



# Fire-fighter

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NSQF Level: 5

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## MEP/Q7301: Fire-fighter

### Brief Job Description

The Fire-fighter, also known as fireman, rescues and mitigates emergency and fire situations, by using appropriate fire-fighting equipments and safety devices. The Fire-fighter extinguishes fire, rescues trapped personnel and responds to various manmade and natural disasters.

### Personal Attributes

The Fire-fighter should display courage, resilience and have healthy habits as well as have technical aptitude, commitment and proficiency in his duties. The role also requires effective communication skills. The Fire-fighter should also fulfil the following criteria: For Male (Minimum) - Height: 165 cm (Relaxable by 5 cms in the case of Garhwalls, Assamese Gorkha and member of the Schedule tribes), Chest: 81 cm Unexpanded and 86 cm Expanded (Fully expanded with minimum of 5 cm Expansion), Weight: min. 50 kgs. For Female (Minimum) - Height: 157 cm (Relaxable by 2.5 cm in the case of Garhwalls, Assamese Gorkha and member of the Scheduled tribes), Weight: 46 kgs. Medical Standard - a) Visual : Better eye - 6/6 (Eligible vision - 6/6 only ) Worse eye- 6/12, b) Colour Vision :- No colour blindness., c) The candidate must not have knock-nee, flat feet, squint eyes and stammering. d) Must be in good mental and bodily health and free from any physical defect. (Source: National Fire Service College, Nagpur)

### Applicable National Occupational Standards (NOS)

#### Compulsory NOS:

1. [MEP/N7301: Identify type of fire and response required](#)
2. [MEP/N7302: Carry out first-aid fire fighting using portable extinguishers](#)
3. [MEP/N7303: Respond to the fire incidents using fire-fighting systems](#)
4. [MEP/N7304: Carry out rescue operation and administer medical first-aid](#)
5. [MEP/N7305: Inspect installed fire safety equipment and systems and ensure their operational readiness](#)
6. [MEP/N7306: Maintain health and safety of self and others as a fire-fighter](#)
7. [MEP/N7307: Work effectively as a fire-fighter at the workplace](#)

### Qualification Pack (QP) Parameters

<b>Sector</b>	Management
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<b>Sub-Sector</b>	Security
<b>Occupation</b>	Fire-Fighting
<b>Country</b>	India
<b>NSQF Level</b>	5
<b>Credits</b>	NA
<b>Aligned to NCO/ISCO/ISIC Code</b>	NCO-2015/5411.10
<b>Minimum Educational Qualification &amp; Experience</b>	10th Class
<b>Minimum Level of Education for Training in School</b>	
<b>Pre-Requisite License or Training</b>	NA
<b>Minimum Job Entry Age</b>	18 Years
<b>Last Reviewed On</b>	16/02/2018
<b>Next Review Date</b>	31/03/2022
<b>Deactivation Date</b>	09/08/2023
<b>NSQC Approval Date</b>	19/12/2018
<b>Version</b>	1.0
<b>Reference code on NQR</b>	2019/WC/MEPSC/03112
<b>NQR Version</b>	1.0

## **MEP/N7301: Identify type of fire and response required**

### **Description**

This unit deals in detail with the identification of type of fire, type of incident as well as what response should be taken to deal with the situation.

### **Elements and Performance Criteria**

#### *Receive fire intimation and reach the location of the fire*

To be competent, the user/individual on the job must be able to:

- PC1.** identify layout of premises, critical assets, areas and hazards in the assigned area in discussion with stakeholders and superiors
- PC2.** identify fire points, fire alarms, location of hydrants, etc. in the assigned area
- PC3.** monitor fire alarm systems and interpret alarm indicators
- PC4.** recognize fire intimation indication from various sources with alertness
- PC5.** follow communication sequence and procedures as per protocol for fire intimation
- PC6.** assess and decide level of fire and hazardous situation

#### *Recognize and assess on site fire and hazards*

To be competent, the user/individual on the job must be able to:

- PC7.** identify the type of fire
- PC8.** identify fire associated hazards in the assigned area
- PC9.** identify other hazards to life and assets in the assigned area

#### *Select appropriate response and equipment required*

To be competent, the user/individual on the job must be able to:

- PC10.** inform authorized personnel about the about the exact situation as observed while following organizational protocol Authorized personnel: Control room or Supervisor or Management
- PC11.** identify response to the fire as per the level and type of fire and hazard situation
- PC12.** identify equipment required for fire-fighting as per the type of response selected as well as availability
- PC13.** inform authorized personnel about the fire response suggestion as per organisational protocol Authorized personnel: Control room or Supervisor or Management
- PC14.** mobilise resources as per procedures for emergency response

### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- KU1.** the emergency response plan (ERP) of the workplace
- KU2.** the reporting system within his own organization and at workplace
- KU3.** the location of muster points and emergency exit routes
- KU4.** layout of the premises, fire points, fire alarm, location of hydrants, etc.

- KU5.** fire organization and fire departments procedures at the workplace i.e Watch room procedures, Importance and writing of occurrence book, Maintenance of documents i.e (duty register, fire reports, logbooks, hose book, stock registers)
- KU6.** types of automatic Fire Detection cum Alarm System
- KU7.** operation of fire alarm panel board and area annunciation panel board
- KU8.** duties to be performed on way to fire
- KU9.** sizing and proper assessment of fire scene-nature of fire and associated hazards
- KU10.** fundamentals of fire like: Fire triangle, Fire tetrahedron, Dynamics of spread of fires, Classification of fire, Flammable and combustible liquids and gases, Flash point, Ignition temperature, Auto ignition temperature, Flammability range, Explosive limits
- KU11.** definition and type of matters and their physical properties
- KU12.** heat and combustion and other physical properties of matter- (Vapour Density, specific gravity, melting point, freezing point, boiling point, latent heat of vaporization/ fusion, oxidizing and reducing agents), measurement of
- KU13.** temperature and conversion of their scales
- KU14.** methods of fire extinguishment-cooling, smothering and starvation
- KU15.** types of fire extinguishers, extinguishment theory for dry chemical application
- KU16.** suitability of fire extinguishers
- KU17.** theory of application of dry chemical
- KU18.** state the classification of fire
- KU19.** measurement of temperature and understand temperature conversion
- KU20.** concept of heat and combustion
- KU21.** categorization of flammable and combustible liquids and gases
- KU22.** concept of flash point, ignition temperature, auto ignition temperature, flammability range and explosive limits
- KU23.** principles of extinguishing fire
- KU24.** control operations, containment and confinement operations for small fires as well as fire incidents
- KU25.** occupational, operational and general hazards including hazardous material
- KU26.** hot and cold work permits, working at heights as well as in confined spaces
- KU27.** emergencies and disasters-Natural and manmade disasters, fundamentals of emergency response plan(ERP)
- KU28.** importance of qualities like mental agility, resilience, alertness and discipline

## **Generic Skills (GS)**

User/individual on the job needs to know how to:

- GS1.** document instructions and task
- GS2.** document activities/ reports in a chronological order
- GS3.** prepare work permits
- GS4.** use computer for elementary documentation
- GS5.** maintain registers and documents in control rooms

- GS6.** write in English and at least in one vernacular language Reading Skills
- GS7.** properly read user manuals and operating instructions of equipments and machinery so as to comprehend their contents properly
- GS8.** read signages and notices
- GS9.** read ERP and instructions for proper implementation Oral Communication (Listening and Speaking skills)
- GS10.** raise alarm/ make announcement/ speak over phone/ radio
- GS11.** receive fire/ emergency calls
- GS12.** speak clearly and coherently
- GS13.** comprehend instructions and ask relevant queries
- GS14.** give clear instructions to co-workers
- GS15.** instruct and guide occupants of premises
- GS16.** guide municipal fire and emergency service personnel
- GS17.** de-brief seniors and stakeholders after tackling emergency situation
- GS18.** assess and decide level of emergency situations endangering life and property
- GS19.** select proper equipment and extinguishing mediums to control or isolate emergencies Plan and Organize
- GS20.** plan timely reporting and briefing
- GS21.** plan and organize assigned duties and maintenance schedule
- GS22.** organize briefing and debriefing Customer Centricity
- GS23.** manage relationships with all stakeholders Problem Solving
- GS24.** think through an emergency situation, evaluate the possible option(s) and adopt a best possible approach to minimize/ eliminate risk/ emergency Analytical Thinking
- GS25.** analyse potential risk and threats and take suitable actions Critical Thinking
- GS26.** recognize and identify risk/ emergency, make appropriate decisions and to act accordingly

## Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Receive fire intimation and reach the location of the fire</i>	<b>25</b>	<b>38</b>	-	-
<b>PC1.</b> identify layout of premises, critical assets, areas and hazards in the assigned area in discussion with stakeholders and superiors	4	6	-	-
<b>PC2.</b> identify fire points, fire alarms, location of hydrants, etc. in the assigned area	4	6	-	-
<b>PC3.</b> monitor fire alarm systems and interpret alarm indicators	4	6	-	-
<b>PC4.</b> recognize fire intimation indication from various sources with alertness	4	6	-	-
<b>PC5.</b> follow communication sequence and procedures as per protocol for fire intimation	4	7	-	-
<b>PC6.</b> assess and decide level of fire and hazardous situation	5	7	-	-
<i>Recognize and assess on site fire and hazards</i>	<b>13</b>	<b>20</b>	-	-
<b>PC7.</b> identify the type of fire	5	7	-	-
<b>PC8.</b> identify fire associated hazards in the assigned area	4	7	-	-
<b>PC9.</b> identify other hazards to life and assets in the assigned area	4	6	-	-
<i>Select appropriate response and equipment required</i>	<b>22</b>	<b>32</b>	-	-
<b>PC10.</b> inform authorized personnel about the about the exact situation as observed while following organizational protocol Authorized personnel: Control room or Supervisor or Management	4	6	-	-
<b>PC11.</b> identify response to the fire as per the level and type of fire and hazard situation	5	7	-	-



Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> identify equipment required for fire-fighting as per the type of response selected as well as availability	5	7	-	-
<b>PC13.</b> inform authorized personnel about the fire response suggestion as per organisational protocol Authorized personnel: Control room or Supervisor or Management	4	6	-	-
<b>PC14.</b> mobilise resources as per procedures for emergency response	4	6	-	-
<b>NOS Total</b>	<b>60</b>	<b>90</b>	-	-

## National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	MEP/N7301
<b>NOS Name</b>	Identify type of fire and response required
<b>Sector</b>	Management
<b>Sub-Sector</b>	Security
<b>Occupation</b>	Fire-fighting
<b>NSQF Level</b>	5
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	16/02/2018
<b>Next Review Date</b>	31/03/2022
<b>NSQF Clearance Date</b>	19/12/2018

## **MEP/N7302: Carry out first-aid fire fighting using portable extinguishers**

### **Description**

This unit deals in detail with putting out small fires and contain or control big fires till arrival of help using portable extinguishers as per standards. This is called first aid fire fighting.

### **Elements and Performance Criteria**

#### *Put out small fires using portable extinguishers*

To be competent, the user/individual on the job must be able to:

- PC1.** select a suitable equipment for first-aid fire-fighting as per type of fire First-aid fire-fighting equipment: portable fire-extinguishers, wet blankets, sand-bucket, etc.
- PC2.** extinguish small fires using suitable first-aid fire-fighting equipment
- PC3.** take measures to confine and control small fire
- PC4.** ensure safety of self and others while fighting fires
- PC5.** debrief and report to supervisor about the incident
- PC6.** report fire details on call to control room or fire-brigade team

#### *Control big fires till arrival of help and equipment*

To be competent, the user/individual on the job must be able to:

- PC7.** raise alarm to personnel in the area using available means such as public address system, word of mouth, loudspeakers, etc.
- PC8.** secure area of immediate emergency
- PC9.** remove machinery and equipment from area where safe to do so
- PC10.** select and set up firefighting equipment available as per response selected Setup: placing of pumps, layout of hose, identify methods of entry, etc.
- PC11.** take measures to contain and control a big fire using available fire-fighting equipment till arrival of help and equipment

### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- KU1.** layout of the premises, fire points, fire alarm, location of hydrants, etc.
- KU2.** location of first aid firefighting equipment installations
- KU3.** reporting process
- KU4.** meaning and purpose of first aid-fire fighting
- KU5.** elements of fire control like Structural fire components, Ground cover fire components, Vehicular fire components, Flammable liquids fire components, Flammable gases fire components
- KU6.** characteristics of first-aid fire-fighting equipment
- KU7.** parts and components of first-aid fire-fighting equipment
- KU8.** suitability and operation of first aid firefighting equipment

- KU9.** process of fire extinguishment
- KU10.** watch room procedures and mobilization
- KU11.** duties on way to fire
- KU12.** sizing and proper assessment of fire scene-nature of fire and associated hazards
- KU13.** duties on reaching the spot (like sending message, placing of pumps, layout of hose, methods of entry, working in smoke/darkness)

## **Generic Skills (GS)**

User/individual on the job needs to know how to:

- GS1.** document instructions and task
- GS2.** document activities/ reports in a chronological order
- GS3.** prepare work permits- hot/ cold permits
- GS4.** prepare plan for vessel entry and working at height permit
- GS5.** use basic computer applications
- GS6.** document operations in a control room
- GS7.** write in English and at least in one vernacular language Reading Skills
- GS8.** grasp user manuals and operating instructions of equipments and machinery
- GS9.** read signages and notices
- GS10.** read and assimilate applicable ERP and instructions Oral Communication (Listening and Speaking skills)
- GS11.** raise alarm/ make announcement/ speak over phone/ radio
- GS12.** speak clearly and coherently
- GS13.** comprehend instructions and ask relevant queries
- GS14.** give clear instructions to co-workers
- GS15.** instruct and guide occupants of premises
- GS16.** interact with other fire and emergency services
- GS17.** brief seniors and stakeholders after tackling emergency situation
- GS18.** assess and decide level of emergency situations endangering life and property
- GS19.** select proper equipment and extinguishing mediums to control or isolate emergencies Plan and Organize
- GS20.** plan timely reporting and briefing
- GS21.** plan and organize assigned duties and maintenance schedule
- GS22.** manage relationships with all stakeholders Problem Solving
- GS23.** think through an emergency situation, evaluate the possible option(s) and adopt the best possible approach to minimize/ eliminate risk/ emergency Analytical Thinking
- GS24.** identify potential risks and threats and take suitable actions Critical Thinking
- GS25.** analyse and identify risk/ emergency and make preliminary decisions to perform corrective actions
- GS26.** recognize and identify risk/ emergency, make appropriate decisions and to act accordingly

## Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Put out small fires using portable extinguishers</i>	<b>30</b>	<b>79</b>	-	-
<b>PC1.</b> select a suitable equipment for first-aid fire-fighting as per type of fireFirst-aid fire-fighting equipment: portable fire-extinguishers, wet blankets, sand-bucket, etc.	5	14	-	-
<b>PC2.</b> extinguish small fires using suitable first-aid fire-fighting equipment	5	14	-	-
<b>PC3.</b> take measures to confine and control small fire	5	14	-	-
<b>PC4.</b> ensure safety of self and others while fighting fires	5	14	-	-
<b>PC5.</b> debrief and report to supervisor about the incident	5	13	-	-
<b>PC6.</b> report fire details on call to control room or fire-brigade team	5	10	-	-
<i>Control big fires till arrival of help and equipment</i>	<b>25</b>	<b>66</b>	-	-
<b>PC7.</b> raise alarm to personnel in the area using available means such as public address system, word of mouth, loudspeakers, etc.	5	10	-	-
<b>PC8.</b> secure area of immediate emergency	5	14	-	-
<b>PC9.</b> remove machinery and equipment from area where safe to do so	5	14	-	-
<b>PC10.</b> select and set up firefighting equipment available as per response selected Setup: placing of pumps, layout of hose, identify methods of entry, etc.	5	14	-	-
<b>PC11.</b> take measures to contain and control a big fire using available fire-fighting equipment till arrival of help and equipment	5	14	-	-
<b>NOS Total</b>	<b>55</b>	<b>145</b>	-	-

## National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	MEP/N7302
<b>NOS Name</b>	Carry out first-aid fire fighting using portable extinguishers
<b>Sector</b>	Management
<b>Sub-Sector</b>	Security
<b>Occupation</b>	Fire-fighting
<b>NSQF Level</b>	5
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	16/02/2018
<b>Next Review Date</b>	31/03/2022
<b>NSQC Clearance Date</b>	19/12/2018

## **MEP/N7303: Respond to the fire incidents using fire-fighting systems**

### **Description**

This unit deals in detail with responding to fire incidents and operating fire-fighting systems effectively as per standards.

