्ड-1]

अजय त्यागी, सचिव

अनुबंध क

#### व्याख्यापक ज्ञापन

1. पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड अधिनियम, 2006 के खंड 61 के उप-खंड (2) की धारा (जी) बोर्ड को नियमों द्वारा निर्धारित सेवाओं पर नियमों द्वारा निर्धारित दर से शुल्क एवं अन्य प्रभारों की उगाही के लिए शक्तियां पदान करती है।

2. अधिनियम के तहत प्रदत्त शक्तियों को दृष्टिगत रखते हुए बोर्ड ने अधिनियम के प्रावधानों के अनुरूप विभिन्न सेवाओं/गतिविधियों

पर शुल्क एवं अन्य प्रभारों की उगाही का निर्णय लिया है जिसके लिए ये नियम बनाए गए हैं।

3. शुल्क की उगाही की आवश्यकता इस तथ्य के कारण हुई है कि बोर्ड द्वारा इतनी बड़ी संख्या में आवेदनों की छंटनी तथा उनसे जुड़ी पंजीकरण, प्राधिकरण, शिकायत आदि से संबंधित प्रक्रिया से उपलब्ध सीमित नियामक संसाधनों पर दबाव पड़ता है।

4. शुल्क की उगाही के अतिरिक्त बोर्ड को नियमों के द्वारा हस्तियों से अधिनियम के खंड 11 के अधीन विभिन्न कार्यों के लिए जाने वाले अन्य प्रभारों का स्तर भी निर्धारित करना पड़ता है। बोर्ड को पेट्रोलियम, पेट्रोलियम उत्पादों और प्राकृतिक गैस की रिफाइनिंग, प्रोसेसिंग, भंडारण, परिवहन, वितरण, विपणन आदि के नियमन करने की आवश्यकता पड़ती है ताकि उपभोक्ताओं तथा हस्तियों के हितों की रक्षा की जा सके तथा देश के सभी हिस्सों में विनिर्दिष्ट उत्पादों की पर्याप्त एवं निर्बाध आपूर्ति सुनिश्चित की जा सके और साथ ही प्रतिस्पर्धात्मक बाजार को भी प्रोन्नत किया जा सके। बोर्ड द्वारा देखे जाने वाले उद्योग का आकार विशाल है तथा इसकी प्रकृति अलग-अलग है जिसमें अब तक 10,000 किलोमीटर से अधिक लंबी उत्पाद पाइप लाइन, 6000 किलोमीटर से अधिक लंबी प्राकृतिक गैस पाइप लाइन तथा अनेक नगर गैस वितरण नेटवर्क, 19 रिफाइनरियां, 2 एलएनजी टर्मिनल, 300 से अधिक भंडारण टर्मिनल/डिपो, करीब 200 एलपीजी घराई संयंत्र, करीब 32,000 खुदरा बिक्री केंद्र, 100 से अधिक विमानन घराई केंद्र, 6000 से अधिक कंरोसीन डीलर, 9000 एलपीजी डिस्ट्रीब्यूटरशिप आदि शामिल हैं। इस उद्योग पर नजर रखने के लिए उपलब्ध संसाधनों की सीमाओं को देखते हुए बोर्ड ने अपने विशाल एवं विविधकृत कार्य को पूरा करने के लिए अन्य प्रभार लगाने का भी निर्णय लिया है।

#### NOTIFICATION

New Delhi, the 26th November, 2007

**G.S.R. 732(E).**—In exercise of the powers conferred by clause (g) of Sub-section (2) of Section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely :—

**1. Short title and commencement.**—(1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Levy of Fee and Other Charges) Regulations, 2007.

(2) These regulations shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**—In these regulations, unless the context otherwise requires,—

(a) "Act" means the Petroleum and Natural Gas Regulatory Board Act, 2006;

(b) "Board" means the Petroleum and Natural Gas Regulatory Board established under Sub-section (1) of Section 3 of the Act; and

(c) All other words and expressions used herein but not defined shall have the same meanings respectively assigned to them in the Act.

**3. Levy of Fee.**—(1) Every application under various provisions of the Act shall accompany fee as specified below :

Activity under the provisions of the Act	Fee (Rs.)
Registration under sub-section (2) of Section 15 of the Act	5,00,000
Authorisation under sub-section (3) of Section 17 of the Act—	
<u>CGD Proposal :</u>	
Class A city*	12,00,000
Other cities**	8,00,000
<u>Pipeline Proposal :</u>	
Spur lines	10,00,000
Trunk lines < or = 500 Kilometers	15,00,000
Trunk lines > 500 Kilometers	20,00,000
Obtaining a certified copy of an entry in the register under Sub-section (4) of Section 14 of the Act	1,000 per entry

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Filing a complaint under Sub-section (2) of Section 25 of the Act

Entities : 10,000 per  
complaint

Others : 1,000 per  
complaint

\*Towns with population one million and above as per 2001 Census

\*\*Towns with population less than one million as per 2001 Census

(2) The fee shall be paid through demand draft or pay order in favour of the Petroleum and Natural Gas Regulatory Board payable at New Delhi;

(3) The fee received shall be entered into a register to be maintained by the Board with details such as name of the entity or complainant remitting the payment, purpose of remittance, amount, number and date of demand draft or pay order as the case may be.

