



Rigger - Structural Erection

QP Code: CON/Q0702

Version: 2.0

NSQF Level: 4

Construction Skill Development Council of India || Construction Skill Development CPB 103 & 104 (1st Floor), Block 4B, DLF Corporate Park, Phase III, MG Road, Gurgaon-122002
Telephone: 0124-4513915 to 18



Qualification Pack

Contents

CON/Q0702: Rigger - Structural Erection	3
<i>Brief Job Description</i>	3
Applicable National Occupational Standards (NOS)	3
<i>Compulsory NOS</i>	3
<i>Qualification Pack (QP) Parameters</i>	3
CON/N0706: Provide support in heavy structural steel lifting works	5
CON/N0707: Unload, position and align structural steel assemblies	11
CON/N0708: Erect and dismantle staging for heavy RCC/ steel structures	18
CON/N8001: Work effectively in a team to deliver desired results at the workplace	22
CON/N8002: Plan and organize work to meet expected outcomes	26
CON/N9001: Work according to personal health, safety and environment protocol at construction site	30
Assessment Guidelines and Weightage	35
<i>Assessment Guidelines</i>	35
<i>Assessment Weightage</i>	36
Acronyms	38
Glossary	39



CON/Q0702: Rigger - Structural Erection

Brief Job Description

The job role is responsible for providing support in heavy lifting operation of structural steel components/assemblies by cranes or suitable equipments. Individual in this job role erects steel units by shifting and placing them in to their position in order to construct steel structures in construction projects. Moreover, the job role erects staging which consists of heavy steel frames/ components as a part of formworks of heavy RCC structures

Personal Attributes

The individual is expected to be physically fit and should be able to work across various location and height withstanding extreme condition while working. The individual should be able to implement and maintain safety practices as applicable to the nature of work. The job holder should preferably be free from vertigo problem, cardiovascular diseases as the nature of work involves handling heavy loads and working at height

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [CON/N0706: Provide support in heavy structural steel lifting works](#)
2. [CON/N0707: Unload, position and align structural steel assemblies](#)
3. [CON/N0708: Erect and dismantle staging for heavy RCC/ steel structures](#)
4. [CON/N8001: Work effectively in a team to deliver desired results at the workplace](#)
5. [CON/N8002: Plan and organize work to meet expected outcomes](#)
6. [CON/N9001: Work according to personal health, safety and environment protocol at construction site](#)

Qualification Pack (QP) Parameters

Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Rigging
Country	India



Qualification Pack

NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2004/7214.65
Minimum Educational Qualification & Experience	5th Class with 3-5 Years of experience For non-trained worker, minimum 5 years site experience in same occupation OR 5th Class with 1-2 Years of experience minimum 2 years site experience as a certified Khalasi (Assistant Rigger)
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NIL
Minimum Job Entry Age	18 Years
Last Reviewed On	19/06/2020
Next Review Date	24/07/2023
Deactivation Date	24/07/2023
NSQF Approval Date	22/08/2019
Version	2.0
Reference code on NQR	2019/CON/CSDCI/3295
NQR Version	2



Qualification Pack

CON/N0706: Provide support in heavy structural steel lifting works

Description

This unit describes the skills and knowledge required to provide support in heavy structural steel lifting works

Scope

The scope covers the following :

- Shift structural steel assemblies as per instruction
- Carry out preparatory work prior to start lifting operations
- Provide support in heavy lifting work

Elements and Performance Criteria

Shift structural steel assemblies as per instruction

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

- PC1.** select and use appropriate rigging gears required for heavy material shifting for structural steel assemblies/ components at construction site
- PC2.** anchor structural steel components/ units to the right locations and hook up with the prescribed lifting equipment by using slings, shackle, rope or lifting hooks and secure properly against slipping or deflection as per instruction
- PC3.** tie down the structural steel assemblies units to the transporting vehicle using chains, binders, belts etc
- PC4.** remove all bracing, packing and protective edges from the units and prepare the structural steel unit for unloading by equipment as per instruction
- PC5.** unload steel components/ assemblies safely under supervision at the specified location