### **Elements and Performance Criteria**

#### *Identify types and construction of firefighting systems*

To be competent, the user/individual on the job must be able to:

- PC1.** identify different types of hose, hose appliances, hose tools, connectors, breechings, nozzles and adapters
- PC2.** locate water supply, distribution system, hydraulics and pumps & primers
- PC3.** identify fixed fire-fighting systems, foam making equipment and monitors
- PC4.** identify automatic fire detection and alarm systems

#### *Respond to fires, hazards and other emergencies*

To be competent, the user/individual on the job must be able to:

- PC5.** use proper personal protective equipment (PPE) as per the incident
- PC6.** locate the place of fire
- PC7.** decide entry point and method of entry
- PC8.** assess hazards and precautions to be taken while working in the prevailing smoky and dark conditions
- PC9.** select proper fire extinguishment appliances as per the fire type and environment
- PC10.** place pumps and lay hoses as per standard procedure
- PC11.** carry out fire fighting following all necessary precautions and mandatory procedures
- PC12.** search premises and rescue people following all necessary precautions and mandatory procedures
- PC13.** operate hoses and hand lines effectively during fire-fighting
- PC14.** lift the hose, lower the hose and perform under running with the hose as per standard procedure
- PC15.** perform rolling of hose in various fashion as per standard procedure
- PC16.** operate effective streams
- PC17.** use hollow jet, spray, power jet, etc. as per the requirement of the fire situation
- PC18.** operate manual, semi-automatic and automatic fire fighting systems as per the requirement of the fire situation while adhering to standard procedure
- PC19.** operate nozzles and valves to control water as per as per the requirement of the fire situation
- PC20.** operate hand controlled and non-hand controlled fire fighting equipment

#### *Carry out salvage*

To be competent, the user/individual on the job must be able to:

- PC21.** carry out salvage operation with safety considerations
- PC22.** stop water from sprinkler heads and remove water

- PC23.** implement methods of protecting material goods
- PC24.** remove damaged and deteriorated equipment and material
- PC25.** replace/replenish fire equipment/material

## **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- KU1.** general awareness of premises and neighbourhood
- KU2.** organisational procedures with respect to safety of people, property and premises
- KU3.** organisational communication procedure
- KU4.** organisational documentation and update procedures
- KU5.** organisational procedures related to operation of fire-fighting systems
- KU6.** procedures of declaring emergency scene safety
- KU7.** on site emergency, off site emergency level-1, level-2 and level-3
- KU8.** procedures of apparatus safety
- KU9.** reporting/ debriefing procedure
- KU10.** line communication, radio communication and sign language
- KU11.** watch room procedures and mobilization
- KU12.** duties on way to fire
- KU13.** sizing and proper assessment of fire scene-nature of fire and associated hazards
- KU14.** duties on reaching the spot (like sending message, placing of pumps, layout of hose, methods of entry, working in smoke/darkness)
- KU15.** selection and use of correct fire extinguishment media
- KU16.** correct use of firefighting systems and equipment
- KU17.** primary and secondary search of structures, safe evacuation procedures, evacuation of survivors and removal of bodies
- KU18.** duties after firefighting and salvage work
- KU19.** replacement/replenishment of fire equipment/material
- KU20.** hose, hose appliances and hose tools
- KU21.** connectors, breechings, nozzles and adapters
- KU22.** water supply-Natural and manmade sources
- KU23.** water as an extinguishing agent and other extinguishing media
- KU24.** water distribution system-direct pumping and gravity systems, main trunk,secondary and service lines
- KU25.** normal operating pressures, static pressures, floor pressures & effective streams
- KU26.** basics of HydraulicsHydraulics: Introduction & Units of measuring Length, Area and Volume of regular and irregular shapes, Pressure & their conversion, Principal Characteristics of pressure and pressure head, Calculation of capacity of tanks of different shapes & sizes
- KU27.** types of pump and Primers Pump and Primers: Classification of common pumps in use in Fire Service, Centrifugal pumps- its parts, construction & their function, Different types of primers, Reciprocating and Gas Ejector primers



- KU28.** foam as an extinguishing media, properties of foam and techniques of fire extinguishment by foam, foam making equipment
- KU29.** fixed firefighting systems- (hydrants, sprinklers, standpipe, deluge, fixed foam auto, semi-auto protection systems)
- KU30.** monitors - (Water monitors, self-aspirating foam monitors, portable ground monitors, elevated monitors, oscillating monitors, remote controlled operated monitors)

## **Generic Skills (GS)**

User/individual on the job needs to know how to:

- GS1.** document instructions and tasks
- GS2.** document activities/ reports in a chronological order
- GS3.** document occurrence book and fire report
- GS4.** write duty register and leave register
- GS5.** prepare shift schedule
- GS6.** prepare work permits - hot/ cold permits
- GS7.** operate basic computer applications
- GS8.** document operations in control room
- GS9.** write in English and at least in one vernacular language Reading Skills
- GS10.** user manuals and operating instructions of equipments and machinery
- GS11.** read signages and notices
- GS12.** read and assimilate applicable ERP and instructions
- GS13.** read standing orders and standing instructions Oral Communication (Listening and Speaking skills)
- GS14.** raise alarm/ make announcement/ speak over phone/ radio
- GS15.** receive fire emergency call
- GS16.** speak clearly and coherently
- GS17.** comprehend instructions and ask relevant queries
- GS18.** give clear instructions to co-workers
- GS19.** instruct and guide people at the premises
- GS20.** interact with other fire and emergency service
- GS21.** assess and decide level of emergencies endangering life and property
- GS22.** select proper equipment and extinguishing mediums to control and isolate
- GS23.** size, assess and resize a situation
- GS24.** undertake ventilation of flame, heat and smoke
- GS25.** undertake salvage Plan and Organize
- GS26.** plan timely reporting and briefing
- GS27.** plan and organize assigned duties, training and maintenance schedule
- GS28.** brief the reliever Customer Centricity
- GS29.** manage relationships with all stakeholders
- GS30.** debrief seniors and stakeholders after tackling emergency situation

- GS31.** prepare fire report in chronological order
- GS32.** replace/replenish used fire equipment/material Problem Solving
- GS33.** think through an emergency situation, evaluate the possible option(s) and adopt a best possible approach to minimize/ eliminate risk/ emergency Analytical Thinking
- GS34.** analyse potential risk and threats and take suitable actions Critical Thinking
- GS35.** recognize and identify risk/ emergency and make preliminary decisions to perform corrective actions

## Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Identify types and construction of firefighting systems</i>	<b>11</b>	<b>20</b>	-	-
<b>PC1.</b> identify different types of hose, hose appliances, hose tools, connectors, breechings, nozzles and adapters	3	5	-	-
<b>PC2.</b> locate water supply, distribution system, hydraulics and pumps & primers	2	5	-	-
<b>PC3.</b> identify fixed fire-fighting systems, foam making equipment and monitors	3	5	-	-
<b>PC4.</b> identify automatic fire detection and alarm systems	3	5	-	-
<i>Respond to fires, hazards and other emergencies</i>	<b>47</b>	<b>87</b>	-	-
<b>PC5.</b> use proper personal protective equipment (PPE) as per the incident	3	5	-	-
<b>PC6.</b> locate the place of fire	2	5	-	-
<b>PC7.</b> decide entry point and method of entry	3	5	-	-
<b>PC8.</b> assess hazards and precautions to be taken while working in the prevailing smoky and dark conditions	3	5	-	-
<b>PC9.</b> select proper fire extinguishment appliances as per the fire type and environment	3	5	-	-
<b>PC10.</b> place pumps and lay hoses as per standard procedure	3	5	-	-
<b>PC11.</b> carry out fire fighting following all necessary precautions and mandatory procedures	3	6	-	-
<b>PC12.</b> search premises and rescue people following all necessary precautions and mandatory procedures	3	5	-	-
<b>PC13.</b> operate hoses and hand lines effectively during fire-fighting	3	6	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC14.</b> lift the hose, lower the hose and perform under running with the hose as per standard procedure	3	6	-	-
<b>PC15.</b> perform rolling of hose in various fashion as per standard procedure	3	6	-	-
<b>PC16.</b> operate effective streams	3	5	-	-
<b>PC17.</b> use hollow jet, spray, power jet, etc. as per the requirement of the fire situation	3	5	-	-
<b>PC18.</b> operate manual, semi-automatic and automatic fire fighting systems as per the requirement of the fire situation while adhering to standard procedure	3	6	-	-
<b>PC19.</b> operate nozzles and valves to control water as per as per the requirement of the fire situation	3	6	-	-
<b>PC20.</b> operate hand controlled and non-hand controlled fire fighting equipment	3	6	-	-
<i>Carry out salvage</i>	<b>10</b>	<b>25</b>	-	-
<b>PC21.</b> carry out salvage operation with safety considerations	2	5	-	-
<b>PC22.</b> stop water from sprinkler heads and remove water	2	5	-	-
<b>PC23.</b> implement methods of protecting material goods	2	5	-	-
<b>PC24.</b> remove damaged and deteriorated equipment and material	2	5	-	-
<b>PC25.</b> replace/replenish fire equipment/material	2	5	-	-
<b>NOS Total</b>	<b>68</b>	<b>132</b>	-	-

## National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	MEP/N7303
<b>NOS Name</b>	Respond to the fire incidents using fire-fighting systems
<b>Sector</b>	Management
<b>Sub-Sector</b>	Security
<b>Occupation</b>	Fire-fighting
<b>NSQF Level</b>	5
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	16/02/2018
<b>Next Review Date</b>	31/03/2022
<b>NSQC Clearance Date</b>	19/12/2018

## **MEP/N7304: Carry out rescue operation and administer medical first-aid**

### **Description**

This unit deals in detail with carrying out effective rescue and first-aid as per standards.

### **Elements and Performance Criteria**

#### *Prepare for rescue situations*

To be competent, the user/individual on the job must be able to:

- PC1.** identify location of the injured and casualties
- PC2.** obtain information about the situation promptly and from reliable sources
- PC3.** identify and assess the situation requiring rescue with respect to type of causality, number of people involved, criticality, condition of the area, etc.
- PC4.** identify and assess the hazards associated with the situation
- PC5.** plan rescue operation as per situation
- PC6.** communicate to the relevant stakeholders
- PC7.** identify available rescue equipment at the assigned premises

#### *Identify available rescue equipment*

To be competent, the user/individual on the job must be able to:

- PC8.** identify suitable rescue equipment for specific situations
- PC9.** use and operate cutting, lifting and other rescue equipment/tools as per standard operating procedure
- PC10.** use body and respiratory protection gears (PPEs & SCBA) as per standard operating procedure
- PC11.** identify relevant characteristics of the overall premises and area

#### *Identify relevant characteristics of the premises*

To be competent, the user/individual on the job must be able to:

- PC12.** analyse floor plan at each floor to identify important rescue and evacuation related information
- PC13.** identify locations of assembly/muster points
- PC14.** locate escape route
- PC15.** interpret notification and evacuation system
- PC16.** interpret codes of various emergency alarms and signals
- PC17.** apply rescue techniques as per relevant legislation and organisational policies and procedures.

#### *Carry out rescue and evacuation with or without equipment*

To be competent, the user/individual on the job must be able to:

- PC18.** Negotiate or avoid hazards and risks safely according to relevant legislation and organisational policies and procedures
- PC19.** assess situation to determine need for self evacuation or external assistance.
- PC20.** minimise risk of further injury to injured person, according to organisational policies and procedures

- PC21.** carry out rescue on land, at heights and in water
- PC22.** carry out rescue using rope and allied accessories and fall protection equipment
- PC23.** evaluate surroundings and situation correctly

*Identify and administer first aid*

To be competent, the user/individual on the job must be able to:

- PC24.** assess the condition of the casualty and identify medical emergencies and trauma conditions
- PC25.** summarize contents usage of first aid box
- PC26.** assess air way, breathing and circulation in the casualty
- PC27.** give CPR and resuscitation (artificial respiration)
- PC28.** administer first-aid as per medical standards
- PC29.** call for professional medical help where own competence is not adequate

## Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** organisational procedures for rescue and first aid
- KU2.** organisational reporting procedure
- KU3.** method and means of keeping escape routes accessible
- KU4.** the response needed in case of specific situations
- KU5.** materials and their characteristics under fire conditions
- KU6.** building collapse and rescue operation
- KU7.** emergency scene safety and measures to be taken for various rescue situations
- KU8.** fire escapes, entry/exit routes and assembly areas
- KU9.** rescue of trapped victims with low/ high probability of survival
- KU10.** methods to rescue trapped persons in lifts, sewer, under vehicle, debris of collapsed building material and hazardous places
- KU11.** level of skill and experience of rescuer
- KU12.** efficacy of PPE and rescue equipment in the given situation
- KU13.** different types of medical situations and related medical first-aid: Shock-sign and symptoms, Asphyxia-sign and symptoms, Wounds and hemorrhage, Scalds and frost bites, heart attack, Sprain; fractures and dislocation, Snake Bites, Resuscitation- Different methods

## Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** document instructions and tasks
- GS2.** document activities/ reports in a chronological order
- GS3.** document occurrence book and fire report
- GS4.** write duty register and leave register
- GS5.** prepare shift schedule

- GS6.** prepare work permits - hot/ cold permits
- GS7.** operate basic computer applications
- GS8.** document operations in control room
- GS9.** write in English and at least in one vernacular language Reading Skills
- GS10.** user manuals and operating instructions of equipments and machinery
- GS11.** read signages and notices
- GS12.** read and assimilate applicable ERP and instructions
- GS13.** read standing orders and standing instructions Oral Communication (Listening and Speaking skills)
- GS14.** raise alarm/ make announcement/ speak over phone/ radio
- GS15.** receive fire emergency call
- GS16.** speak clearly and coherently
- GS17.** comprehend instructions and ask relevant queries
- GS18.** give clear instructions to co-workers
- GS19.** instruct and guide people at the premises
- GS20.** interact with other fire and emergency service
- GS21.** assess and decide level of emergencies endangering life and property
- GS22.** select proper equipment and extinguishing mediums to control and isolate
- GS23.** size, assess and resize a situation
- GS24.** undertake ventilation of flame, heat and smoke
- GS25.** undertake salvage Plan and Organize
- GS26.** plan timely reporting and briefing
- GS27.** plan and organize assigned duties, training and maintenance schedule
- GS28.** brief the reliever Customer Centricity
- GS29.** manage relationships with all stakeholders
- GS30.** debrief seniors and stakeholders after tackling emergency situation
- GS31.** prepare fire report in chronological order
- GS32.** replace/replenish used fire equipment/material Problem Solving
- GS33.** think through an emergency situation, evaluate the possible option(s) and adopt a best possible approach to minimize/ eliminate risk/ emergency Analytical Thinking
- GS34.** analyse potential risk and threats and take suitable actions Critical Thinking
- GS35.** recognize and identify risk/ emergency and make preliminary decisions to perform corrective actions



## Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare for rescue situations</i>	<b>13</b>	<b>23</b>	-	-
<b>PC1.</b> identify location of the injured and casualties	2	3	-	-
<b>PC2.</b> obtain information about the situation promptly and from reliable sources	2	3	-	-
<b>PC3.</b> identify and assess the situation requiring rescue with respect to type of causality, number of people involved, criticality, condition of the area, etc.	2	4	-	-
<b>PC4.</b> identify and assess the hazards associated with the situation	2	4	-	-
<b>PC5.</b> plan rescue operation as per situation	2	3	-	-
<b>PC6.</b> communicate to the relevant stakeholders	1	3	-	-
<b>PC7.</b> identify available rescue equipment at the assigned premises	2	3	-	-
<i>Identify available rescue equipment</i>	<b>7</b>	<b>12</b>	-	-
<b>PC8.</b> identify suitable rescue equipment for specific situations	2	3	-	-
<b>PC9.</b> use and operate cutting, lifting and other rescue equipment/tools as per standard operating procedure	2	3	-	-
<b>PC10.</b> use body and respiratory protection gears (PPEs & SCBA) as per standard operating procedure	2	3	-	-
<b>PC11.</b> identify relevant characteristics of the overall premises and area	1	3	-	-
<i>Identify relevant characteristics of the premises</i>	<b>10</b>	<b>19</b>	-	-
<b>PC12.</b> analyse floor plan at each floor to identify important rescue and evacuation related information	2	3	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC13.</b> identify locations of assembly/muster points	1	3	-	-
<b>PC14.</b> locate escape route	1	3	-	-
<b>PC15.</b> interpret notification and evacuation system	2	3	-	-
<b>PC16.</b> interpret codes of various emergency alarms and signals	2	3	-	-
<b>PC17.</b> apply rescue techniques as per relevant legislation and organisational policies and procedures.	2	4	-	-
<i>Carry out rescue and evacuation with or without equipment</i>	<b>14</b>	<b>19</b>	-	-
<b>PC18.</b> Negotiate or avoid hazards and risks safely according to relevant legislation and organisational policies and procedures	2	3	-	-
<b>PC19.</b> assess situation to determine need for self evacuation or external assistance.	2	3	-	-
<b>PC20.</b> minimise risk of further injury to injured person, according to organisational policies and procedures	3	3	-	-
<b>PC21.</b> carry out rescue on land, at heights and in water	3	3	-	-
<b>PC22.</b> carry out rescue using rope and allied accessories and fall protection equipment	2	4	-	-
<b>PC23.</b> evaluate surroundings and situation correctly	2	3	-	-
<i>Identify and administer first aid</i>	<b>13</b>	<b>20</b>	-	-
<b>PC24.</b> assess the condition of the casualty and identify medical emergencies and trauma conditions	3	3	-	-
<b>PC25.</b> summarize contents usage of first aid box	2	3	-	-
<b>PC26.</b> assess air way, breathing and circulation in the casualty	3	3	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC27.</b> give CPR and resuscitation (artificial respiration)	2	4	-	-
<b>PC28.</b> administer first-aid as per medical standards	2	4	-	-
<b>PC29.</b> call for professional medical help where own competence is not adequate	1	3	-	-
<b>NOS Total</b>	<b>57</b>	<b>93</b>	-	-

## National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	MEP/N7304
<b>NOS Name</b>	Carry out rescue operation and administer medical first-aid
<b>Sector</b>	Management
<b>Sub-Sector</b>	Security
<b>Occupation</b>	Fire-fighting
<b>NSQF Level</b>	5
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	16/02/2018
<b>Next Review Date</b>	31/03/2022
<b>NSQC Clearance Date</b>	19/12/2018

## **MEP/N7305: Inspect installed fire safety equipment and systems and ensure their operational readiness**

### **Description**

This unit deals in detail about ensuring proper maintenance and storage of tools and equipment as per the standards to ensure their operational readiness.

### **Elements and Performance Criteria**

#### *Identify various fire safety equipment and systems*

To be competent, the user/individual on the job must be able to:

- PC1.** identify the parts and components of the first-aid fire-fighting equipment available and their parts and components
- PC2.** identify different types of hose, hose appliances, hose tools, connectors, breechings, nozzles and adapters
- PC3.** identify different types of ladders and their use
- PC4.** identify different tools and special gears used by Fire-fighter
- PC5.** interpret working of fire and foam tenders
- PC6.** identify location of water supply, distribution system, hydraulics and pumps & primers
- PC7.** identify fixed fire-fighting systems, foam making equipment and monitors
- PC8.** identify automatic fire detection and alarm systems

#### *Inspect and keep fire safety equipment and systems in operational readiness*

To be competent, the user/individual on the job must be able to:

- PC9.** obtain list of and access to fire safety equipment and systems allocated to assigned area
- PC10.** identify parameters to be inspected to ensure operational readiness of fire safety equipment and systems
- PC11.** conduct an inventory of fire safety equipment and systems in assigned area and tally with records
- PC12.** inspect the condition of all fire safety equipment and systems Condition: proper functioning, availability of consumables as per prescribed levels, cleanliness and properly maintained, proper storage, etc.
- PC13.** ensure proper functioning of fire safety equipment and systems by coordinating with maintenance team and procurement team Coordinating: Promptly informing about the requirement in prescribed mode or format, following-up for timely resolution, providing full details about work to be done, checking for resolution, etc.
- PC14.** store safety equipment and systems at station level as per manufacturers guidelines
- PC15.** complete documentation for inventory, inspection and maintenance of fire safety equipment and systems in assigned area
- PC16.** report tools and equipment deterioration and damages to superiors
- PC17.** discard tools and equipment at or before their service life
- PC18.** prepare testing schedule and testing report

### **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- KU1.** equipment user manuals
- KU2.** equipment inspection and maintenance schedule
- KU3.** details of vendors who supply and provide after sales service for the equipment supplied
- KU4.** policy and authorization for usage of computers
- KU5.** types of ladders- Extension Ladder, Hook Ladder, Pitching of Ladders, Parts and Components, testing
- KU6.** ropes and Knots
- KU7.** introduction and use of lines
- KU8.** causes of deterioration, inspection of lines, care and maintenance
- KU9.** types of small & Special Rescue Gears, Small & Special Rescue Gears: Fire-fighter Axe, ceiling Hook, crowbar, door breaker, padlock removers, spreader, cutters, lifting Equipment, rescue harness, rescue stretcher, different type of saws, fire tender and foam tender- types; operations; inspection and maintenance
- KU10.** inspect, test, care and maintenance of tools and equipment at station level. Report deterioration and damages to superiors
- KU11.** documentation-Inspection, testing and maintenance documents, checklist and forms including testing schedule and testing reports
- KU12.** use of basic computer applications

### **Generic Skills (GS)**

User/individual on the job needs to know how to:

- GS1.** document instructions and tasks
- GS2.** document activities/ reports in a chronological order
- GS3.** document occurrence book and fire report
- GS4.** write duty register and leave register
- GS5.** prepare shift schedule
- GS6.** prepare work permits - hot/ cold permits
- GS7.** operate basic computer applications
- GS8.** document operations in control room
- GS9.** write in English and at least in one vernacular language Reading Skills
- GS10.** user manuals and operating instructions of equipments and machinery
- GS11.** read signages and notices
- GS12.** read and assimilate applicable ERP and instructions
- GS13.** read standing orders and standing instructions Oral Communication (Listening and Speaking skills)
- GS14.** raise alarm/ make announcement/ speak over phone/ radio
- GS15.** receive fire emergency call
- GS16.** speak clearly and coherently
- GS17.** comprehend instructions and ask relevant queries