4. **Levy of other charges.**—(1) **Operation period :** The entity who is undertaking operation of any of the activities covered under the provisions of the Act relating to registration and/or authorization, shall pay other charges to the Board on annual basis based on its turn over as per following formulation,—

Turn over	Other charges
Upto Rs. 20,000 crore	0.01% (Rs. 2 crore)
Rs. 20,001 to 50,000 crore	0.008% (Rs. 2 crore + 0.008% of > 20,000 crore)
Rs. 50,001 to 1,00,000 crore	0.005% (Rs. 4.4 crore + 0.005% of > 50,000 crore)
More than Rs. 1,00,000 crore	0.004% (Rs. 4.9 crore + 0.004% of > 1,00,000 crore)

(2) **Construction period :** (a) The entity relating to any of the activities of registration and/or authorization covered under the provisions of the Act shall pay other charges to the Board on annual basis during the construction period at the rate of 0.2 per cent of their capital expenditure (CAPEX) of the project based on projected investment in the financial year, which shall be modified at the end of that financial year as per the actual expenditure;

(b) Other charges remitted by an entity under sub-clause (a) above shall be treated as an interest free deposit and the Board shall refund such other charges once the entity commences regular operations and replaces with the appropriate level of other charges as applicable during the operation period as per sub-clause (1) above.

(3) The other charges shall be paid annually within fifteen days from the date of finalizing the annual statement of accounts by the entity.

(4) The other charges shall be paid through demand draft or pay order in favour of the Petroleum and Natural Gas Regulatory Board payable at New Delhi.

(5) The other charges received shall be entered into a register to be maintained by the Board with the details such as name of the entity remitting the payment, whether remittance under sub-clause (1) or sub-clause (2), amount, number and date of demand draft or pay order as the case may be and refund particulars in case of the remittance under sub-clause (2).

5. **Power to review and modify fee and other charges.**—The Board may from time to time, review and modify the structure of fee and other charges payable under these regulations. The Board may also at any time, on reference from any affected party, and for good and sufficient reasons, review and modify the structure of fee and other charges payable under these regulations.

6. **Explanatory Memorandum.**—The background and reasons for issuing these regulations are given in the explanatory memorandum at Annexure A.

7. **Interpretation.**—If any dispute arises with regard to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final and binding.

[S-Admn/11/8/8007-Vol.I]

AJAY TYAGI, Secy.

**EXPLANATORY MEMORANDUM**

1. Clause (g) of Sub-section (2) of Section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 empowers the Board to levy fee and other charges at such rates and in respect of such services as may be determined by regulations.

2. In view of the powers conferred under the Act, the Board has decided to levy fee and other charges for various services/activities as provided for under the Act and hence these regulations.

3. The levy of fee has been necessitated on account of the fact that scrutiny of such a large number of applications and the process associated with them pertaining to registration, authorization, complaints etc. by the Board puts pressure on scarce regulatory resources available.

4. In addition to levy of fee, the Board is also required to determine through regulations the level of "other charges" that will be charged from entities for various functions to be discharged by under Section 11 of the Act. The Board is required to regulate the refining, processing, storage, transportation, distribution, marketing and sale of petroleum, petroleum products and natural gas so as to protect the interests of the consumers and entities and to ensure uninterrupted and adequate supply of the specified items in all parts of the country and to promote competitive markets as well. The industry overseen by the Board is vast and varied in nature, covering as of now over 10,000 km of product pipelines, over 6000 km of natural gas pipelines and a number of city gas distribution networks, 19 refineries, 2 LNG terminals, over 300 storage terminals/depots, around 200 LPG bottling plants, around 32,000 retail outlets, over 100 aviation fueling stations, over 6000 kerosene dealers, over 9,000 LPG distributorships, etc. Considering the limitation on the available resources for the purpose of overseeing this industry, the Board has also decided to levy "other charges" for discharging its vast and varied functions.

**PETROLEUM AND NATURAL GAS REGULATORY BOARD  
NOTIFICATION**

New Delhi, the 26th November, 2007

S.O. 731 (E).—In exercise of the powers conferred by clause (a) of Sub-section of (2) Section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely :—

**CHAPTER I  
PRELIMINARY**

1. Short title and commencement.—(1) These regulations may be called The Petroleum and Natural Gas Regulatory Board (Meetings of the Board) Regulations, 2007.

(2) These regulations shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**—(1) In these regulations, unless the context otherwise requires,—

- (a) "Act", means the Petroleum and Natural Gas Regulatory Board Act, 2006;
- (b) "Board", means the Petroleum and Natural Gas Regulatory Board established under Sub-section (1) of Section 3 of the Act;
- (c) "Chairperson", means the Chairperson of the Board appointed under Section 4 of the Act;
- (d) "Member", means a Member of the Board appointed under Section 4 of the Act.

(2) All other words and expressions used herein but not defined shall have the same meanings respectively assigned to them in the Act.

