



Gas Cutter- Construction

QP Code: CON/Q1204

Version: 2.0

NSQF Level: 2

Construction Skill Development Council of India || CPB 103 & 104 (1st Floor), Block 4B, DLF Corporate Park, Phase III, MG Road
Gurgaon-122002 || email:jancy@csdcindia.org



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CON/Q1204: Gas Cutter- Construction

Brief Job Description

Gas Cutter performs gas cutting and pre heating of structural steel elements before permanent welding, under supervision.

Personal Attributes

The gas cutter is expected to be physically fit to work across various locations with varied environmental conditions. The person should be organized, diligent, methodical, safety-conscious, and a prompt decision-maker. Moreover, the individual should preferably not be suffering from any respiratory disorder, vision defects and skin allergies due to exposure to light and heat. In addition to being a team player, the individual should have good communication skills.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [CON/N1252: Carry out preheating of materials before cutting and welding process](#)
2. [CON/N1207: Carry out gas cutting of structural steel elements using oxy fuel gas cutting equipment](#)
3. [CON/N8001: Work effectively in a team to deliver desired results at the workplace](#)
4. [CON/N9001: Work according to personal health, safety and environment protocols at construction site](#)

Qualification Pack (QP) Parameters

Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Fabrication
Country	India
NSQF Level	2
Credits	NA
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7212.0400



Qualification Pack



Minimum Educational Qualification & Experience	8th Class with 3 Years of experience (should have minimum 3 years of working experience under a plasma/gas cutter at construction site or equivalent)
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NIL
Minimum Job Entry Age	18 Years
Last Reviewed On	21/09/2021
Next Review Date	21/09/2025
NSQC Approval Date	
Version	2.0



CON/N1252: Carry out preheating of materials before cutting and welding process

Description

This unit describes the skills and knowledge required to carry out preheating of materials before they undergo cutting and welding

Scope

The scope covers the following :

- Carry out preparatory works
- Carry out pre heating of structural components/ members using heating torches (oxy fuel torch)

Elements and Performance Criteria

Carry out preparatory works

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

- PC1.** use PPE's relevant to welding works
- PC2.** ascertain the location of pre heat and the required temperature
- PC3.** ensure that gas cylinders are in upright position and there is no leakage in gas pipelines
- PC4.** ensure that all knobs, valves, switches and gauges of equipment are in working condition
- PC5.** ensure that proper weld purging is done prior to welding the pipelines or tube sections
- PC6.** ensure that flash arrestor is installed and functioning properly
- PC7.** ensure no moisture is present in vicinity of the working area and work piece
- PC8.** clean the surface of base metal prior to pre heat
- PC9.** ensure the availability of temperature measurement instrument
- PC10.** ensure that joint is secure, clamped and immovable
- PC11.** ensure that nozzle of torch is clean

Carry out pre heating of structural components/ members using heating torches (oxy fuel torch)

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

- PC12.** use gas cutting torch lighter to strike the flame
- PC13.** adjust the fuel gas flow to obtain desired length of flame
- PC14.** adjust oxygen flow to concentrate the flame into desired thickness for heat transfer
- PC15.** hold the torch above the metal joint such that it is not too close to overheat the material and not too far to cause heat loss
- PC16.** move the torch above and around the joint for symmetrical heat transfer
- PC17.** check the temperature of the metal regularly to avoid overheating of metal
- PC18.** close the fuel gas flow before turning off oxygen while closing the torch
- PC19.** carry out basic maintenance of torch and other apparatus as per requirements

Knowledge and Understanding (KU)



Qualification Pack



The individual on the job needs to know and understand:

- KU1.** standard procedure for welding works
- KU2.** safety rules and regulations for handling and storing relevant tools, equipment, and materials required for relevant works in accordance with organizational norms
- KU3.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** procedure for maintenance of tools and equipment used in gas cutting
- KU6.** different gases employed in the process
- KU7.** importance of oxygen
- KU8.** concept of a neutral flame and its importance
- KU9.** common terminologies associated with pre heating
- KU10.** requirements and necessity of preheating
- KU11.** different parts of the gas cutting equipment
- KU12.** method of adjusting gas flow rate
- KU13.** different temperatures for different metals and alloys
- KU14.** different metals and alloys that can be heated
- KU15.** effects of heating on metal, both physical and metallurgical
- KU16.** methods of heat transfer and process of same
- KU17.** how to measure temperature using different instruments
- KU18.** importance of proper housekeeping of work area
- KU19.** effects of heating a painted or oily surface
- KU20.** effects of rust and dust on heating surface
- KU21.** heating as a method of cleaning
- KU22.** importance of restricting the movement of metal while heating
- KU23.** methods of maintenance of heating apparatus
- KU24.** what is meant by symmetrical and asymmetrical heat transfer
- KU25.** causes of heat loss
- KU26.** effects of overheating the metals
- KU27.** importance of shape of flame in heat transfer
- KU28.** relation of heat transfer and flame size, point and its effect

Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read sketches, instructions provided for the work, and various signboards, safety rules, safety tags, exit route information in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably one of the local language at the site
- GS4.** plan work to achieve productivity as per the direction /close supervision of superiors



Qualification Pack



- GS5.** ensure work is done within time and as per desired quality based on instructions provided by superiors
- GS6.** listen attentively to instructions communicated by supervisors
- GS7.** communicate orally and efficiently with team members
- GS8.** analyse the safety aspect of the workplace
- GS9.** identify any violation of safety norms during the work

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out preparatory works</i>	10	40	-	-
PC1. use PPE's relevant to welding works	-	-	-	-
PC2. ascertain the location of pre heat and the required temperature	-	-	-	-
PC3. ensure that gas cylinders are in upright position and there is no leakage in gas pipelines	-	-	-	-
PC4. ensure that all knobs, values, switches and gauges of equipment are in working condition	-	-	-	-
PC5. ensure that proper weld purging is done prior to welding the pipelines or tube sections	-	-	-	-
PC6. ensure that flash arrestor is installed and functioning properly	-	-	-	-
PC7. ensure no moisture is present in vicinity of the working area and work piece	-	-	-	-
PC8. clean the surface of base metal prior to pre heat	-	-	-	-
PC9. ensure the availability of temperature measurement instrument	-	-	-	-
PC10. ensure that joint is secure, clamped and immovable	-	-	-	-
PC11. ensure that nozzle of torch is clean	-	-	-	-
<i>Carry out pre heating of structural components/ members using heating torches (oxy fuel torch)</i>	10	40	-	-
PC12. use gas cutting torch lighter to strike the flame	-	-	-	-
PC13. adjust the fuel gas flow to obtain desired length of flame	-	-	-	-
PC14. adjust oxygen flow to concentrate the flame into desired thickness for heat transfer	-	-	-	-



Qualification Pack



Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC15. hold the torch above the metal joint such that it is not too close to overheat the material and not too far to cause heat loss	-	-	-	-
PC16. move the torch above and around the joint for symmetrical heat transfer	-	-	-	-
PC17. check the temperature of the metal regularly to avoid overheating of metal	-	-	-	-
PC18. close the fuel gas flow before turning off oxygen while closing the torch	-	-	-	-
PC19. carry out basic maintenance of torch and other apparatus as per requirements	-	-	-	-
NOS Total	20	80	-	-



Qualification Pack



National Occupational Standards (NOS) Parameters

NOS Code	CON/N1252
NOS Name	Carry out preheating of materials before cutting and welding process
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Fabrication
NSQF Level	2
Credits	TBD
Version	2.0
Last Reviewed Date	21/09/2021
Next Review Date	21/09/2025



CON/N1207: Carry out gas cutting of structural steel elements using oxy fuel gas cutting equipment

Description

This unit describes the skills and knowledge required to carry out gas cutting of structural steel elements using oxy fuel gas cutting equipment

Scope

The scope covers the following :

- Carry out preparatory works
- Perform cutting of materials 1mm and above

Elements and Performance Criteria

Carry out preparatory works

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

- PC1.** keep the gas cylinders upright and strapped with safety chains at all times
- PC2.** connect the gas pipes to the torch securely
- PC3.** ensure that flash back arrestor is installed
- PC4.** check that all gauges are correctly working
- PC5.** clean the surface before applying heat
- PC6.** read and interpret hand sketches/ drawings and markings to identify the location of cutting