**GS18.** give clear instructions to co-workers

## Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Identify various fire safety equipment and systems</i>	<b>20</b>	<b>39</b>	-	-
<b>PC1.</b> identify the parts and components of the first-aid fire-fighting equipment available and their parts and components	2	5	-	-
<b>PC2.</b> identify different types of hose, hose appliances, hose tools, connectors, breechings, nozzles and adapters	3	5	-	-
<b>PC3.</b> identify different types of ladders and their use	2	5	-	-
<b>PC4.</b> identify different tools and special gears used by Fire-fighter	3	5	-	-
<b>PC5.</b> interpret working of fire and foam tenders	3	4	-	-
<b>PC6.</b> identify location of water supply, distribution system, hydraulics and pumps & primers	2	5	-	-
<b>PC7.</b> identify fixed fire-fighting systems, foam making equipment and monitors	3	5	-	-
<b>PC8.</b> identify automatic fire detection and alarm systems	2	5	-	-
<i>Inspect and keep fire safety equipment and systems in operational readiness</i>	<b>26</b>	<b>45</b>	-	-
<b>PC9.</b> obtain list of and access to fire safety equipment and systems allocated to assigned area	3	4	-	-
<b>PC10.</b> identify parameters to be inspected to ensure operational readiness of fire safety equipment and systems	4	3	-	-
<b>PC11.</b> conduct an inventory of fire safety equipment and systems in assigned area and tally with records	2	5	-	-



Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC12.</b> inspect the condition of all fire safety equipment and systems Condition: proper functioning, availability of consumables as per prescribed levels, cleanliness and properly maintained, proper storage, etc.	3	5	-	-
<b>PC13.</b> ensure proper functioning of fire safety equipment and systems by coordinating with maintenance team and procurement team Coordinating: Promptly informing about the requirement in prescribed mode or format, following-up for timely resolution, providing full details about work to be done, checking for resolution, etc.	2	5	-	-
<b>PC14.</b> store safety equipment and systems at station level as per manufacturers guidelines	2	5	-	-
<b>PC15.</b> complete documentation for inventory, inspection and maintenance of fire safety equipment and systems in assigned area	2	5	-	-
<b>PC16.</b> report tools and equipment deterioration and damages to superiors	3	4	-	-
<b>PC17.</b> discard tools and equipment at or before their service life	2	5	-	-
<b>PC18.</b> prepare testing schedule and testing report	3	4	-	-
<b>NOS Total</b>	<b>46</b>	<b>84</b>	-	-

## National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	MEP/N7305
<b>NOS Name</b>	Inspect installed fire safety equipment and systems and ensure their operational readiness
<b>Sector</b>	Management
<b>Sub-Sector</b>	Security
<b>Occupation</b>	Fire-fighting
<b>NSQF Level</b>	5
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	16/02/2018
<b>Next Review Date</b>	31/03/2022
<b>NSQF Clearance Date</b>	19/12/2018

## **MEP/N7306: Maintain health and safety of self and others as a fire-fighter**

### **Description**

This unit deals in detail with laying down for maintaining safety of self and others as per the standards

### **Scope**

This unit/task covers the following:

- Maintain a safe work area
- Respond to incidents affecting self and others safety
- Maintain good personal health, hygiene and habits

### **Elements and Performance Criteria**

#### *Maintain a safe work area*

To be competent, the user/individual on the job must be able to:

- PC1.** identify and report risks and hazards at the workplace Risks and Hazards: Fire, Electric short circuit, electric shock and electrocution, Medical emergency, Inflammable & toxic liquid/ gases, Accidents, Flooding, Oil and lubricant spills in the premises, Malfunctioning elevators, escalators, staircase and ladders, Ventilation and suffocation, Improper use of safety gear and non-adherence to safety norms, lack of hygiene and sanitation, etc.
- PC2.** carry out tasks to ensure safety of workplace in line with organisational procedures and within limits of authority
- PC3.** keep emergency and escape routes free from obstructions
- PC4.** report violation to appropriate authority in a timely manner where violation is not addressable within limits of own authority,
- PC5.** wear personal safety gear and clothing as per organisational procedure
- PC6.** check violators of defined safety and security instructions and report violations
- PC7.** report to superiors and emergency service organisations for assistance in the event of emergencies Emergency Service Organizations: Security team and sub-unit; police and emergency services

#### *Respond to incidents affecting self and others safety*

To be competent, the user/individual on the job must be able to:

- PC8.** assess and respond for life safety of self and others
- PC9.** practice safety steps in an emergency
- PC10.** use body protection and respiratory protection gear
- PC11.** ensure self and others safety keeping in view basic industrial safety management

#### *Maintain good personal health, hygiene and habits*

To be competent, the user/individual on the job must be able to:

- PC12.** perform physical exercises and activities (commensurate with age) regularly
- PC13.** maintain good personal hygiene and habits as per organisational and professional standards
- PC14.** maintain own professional standards at work by avoiding alcohol, tobacco, drugs and other intoxicants

- PC15.** follow good and safe practices of personal behaviour to guard against sexually transmitted diseases and HIV, etc.
- PC16.** maintain dietary control
- PC17.** undergo regular medical and physical check-up
- PC18.** practice proper lifting techniques

## **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- KU1.** the importance of body protection
- KU2.** use of PPE gears
- KU3.** use of SCBA
- KU4.** the risk of live electricity
- KU5.** the operation of rescue tools and equipment
- KU6.** various risks and hazards in the workplace, Hazards and Risks: Fire, Electric short circuit; electric shock and electrocution, Medical emergency, Inflammable & toxic liquid/ gases, Accidents, Flooding, Oil and lubricant spills in the premises, Malfunctioning elevators; escalators; staircase and ladders, Ventilation and suffocation, Improper use of safety gear and non-adherence to safety norms, Hygiene and sanitation
- KU7.** leading causes of injuries
- KU8.** three factors that influence the equipment portion of the safety triad
- KU9.** three factors that influence the personnel portion of the safety triad
- KU10.** the partners that work together to achieve self (fire fighters) safety
- KU11.** key components of the safety triad
- KU12.** five components that make up the accident chain
- KU13.** accident prevention
- KU14.** basic industrial safety management
- KU15.** formal and informal procedures
- KU16.** hazardous chemicals and their management
- KU17.** safety management system(SMS)
- KU18.** disaster management and response plan
- KU19.** personal protective equipment(PPE)- types; use; care and maintenance
- KU20.** Fire-fighter Coverall: ISO 11612:2008 Fire-fighter Helmet: IS 2745 / EN 443:2008 Fire-fighter Boot: EN 15090:2012 Fire-fighter Gloves: EN 659:2008 Fire-fighter Suit: ISO 11613:1998 / EN 469:2005
- KU21.** self-contained breathing apparatus (SCBA)- types; components; functions; use; testing and maintenance
- KU22.** identify various safety signage and warnings
- KU23.** importance of training and mock drills
- KU24.** importance of sound health, hygiene and good habits
- KU25.** the importance and requirements of maintaining physical fitness, personal hygiene and good habits

**KU26.** ill-effects of alcohol, tobacco and drugs

## **Generic Skills (GS)**

User/individual on the job needs to know how to:

- GS1.** document instructions and tasks
- GS2.** document activities/ reports in a chronological order
- GS3.** document occurrence book and fire report
- GS4.** write duty register and leave register
- GS5.** prepare shift schedule
- GS6.** prepare work permits - hot/ cold permits
- GS7.** operate basic computer applications
- GS8.** document operations in control room
- GS9.** write in English and at least in one vernacular language Reading Skills
- GS10.** user manuals and operating instructions of equipments and machinery
- GS11.** read signages and notices
- GS12.** read and assimilate applicable ERP and instructions
- GS13.** read standing orders and standing instructions Oral Communication (Listening and Speaking skills)
- GS14.** raise alarm/ make announcement/ speak over phone/ radio
- GS15.** receive fire emergency call
- GS16.** speak clearly and coherently
- GS17.** comprehend instructions and ask relevant queries
- GS18.** give clear instructions to co-workers
- GS19.** instruct and guide people at the premises
- GS20.** interact with other fire and emergency service
- GS21.** assess and decide level of emergencies endangering life and property
- GS22.** select proper equipment and extinguishing mediums to control and isolate
- GS23.** size, assess and resize a situation
- GS24.** undertake ventilation of flame, heat and smoke
- GS25.** undertake salvage Plan and Organize
- GS26.** plan timely reporting and briefing
- GS27.** plan and organize assigned duties, training and maintenance schedule
- GS28.** brief the reliever Customer Centricity
- GS29.** manage relationships with all stakeholders
- GS30.** debrief seniors and stakeholders after tackling emergency situation
- GS31.** prepare fire report in chronological order
- GS32.** replace/replenish used fire equipment/material Problem Solving
- GS33.** think through an emergency situation, evaluate the possible option(s) and adopt a best possible approach to minimize/ eliminate risk/ emergency Analytical Thinking