Carry out preparatory work prior to start lifting operations

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

- PC6.** check for availability of lifting gears, tools and tackles prior to start lifting works
- PC7.** inspect lifting tools and tackles for their safe working conditions
- PC8.** check that the lifting equipment and steel components or assembly are placed well away from any overhead power lines or service lines
- PC9.** check for damage like distortion, breaking of joints etc. in structural steel assemblies or components and report immediately if any damage observed
- PC10.** check work location for barricading, presence of signage and availability of required pps, provided as per standard practice
- PC11.** prepare base for lifting equipment and load to be lifted as per requirement and instruction from the superior
- PC12.** work with respective equipment operator in order to grade and prepare the base for lifting equipment and units to be lifted
- PC13.** provide adequate level, compactness and well drainage to the prepared base

Provide support in heavy lifting work



Qualification Pack

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

- PC14.** attach slings, lifting belts to the right location of the load prior to lifting
- PC15.** attach shackle, hooks to the load as per requirement
- PC16.** check tightness and locking of shackle, hooks to ensure safety
- PC17.** attach tag line to the load at required locations
- PC18.** control position of suspended loads using tag line according to the signals or instructions
- PC19.** ride on girders or other structural-steel members to position load to be erected and guide them into position

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard procedure for construction rigging works
- KU2.** safety rules and regulation for handling and storing relevant rigging tools, equipment and materials
- KU3.** personal protection including the use of relevant safety gears & equipments
- KU4.** service request procedures for tools, materials and equipments
- KU5.** basic principles of measurement, geometry and arithmetic calculation
- KU6.** conversion of units of linear measurements
- KU7.** units of measurements
- KU8.** hand tools required to carry out material lifting activity and their use
- KU9.** rigging tools required to lift structural steel sections or assemblies and their use
- KU10.** required nature of base level and compaction required for equipment during lifting
- KU11.** technique of guiding suspended object through tag lines to location of erection
- KU12.** basic concept of working mechanism of load lifting equipments like cranes winches, etc.
- KU13.** specification of lifting tools and tackles as per load lifting requirement
- KU14.** interpretation of gestures/ signals by signaller during load lifting work

Generic Skills (GS)

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

- GS1.** write in one or more languages, preferably in the local language of the site
- GS2.** read one or more language, preferably in the local language of the site
- GS3.** read various, sign boards, safety rules and safety tags, instructions related to exit routes during emergency at the workplace
- GS4.** speak in one or more language, preferably one of the local language at site
- GS5.** listen and follow instructions given by the superior
- GS6.** orally communicate with co-workers regarding support required to complete the respective work
- GS7.** decide whether his workplace is safe for working and also his work is not creating hazardous conditions for other



Qualification Pack

- GS8.** decide whether the rigging gears are safe to be used for load lifting activities
- GS9.** plan work and organize required resource in coordination with team member and superior
- GS10.** complete work as per agreed time and quality
- GS11.** tie down the precast units to the transporting vehicle and stabilize the load and prevent damage during transportation
- GS12.** resolve any conflict within the team
- GS13.** calculate the appropriate quantity of required materials as per applicability
- GS14.** optimize resources
- GS15.** minimize wastages
- GS16.** revert to superior for selection/sorting of materials
- GS17.** evaluate the complexity of the tasks to and seek assistance and support wherever required from the superior
- GS18.** identify and assess how violation of any safety norms may lead to accidents



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Shift structural steel assemblies as per instruction</i>	9	21	-	-
PC1. select and use appropriate rigging gears required for heavy material shifting for structural steel assemblies/ components at construction site	-	-	-	-
PC2. anchor structural steel components/ units to the right locations and hook up with the prescribed lifting equipment by using slings, shackle, rope or lifting hooks and secure properly against slipping or deflection as per instruction	-	-	-	-
PC3. tie down the structural steel assemblies units to the transporting vehicle using chains, binders, belts etc	-	-	-	-
PC4. remove all bracing, packing and protective edges from the units and prepare the structural steel unit for unloading by equipment as per instruction	-	-	-	-
PC5. unload steel components/ assemblies safely under supervision at the specified location	-	-	-	-
<i>Carry out preparatory work prior to start lifting operations</i>	12	28	-	-
PC6. check for availability of lifting gears, tools and tackles prior to start lifting works	-	-	-	-
PC7. inspect lifting tools and tackles for their safe working conditions	-	-	-	-
PC8. check that the lifting equipment and steel components or assembly are placed well away from any overhead power lines or service lines	-	-	-	-
PC9. check for damage like distortion, breaking of joints etc. in structural steel assemblies or components and report immediately if any damage observed	-	-	-	-
PC10. check work location for barricading, presence of signage and availability of required pps, provided as per standard practice	-	-	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. prepare base for lifting equipment and load to be lifted as per requirement and instruction from the superior	-	-	-	-
PC12. work with respective equipment operator in order to grade and prepare the base for lifting equipment and units to be lifted	-	-	-	-
PC13. provide adequate level, compactness and well drainage to the prepared base	-	-	-	-
<i>Provide support in heavy lifting work</i>	9	21	-	-
PC14. attach slings, lifting belts to the right location of the load prior to lifting	-	-	-	-
PC15. attach shackle, hooks to the load as per requirement	-	-	-	-
PC16. check tightness and locking of shackle, hooks to ensure safety	-	-	-	-
PC17. attach tag line to the load at required locations	-	-	-	-
PC18. control position of suspended loads using tag line according to the signals or instructions	-	-	-	-
PC19. ride on girders or other structural-steel members to position load to be erected and guide them into position	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CON/N0706
NOS Name	Provide support in heavy structural steel lifting works
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Rigging
NSQF Level	4
Credits	TBD
Version	2.0
Last Reviewed Date	NA
Next Review Date	NA
NSQC Clearance Date	



