



QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR CONSTRUCTION INDUSTRY

What are Occupational Standards(OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

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Introduction

Qualifications Pack – Chargehand Scaffolding - System

SECTOR: CONSTRUCTION

SUB-SECTOR: Real Estate and Infrastructure and Construction

OCCUPATION: SCAFFOLDING

REFERENCE ID: CON/Q0307

ALIGNED TO: NCO-2004/9313.90

Chargehand Scaffolding - System: This job role performs erection and dismantling of the system scaffold for complex structures at the construction site.

Brief Job Description: This job role is responsible for erecting and dismantling scaffold in complex and high risk situations which includes outrigger/cantilever scaffold, scaffold erection for complex structures and at complex locations such as in confined area or in wide openings in a sequential manner to meet works requirements within specified time and tolerance. The individual should possess good factual knowledge, and shall be able to maintain safe and quality work practices.

Personal Attributes: This job role requires the individual to be physically and mentally fit to carry out scaffolding work at a construction site. The individual should be organized, diligent, methodical, demonstrative and able to implement and maintain safety practices. The individual should have independent ability to take quick decisions and should be well versed in scaffolding works. The individual should possess good organizational, interpersonal and communication skills along with factual knowledge of reinforcement works and shall also be responsible for own work and learning.

Job Details	Qualifications Pack Code	CON/Q0307		
	Job Role	Chargehand Scaffolding - System		
	Credits (NSQF)	TBD	Version number	1.0
	Sector	Construction	Drafted on	07/05/2015
	Sub-sector	Real Estate and Infrastructure and Construction	Last reviewed on	23/05/2015
	Occupation	Scaffolding	Next review date	23/05/2017
	NSQC Clearance on	05/08/2015		

Job Role	Chargehand Scaffolding - System
Role Description	This job role is responsible for erection and dismantle of various types of system scaffolds for complex structure at complex location
NSQF level	4
Minimum Educational Qualifications	Preferably 8 th standard
Maximum Educational Qualifications	N.A
Training (Suggested but not mandatory)	Recommended training period of 12-16 weeks as per QP of Chargehand Scaffolding-System
Minimum Job Entry Age	18 years
Experience	Desirable: 1. Non trained worker : 9 years site experience in same occupation 2. Trained worker: 3 years site experience as a certified Scaffolder - System
Applicable National Occupational Standards (NOS)	Compulsory: <ol style="list-style-type: none"> CON/N0358: Erect and dismantle outrigger / cantilever scaffolds CON/N0359: Erect and dismantle scaffolds for complex structure and at complex location CON/N8001: Work effectively in a team to deliver desired results at the workplace CON/N8002: Plan and organize work to meet expected outcomes CON/N9001: Work according to personal health, safety and environment protocol at construction site Optional: N.A.
Performance Criteria	As described in the relevant OS units

Definitions

Keywords / Terms	Description
Sector	Sector is 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 organization.
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 they need to meet the standard consistently. Occupational Standards are applicable both in the Indian contexts.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
Qualifications Pack (QP)	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualification Pack is assigned a unique qualification pack code
Qualification Pack Code	Qualification Pack Code is a unique reference code that identifies a qualifications pack.
National Occupational Standards (NOS)	NOS are Occupational Standards which apply uniquely in the Indian context.
Scope	Scope is the 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 the quality of performance required.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard
Organizational Context	Organizational Context includes the way the organization 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	Core Skills or Generic Skills are a group of skills that are key to learning and working 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.

Acronyms

Keywords /Terms	Description
CON	Construction
NSQF	National Skill Qualifications Framework
QP	Qualification Pack
OS	Occupational Standards
TBD	To Be Decided

CON/N0358

Erect and dismantle outrigger / cantilever scaffolds

National Occupational Standard



Overview

This NOS covers the skills and knowledge required by a workman to be proficient in erecting and dismantling outrigger / cantilever scaffolds.

CON/N0358

Erect and dismantle outrigger / cantilever scaffolds

National Occupational Standard

Unit Code	CON/N0358
Unit Title (Task)	Erect and dismantle outrigger / cantilever scaffolds
Description	This unit describes the skills and knowledge required to erect and dismantle outrigger / cantilever scaffolds
Scope	<p>The scope covers the following:</p> <ul style="list-style-type: none"> Erect outrigger/ cantilever scaffold in a safe manner Dismantle outrigger/ cantilever scaffolds in a safe manner
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Erect outrigger / cantilever scaffolds in a safe manner	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. check and ensure that area around scaffold on ground has been barricaded to ensure safety</p> <p>PC2. check and ensure that fall protection is in place to ensure safety including guard rails, safety nets, wire mesh, toe boards, etc.</p> <p>PC3. read and understand schematic working drawing</p> <p>PC4. calculate the number of components required from the drawing</p> <p>PC5. understand the fixing and support process for scaffold</p> <p>PC6. use right components and follow erection procedure as per work method statement with respect to the types of scaffolds</p> <p>PC7. check verticality of scaffold at first level of erection and correct (if required) before moving to the next level</p> <p>PC8. check rigidity and stability of scaffold</p> <p>PC9. ensure outrigger beams do not extend beyond prescribed length from face of structure ensure beam is securely braced to avoid tipping and movement</p> <p>PC10. ensure that in-board and out-board ends of the outrigger beams are of required length</p> <p>PC11. ensure that in-board ends of beams are securely anchored or braced</p> <p>PC12. ensure that entire supporting structure is securely braced to prevent any horizontal movement</p> <p>PC13. ensure that base of scaffold is erected as per requirements and in a safe manner</p> <p>PC14. complete work within the allocated time with quality and safety</p> <p>PC15. report to superior for completion of work & for checking, do any rework as suggested by engineer in charge or superior, and get it approved</p>
Dismantle outrigger / cantilever scaffolds in a safe manner	<p>PC16. ensure standard procedures are followed for dismantling of outrigger /cantilever scaffolds</p> <p>PC17. check for rigidity and stability of scaffold before dismantling and maintain during dismantling</p> <p>PC18. ensure scaffolds are dismantled using proper tools & tackles</p>