- GS34.** analyse potential risk and threats and take suitable actions Critical Thinking
- GS35.** recognize and identify risk/ emergency and make preliminary decisions to perform corrective actions

## Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain a safe work area</i>	<b>12</b>	<b>24</b>	-	-
<b>PC1.</b> identify and report risks and hazards at the workplace Risks and Hazards: Fire, Electric short circuit, electric shock and electrocution, Medical emergency, Inflammable & toxic liquid/ gases, Accidents, Flooding, Oil and lubricant spills in the premises, Malfunctioning elevators, escalators, staircase and ladders, Ventilation and suffocation, Improper use of safety gear and non-adherence to safety norms, lack of hygiene and sanitation, etc.	2	3	-	-
<b>PC2.</b> carry out tasks to ensure safety of workplace in line with organisational procedures and within limits of authority	2	4	-	-
<b>PC3.</b> keep emergency and escape routes free from obstructions	2	3	-	-
<b>PC4.</b> report violation to appropriate authority in a timely manner where violation is not addressable within limits of own authority,	2	4	-	-
<b>PC5.</b> wear personal safety gear and clothing as per organisational procedure	1	3	-	-
<b>PC6.</b> check violators of defined safety and security instructions and report violations	2	4	-	-
<b>PC7.</b> report to superiors and emergency service organisations for assistance in the event of emergencies Emergency Service Organizations: Security team and sub-unit; police and emergency services	1	3	-	-
<i>Respond to incidents affecting self and others safety</i>	<b>8</b>	<b>16</b>	-	-
<b>PC8.</b> assess and respond for life safety of self and others	2	4	-	-
<b>PC9.</b> practice safety steps in an emergency	2	4	-	-
<b>PC10.</b> use body protection and respiratory protection gear	2	4	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC11.</b> ensure self and others safety keeping in view basic industrial safety management	2	4	-	-
<i>Maintain good personal health, hygiene and habits</i>	<b>12</b>	<b>28</b>	-	-
<b>PC12.</b> perform physical exercises and activities (commensurate with age) regularly	1	4	-	-
<b>PC13.</b> maintain good personal hygiene and habits as per organisational and professional standards	2	4	-	-
<b>PC14.</b> maintain own professional standards at work by avoiding alcohol, tobacco, drugs and other intoxicants	2	4	-	-
<b>PC15.</b> follow good and safe practices of personal behaviour to guard against sexually transmitted diseases and HIV, etc.	2	4	-	-
<b>PC16.</b> maintain dietary control	2	4	-	-
<b>PC17.</b> undergo regular medical and physical check-up	2	4	-	-
<b>PC18.</b> practice proper lifting techniques	1	4	-	-
<b>NOS Total</b>	<b>32</b>	<b>68</b>	-	-



## National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	MEP/N7306
<b>NOS Name</b>	Maintain health and safety of self and others as a fire-fighter
<b>Sector</b>	Management
<b>Sub-Sector</b>	Security
<b>Occupation</b>	Fire-fighting
<b>NSQF Level</b>	5
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	16/02/2018
<b>Next Review Date</b>	31/03/2022
<b>NSQF Clearance Date</b>	19/12/2018

## **MEP/N7307: Work effectively as a fire-fighter at the workplace**

### **Description**

This unit deals in detail with working and communicating effectively as a Fire-fighter at the work place.

### **Elements and Performance Criteria**

#### *Communicate effectively in a team*

To be competent, the user/individual on the job must be able to:

- PC1.** ensure instructions received are clearly understood, acknowledged and implemented
- PC2.** relay instructions clearly, concisely and accurately to co-workers and obtain confirmation of understanding
- PC3.** identify organisational priorities and key assets that have to be kept in mind during an emergency situation by discussing with stakeholders and seniors
- PC4.** identify need for additional support as per work load and communicate it clearly to appropriate person
- PC5.** participate with team members in mock fire and emergency drills
- PC6.** follow established protocol for working in a team during emergency situations
- PC7.** identify signs of stress in self and team members and take action to manage it
- PC8.** give and receive instructions concisely and clearly
- PC9.** seek and provide responses from and to, other team members in a constructive way
- PC10.** follow organisational procedures and standards relating to conduct and dress code at the workplace

#### *Interact effectively with people during an emergency*

To be competent, the user/individual on the job must be able to:

- PC11.** raise alarm/ make announcement/ speak over phone/ radio clearly, coherently and calmly
- PC12.** receive fire/ emergency calls with alertness and promptness
- PC13.** give clear, coherent instructions to people in a calm manner
- PC14.** instruct and guide occupants of premises as per the plan
- PC15.** guide municipal fire and emergency service personnel
- PC16.** implement crowd control procedures as per organisational protocol
- PC17.** take measures to reduce confusion, lower emotional stress and organise people as per instructions
- PC18.** deal with conflict in a calm manner as per established protocol

#### *Operate communications systems and equipment*

To be competent, the user/individual on the job must be able to:

- PC19.** use communications system correctly to facilitate transmission and reception  
Communications equipment and techniques: Verbal communications and voice procedures, are selected to best meet the task, context and needs of the situation, etc.
- PC20.** operate equipments safely to support communications as per organisational policies and procedures
- PC21.** inspect communications equipment to ensure operational readiness

**PC22.** transmit and receive communications concisely and clearly to facilitate accurate reception of the message as per organisational policies and procedures

## **Knowledge and Understanding (KU)**

The individual on the job needs to know and understand:

- KU1.** organisational policies and procedures relevant to the operation of communications equipment (such as relevant legislation; operational performance standards; operational policies and procedures; organisational personnel and occupational health and safety practices and guidelines; organisational quality standards; organisation's approach to environmental management and sustainability)
- KU2.** organisation's communications system
- KU3.** range of communications equipment available to the organisation
- KU4.** available training and development
- KU5.** basic principles of participating in meetings
- KU6.** career progression options
- KU7.** conflict resolution strategies
- KU8.** cultural diversity principles
- KU9.** dress codes
- KU10.** equal opportunity responsibilities
- KU11.** factors which can affect work performance
- KU12.** implications of change in the workplace on own job (such as introduction of new/amended legislation; introduction of new personnel; introduction of new technology including new communication systems; implementation of new work practices and services; organisational restructures)
- KU13.** implications of external change on the organisation (such as at an international, national or state/territory level and invoke changes in society, changes to legislation, changes to organisational policies and procedures; community expectations; political changes)
- KU14.** information on any licensing and certification requirements for driving vehicles and providing emergency care
- KU15.** organisational policies and procedures (such as legislation relevant to the operation/incident/response; legislation relevant to the organisation; operational, corporate and strategic plans; operational performance standards; operational policies and procedures; organisational personnel and occupational health and safety practices and guidelines; organisational quality standards; organisation's approach to environmental management and sustainability)
- KU16.** organisational standards relating to harassment and anti-discrimination
- KU17.** organisational structure
- KU18.** positions in the organisation
- KU19.** potential effects of not meeting commitments
- KU20.** procedures and standards relating to conduct
- KU21.** responsibilities of specific personnel
- KU22.** stress recognition

- KU23.** structure and function of workplace committees
- KU24.** variety of communication strategies
- KU25.** composition of workplace teams and roles and responsibilities of team members
- KU26.** non operational and operational communication processes
- KU27.** effective non verbal communication techniques
- KU28.** effective verbal communication techniques
- KU29.** group communication techniques
- KU30.** small group dynamics
- KU31.** written communication skills