Qualification Pack

CON/N0707: Unload, position and align structural steel assemblies

Description

This unit describes the skills and knowledge required to unload, position and align structural steel assemblies

Scope

The scope covers the following :

- Unload and position structural steel assemblies
- Align structural steel assemblies in appropriate location and provide bracing support

Elements and Performance Criteria

Unload and position structural steel assemblies

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

- PC1.** check for completion of preparatory works and report if any inadequacy observed to superior or concerned authority
- PC2.** make safe approach to the location of erection
- PC3.** interpret hand signals provided by signaller and act according to the same
- PC4.** keep safe distance to the load when suspended and take necessary actions on instruction
- PC5.** provide gestures to the signaller if required for exact positioning of the load
- PC6.** maintain correct body posture when controlling the motion of suspended load by using tag line
- PC7.** unload steel units at specified location under close supervision of senior personnel
- PC8.** use PPEs and relevant safety measures as per standard practice of working at height
- PC9.** check for completion of preparatory works and report if any inadequacy observed to superior or concerned authority
- PC10.** make safe approach to the location of erection
- PC11.** interpret hand signals provided by signaller and act according to the same
- PC12.** keep safe distance to the load when suspended and take necessary actions on instruction
- PC13.** provide gestures to the signaller if required for exact positioning of the load
- PC14.** maintain correct body posture when controlling the motion of suspended load by using tag line
- PC15.** unload steel units at specified location under close supervision of senior personnel
- PC16.** use PPEs and relevant safety measures as per standard practice of working at height

Align structural steel assemblies in appropriate location and provide bracing support

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

- PC17.** push structural-steel members into final positions, using turnbuckles, crowbars, jacks, and hand tools under supervision
- PC18.** position steel sections, assemblies or equipments to be erected at right locations within specified limit of tolerance



Qualification Pack

- PC19.** carry out linear measurements to check alignment of erected section or assemblies using appropriate measuring instruments as per instruction
- PC20.** carry out bolting at the steel connections as per instruction using appropriate hand tools
- PC21.** maintain proper housekeeping at workplace to ensure smooth movement of workers and material
- PC22.** push structural-steel members into final positions, using turnbuckles, crowbars, jacks, and hand tools under supervision
- PC23.** position steel sections, assemblies or equipments to be erected at right locations within specified limit of tolerance
- PC24.** carry out linear measurements to check alignment of erected section or assemblies using appropriate measuring instruments as per instruction
- PC25.** carry out bolting at the steel connections as per instruction using appropriate hand tools
- PC26.** maintain proper housekeeping at workplace to ensure smooth movement of workers and material

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard procedure for construction rigging works
- KU2.** safety rules and regulation for handling and storing relevant rigging tools, equipment and materials
- KU3.** personal protection including the use of relevant safety gears & equipments
- KU4.** service request procedures for tools, materials and equipments
- KU5.** basic principles of measurement, geometry and arithmetic calculation
- KU6.** conversion of units of linear measurements
- KU7.** torque tightening of bolts using appropriate hand tools
- KU8.** different kind of common measuring tools/ instruments and instruments and their respective uses
- KU9.** hand tools required to carry out structural steel erection activity and their use
- KU10.** technique of guiding suspended object through tag lines to location of erection
- KU11.** working mechanism of load lifting equipments like cranes winches, etc.
- KU12.** specification of lifting tools and tackles as per load lifting requirement
- KU13.** interpretation of gestures/ signals by signaller during load lifting work
- KU14.** how to check alignment of the erected structures