Perform cutting of materials 1 mm & above and finish gas cutting operations

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

- PC7.** maintain proper body position so that hand movements are comfortable and smooth
- PC8.** strike the flame using gas cutting torch lighter
- PC9.** adjust the fuel gas flow to obtain desired length of flame
- PC10.** adjust oxygen flow to concentrate the flame into desired thickness for heat transfer
- PC11.** maintain a consistent distance from material such that the cutting is done by the point of flame
- PC12.** move the torch over the markings at required speed such that cut is clean and thorough
- PC13.** ensure that the movement of torch should be such that the cut on the metal is uniform and does not affect the dimensions of the metal workpieces
- PC14.** extinguish flame by first closing fuel gas and then oxygen at mixer
- PC15.** close shut-off valves for oxygen and acetylene by turning clockwise
- PC16.** allow tip or attachments to cool before disconnecting all attachments
- PC17.** disconnect and clean all equipment after use

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:



Qualification Pack



- KU1.** standard procedure for gas cutting works
- KU2.** safety rules and regulations for identifying structural steel material for measurement and marking of fit-up positions
- KU3.** importance of personal protection including the use of related safety gears & equipment in accordance with organizational norms
- KU4.** service request procedures for tools, materials and equipment as per organizational norms
- KU5.** different types of gases available in the market, their properties and areas of application
- KU6.** basic arithmetics and unit conversions
- KU7.** how to read and interpret the readings in gauges
- KU8.** hand sketches/ drawings and markings for gas cutting works
- KU9.** use and application of thermo chinks
- KU10.** how to assemble and dismantle the equipment
- KU11.** various parts or components of the cutting torch
- KU12.** auto-ignition temperature or kindling temperature of different metals and steel alloys
- KU13.** other methods of cutting metals such as punching, shearing, plasma cutting, etc.
- KU14.** applications of the other methods, equipment used and areas of application
- KU15.** various adjustments that can be made in the heating equipment
- KU16.** different metals and alloys that can be heated
- KU17.** effects of heating on metals- both physical and metallurgical
- KU18.** methods of heat transfer and process of same
- KU19.** how to measure temperature using different instruments
- KU20.** importance of proper housekeeping of work area
- KU21.** effects of heating a painted or oily surface
- KU22.** effects of rust and dust on heating surface
- KU23.** unsafe acts and conditions while working in yard
- KU24.** various hazards in the workplace

Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the construction site
- GS2.** read sketches, instructions provided for the work, and various signboards, safety rules, safety tags, exit route information in one or more languages, preferably in the local language of the site
- GS3.** speak in one or more language, preferably one of the local language at the site
- GS4.** communicate orally and effectively with team members
- GS5.** analyze the safety aspect of the workplace
- GS6.** plan work and organize required resource effectively
- GS7.** complete work as per agreed time schedule and quality parameters
- GS8.** resolve any conflict within the teammates
- GS9.** evaluate the complexity of the tasks
- GS10.** identify any violation of safety norms during the work

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Carry out preparatory works</i>	7	28	-	-
PC1. keep the gas cylinders upright and strapped with safety chains at all times	-	-	-	-
PC2. connect the gas pipes to the torch securely	-	-	-	-
PC3. ensure that flash back arrestor is installed	-	-	-	-
PC4. check that all gauges are correctly working	-	-	-	-
PC5. clean the surface before applying heat	-	-	-	-
PC6. read and interpret hand sketches/ drawings and markings to identify the location of cutting	-	-	-	-
<i>Perform cutting of materials 1 mm & above and finish gas cutting operations</i>	13	52	-	-
PC7. maintain proper body position so that hand movements are comfortable and smooth	-	-	-	-
PC8. strike the flame using gas cutting torch lighter	-	-	-	-
PC9. adjust the fuel gas flow to obtain desired length of flame	-	-	-	-
PC10. adjust oxygen flow to concentrate the flame into desired thickness for heat transfer	-	-	-	-
PC11. maintain a consistent distance from material such that the cutting is done by the point of flame	-	-	-	-
PC12. move the torch over the markings at required speed such that cut is clean and thorough	-	-	-	-
PC13. ensure that the movement of torch should be such that the cut on the metal is uniform and does not affect the dimensions of the metal workpieces	-	-	-	-
PC14. extinguish flame by first closing fuel gas and then oxygen at mixer	-	-	-	-



Qualification Pack



Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC15. close shut-off valves for oxygen and acetylene by turning clockwise	-	-	-	-
PC16. allow tip or attachments to cool before disconnecting all attachments	-	-	-	-
PC17. disconnect and clean all equipment after use	-	-	-	-
NOS Total	20	80	-	-