(3) Unless defined herein or in the Act, the provisions of the General Clauses Act, 1897 as amended from time to time shall apply to these regulations.

## CHAPTER II

### Meetings of the Board

**3. Convening of Board meetings.**—(1) Meetings of the Board shall be convened at least once in each quarter of the year by the Chairperson or in his absence on account of the post being vacant or as may be directed by him/her, by the senior most Member reckoned from the date of appointment to the Board :

Provided that in case of common date of appointment of Members, the Member senior in age shall be considered as senior to the other Members.

(2) Any two Members may require the Chairperson to convene a meeting of the Board at any time and the Chairperson shall convene the meeting of the Board accordingly.

**4. Presiding over Board meetings.**—The Chairperson or if he is unable to attend the meeting of the Board, for any reason, the senior most Member present shall preside over the meeting.

**5. Place and time of Board meetings.**—Meetings of the Board shall be held at such times and places in India as may be specified in the notice convening the meeting.

**6. Notice for Board meetings.**—(1) Not less than seven days notice shall ordinarily be given for each meeting of the Board by the Secretary (or any other Officer designated by the Chairperson) and such notice along with agenda papers shall be circulated to every Member, seven working days in advance :

Provided that if any emergency meeting of the Board is to be convened, seven days notice may not be required. However, sufficient notice shall be given to the Member to enable him to attend the meeting :

Provided further that a resolution may be passed or a decision may be taken by circulation of an agenda to the Members.

(2) No business other than that for which the meeting was convened shall be discussed at a meeting of the Board, except with the consent of the Chairperson or the Member presiding over the meeting and a majority of the Members present.

**7. Quorum required and voting.**—(1) Three Members of the Board including Chairperson or in his absence the Member presiding over the meeting, shall constitute the Quorum for transaction of business at a meeting of the Board;

(2) All questions which come before any meeting of the Board shall be decided by a majority vote of the Members present and voting and in the event of any equality of votes, the Chairperson, or in his absence, the Member presiding over, shall have a second or casting vote.

**8. Leave of absence.**—The Board may grant leave of absence to a Member not present in the meeting and such leave of absence shall be recorded in the minutes of the meeting.

**9. Minutes of the meeting.**—(1) The Board shall cause the minutes of all the meetings to be maintained in the books kept for the purpose, which may be in the form of binders containing loose leaves, duly numbered.

(2) A copy of the minutes of each meeting of the Board shall be circulated as soon as possible to the Members. The minutes shall be signed by the Chairperson or the Member presiding over the succeeding meeting, and taken on record thereafter.

**10. Custody of the minutes book, common seal, etc.**—Secretary of the Board shall keep custody of common seal, register of attendance of the meetings, minutes book, and other documents/records, etc. pertaining to the meetings of the Board.

## CHAPTER III

### Obligations of the Members

**11. Member not to participate in meetings in certain cases.**—Every Member, who is directly or indirectly concerned or interested in any matter coming up for consideration at a meeting of the Board, shall, as soon as possible, after the relevant circumstances have come to his knowledge, disclose the nature of his interest at such meeting and such disclosure shall be recorded in the proceedings of the Board and the Member shall not take any part in any deliberation or decision of the Board with respect to that matter.

**Explanation.**—The expression “directly or indirectly” referred to in this regulation shall include any concern or interest of a Member either by himself or through his relatives within the meaning of definition of Section 6 of the Companies Act, 1956 (1 of 1956) or by reason of being a partner, director of that concern.

**12. Obligation of a Member to give information of disqualification.**—(1) A Member, as soon as may be, inform the Board if he becomes subject to any of the disqualifications specified in Section 7 of the Act.

(2) The Board shall inform the Central Government, if it comes to the notice of the Board that any Member has attracted the disqualifications referred to in (1) above.

[S-Admn/II/8/8007-Vol.I]

AJAY TYAGI, Secy.



# भारत का राजपत्र

## The Gazette of India

असाधारण  
EXTRAORDINARY

भाग II—खण्ड 3—उप-खण्ड (i)  
PART II—Section 3—Sub-section (i)

प्राधिकार से प्रकाशित  
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NEW DELHI, MONDAY, NOVEMBER 26, 2007/AGRAHAYANA 5, 1929

### पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड अधिसूचना

नई दिल्ली, 26 नवम्बर, 2007

सा.का. नि. 731 (अ)—पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड अधिनियम, 2006 (2006 का 19) के खंड 61 के उप-खंड (2) की धारा (क) में वर्णित शक्तियों का प्रयोग करते हुए पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड नामतः निम्नलिखित नियम बनाता है :

#### अध्याय 1

#### आरंभिक

1. संक्षिप्त शीर्ष और प्रारंभ : (1) इन नियमों को पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड (बोर्ड की बैठकें) नियामक, 2007 कहा जाएगा ।

(2) ये नियम सरकारी राजपत्र में इनके प्रकाशित होने की तिथि से प्रभावी होंगे ।

2. परिभाषाएं : इन नियमों में जब तक संदर्भ में अन्यथा अपेक्षित न हो, तब तक—

(क) “अधिनियम” का अर्थ है पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड अधिनियम, 2006 ।