Generic Skills (GS)

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

- GS1.** write in one or more language, preferably in the local language of the site
- GS2.** read one or more language, preferably in the local language of the site



Qualification Pack

- GS3.** read various, sign boards, safety rules and safety tags , instructions related to exit routes during emergency at the workplace
- GS4.** speak in one or more language, preferably one of the local language at site
- GS5.** listen and follow instructions given by the superior
- GS6.** orally communicate with co-workers regarding support required to complete the respective work
- GS7.** decide whether his workplace is safe for working and also his work is not creating hazardous conditions for other
- GS8.** decide whether the rigging gears are safe to be used for load lifting activities
- GS9.** plan work and organize required resource in coordination with team member and superior
- GS10.** complete work as per agreed time and quality
- GS11.** maintain correct body posture when controlling the motion of suspended load
- GS12.** resolve any conflict within the team
- GS13.** optimize resources
- GS14.** minimize wastages
- GS15.** revert to superior for selection/sorting of materials
- GS16.** evaluate the complexity of the tasks to and seek assistance and support wherever required from the superior
- GS17.** identify and assess how violation of any safety norms may lead to accidents



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Unload and position structural steel assemblies</i>	16	39	-	-
PC1. check for completion of preparatory works and report if any inadequacy observed to superior or concerned authority	-	-	-	-
PC2. make safe approach to the location of erection	-	-	-	-
PC3. interpret hand signals provided by signalman and act according to the same	-	-	-	-
PC4. keep safe distance to the load when suspended and take necessary actions on instruction	-	-	-	-
PC5. provide gestures to the signalman if required for exact positioning of the load	-	-	-	-
PC6. maintain correct body posture when controlling the motion of suspended load by using tag line	-	-	-	-
PC7. unload steel units at specified location under close supervision of senior personnel	-	-	-	-
PC8. use PPEs and relevant safety measures as per standard practice of working at height	-	-	-	-
PC9. check for completion of preparatory works and report if any inadequacy observed to superior or concerned authority	-	-	-	-
PC10. make safe approach to the location of erection	-	-	-	-
PC11. interpret hand signals provided by signalman and act according to the same	-	-	-	-
PC12. keep safe distance to the load when suspended and take necessary actions on instruction	-	-	-	-
PC13. provide gestures to the signalman if required for exact positioning of the load	-	-	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. maintain correct body posture when controlling the motion of suspended load by using tag line	-	-	-	-
PC15. unload steel units at specified location under close supervision of senior personnel	-	-	-	-
PC16. use PPEs and relevant safety measures as per standard practice of working at height	-	-	-	-
<i>Align structural steel assemblies in appropriate location and provide bracing support</i>	14	31	-	-
PC17. push structural-steel members into final positions, using turnbuckles, crowbars, jacks, and hand tools under supervision	-	-	-	-
PC18. position steel sections, assemblies or equipments to be erected at right locations within specified limit of tolerance	-	-	-	-
PC19. carry out linear measurements to check alignment of erected section or assemblies using appropriate measuring instruments as per instruction	-	-	-	-
PC20. carry out bolting at the steel connections as per instruction using appropriate hand tools	-	-	-	-
PC21. maintain proper housekeeping at workplace to ensure smooth movement of workers and material	-	-	-	-
PC22. push structural-steel members into final positions, using turnbuckles, crowbars, jacks, and hand tools under supervision	-	-	-	-
PC23. position steel sections, assemblies or equipments to be erected at right locations within specified limit of tolerance	-	-	-	-
PC24. carry out linear measurements to check alignment of erected section or assemblies using appropriate measuring instruments as per instruction	-	-	-	-
PC25. carry out bolting at the steel connections as per instruction using appropriate hand tools	-	-	-	-



Qualification Pack

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC26. maintain proper housekeeping at workplace to ensure smooth movement of workers and material	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CON/N0707
NOS Name	Unload, position and align structural steel assemblies
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Rigging
NSQF Level	4
Credits	TBD
Version	2.0
Last Reviewed Date	NA
Next Review Date	NA
NSQC Clearance Date	



Qualification Pack

CON/N0708: Erect and dismantle staging for heavy RCC/ steel structures

Description

This unit describes the skills and knowledge required to erect and dismantle staging for heavy RCC/ steel structures.