Qualification Pack



National Occupational Standards (NOS) Parameters

NOS Code	CON/N1207
NOS Name	Carry out gas cutting of structural steel elements using oxy fuel gas cutting equipment
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Fabrication
NSQF Level	2
Credits	TBD
Version	2.0
Last Reviewed Date	21/09/2021
Next Review Date	21/09/2025



CON/N8001: Work effectively in a team to deliver desired results at the workplace

Description

This unit describes the skills and knowledge required to work effectively within a team to achieve the desired results

Scope

The scope covers the following :

- Interact and communicate effectively with co-workers, superiors and sub-ordinates across different teams
- Support co-workers, superiors and sub-ordinates within the team and across interfacing teams to ensure effective execution of assigned task
- Acknowledge and show sensitivity to disability, culture and gender diversity

Elements and Performance Criteria

Interact and communicate effectively with co-workers, superiors and sub-ordinates across different teams

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

- PC1.** pass on work related information/ requirement clearly to the team members
- PC2.** inform co-workers and superiors about any kind of deviations from work
- PC3.** address the problems effectively and report if required to immediate supervisor appropriately
- PC4.** receive instructions clearly from superiors and respond effectively on the same
- PC5.** communicate to team members/subordinates for appropriate work technique and method
- PC6.** seek clarification and advice as per the requirement and applicability

• Support co-workers, superiors and sub-ordinates within the team and across interfacing teams to ensure effective execution of assigned task

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

- PC7.** hand over the required material, tools tackles, equipment and work fronts timely to interfacing teams
- PC8.** work together with co-workers in a synchronized manner

Acknowledge and show sensitivity to disability, culture and gender diversity

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

- PC9.** follow practices which are sensitive to disability, culture and gender diversity.
- PC10.** respond to attitude and behaviour which are aggressive, abusive or discriminatory, in a professional manner and as per organizational policy

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** own roles and responsibilities



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- KU2.** importance of effective communication and establishing strong working
- KU3.** risks of a failure in teamwork in terms of effects on project outcomes, timelines, safety at the construction site, etc.
- KU4.** different modes of communication, and its appropriate usage
- KU5.** importance of creating healthy and cooperative work environment among the gangs of workers
- KU6.** different activities within his work area where an interaction with other workers is required
- KU7.** applicable techniques of work, properties of materials used, tools and tackles used, safety standards that co- workers might need as per the requirement
- KU8.** importance of proper and effective communication and the expected adverse effects in case of failure relating to quality, timelines, safety, risks at the construction project site
- KU9.** importance and need of supporting co-workers facing problems for smooth functioning of work
- KU10.** the fundamental concept of gender equality
- KU11.** how to recognise and be sensitive to issues of disability, culture and gender

Generic Skills (GS)

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

- GS1.** write in at least one language, preferably in the local language of the site
- GS2.** read in one or more languages, preferably the local language of the site
- GS3.** read communication from team members regarding work completed, materials used, tools and tackles used, support required
- GS4.** speak in one or more languages, preferably in one of the local language of the site
- GS5.** listen and follow instructions / communication shared by superiors/ co-workers regarding team requirements or interfaces during work processes
- GS6.** communicate orally with co-workers regarding support required to complete the respective work
- GS7.** decide on what information is to be shared with co-workers within the team or from interfacing gang of workers
- GS8.** plan work and organize required resources in coordination with team members
- GS9.** complete all assigned task in coordination with team members
- GS10.** take initiative in resolving issues among co-workers or report the same to superiors
- GS11.** ensure best ways of coordination among team members
- GS12.** communicate with co-workers considering their educational / social background
- GS13.** evaluate the complexity of task and determine if any guidance is required from superiors



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Interact and communicate effectively with co-workers, superiors and sub-ordinates across different teams</i>	12	48	-	-
PC1. pass on work related information/ requirement clearly to the team members	-	-	-	-
PC2. inform co-workers and superiors about any kind of deviations from work	-	-	-	-
PC3. address the problems effectively and report if required to immediate supervisor appropriately	-	-	-	-
PC4. receive instructions clearly from superiors and respond effectively on the same	-	-	-	-
PC5. communicate to team members/subordinates for appropriate work technique and method	-	-	-	-
PC6. seek clarification and advice as per the requirement and applicability	-	-	-	-
• <i>Support co-workers, superiors and sub-ordinates within the team and across interfacing teams to ensure effective execution of assigned task</i>	4	16	-	-
PC7. hand over the required material, tools tackles, equipment and work fronts timely to interfacing teams	-	-	-	-
PC8. work together with co-workers in a synchronized manner	-	-	-	-
<i>Acknowledge and show sensitivity to disability, culture and gender diversity</i>	4	16	-	-
PC9. follow practices which are sensitive to disability, culture and gender diversity.	-	-	-	-
PC10. respond to attitude and behaviour which are aggressive, abusive or discriminatory, in a professional manner and as per organizational policy	-	-	-	-
NOS Total	20	80	-	-