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Erect and dismantle outrigger / cantilever scaffolds

	<p>PC19. lower scaffold material in a safe manner, manually or by using mechanical devices</p> <p>PC20. ensure that all the fixtures and small components are staked properly for further use</p> <p>PC21. clean and store scaffold components for further use</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. standard procedures for scaffolding work</p> <p>KA2. safety rules and regulations for handling and storing relevant tools and equipment and materials for reinforcement works</p> <p>KA3. personal protection including the use of the related safety gears and equipment</p> <p>KA4. precautions and measures required in the lifting and movement of heavy components and materials</p> <p>KA5. service request procedures for tools, materials and equipments</p> <p>KA6. statutory compliance requirements related to working at height</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. how to read and interpret scaffolding drawing , other relevant working drawings and working method statement</p> <p>KB2. units of measurements</p> <p>KB3. conversion of measurements units</p> <p>KB4. basic arithmetic and geometric calculations</p> <p>KB5. various types of measurements and marking tools</p> <p>KB6. different types of scaffolds system such as pipe & couplers and other common customized system scaffold (frame scaffold) and method of erection</p> <p>KB7. scaffolds components, their size and fixing accessories</p> <p>KB8. how to follow a methodical scaffolding plan as per the site requirements</p> <p>KB9. maintenance of erected scaffold and safe dismantling of scaffolds while working at heights</p> <p>KB10. selection and use of various lifting devices</p> <p>KB11. how to check and sort out all the related scaffolding components</p> <p>KB12. how to identify and replace any damaged components</p> <p>KB13. how to check and ensure alignment of scaffold</p> <p>KB14. required dimensions of outrigger beams</p> <p>KB15. appropriate method for securely bracing outrigger beam</p> <p>KB16. how to carry out loading</p> <p>KB17. erection of cantilever/outrigger scaffold in a safe manner</p> <p>KB18. how to brace, secure and provide support to cantilever/outrigger scaffold</p> <p>KB19. importance of getting scaffold checked by inspector</p>
Skills (S)	

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Erect and dismantle outrigger / cantilever scaffolds

A. Core Skills/ Generic Skills	Writing Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. write in one or more language, preferably in the local language of the site & basic English</p> <p>SA2. provide clear and simple instructions, details & sketches to sub-ordinate</p>
	Reading Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA3. read in one or more language, preferably in the local language of the site & basic English</p> <p>SA4. read sketches, drawing or instructions provided for the scaffolding work</p> <p>SA5. read various, sign boards, safety rules and safety tags , instructions related to exit routes during emergency at the workplace</p>
	Oral Communication (Listening and Speaking skills)
B. Professional Skills	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA6. speak in one or more language, preferably in the local language of the site</p> <p>SA7. orally and effectively communicate about sketches, drawing or instructions provided for the scaffolding work</p> <p>SA8. speak and convey about various, sign boards, safety rules and safety tags , instructions related to exit routes during emergency at the workplace</p>
	Decision Making
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. decide whether the work place is safe for working and also relevant task is not creating hazardous condition for others</p> <p>SB2. decide on manpower, tools , material and equipment for relevant work</p> <p>SB3. decide on the method for erection and dismantle of outrigger/cantilever scaffold</p>
	Plan and Organise
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB4. plan work & organize required resource in coordination with team members and superior</p>
	Customer centricity
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB5. perform work as per agreed time schedule and quality</p>
	Problem solving

CON/N0358

Erect and dismantle outrigger / cantilever scaffolds

	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB6. rectify any problem related to erection of outrigger/cantilever scaffold</p> <p>SB7. resolve concerns raised by the scaffolding gang</p> <p>SB8. resolve any conflict within the team</p>
	<p style="text-align: center;">Analytical Thinking</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB9. correlate the sequence of fixing of scaffolding with respect to other proceeding activity of other trade</p> <p>SB10. optimize resources</p> <p>SB11. minimize wastages</p>
	<p style="text-align: center;">Critical Thinking</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB12. evaluate the complexity of the task and seek assistance and support whereve required</p> <p>SB13. identify violation of any safety norms which may lead to accidents</p>