Scope

The scope covers the following :

- Erect and dismantle staging using heavy steel sections

Elements and Performance Criteria

Erect and dismantle staging using heavy steel sections

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

- PC1.** ensure base of staging is adequately levelled and compacted
- PC2.** check staging components for their usability
- PC3.** erect vertical and horizontal members as per schematics and schedule
- PC4.** lift heavy staging components at height using suitable rigging tools and tackles
- PC5.** join staging components by bolting using appropriate hand tools
- PC6.** place structural steel sections on top of vertical members as per specification or standard practice to form support to the base of structure
- PC7.** check alignment of staging work and ensure that is within specified tolerance limit
- PC8.** provide support at necessary locations using appropriate components ensuring stability of the staging against the load it is designed for
- PC9.** carry out checks, alteration, re-tightening of members as per requirement or instruction
- PC10.** erect barricading, safety signage at specific locations as per requirement
- PC11.** dismantle staging works safely using appropriate tools and tackles and stack the materials at specified locations as per instruction
- PC12.** use appropriate PPEs during activity and carry out housekeeping at workplace

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** standard procedure for construction rigging works
- KU2.** safety rules and regulation for handling and storing relevant rigging tools, equipment and materials
- KU3.** personal protection including the use of relevant safety gears & equipments
- KU4.** service request procedures for tools, materials and equipments
- KU5.** basic principles of measurement, geometry and arithmetic calculation
- KU6.** conversion of units of linear measurements



Qualification Pack

- KU7.** units of measurements
- KU8.** different kind of common measuring tools/ instruments and instruments and their respective uses
- KU9.** principle of linear measurement
- KU10.** hand tools required to erect and dismantle staging and their use
- KU11.** rigging tools required to lift structural steel sections or assemblies and their use
- KU12.** required nature of base level and compaction required for equipment during lifting
- KU13.** material components for staging works and their sequential erection according to schematics
- KU14.** interpretation of gestures/ signals by signaller during load lifting work
- KU15.** how to provide additional supports if required and use of staging components in it
- KU16.** how to check alignment of the erected structures

Generic Skills (GS)

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

- GS1.** write in one or more language, preferably in the local language of the site
- GS2.** read one or more language, preferably in the local language of the site
- GS3.** read various, sign boards, safety rules and safety tags , instructions related to exit routes during emergency at the workplace
- GS4.** speak in one or more language, preferably one of the local language at site
- GS5.** listen and follow instructions given by the superior
- GS6.** orally communicate with co-workers regarding support required to complete the respective work
- GS7.** decide whether his workplace is safe for working and also his work is not creating hazardous conditions for other
- GS8.** decide whether the base of staging is levelled and compacted adequately
- GS9.** decide whether the rigging gears are safe to be used for load lifting activities
- GS10.** plan work and organize required resource in coordination with team members and superiors
- GS11.** complete work as per agreed time and quality
- GS12.** check alignment of staging work and ensure that is within specified tolerance limit
- GS13.** use appropriate components to provide support at necessary locations for ensuring stability of the staging
- GS14.** resolve any conflict within the team
- GS15.** determine quantity of material required for rigging works
- GS16.** optimize resources
- GS17.** minimize wastage
- GS18.** revert to superior for selection/sorting of materials
- GS19.** evaluate the complexity of the tasks to determine if any guidance is required from the superior
- GS20.** identify and assess how violation of safety norms may lead to accidents



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Erect and dismantle staging using heavy steel sections</i>	30	70	-	-
PC1. ensure base of staging is adequately levelled and compacted	-	-	-	-
PC2. check staging components for their usability	-	-	-	-
PC3. erect vertical and horizontal members as per schematics and schedule	-	-	-	-
PC4. lift heavy staging components at height using suitable rigging tools and tackles	-	-	-	-
PC5. join staging components by bolting using appropriate hand tools	-	-	-	-
PC6. place structural steel sections on top of vertical members as per specification or standard practice to form support to the base of structure	-	-	-	-
PC7. check alignment of staging work and ensure that is within specified tolerance limit	-	-	-	-
PC8. provide support at necessary locations using appropriate components ensuring stability of the staging against the load it is designed for	-	-	-	-
PC9. carry out checks, alteration, re-tightening of members as per requirement or instruction	-	-	-	-
PC10. erect barricading, safety signage at specific locations as per requirement	-	-	-	-
PC11. dismantle staging works safely using appropriate tools and tackles and stack the materials at specified locations as per instruction	-	-	-	-
PC12. use appropriate PPEs during activity and carry out housekeeping at workplace	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CON/N0708
NOS Name	Erect and dismantle staging for heavy RCC/ steel structures
Sector	Construction
Sub-Sector	Real Estate and Infrastructure construction
Occupation	Rigging
NSQF Level	4
Credits	TBD
Version	2.0
Last Reviewed Date	NA
Next Review Date	NA
NSQC Clearance Date	