Qualification Pack



National Occupational Standards (NOS) Parameters

NOS Code	CON/N8001
NOS Name	Work effectively in a team to deliver desired results at the workplace
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Generic 2
NSQF Level	2
Credits	TBD
Version	5.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022



CON/N9001: Work according to personal health, safety and environment protocols at construction site

Description

This NOS covers the skill and knowledge required for an individual to work according to personal health, safety and environmental protocol at construction site

Scope

The scope covers the following :

- Follow safety norms as defined by organization
- Adopt healthy & safe work practices
- Implement good housekeeping and environment protection process and activities
- Follow infection control guidelines as per applicability

Elements and Performance Criteria

Follow safety norms as defined by organization

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

- PC1.** identify and report any hazards, risks or breaches in site safety to the appropriate authority
- PC2.** follow emergency and evacuation procedures in case of accidents, fires, natural calamities
- PC3.** follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable
- PC4.** follow all the protocols and safety techniques conveyed during safety awareness programs like Tool Box Talks, safety demonstrations and mock drills conducted at the site
- PC5.**
 - select and operate different types of fire extinguishers corresponding to various types of fires
 - as per EHS guideline
- PC6.** identify near miss , unsafe condition and unsafe act

Adopt healthy & safe work practices

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

- PC7.** use appropriate Personal Protective Equipment (PPE) as per work requirements including: Head Protection (Helmets) Ear protection Fall Protection Foot Protection Face and Eye Protection, Hand and Body Protection Respiratory Protection (if required)
- PC8.** handle all required tools, tackles , materials & equipment safely
- PC9.** follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines
- PC10.** check and install all safety equipment as per standard guidelines
- PC11.** follow safety protocol and practices as laid down by site EHS department
- PC12.** obtain "height pass" clearance for working at heights

Implement good housekeeping practices

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

- PC13.**
 - collect, segregate and deposit construction waste into appropriate containers based on their
 - toxicity or hazardous nature
- PC14.** apply ergonomic principles wherever required



Follow infection control guidelines as per applicability

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

PC15. follow recommended personal hygiene, workplace hygiene and sanitization practices

PC16. clean and disinfect all materials, tools and supplies before and after use

PC17. • report immediately to concerned authorities regarding signs and symptoms of illness of self
• and others

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. reporting procedures in cases of breaches or hazards for site safety, accidents, and emergency situations as per guidelines

KU2. types of safety hazards at construction sites

KU3. basic ergonomic principles as per applicability

KU4. the procedure for responding to accidents and other emergencies at site

KU5. use of appropriate personal protective equipment based on various working conditions

KU6. importance of handling tools, equipment, and materials as per applicable norms

KU7. effect of construction material on health and environments as per applicability

KU8. various environmental protection methods as per applicability

KU9. storage of waste including non-combustible scrap material and debris, combustible scrap material and debris, general construction waste and trash (non-toxic, non-hazardous), any other hazardous wastes and any other flammable wastes at the appropriate location

KU10. how to keep the workplace neat and tidy so as to be safe

KU11. how to use hazardous material in a safe and appropriate manner as per applicability

KU12. types of fire

KU13. procedure of operating different types of fire extinguishers

KU14. safety relevant to tools, tackles, and equipment as per applicability

KU15. housekeeping activities relevant to task

KU16. ways of transmission of infection

KU17. ways to manage infectious risks at the workplace

KU18. different methods of cleaning, disinfection, sterilization, and sanitization

KU19. symptoms of infection like fever, cough, redness, swelling, and inflammation

Generic Skills (GS)

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

GS1. write in at least one language, preferably in the local language of the site

GS2. fill safety formats for near miss, unsafe conditions and safety suggestions

GS3. read in one or more language, preferably in the local language of the site

GS4. speak in one or more language, preferably in one of the local language of the site

GS5. listen to instructions/communication shared by site EHS and superiors regarding site safety, and conducting the toolbox talk



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GS6. identify potential safety risks and report to the appropriate authority