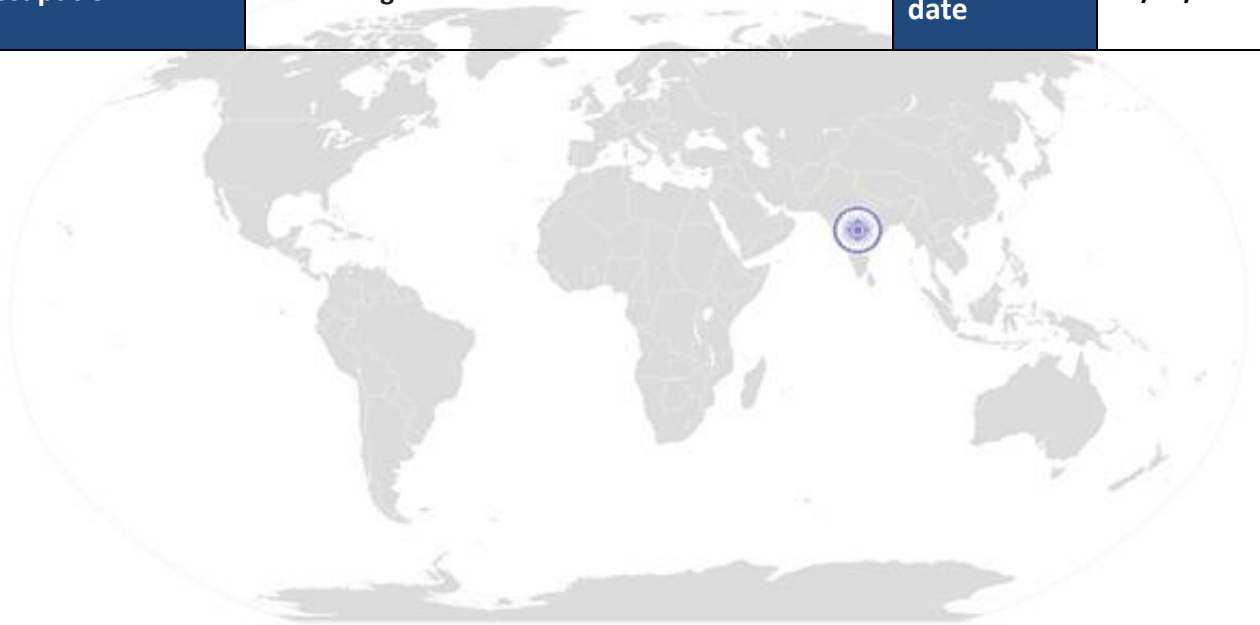


CON/N0358

Erect and dismantle outrigger / cantilever scaffolds

NOS Version Control

NOS Code	CON/N0358		
Credits (NSQF)	TBD	Version number	1.0
Industry	Construction	Drafted on	07/05/2015
Industry Sub-sector	Real Estate and Infrastructure and Construction	Last reviewed on	23/05/2015
Occupation	Scaffolding	Next review date	23/05/2017



CON/N0359 Erect and dismantle scaffolds for complex structure and at complex location

National Occupational Standard



Overview

This NOS covers the skills and knowledge required by a workman to be proficient in erecting and dismantling scaffolds for complex structure and at complex location

CON/N0359

Erect and dismantle scaffolds for complex structure and at complex location

National Occupational Standard

Unit Code	CON/N0359
Unit Title (Task)	Erect and dismantle scaffolds for complex structure and at complex location
Description	This unit describes the skills and knowledge required to erect and dismantle scaffolds for complex structure and at complex location
Scope	<p>This scope covers the following:</p> <ul style="list-style-type: none"> Erect system scaffold for complex structure and at complex location (High rise structure, complex architectural structures, confined area and in large opening) Dismantle scaffolds for complex structure and at complex location in a safe manner
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Erect scaffolds for complex structure and at complex location (High rise structure, complex architectural structures, confined area and in large opening)	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. check and ensure that area on ground has been provided with rigid barricading to ensure safety</p> <p>PC2. check and ensure that fall protection is in place to ensure safety including guard rails, safety nets, wire mesh, toe boards, etc. while working at height</p> <p>PC3. close all opening in case of erection of scaffold in lift area</p> <p>PC4. check compactness of ground by visual / physical check</p> <p>PC5. place base plates and sole boards on ground as per marking</p> <p>PC6. select scaffold (pipe & coupler or frame scaffold) on the basis of need and requirement</p> <p>PC7. use right components and follow erection procedure as per work method statement with respect to the types of scaffolds</p> <p>PC8. erect separate scaffolds with platforms of same height (for large radius curves)</p> <p>PC9. check verticality of scaffold at first level of erection and correct (if required) before moving to the next level</p> <p>PC10. ensure correct method in case erection of scaffold in confined area or in large opening</p> <p>PC11. ensure shifting of scaffold material from ground level to the desired level manually or by using mechanical devices in a safe manner</p> <p>PC12. check rigidity and stability of scaffold</p> <p>PC13. provide adequate support to the scaffold erected as per standard practice</p> <p>PC14. provide and ensure support at every 6 m from permanent structure for high rise structure scaffold</p> <p>PC15. ensure height of scaffold erected is within permissible limits and as per instructions</p>