(ख) “बोर्ड” का अर्थ है इस अधिनियम के खंड 3 के उप-खंड (1) के अधीन स्थापित पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड ।

(ग) “अध्यक्ष” का अर्थ है इस अधिनियम के खंड 4 के अंतर्गत नियुक्त बोर्ड का अध्यक्ष ।

(घ) “सदस्य” का अर्थ है इस अधिनियम के खंड 4 के अंतर्गत नियुक्त बोर्ड का सदस्य ।

(2) यहाँ पर प्रयुक्त अन्य वे सभी शब्द एवं अभिव्यक्तियाँ जिनको परिभाषित नहीं किया गया है उनका वही अर्थ होगा जो अधिनियम में दिया गया है ।

(3) जब तक इन नियमों में अथवा अधिनियम में परिभाषित न हो सामान्य धारा अधिनियम के समय-समय पर यथासंशोधित प्रावधान इन नियमों पर लागू होंगे ।

#### अध्याय II

#### बोर्ड की बैठकें

3. बोर्ड की बैठकें बुलाना.—(1) अध्यक्ष द्वारा अथवा उनका पद खाली होने से या उनके निदेशानुसार बोर्ड के वरिष्ठतम सदस्य द्वारा, जिसका निर्धारण बोर्ड में नियुक्ति की तिथि से होगा, वर्ष की प्रत्येक तिमाही में कम से कम एक बार बोर्ड की बैठक बुलाई जाएगी ।

यह भी प्रावधान होगा कि सदस्यों की नियुक्ति की तिथि एक ही होने की स्थिति में आयु में वरिष्ठ सदस्य को दूसरे सदस्य से वरिष्ठ माना जाएगा ।

(2) अध्यक्ष को बैठक बुलाने के लिए किन्हीं दो सदस्यों की आवश्यकता होगी तथा तदनुसार अध्यक्ष कभी भी बोर्ड की बैठक बुलाने सकता है ।

4. बोर्ड की बैठकों की अध्यक्षता : अध्यक्ष या यदि अध्यक्ष किसी कारण से बैठक में उपस्थित नहीं है तो उपस्थित वरिष्ठतम सदस्य बैठक की अध्यक्षता करेगा ।

5. बोर्ड की बैठक का स्थान एवं समय : बोर्ड की बैठक भारत में ऐसे स्थान एवं समय पर होगी जैसा कि बैठक बुलाने की सूचना में विनिर्दिष्ट किया गया है ।

6. बोर्ड की बैठक के लिए सूचना : (1) बोर्ड की प्रत्येक बैठक के लिए सचिव अथवा किसी अन्य अधिकारी द्वारा जिसे अध्यक्ष द्वारा प्राधिकृत किया गया हो, कम से कम 7 दिन की सूचना दी जाएगी तथा यह सूचना कार्यसूची के कागजात सहित सभी सदस्यों को कम से कम 7 दिन पूर्व परिचालित की जाएगी ।

यह भी प्रावधान है कि यदि बोर्ड की कोई आपतकालीन बैठक बुलाई जानी है तो 7 दिन की सूचना आवश्यक नहीं होगी । तथापि, सदस्यों को इतना पर्याप्त समय दिया जाएगा कि वह बैठक में भाग ले सकें ।

यह भी प्रावधान किया गया है कि सदस्यों को परिचालन के माध्यम से भी कोई संकल्प पारित किया जा सकता है अथवा कोई निर्णय लिया जा सकता है ।

(2) अध्यक्ष अथवा बैठक की अध्यक्षता करने वाले सदस्य और उपस्थित सदस्यों के बहुमत की सहमति के बिना बोर्ड की बैठक में उस कारोबार के अतिरिक्त जिसके लिए यह बैठक बुलाई गई है, किसी अन्य कारोबार पर चर्चा नहीं की जाएगी ।

7. आवश्यक कोरम और मतदान : (1) कारोबार के लेन-देन के लिए बोर्ड की किसी बैठक में अध्यक्ष अथवा उनकी अनुपस्थिति में बैठक की अध्यक्षता करने वाले सदस्य सहित तीन सदस्यों की उपस्थिति को कोरम माना जाएगा ।

(2) बोर्ड की किसी बैठक में प्रस्तुत सभी प्रश्न उपस्थित एवं मतदान करने वाले सदस्यों के बहुमत से तय किए जाएंगे तथा बराबर मत होने पर अध्यक्ष, अथवा उसकी अनुपस्थिति में बैठक की अध्यक्षता करने वाले सदस्य को दूसरा अथवा निर्णायक मत डालने का अधिकार होगा ।

8. अनुपस्थिति अवकाश : बैठक में अनुपस्थित किसी सदस्य को बोर्ड अनुपस्थिति अवकाश दे सकता है और इस प्रकार के अवकाश को बैठक के कार्यवृत्त में दर्ज दिया जाएगा ।