Qualification Pack

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

Elements and Performance Criteria

Interact and communicate in effective and conclusive manner

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 to execute project requirements

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

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** own roles and responsibilities
- 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



Qualification Pack

- 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
- KU9.** importance and need of supporting co-workers facing problems for smooth

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.** orally communicate 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



Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Interact and communicate in effective and conclusive manner</i>	18	42	-	-
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 to execute project requirements</i>	12	28	-	-
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	-	-	-	-
NOS Total	30	70	-	-



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	Generic
Occupation	Generic
NSQF Level	4
Credits	TBD
Version	4.0
Last Reviewed Date	NA
Next Review Date	NA
NSQC Clearance Date	



Qualification Pack

CON/N8002: Plan and organize work to meet expected outcomes

Description

This unit describes the knowledge and the skills required for an individual to plan and organize own work in order to meet expected outcome

Scope

The scope covers the following :

- Prioritize work activities to achieve desired results
- Organize desired resources prior to commencement of work

Elements and Performance Criteria

Prioritize work activities to achieve desired results

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

- PC1.** understand clearly the targets and timelines set by superiors
- PC2.** plan activities as per schedule and sequence
- PC3.** provide guidance to the subordinates to obtain desired outcome
- PC4.** plan housekeeping activities prior to and post completion of work

Organize desired resources prior to commencement of work

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

- PC5.** list and arrange required resources prior to commencement of work
- PC6.** select and employ correct tools, tackles and equipment for completion of desired work
- PC7.** complete the work with allocated resources
- PC8.** engage allocated manpower in an appropriate manner
- PC9.** use resources in an optimum manner to avoid any unnecessary wastage
- PC10.** employ tools, tackles and equipment with care to avoid damage to the same
- PC11.** organize work output, materials used, tools and tackles deployed
- PC12.** processes adopted to be in line with the specified standards and instructions

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** importance of proper housekeeping
- KU2.** policies, procedures and work targets set by superiors
- KU3.** roles and responsibilities in executing the work for subordinates and self
- KU4.** standard practices of work to be adopted for assigned task
- KU5.** how to use available resources in a judicious and appropriate manner to minimize wastages or damage



Qualification Pack

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.** list out the assigned works and targets
- GS3.** read in one or more language, preferably the local language at the site
- GS4.** read communication from co-workers, superiors and notices from other departments as per requirement of the level
- GS5.** speak in one or more language, preferably one of the local language at the site
- GS6.** listen and follow communication shared by co-workers regarding standard work processes, resources available, timelines, etc.
- GS7.** communicate effectively with co-workers and subordinates
- GS8.** decide on what sequence is to be adopted for execution of work
- GS9.** plan and organize the materials, tools, tackles and equipment required to execute the work
- GS10.** complete all assigned task with proper planning and organizing
- GS11.** arrange or seek help to arrange for material, tools and tackles in case of shortfall
- GS12.** analyze areas of work which could result in a delay of work, wastage of material or damage to tools and tackles
- GS13.** evaluate potential solutions to minimize avoidable delays and wastages at the construction site



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prioritize work activities to achieve desired results</i>	12	28	-	-
PC1. understand clearly the targets and timelines set by superiors	-	-	-	-
PC2. plan activities as per schedule and sequence	-	-	-	-
PC3. provide guidance to the subordinates to obtain desired outcome	-	-	-	-
PC4. plan housekeeping activities prior to and post completion of work	-	-	-	-
<i>Organize desired resources prior to commencement of work</i>	18	42	-	-
PC5. list and arrange required resources prior to commencement of work	-	-	-	-
PC6. select and employ correct tools, tackles and equipment for completion of desired work	-	-	-	-
PC7. complete the work with allocated resources	-	-	-	-
PC8. engage allocated manpower in an appropriate manner	-	-	-	-
PC9. use resources in an optimum manner to avoid any unnecessary wastage	-	-	-	-
PC10. employ tools, tackles and equipment with care to avoid damage to the same	-	-	-	-
PC11. organize work output, materials used, tools and tackles deployed	-	-	-	-
PC12. processes adopted to be in line with the specified standards and instructions	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CON/N8002
NOS Name	Plan and organize work to meet expected outcomes
Sector	Construction
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	TBD
Version	3.0
Last Reviewed Date	NA
Next Review Date	NA
NSQC Clearance Date	