CON/N0359

Erect and dismantle scaffolds for complex structure and at complex location

	<p>PC16. fix walk boards, guard rail, toe boards and other components on the walking platform</p> <p>PC17. complete work within the allocated time with quality and safety</p> <p>PC18. report to superior for completion of work and checking, do any rework as suggested by engineer in charge or superior, and get it approved</p>
Dismantle scaffolds for complex structure and at complex location in a safe manner	<p>PC19. follow and ensure standards procedure are followed for dismantling of scaffold</p> <p>PC20. check for rigidity and stability of scaffold before dismantling and maintain during dismantling</p> <p>PC21. remove guard rails, toe boards, walk boards and other components sequentially</p> <p>PC22. ensure scaffolds are dismantle using proper tools & tackles</p> <p>PC23. lower scaffold material in a safe manner, manually or by using mechanical devices</p> <p>PC24. ensure that all the fixtures and small components are staked properly for further use</p> <p>PC25. clean and store scaffold components for further use</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. standard procedures for scaffolding work</p> <p>KA2. safety rules and regulations for handling and storing relevant tools and equipment and materials for reinforcement works</p> <p>KA3. personal protection including the use of the related safety gears and equipment</p> <p>KA4. precautions and measures required in the lifting and movement of heavy components and materials</p> <p>KA5. service request procedures for tools, materials and equipments</p> <p>KA6. statutory compliance requirements related to working at height</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. how to read and interpret scaffolding drawing , other relevant drawings and working method statement</p> <p>KB2. units of measurements</p> <p>KB3. conversion of measurements units</p> <p>KB4. basic arithmetic and geometric calculations</p> <p>KB5. different types of measurements and marking tools</p> <p>KB6. different types of scaffolds system such as pipe & couplers and other common customized system scaffold (frame scaffold) and method of erection</p> <p>KB7. scaffolds components, their size and fixing accessories</p> <p>KB8. how to follow a methodical scaffolding plan as per the site requirements</p>

CON/N0359

Erect and dismantle scaffolds for complex structure and at complex location

	<p>KB9. maintenance of erected scaffold and safe dismantling of scaffolds while working at heights</p> <p>KB10. various types of scaffold used in confined area</p> <p>KB11. methods for erection of scaffold in case of complex structure and at complex location such as high rise structure, complex architecture structures, confined area and in openings</p> <p>KB12. importance of safety in case of erection of scaffold in large openings</p> <p>KB13. selection and use of various lifting devices</p> <p>KB14. check and sort out all the related scaffolding components</p> <p>KB15. identify and replace any damaged components</p> <p>KB16. how to check and ensure alignment of scaffold</p> <p>KB17. knowledge and understanding about loading</p> <p>KB18. how to respond in case of heavy rain, storm, lightening</p> <p>KB19. importance of getting scaffold checked by inspector</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. write in one or more language, preferably the local language at the site</p> <p>SA2. provide clear and simple instructions, details & sketches to sub-ordinate</p>
	Reading Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA3. read one or more language, preferably the local language at the site</p> <p>SA4. read sketches, drawing or instructions provided for the scaffolding work</p> <p>SA5. read various, sign boards, safety rules and safety tags , instructions related to exit routes during emergency at the workplace</p>
	Oral Communication (Listening and Speaking skills)
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA6. speak one or more language, preferably the local language at the site</p> <p>SA7. orally and effectively communicate about various sketches, drawing or instructions provided for the scaffolding work</p> <p>SA8. speak and convey about various, sign boards, safety rules and safety tags , instructions related to exit routes during emergency at the workplace</p>
B. Professional Skills	Decision Making
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. decide whether the work place is safe for working and also relevant task is not creating hazardous condition for others</p> <p>SB2. decide on manpower, tools , material and equipment for relevant work</p>

CON/N0359

Erect and dismantle scaffolds for complex structure and at complex location

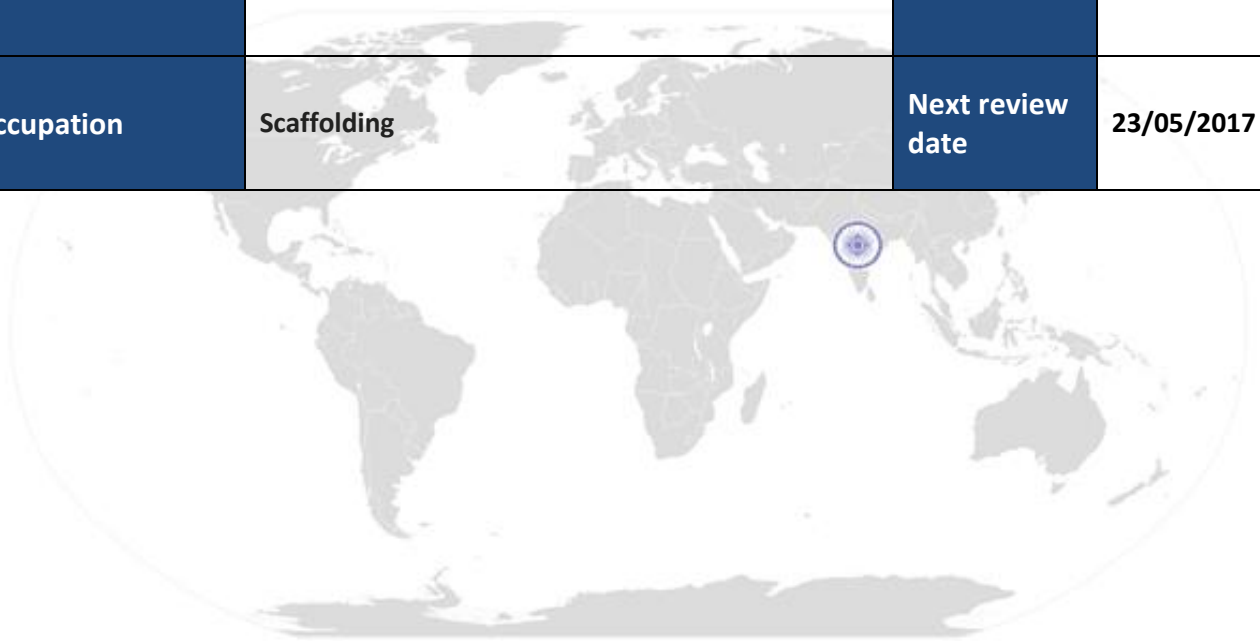
	SB3. decide on the method for erection and dismantle of scaffold for complex structure and at complex location
	Plan and Organise
	The user/individual on the job needs to know and understand how to: SB4. plan work & organize required resource in coordination with team members and superior
	Customer centricity
	The user/individual on the job needs to know and understand how to: SB5. perform work as per agreed time schedule and quality
	Problem solving
	The user/individual on the job needs to know and understand how to: SB6. rectify any problem in related to erection of scaffold for complex structure such as high rise structure, complex architectural structural SB7. rectify any problem in related to erection of scaffold in confines areas or in openings SB8. resolve concerns raised by the scaffolding gang SB9. resolve any conflict within the team
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB10. correlate the sequence of fixing of scaffolding with respect to other proceeding activity of other trade SB11. optimize resources SB12. minimize wastages
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB13. evaluate the complexity of the task and seek assistance and support wherever required SB14. identify violation of any safety norms which may lead to accidents