9. बैठक का कार्यवृत्त : (1) बोर्ड सभी बैठकों का कार्यवृत्त इस उद्देश्य हेतु रखी गई बही में रखेगा जिसे विधिवत क्रमांकित खुले पन्नों के बाइंडर के रूप में भी रखा जा सकता है ।

(2) बोर्ड की प्रत्येक बैठक के कार्यवृत्त की एक प्रति यथासंभव शीघ्र सदस्यों को परिचालित की जाएगी । कार्यवृत्त अध्यक्ष अथवा आगामी बैठक की अध्यक्षता करने वाले सदस्य द्वारा हस्ताक्षरित की जाएगी तथा उसे उसके बाद अभिलेख पर लिया जाएगा ।

10. कार्यवृत्त बही, सामान्य मुहर आदि की अभिरक्षा : बोर्ड का सचिव सामान्य मुहर, बैठक का उपस्थिति रजिस्टर, कार्यवृत्त बही तथा बोर्ड की बैठक से संबंधित अन्य दस्तावेज/अभिलेख आदि की अभिरक्षा रखेगा ।

### अध्याय III

#### सदस्यों की बाध्यताएं

11. कुछ मामलों में सदस्यों की सहभागिता का न होना : प्रत्येक सदस्य बोर्ड की किसी बैठक में विचारार्थ आने वाले ऐसे किसी मामले में जिसमें वह प्रत्यक्ष अथवा अप्रत्यक्ष रूप से संबंधित है, इसकी जानकारी होते ही बोर्ड की ऐसी बैठक में अपने हित की प्रकृति का खुलासा कर देगा तथा इस प्रकार से खुलासे को बोर्ड की कार्यवाही में अभिलेखित किया जाएगा तथा ऐसे मामले के संबंध में सदस्य बोर्ड की किसी चर्चा या निर्णय में भाग नहीं लेगा ।

व्याख्या : इस नियामक में संदर्भित प्रत्यक्ष अथवा अप्रत्यक्ष में किसी सदस्य का स्वयं का या कंपनी अधिनियम, 1956 (1956 का 1) की खंड 6 की परिभाषा के अर्थ के दायरे में उसके किसी रिश्तेदार के माध्यम से अथवा उस कंपनी का भागीदार या निदेशक होना शामिल है ।

12. अयोग्यता की सूचना देने के लिए सदस्य की बाध्यता : (1) कोई भी सदस्य इस अधिनियम के खंड 7 में विनिर्दिष्ट किसी अयोग्यता का शिकार हो जाने पर यथाशीघ्र उसकी सूचना बोर्ड को देगा ।

(2) किसी सदस्य द्वारा उपर्युक्त (1) में वर्णित अयोग्यता को आकर्षित करने की स्थिति में बोर्ड इसकी सूचना केन्द्र सरकार को देगा ।

[एस. प्रशा./II/8/8007-खण्ड-I]

अजय त्यागी, सचिव

## NOTIFICATION

New Delhi, the 26th November, 2007

**G.S.R. 732(E).**—In exercise of the powers conferred by clause (g) of Sub-section (2) of Section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006), the Petroleum and Natural Gas Regulatory Board hereby makes the following regulations, namely :—

**1. Short title and commencement.**—(1) These regulations may be called the Petroleum and Natural Gas Regulatory Board (Levy of Fee and Other Charges) Regulations, 2007.

(2) These regulations shall come into force on the date of their publication in the Official Gazette.

**2. Definitions.**—In these regulations, unless the context otherwise requires,—

- (a) “Act” means the Petroleum and Natural Gas Regulatory Board Act, 2006;
- (b) “Board” means the Petroleum and Natural Gas Regulatory Board established under Sub-section (1) of Section 3 of the Act; and
- (c) All other words and expressions used herein but not defined shall have the same meanings respectively assigned to them in the Act.

**3. Levy of Fee.**—(1) Every application under various provisions of the Act shall accompany fee as specified below :

Activity under the provisions of the Act	Fee (Rs.)
Registration under sub-section (2) of Section 15 of the Act	5,00,000
Authorisation under sub-section (3) of Section 17 of the Act—	
<u>CGD Proposal :</u>	
Class A city*	12,00,000
Other cities**	8,00,000
<u>Pipeline Proposal :</u>	
Spur lines	10,00,000
Trunk lines < or = 500 Kilometers	15,00,000
Trunk lines > 500 Kilometers	20,00,000
Obtaining a certified copy of an entry in the register under Sub-section (4) of Section 14 of the Act	1,000 per entry

Filing a complaint under Sub-section (2) of Section 25 of the Act

Entities : 10,000 per  
complaint

Others : 1,000 per  
complaint

\*Towns with population one million and above as per 2001 Census

\*\*Towns with population less than one million as per 2001 Census

(2) The fee shall be paid through demand draft or pay order in favour of the Petroleum and Natural Gas Regulatory Board payable at New Delhi;

(3) The fee received shall be entered into a register to be maintained by the Board with details such as name of the entity or complainant remitting the payment, purpose of remittance, amount, number and date of demand draft or pay order as the case may be.