GS7. • assess and analyze areas which may affect health, safety and environment protocol on the
• site



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Follow safety norms as defined by organization</i>	4	16	-	-
PC1. identify and report any hazards, risks or breaches in site safety to the appropriate authority	-	-	-	-
PC2. follow emergency and evacuation procedures in case of accidents, fires, natural calamities	-	-	-	-
PC3. follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable	-	-	-	-
PC4. follow all the protocols and safety techniques conveyed during safety awareness programs like Tool Box Talks, safety demonstrations and mock drills conducted at the site	-	-	-	-
PC5. • select and operate different types of fire extinguishers corresponding to various types of fires • as per EHS guideline	-	-	-	-
PC6. identify near miss , unsafe condition and unsafe act	-	-	-	-
<i>Adopt healthy & safe work practices</i>	10	40	-	-
PC7. use appropriate Personal Protective Equipment (PPE) as per work requirements including: Head Protection (Helmets) Ear protection Fall Protection Foot Protection Face and Eye Protection, Hand and Body Protection Respiratory Protection (if required)	-	-	-	-
PC8. handle all required tools, tackles , materials & equipment safely	-	-	-	-
PC9. follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines	-	-	-	-
PC10. check and install all safety equipment as per standard guidelines	-	-	-	-



Qualification Pack



Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. follow safety protocol and practices as laid down by site EHS department	-	-	-	-
PC12. obtain "height pass" clearance for working at heights	-	-	-	-
<i>Implement good housekeeping practices</i>	4	16	-	-
PC13. <ul style="list-style-type: none"> • collect, segregate and deposit construction waste into appropriate containers based on their • toxicity or hazardous nature 	-	-	-	-
PC14. apply ergonomic principles wherever required	-	-	-	-
<i>Follow infection control guidelines as per applicability</i>	2	8	-	-
PC15. follow recommended personal hygiene, workplace hygiene and sanitization practices	-	-	-	-
PC16. clean and disinfect all materials, tools and supplies before and after use	-	-	-	-
PC17. <ul style="list-style-type: none"> • report immediately to concerned authorities regarding signs and symptoms of illness of self • and others 	-	-	-	-
NOS Total	20	80	-	-



National Occupational Standards (NOS) Parameters

NOS Code	CON/N9001
NOS Name	Work according to personal health, safety and environment protocols at construction site
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Generic Safety
NSQF Level	2
Credits	TBD
Version	7.0
Last Reviewed Date	31/03/2022
Next Review Date	31/03/2025
NSQC Clearance Date	31/03/2022

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC)/ Elements 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 PC/ Elements.
2. The assessment for the knowledge part will be based on knowledge bank of questions created by Assessment Bodies subject to approval by SSC
3. Individual assessment agencies will create unique question papers for knowledge/theory part for assessment of candidates as per assessment criteria given below
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on assessment criteria.
5. The passing percentage for each QP will be 50%. To pass the Qualification Pack, every trainee should score a minimum of 50% individually in each NOS.
6. The Assessor shall check the final outcome of the practices while evaluating the steps performed to achieve the final outcome.



Qualification Pack



7. The trainee shall be provided with a chance to repeat the test to correct his procedures in case of improper performance, with a deduction of marks for each iteration.
8. After the certain number of iteration as decided by SSC the trainee is marked as fail, scoring zero marks for the procedure for the practical activity .
9. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack within the specified time frame set by SSC.
10. Minimum duration of Assessment of each QP shall be of 4hrs/trainee.

Minimum Aggregate Passing % at QP Level : 50

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

Minimum Passing % at NOS Level: 50

(Please note: A Trainee must score the minimum percentage for each NOS separately as well as on the QP as a whole.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N1252.Carry out preheating of materials before cutting and welding process	20	80	-	-	100	30
CON/N1207.Carry out gas cutting of structural steel elements using oxy fuel gas cutting equipment	20	80	-	-	100	45
CON/N8001.Work effectively in a team to deliver desired results at the workplace	20	80	-	-	100	10
CON/N9001.Work according to personal health, safety and environment protocols at construction site	20	80	-	-	100	15
Total	80	320	-	-	400	100



Qualification Pack



Acronyms

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



Glossary

Sector	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.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	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.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	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.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	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.
Scope	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.
Knowledge and Understanding (KU)	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.



Qualification Pack



Organisational Context	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.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	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.
Electives	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.
Options	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.