CON/N0359

Erect and dismantle scaffolds for complex structure and at complex location

NOS Version Control

NOS Code	CON/N0359		
Credits (NSQF)	TBD	Version number	1.0
Industry	Construction	Drafted on	07/05/2015
Industry Sub-sector	Real Estate and Infrastructure and Construction	Last reviewed on	23/05/2015
Occupation	Scaffolding	Next review date	23/05/2017



CON/N8001

Work effectively in a team to deliver desired results at the workplace

National Occupational Standard



Overview

This NOS covers the skill and knowledge required to work effectively within a team to achieve the desired results.

CON/N8001

Work effectively in a team to deliver desired results at the workplace

National Occupational Standard

Unit Code	CON/N8001
Unit Title (Task)	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	<p>The scope covers the following:</p> <ul style="list-style-type: none"> 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
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Interact and communicate in effective and conclusive manner	<p>To be competent, the user / individual on the job must be able to:</p> <p>PC1. pass on work related information/ requirement clearly to the team members</p> <p>PC2. inform co-workers and superiors about any kind of deviations from work</p> <p>PC3. address the problems effectively and report if required to immediate supervisor appropriately</p> <p>PC4. receive instructions clearly from superiors and respond effectively on the same</p> <p>PC5. communicate to team members/subordinates for appropriate work technique and method</p> <p>PC6. seek clarification and advice as per the requirement and applicability</p>
Support co-workers to execute project requirements	<p>PC7. hand over the required material, tools tackles, equipment and work fronts timely to interfacing teams</p> <p>PC8. work together with co-workers in a synchronized manner</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. own roles and responsibilities</p> <p>KA2. importance of effective communication and establishing strong working relationships with co-workers</p> <p>KA3. risks of a failure in teamwork in terms of effects on project outcomes, timelines, safety at the construction site, etc.</p> <p>KA4. different modes of communication, and its appropriate usage</p> <p>KA5. importance of creating healthy and cooperative work environment among the gangs of workers</p>

CON/N8001

Work effectively in a team to deliver desired results at the workplace

B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. different activities within his work area where an interaction with other workers is required</p> <p>KB2. applicable techniques of work, properties of materials used, tools and tackles used, safety standards that co-workers might need as per the requirement</p> <p>KB3. 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</p> <p>KB4. importance and need of supporting co-workers facing problems for smooth functioning of work</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. write in one or more languages, preferably in the local language of the site</p>
	Reading Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA2. read in one or more languages, preferably in the local language of the site</p> <p>SA3. read communication from team members regarding work completed, materials used, tools and tackles used, support required</p>
	Oral Communication (Listening and Speaking skills)
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA4. speak in one or more languages, preferably in one of the local languages of the site</p> <p>SA5. listen and follow instructions / communication shared by superiors/ co-workers regarding team requirements or interfaces during work processes</p> <p>SA6. orally communicate with co-workers regarding support required to complete the respective work</p>
B. Professional Skills	Decision Making
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. decide on what information is to be shared with co-workers within the team or from interfacing gang of workers</p>
	Plan and Organise