4. **Levy of other charges.**—(1) **Operation period** : The entity who is undertaking operation of any of the activities covered under the provisions of the Act relating to registration and/or authorization, shall pay other charges to the Board on annual basis based on its turn over as per following formulation,—

Turn over	Other charges
Upto Rs. 20,000 crore	0.01% (Rs. 2 crore)
Rs. 20,001 to 50,000 crore	0.008% (Rs. 2 crore + 0.008% of > 20,000 crore)
Rs. 50,001 to 1,00,000 crore	0.005% (Rs. 4.4 crore + 0.005% of > 50,000 crore)
More than Rs. 1,00,000 crore	0.004% (Rs. 4.9 crore + 0.004% of > 1,00,000 crore)

(2) **Construction period** : (a) The entity relating to any of the activities of registration and/or authorization covered under the provisions of the Act shall pay other charges to the Board on annual basis during the construction period at the rate of 0.2 per cent of their capital expenditure (CAPEX) of the project based on projected investment in the financial year, which shall be modified at the end of that financial year as per the actual expenditure;

(b) Other charges remitted by an entity under sub-clause (a) above shall be treated as an interest free deposit and the Board shall refund such other charges once the entity commences regular operations and replaces with the appropriate level of other charges as applicable during the operation period as per sub-clause (1) above.

(3) The other charges shall be paid annually within fifteen days from the date of finalizing the annual statement of accounts by the entity.

(4) The other charges shall be paid through demand draft or pay order in favour of the Petroleum and Natural Gas Regulatory Board payable at New Delhi.

(5) The other charges received shall be entered into a register to be maintained by the Board with the details such as name of the entity remitting the payment, whether remittance under sub-clause (1) or sub-clause (2), amount, number and date of demand draft or pay order as the case may be and refund particulars in case of the remittance under sub-clause (2).

5. **Power to review and modify fee and other charges.**—The Board may from time to time, review and modify the structure of fee and other charges payable under these regulations. The Board may also at any time, on reference from any affected party, and for good and sufficient reasons, review and modify the structure of fee and other charges payable under these regulations.

6. **Explanatory Memorandum.**—The background and reasons for issuing these regulations are given in the explanatory memorandum at Annexure A.

7. **Interpretation.**—If any dispute arises with regard to the interpretation of any of the provisions of these regulations, the decision of the Board shall be final and binding.

[S-Admn/II/8/8007-Vol.I]

AJAY TYAGI, Secy.

**EXPLANATORY MEMORANDUM**

1. Clause (g) of Sub-section (2) of Section 61 of the Petroleum and Natural Gas Regulatory Board Act, 2006 empowers the Board to levy fee and other charges at such rates and in respect of such services as may be determined by regulations.

2. In view of the powers conferred under the Act, the Board has decided to levy fee and other charges for various services/activities as provided for under the Act and hence these regulations.

3. The levy of fee has been necessitated on account of the fact that scrutiny of such a large number of applications and the process associated with them pertaining to registration, authorization, complaints etc. by the Board puts pressure on scarce regulatory resources available.

4. In addition to levy of fee, the Board is also required to determine through regulations the level of "other charges" that will be charged from entities for various functions to be discharged by under Section 11 of the Act. The Board is required to regulate the refiling, processing, storage, transportation, distribution, marketing and sale of petroleum, petroleum products and natural gas so as to protect the interests of the consumers and entities and to ensure uninterrupted and adequate supply of the specified items in all parts of the country and to promote competitive markets as well. The industry overseen by the Board is vast and varied in nature, covering as of now over 10,000 km of product pipelines, over 6000 km of natural gas pipelines and a number of city gas distribution networks, 19 refineries, 2 LNG terminals, over 300 storage terminals/depots, around 200 LPG bottling plants, around 32,000 retail outlets, over 100 aviation fueling stations, over 6000 kerosene dealers, over 9,000 LPG distributorships, etc. Considering the limitation on the available resources for the purpose of overseeing this industry, the Board has also decided to levy "other charges" for discharging its vast and varied functions.

## अधिसूचना

नई दिल्ली, 26 नवम्बर, 2007

सा. का. नि. 732 (अ)—पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड अधिनियम, 2006 (2006 का 19) के खंड 61 के उप-खंड (2) की धारा (क) में वर्णित शक्तियों का प्रयोग करते हुए, पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड नामतः निम्नलिखित नियम बनाता है :

1. संक्षिप्त शीर्षक और प्रारंभ : (1) इन नियमों को पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड (शुल्क एवं अन्य प्रभार उगाही) नियामक, 2007 कहा जाएगा।

(2) ये नियम सरकारी राजपत्र में इनके प्रकाशित होने की तिथि से प्रभावी होंगे।

2. परिभाषाएं : इन नियमों में जब तक संदर्भ में अन्यथा अपेक्षित न हो, तब तक—

(क) "अधिनियम" का अर्थ है पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड अधिनियम, 2006।

(ख) "बोर्ड" का अर्थ है इस अधिनियम के खंड 3 के उप-खंड (1) के अधीन स्थापित पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड।