Qualification Pack

CON/N9001: Work according to personal health, safety and environment protocol 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

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.** participate in safety awareness programs like Tool Box Talks, safety demonstrations, mock drills, conducted at site
- PC5.** select and operate different types of fire extinguishers corresponding to 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.** install and apply properly all safety equipment as instructed
- PC11.** follow safety protocol and practices as laid down by site EHS department
- PC12.** undertake and pass height pass test as per EHS guideline

Implement good housekeeping practices

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

- PC13.** collect and deposit construction waste into identified containers before disposal, separate containers that may be needed for disposal of toxic or hazardous wastes
- PC14.** apply ergonomic principles wherever required



Qualification Pack

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 to be used based on various working conditions
- KU6.** importance of handling tools, equipment and materials as per applicable
- KU7.** health and environments effect of construction materials as per applicability
- KU8.** various environmental protection methods as per applicability
- KU9.** storage of waste including the following at appropriate location: 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
- KU10.** how to use hazardous material, in a safe and appropriate manner as per applicability
- KU11.** types of fire
- KU12.** procedure of operating different types of fire extinguishers
- KU13.** safety relevant to tools, tackles, & requirement as per applicability
- KU14.** housekeeping activities relevant to task

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.** read sign boards, notice boards relevant to safety
- GS5.** speak in one or more language, preferably in one of the local language of the site
- GS6.** listen instructions / communication shared by site EHS and superiors regarding site safety, and conducting tool box talk
- GS7.** communicate reporting of site conditions, hazards, accidents, etc.
- GS8.** not create unsafe conditions for others
- GS9.** keep the workplace clean and tidy
- GS10.** identify safety risks that affect the health, safety and environment for self and others working in the vicinity, tackle it if within limit or report to appropriate authority
- GS11.** assess and analyze areas which may affect health, safety and environment protocol on the site
- GS12.** ensure personal safety behavior



GS13. respond to emergency



Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Follow safety norms as defined by organization</i>	9	21	-	-
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. participate in safety awareness programs like Tool Box Talks, safety demonstrations, mock drills, conducted at site	-	-	-	-
PC5. select and operate different types of fire extinguishers corresponding to types of fires as per EHS guideline	-	-	-	-
PC6. identify near miss , unsafe condition and unsafe act	-	-	-	-
<i>Adopt healthy & safe work practices</i>	15	35	-	-
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. install and apply properly all safety equipment as instructed	-	-	-	-



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. undertake and pass height pass test as per EHS guideline	-	-	-	-
<i>Implement good housekeeping practices</i>	6	14	-	-
PC13. collect and deposit construction waste into identified containers before disposal, separate containers that may be needed for disposal of toxic or hazardous wastes	-	-	-	-
PC14. apply ergonomic principles wherever required	-	-	-	-
NOS Total	30	70	-	-



Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	CON/N9001
NOS Name	Work according to personal health, safety and environment protocol at construction site
Sector	Construction
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	TBD
Version	4.0
Last Reviewed Date	NA
Next Review Date	NA
NSQC Clearance Date	

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) 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.
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 70%. To pass the Qualification Pack, every trainee should score a minimum of 70% 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 NOSs, the trainee is eligible to take subsequent assessment on the balance NOSs 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 : 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

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
CON/N0706.Provide support in heavy structural steel lifting works	30	70	-	-	100	20
CON/N0707.Unload, position and align structural steel assemblies	30	70	0	0	100	30
CON/N0708.Erect and dismantle staging for heavy RCC/ steel structures	30	70	-	-	100	20
CON/N8001.Work effectively in a team to deliver desired results at the workplace	30	70	-	-	100	5
CON/N8002.Plan and organize work to meet expected outcomes	30	70	0	0	100	10
CON/N9001.Work according to personal health, safety and environment protocol at construction site	30	70	-	-	100	15



Qualification Pack

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
Total	180	420	0	0	600	100



Qualification Pack

Acronyms

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



Qualification Pack

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.



Qualification Pack

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.
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.