CON/N8001

Work effectively in a team to deliver desired results at the workplace

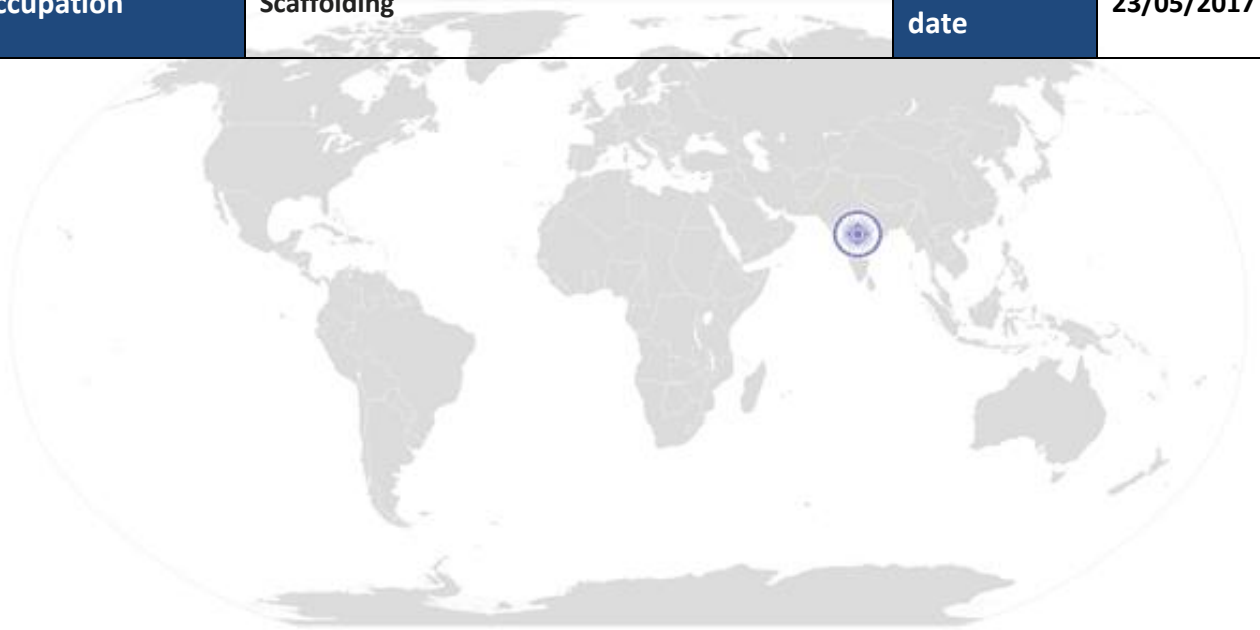
	The user/individual on the job needs to know and understand how to: SB2. plan work and organize required resources in coordination with team members
	Customer centricity
	The user/individual on the job needs to know and understand how to: SB3. complete all assigned task in coordination with team members
	Problem solving
	The user/individual on the job needs to know and understand how to: SB4. take initiative in resolving issues among co-workers or report the same to superiors
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB5. ensure best ways of coordination among team members SB6. communicate with co-workers considering their educational / social background
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB7. evaluate the complexity of task and determine if any guidance is required from superiors

CON/N8001

Work effectively in a team to deliver desired results at the workplace

NOS Version Control

NOS Code	CON/N8001		
Credits (NSQF)	TBD	Version number	1.0
Industry	Construction	Drafted on	07/05/2015
Industry Sub-sector	Real Estate and Infrastructure and Construction	Last reviewed on	23/05/2015
Occupation	Scaffolding	Next review date	23/05/2017



National Occupational Standard



Overview

This NOS covers the skills and knowledge required to plan and organize work in order to meet expected quality in established time frame.

CON/N8002

Plan and organize work to meet expected outcomes

National Occupational Standard

Unit Code	CON/N8002
Unit Title (Task)	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	<p>This scope covers the following:</p> <ul style="list-style-type: none"> • Prioritize work activities to achieve desired results • Organize desired resources prior to commencement of work
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Prioritize work activities to achieve desired results	<p>To be competent, the user / individual on the job must be able to:</p> <p>PC1. understand clearly the targets and timelines set by superiors</p> <p>PC2. plan activities as per schedule and sequence</p> <p>PC3. provide guidance to the subordinates to obtain desired outcome</p> <p>PC4. plan housekeeping activities prior to and post completion of work</p>
Organize desired resources prior to commencement of work	<p>PC5. list and arrange required resources prior to commencement of work</p> <p>PC6. select and employ correct tools, tackles and equipment for completion of desired work</p> <p>PC7. complete the work with allocated resources</p> <p>PC8. engage allocated manpower in an appropriate manner</p> <p>PC9. use resources in an optimum manner to avoid any unnecessary wastage</p> <p>PC10. employ tools, tackles and equipment with care to avoid damage to the same</p> <p>PC11. organize work output, materials used, tools and tackles deployed,</p> <p>PC12. processes adopted to be in line with the specified standards and instructions</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. importance of proper housekeeping</p> <p>KA2. policies, procedures and work targets set by superiors</p> <p>KA3. roles and responsibilities in executing the work for subordinates and self</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. standard practices of work to be adopted for assigned task</p> <p>KB2. how to use available resources in a judicious and appropriate manner to minimize wastages or damage</p>

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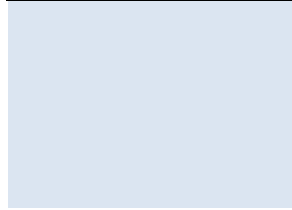
Plan and organize work to meet expected outcomes

Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: SA1. write in one or more language, preferably in the local language of the site SA1. list out the assigned works and targets
	Reading Skills
	The user/ individual on the job needs to know and understand how to: SA2. read in one or more language, preferably in the local language of the site SA3. read communication from co-workers, superiors and notices from other departments as per requirement of the level
	Oral Communication (Listening and Speaking skills)
	The user/ individual on the job needs to know and understand how to: SA4. speak in one or more language, preferably in one of the local language of the site SA5. listen and follow communication shared by co-workers regarding standard work processes, resources available, timelines, etc. SA6. communicate effectively with co-workers and subordinates
B. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how to: SB1. decide on what sequence is to be adopted for execution of work
	Plan and Organise
	The user/individual on the job needs to know and understand how to: SB2. plan and organize the materials, tools, tackles and equipment required to execute the work
	Customer centricity
	The user/individual on the job needs to know and understand how to: SB3. complete all assigned task with proper planning and organizing
	Problem solving
	The user/individual on the job needs to know and understand how to: SB4. arrange or seek help to arrange for material, tools and tackles in case of shortfall
	Analytical Thinking

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Plan and organize work to meet expected outcomes