(ग) यहाँ पर प्रयुक्त अन्य वे सभी शब्द एवं अभिव्यक्तियाँ जिनको परिभाषित नहीं किया गया है उनका वही अर्थ होगा जो अधिनियम में दिया गया है।

3. शुल्क उगाही—(1) अधिनियम के विभिन्न प्रावधानों के अंतर्गत प्रत्येक आवेदन के लिए निम्नानुसार विनिर्दिष्ट शुल्क लिया जाएगा :

अधिनियम के प्रावधानों के अंतर्गत गतिविधियाँ	शुल्क (रुपए)
अधिनियम के खंड 15 के उप-खंड (2) के अंतर्गत पंजीकरण	5,00,000
अधिनियम के खंड 17 के उप-खंड (3) के अंतर्गत प्राधिकरण	5,00,000
<b>सीजीडी प्रस्ताव :</b>	
ए श्रेणी के शहर*	12,00,000
अन्य शहर**	8,00,000
<b>पाइप लाइन प्रस्ताव :</b>	
स्पर लाइन	10,00,000
ट्रंक लाइन > या=500 किलोमीटर	15,00,000
ट्रंक लाइन > या=500 किलोमीटर	20,00,000
अधिनियम के खंड 14 के उप-खंड (4) के अंतर्गत किसी प्रविष्टि की प्रमाणित पतिलिपि प्राप्त करना	1,000 प्रति प्रविष्टि
अधिनियम के खंड 25 के उप-खंड (2) के अंतर्गत शिकायत दर्ज कराना	हस्तियाँ : 10,000 प्रति शिकायत अन्य : 1,000 प्रति शिकायत

\* 2001 की जनगणना के अनुसार एक मिलियन या अधिक जनसंख्या वाले शहर।

\*\* 2001 की जनगणना के अनुसार एक मिलियन से कम जनसंख्या वाले शहर।

(2) शुल्क का भुगतान पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड के पक्ष में नई दिल्ली में देय डिमांड ड्राफ्ट या भुगतान आदेश द्वारा किया जाएगा।

(3) प्राप्त शुल्क की प्रविष्टि बोर्ड द्वारा बनाए गए एक रजिस्टर में की जाएगी तथा उसमें भुगतान जमा करने वाली हस्ती या शिकायतकर्ता का नाम, जमा करने का उद्देश्य, रकम, डिमांड ड्राफ्ट या भुगतान आदेश की संख्या एवं दिनांक आदि विवरण भरा जाएगा।

4. अन्य प्रभारों की उगाही.—(1) प्रचालन अवधि : जो हस्ती इस अधिनियम के प्रावधानों में शामिल पंजीकरण और/अथवा प्राधिकरण से संबंधित किसी गतिविधि का प्रचालन कर रही है वे बोर्ड को निम्नलिखित फार्मूले के अनुसार अपने टर्न ओवर पर आधारित अन्य प्रभारों का भुगतान करेगी :

टर्न ओवर	अन्य प्रभार
20,000 करोड़ रुपए तक	0.01% (2 करोड़ रुपए)
20,001 करोड़ रुपए से 50,000 करोड़ रुपए तक	0.008% (2 करोड़ रुपए + > 20,000 करोड़ का 0008%)
50,001 करोड़ रुपए से 100,000 करोड़ रुपए तक	0.005% (4.4 करोड़ रुपए + > 50,000 करोड़ का 0005%)
1,00,000 करोड़ रुपए से अधिक	0.004% (4.9 करोड़ रुपए + > 100,000 करोड़ का 0004%)

(2) निर्माण अवधि : (क) इस अधिनियम के प्रावधानों में शामिल पंजीकरण और/अथवा प्राधिकरण से संबंधित किसी गतिविधि से संबंधित हस्ती निर्माण अवधि में वित्तीय वर्ष में परियोजित निवेश के आधार पर परियोजना पर अपने पूंजी व्यय (सीएपीईएक्स) के 0.2 प्रतिशत की दर से बोर्ड को वार्षिक आधार पर अन्य प्रभारों का भुगतान करेगी जिसे वर्ष के अंत में वास्तविक व्यय के अनुसार संशोधित कर लिया जाएगा।

(ख) उपर्युक्त उप-धारा (क) के अंतर्गत किसी हस्ती द्वारा भुगतान दिए गए अन्य प्रभारों को ब्याज जमा माना जाएगा तथा जैसे ही यह हस्ती नियमित प्रचालन प्रारंभ कर देती है तथा उपर्युक्त उप-धारा (1) के अनुसार लागू अन्य प्रभारों के उपयुक्त स्तर को प्रतिस्थापित कर देती है जैसे ही बोर्ड इसे वापिस कर देगा।

(3) उपर्युक्त प्रभार का भुगतान वार्षिक आधार पर हस्ती द्वारा वार्षिक लेखा विवरण तैयार किए जाने के 15 दिन के अंदर कर दिया जाएगा।

(4) अन्य प्रभारों का भुगतान पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड के पक्ष में नई दिल्ली में देय डिमांड ड्राफ्ट या भुगतान आदेश द्वारा किया जाएगा।