## **Generic Skills (GS)**

User/individual on the job needs to know how to:

- GS1.** document instructions and tasks
- GS2.** document activities/ reports in a chronological order
- GS3.** document occurrence book and fire report
- GS4.** write duty register and leave register
- GS5.** prepare shift schedule
- GS6.** prepare work permits - hot/ cold permits
- GS7.** operate basic computer applications
- GS8.** document operations in control room
- GS9.** write in English and at least in one vernacular language Reading Skills
- GS10.** user manuals and operating instructions of equipments and machinery
- GS11.** read signages and notices
- GS12.** read and assimilate applicable ERP and instructions
- GS13.** read standing orders and standing instructions Oral Communication (Listening and Speaking skills)
- GS14.** raise alarm/ make announcement/ speak over phone/ radio
- GS15.** receive fire emergency call
- GS16.** speak clearly and coherently
- GS17.** comprehend instructions and ask relevant queries
- GS18.** give clear instructions to co-workers
- GS19.** instruct and guide people at the premises
- GS20.** interact with other fire and emergency service
- GS21.** assess and decide level of emergencies endangering life and property
- GS22.** select proper equipment and extinguishing mediums to control and isolate
- GS23.** size, assess and resize a situation
- GS24.** undertake ventilation of flame, heat and smoke
- GS25.** undertake salvage Plan and Organize
- GS26.** plan timely reporting and briefing

- GS27.** plan and organize assigned duties, training and maintenance schedule
- GS28.** brief the reliever Customer Centricity
- GS29.** manage relationships with all stakeholders
- GS30.** debrief seniors and stakeholders after tackling emergency situation
- GS31.** prepare fire report in chronological order
- GS32.** replace/replenish used fire equipment/material Problem Solving
- GS33.** think through an emergency situation, evaluate the possible option(s) and adopt a best possible approach to minimize/ eliminate risk/ emergency Analytical Thinking
- GS34.** analyse potential risk and threats and take suitable actions Critical Thinking
- GS35.** recognize and identify risk/ emergency and make preliminary decisions to perform corrective actions

## Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Communicate effectively in a team</i>	<b>10</b>	<b>22</b>	-	-
<b>PC1.</b> ensure instructions received are clearly understood, acknowledged and implemented	1	2	-	-
<b>PC2.</b> relay instructions clearly, concisely and accurately to co-workers and obtain confirmation of understanding	1	2	-	-
<b>PC3.</b> identify organisational priorities and key assets that have to be kept in mind during an emergency situation by discussing with stakeholders and seniors	1	2	-	-
<b>PC4.</b> identify need for additional support as per work load and communicate it clearly to appropriate person	1	2	-	-
<b>PC5.</b> participate with team members in mock fire and emergency drills	1	3	-	-
<b>PC6.</b> follow established protocol for working in a team during emergency situations	1	3	-	-
<b>PC7.</b> identify signs of stress in self and team members and take action to manage it	1	2	-	-
<b>PC8.</b> give and receive instructions concisely and clearly	1	2	-	-
<b>PC9.</b> seek and provide responses from and to, other team members in a constructive way	1	2	-	-
<b>PC10.</b> follow organisational procedures and standards relating to conduct and dress code at the workplace	1	2	-	-
<i>Interact effectively with people during an emergency</i>	<b>8</b>	<b>17</b>	-	-
<b>PC11.</b> raise alarm/ make announcement/ speak over phone/ radio clearly, coherently and calmly	1	3	-	-
<b>PC12.</b> receive fire/ emergency calls with alertness and promptness	1	2	-	-

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<b>PC13.</b> give clear, coherent instructions to people in a calm manner	1	2	-	-
<b>PC14.</b> instruct and guide occupants of premises as per the plan	1	2	-	-
<b>PC15.</b> guide municipal fire and emergency service personnel	1	2	-	-
<b>PC16.</b> implement crowd control procedures as per organisational protocol	1	2	-	-
<b>PC17.</b> take measures to reduce confusion, lower emotional stress and organise people as per instructions	1	2	-	-
<b>PC18.</b> deal with conflict in a calm manner as per established protocol	1	2	-	-
<i>Operate communications systems and equipment</i>	<b>5</b>	<b>8</b>	-	-
<b>PC19.</b> use communications system correctly to facilitate transmission and reception Communications equipment and techniques: Verbal communications and voice procedures, are selected to best meet the task, context and needs of the situation, etc.	1	2	-	-
<b>PC20.</b> operate equipments safely to support communications as per organisational policies and procedures	2	2	-	-
<b>PC21.</b> inspect communications equipment to ensure operational readiness	1	2	-	-
<b>PC22.</b> transmit and receive communications concisely and clearly to facilitate accurate reception of the message as per organisational policies and procedures	1	2	-	-
<b>NOS Total</b>	<b>23</b>	<b>47</b>	-	-

## National Occupational Standards (NOS) Parameters

<b>NOS Code</b>	MEP/N7307
<b>NOS Name</b>	Work effectively as a fire-fighter at the workplace
<b>Sector</b>	Management
<b>Sub-Sector</b>	Security
<b>Occupation</b>	Fire-fighting
<b>NSQF Level</b>	5
<b>Credits</b>	TBD
<b>Version</b>	1.0
<b>Last Reviewed Date</b>	16/02/2018
<b>Next Review Date</b>	31/03/2022
<b>NSQC Clearance Date</b>	19/12/2018

## Assessment Guidelines and Assessment Weightage

### Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Element/ Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each Element/ PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
6. To pass the Qualification Pack assessment, every trainee should score the Recommended Pass % aggregate for the QP.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.



**Minimum Aggregate Passing % at QP Level : 70**

(**Please note:** Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

**Assessment Weightage**

Compulsory NOS

<b>National Occupational Standards</b>	<b>Theory Marks</b>	<b>Practical Marks</b>	<b>Project Marks</b>	<b>Viva Marks</b>	<b>Total Marks</b>	<b>Weightage</b>
MEP/N7301. Identify type of fire and response required	60	90	-	-	150	15
MEP/N7302. Carry out first-aid fire fighting using portable extinguishers	55	145	-	-	200	20
MEP/N7303. Respond to the fire incidents using fire-fighting systems	68	132	-	-	200	20
MEP/N7304. Carry out rescue operation and administer medical first-aid	57	93	-	-	150	15
MEP/N7305. Inspect installed fire safety equipment and systems and ensure their operational readiness	46	84	-	-	130	13
MEP/N7306. Maintain health and safety of self and others as a fire-fighter	32	68	-	-	100	10
MEP/N7307. Work effectively as a fire-fighter at the workplace	23	47	-	-	70	7
<b>Total</b>	<b>341</b>	<b>659</b>	<b>-</b>	<b>-</b>	<b>1000</b>	<b>100</b>

## Acronyms

<b>NOS</b>	National Occupational Standard(s)
<b>NSQF</b>	National Skills Qualifications Framework
<b>QP</b>	Qualifications Pack
<b>TVET</b>	Technical and Vocational Education and Training

## Glossary

<b>Sector</b>	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
<b>Sub-sector</b>	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
<b>Occupation</b>	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
<b>Job role</b>	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
<b>Occupational Standards (OS)</b>	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
<b>Performance Criteria (PC)</b>	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
<b>National Occupational Standards (NOS)</b>	NOS are occupational standards which apply uniquely in the Indian context.
<b>Qualifications Pack (QP)</b>	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
<b>Unit Code</b>	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
<b>Unit Title</b>	Unit title gives a clear overall statement about what the incumbent should be able to do.
<b>Description</b>	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
<b>Scope</b>	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.
<b>Knowledge and Understanding (KU)</b>	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.

<b>Organisational Context</b>	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
<b>Technical Knowledge</b>	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
<b>Core Skills/ Generic Skills (GS)</b>	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
<b>Electives</b>	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
<b>Options</b>	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.