	The user/individual on the job needs to know and understand how to: SB5. analyze areas of work which could result in a delay of work, wastage of material or damage to tools and tackles
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB6. evaluate potential solutions to minimize avoidable delays and wastages at the construction site

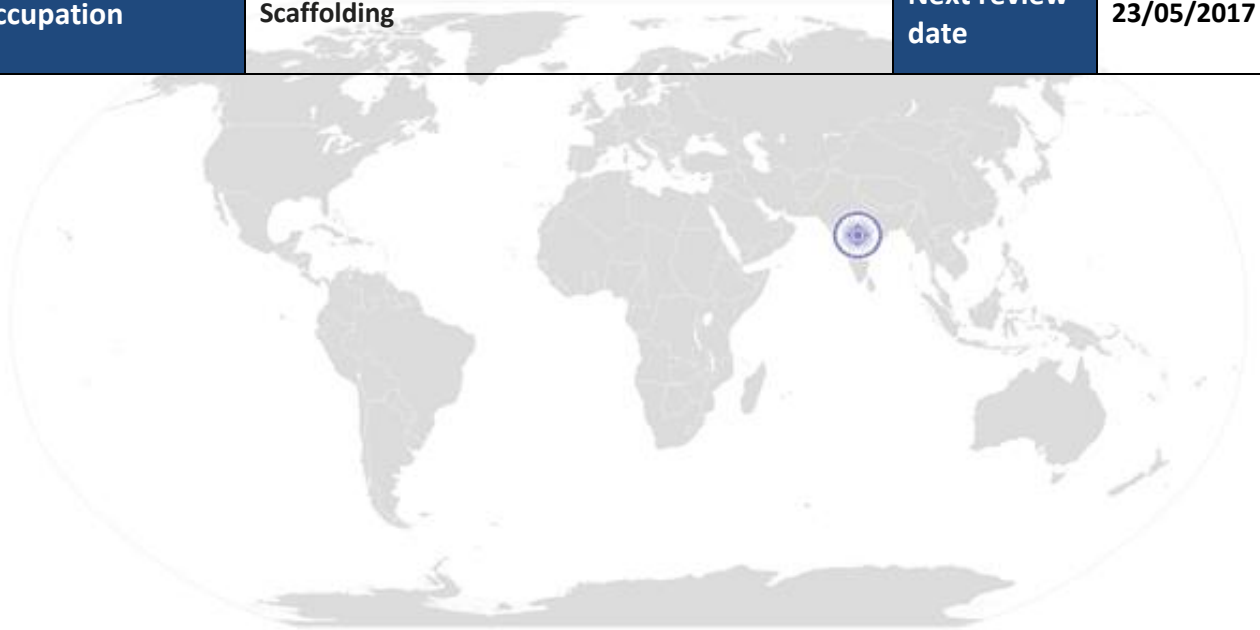


CON/N8002

Plan and organize work to meet expected outcomes

NOS Version Control

NOS Code	CON/N8002		
Credits (NSQF)	TBD	Version number	1.0
Industry	Construction	Drafted on	07/05/2015
Industry Sub-sector	Real Estate and Infrastructure and Construction	Last reviewed on	23/05/2015
Occupation	Scaffolding	Next review date	23/05/2017



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

National Occupational Standard



Overview

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

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

National Occupational Standard

Unit Code	CON/N9001
Unit Title (Task)	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	<p>The scope covers the following:</p> <ul style="list-style-type: none"> Follow safety norms as defined by organization Adopt healthy & safe work practices Implement good housekeeping and environment protection process and activities
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Follow safety norms as defined by organization	<p>To be competent, the user / individual on the job must be able to:</p> <p>PC1. identify and report any hazards, risks or breaches in site safety to the appropriate authority</p> <p>PC2. follow emergency and evacuation procedures in case of accidents, fires, natural calamities</p> <p>PC3. follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable</p> <p>PC4. participate in safety awareness programs like Tool Box Talks, safety demonstrations, mock drills, conducted at site</p> <p>PC5. identify near miss , unsafe condition and unsafe act</p>
Adopt healthy & safe work practices	<p>PC6. use appropriate Personal Protective Equipment (PPE) as per work requirements including:</p> <ul style="list-style-type: none"> Head Protection (Helmets) Ear protection Fall Protection Foot Protection Face and Eye Protection, Hand and Body Protection Respiratory Protection (if required) <p>PC7. handle all required tools, tackles , materials & equipment safely</p> <p>PC8. follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines</p> <p>PC9. install and apply properly all safety equipment as instructed</p> <p>PC10. follow safety protocol and practices as laid down by site EHS department</p>

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Implement good housekeeping practices	<p>PC11. collect and deposit construction waste into identified containers before disposal, separate containers that may be needed for disposal of toxic or hazardous wastes</p> <p>PC12. apply ergonomic principles wherever required</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. reporting procedures in cases of breaches or hazards for site safety, accidents, and emergency situations as per guidelines</p> <p>KA2. types of safety hazards at construction sites</p> <p>KA3. basic ergonomic principles as per applicability</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. the procedure for responding to accidents and other emergencies at site</p> <p>KB2. appropriate personal protective equipment to used based on various working conditions</p> <p>KB3. importance of handling tools, equipment and materials as per applicable</p> <p>KB4. health and environments effect of construction materials as per applicability</p> <p>KB5. various environmental protection methods as per applicability</p> <p>KB6. storage of waste including the following at appropriate location:</p> <ul style="list-style-type: none"> • non-combustible scrap material and debris • combustible scrap material and debris • general construction waste and trash (non-toxic, non-hazardous) • any other hazardous wastes • any other flammable wastes <p>KB7. how to use hazardous material, in a safe and appropriate manner as per applicability</p> <p>KB8. safety relevant to tools, tackles, & requirement as per applicability</p> <p>KB9. housekeeping activities relevant to task</p>
Skills (S)	
A. Core Skills/ Generic Skills	Writing Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA2. write in one or more language, preferably in the local language of the site</p> <p>SA3. fill safety formats for near miss, unsafe conditions and safety suggestions</p>
	Reading Skills
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA4. read in one or more language, preferably in the local language of the site</p> <p>SA5. read sign boards, notice boards relevant to safety</p>