(5) प्राप्त अन्य प्रभारों की प्रविष्टि बोर्ड द्वारा बनाए गए एक रजिस्टर में की जाएगी तथा उसमें भुगतान जमा करने वाली हस्ती का नाम, तथा क्या जमा उप-धारा (1) के अंतर्गत हुआ है अथवा उप-धारा (2) के अंतर्गत, रकम, डिमांड ड्राफ्ट या भुगतान आदेश की संख्या एवं दिनांक तथा यदि भुगतान उप-धारा (2) के अंतर्गत हुआ है तो धन वापसी का विवरण भरा जाएगा।

5. शुल्क एवं अन्य प्रभारों की समीक्षा एवं संशोधन की शक्तियां : इन नियामकों के अंतर्गत भुगतान किए जाने वाले शुल्क एवं अन्य प्रभार के ढांचे की बोर्ड समय-समय पर समीक्षा एवं इसमें संशोधन कर सकता है। बोर्ड किसी भी समय किसी प्रभावित पक्ष के संदर्भ पर तथा पर्याप्त एवं उचित कारणों से इन नियामकों के अंतर्गत भुगतान किए जाने वाले शुल्क एवं अन्य प्रभार के ढांचे की समीक्षा एवं इसमें संशोधन कर सकता है।

6. व्याख्यापक ज्ञापन : इन नियामकों की पृष्ठभूमि तथा इन्हें जारी करने का कारण अनुबंध क में व्याख्यापक ज्ञापन में दिया गया है।

7. विवेचना : यदि इन नियामकों के प्रावधानों की विवेचना के संबंध में कोई विवाद उत्पन्न होता है तो बोर्ड का निर्णय अंतिम एवं बाध्यकारी होगा।

[एस. प्रशा./II/8/8007-खण्ड-I]

अजय त्यागी, सचिव

अनुबंध क

#### व्याख्यापक ज्ञापन

1. पेट्रोलियम और प्राकृतिक गैस नियामक बोर्ड अधिनियम, 2006 के खंड 61 के उप-खंड (2) की धारा (जी) बोर्ड को नियमों द्वारा निर्धारित सेवाओं पर नियमों द्वारा निर्धारित दर से शुल्क एवं अन्य प्रभारों की उगाही के लिए शक्तियां पदान करती है।

2. अधिनियम के तहत प्रदत्त शक्तियों को दृष्टिगत रखते हुए बोर्ड ने अधिनियम के प्रावधानों के अनुरूप विभिन्न सेवाओं/गतिविधियों

पर शुल्क एवं अन्य प्रभारों की उगाही का निर्णय लिया है जिसके लिए ये नियम बनाए गए हैं।

3. शुल्क की उगाही की आवश्यकता इस तथ्य के कारण हुई है कि बोर्ड द्वारा इतनी बड़ी संख्या में आवेदनों की छंटनी तथा उनसे जुड़ी पंजीकरण, प्राधिकरण, शिकायत आदि से संबंधित प्रक्रिया से उपलब्ध सीमित नियामक संसाधनों पर दबाव पड़ता है।

4. शुल्क की उगाही के अतिरिक्त बोर्ड को नियमों के द्वारा हस्तियों से अधिनियम के खंड 11 के अधीन विभिन्न कार्यों के लिए जाने वाले अन्य प्रभारों का स्तर भी निर्धारित करना पड़ता है। बोर्ड को पेट्रोलियम, पेट्रोलियम उत्पादों और प्राकृतिक गैस की रिफाइनिंग, प्रोसेसिंग, भंडारण, परिवहन, वितरण, विपणन आदि के नियमन करने की आवश्यकता पड़ती है ताकि उपभोक्ताओं तथा हस्तियों के हितों की रक्षा की जा सके तथा देश के सभी हिस्सों में विनिर्दिष्ट उत्पादों की पर्याप्त एवं निर्वाध आपूर्ति सुनिश्चित की जा सके और साथ ही प्रतिस्पर्धात्मक बाजार को भी प्रोन्नत किया जा सके। बोर्ड द्वारा देखे जाने वाले उद्योग का आकार विशाल है तथा इसकी प्रकृति अलग-अलग है जिसमें अब तक 10,000 किलोमीटर से अधिक लंबी उत्पाद पाइप लाइन, 6000 किलोमीटर से अधिक लंबी प्राकृतिक गैस पाइप लाइन तथा अनेक नगर गैस वितरण नेटवर्क, 19 रिफाइनरियां, 2 एलएनजी टर्मिनल, 300 से अधिक भंडारण टर्मिनल/डिपो, करीब 200 एलपीजी भराई संयंत्र, करीब 32,000 खुदरा बिक्री केन्द्र, 100 से अधिक विमानन भराई केन्द्र, 6000 से अधिक केरोसीन डीलर, 9000 एलपीजी डिस्ट्रीब्यूटरशिप आदि शामिल हैं। इस उद्योग पर नजर रखने के लिए उपलब्ध संसाधनों की सीमाओं को देखते हुए बोर्ड ने अपने विशाल एवं विविधीकृत कार्य को पूरा करने के लिए अन्य प्रभार लगाने का भी निर्णय लिया है।