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B. Professional Skills	Oral Communication (Listening and Speaking skills)
	The user/ individual on the job needs to know and understand how to:
	SA6. speak in one or more language, preferably in one of the local language of the site
	SA7. listen instructions / communication shared by site EHS and superiors regarding site safety, and conducting tool box talk
	SA8. communicate reporting of site conditions, hazards, accidents, etc.
	Decision Making
	The user/individual on the job needs to know and understand how to:
	SB1. not create unsafe conditions for others
	SB2. keep the workplace clean and tidy
	Plan and Organise
	SB3. N.A
	Customer centricity
	SB4. N.A
	Problem solving
	The user/individual on the job needs to know and understand how to:
	SB5. 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
	Analytical Thinking
	The user/individual on the job needs to know and understand how to:
	SB6. assess and analyze areas which may affect health, safety and environment protocol on the site
	Critical Thinking
	The user/individual on the job needs to know and understand how to:
	SB7. ensure personal safety behavior
	SB8. respond to emergency

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

NOS Code	CON/N9001		
Credits (NSQF)	TBD	Version number	1.0
Industry	Construction	Drafted on	07/05/2015
Industry Sub-sector	Real Estate and Infrastructure and Construction	Last reviewed on	23/05/2015
Occupation	Scaffolding	Next review date	23/05/2017



Assessment Criteria for Chargehand Scaffolding System

CRITERIA FOR ASSESSMENT OF TRAINEES

<u>Job Role</u>	Chargehand Scaffolding System
<u>Qualification Pack</u>	CON/Q0307
<u>Sector Skill Council</u>	Construction

Guidelines for Assessment

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.
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 timeframe set by SSC.
10. Minimum duration of Assessment of each QP shall be of 4hrs/trainee.

				Marks Allocation	
Assessment outcomes	Assessment Criteria for outcomes	Total Mark	Out Of	Theory	Skills Practical
CON/N0358: Erect and dismantle outrigger / cantilever scaffolds	PC1. check and ensure that area around scaffold on ground has been barricaded to ensure safety	100	2	1	1
	PC2. check and ensure that fall protection is in place to ensure safety including guard rails, safety nets, wire mesh, toe boards, etc.		3	1	2
	PC3. read and understand schematic working drawing		4	2	2
	PC4. calculate the number of components required from the drawing		3	1	2
	PC5. understand the fixing and support process for scaffold		4	1	3

Assessment Criteria for Chargehand Scaffolding System

	PC6. use right components and follow erection procedure as per work method statement with respect to the types of scaffolds		6	1	5
	PC7. check verticality of scaffold at first level of erection and correct (if required) before moving to the next level		2	1	1
	PC8. check rigidity and stability of scaffold		3	1	2
	PC9. ensure outrigger beams do not extend beyond prescribed length from face of structure		4	1	7
	PC10. ensure beam is securely braced to avoid tipping and movement		4		
	PC11. ensure that in-board and out-board ends of the outrigger beams are of required length		2	1	4
	PC12. ensure that in-board ends of beams are securely anchored or braced		3		
	PC13. ensure that entire supporting structure is securely braced to prevent any horizontal movement		3	1	2
	PC14. ensure that base of scaffold is erected as per requirements and in a safe manner		2	1	1
	PC15. complete work within the allocated time with quality and safety		3	1	2
	PC16. report to superior for completion of work & for checking of scaffolding, do any rework as suggested by engineer in charge or superior, and get it approved		2	1	1
	PC17. ensure standard procedures are followed for dismantling of outrigger /cantilever scaffolds		20	6	14
	PC18. check for rigidity and stability of scaffold before dismantling and maintain during dismantling		8	3	5
	PC19. ensure scaffolds are dismantled using proper tools & tackles		5	2	3
	PC20. lower scaffold material in a safe manner, manually or by using mechanical devices		5	2	3
	PC21. ensure that all the fixtures and small components are staked properly for further use		6	1	5
	PC22. clean and store scaffold components for further use		6	1	5
		Total	100	30	70
CON/N0359: Erect and dismantle scaffolds for complex structure and at complex location	PC1. check and ensure that area on ground has been provided with rigid barricading to ensure safety	100	2	1	4
	PC2. check and ensure that fall protection is in place to ensure safety including guard rails, safety nets, wire mesh, toe boards, etc. while working at height		3		
	PC3. close all opening in case of erection of scaffold in lift area		3	1	2
	PC4. check compactness of ground by visual / physical check		2	1	1
	PC5. place base plates and sole boards on ground as per marking		2	1	1

Assessment Criteria for Chargehand Scaffolding System

	PC6. select scaffold (pipe & coupler or frame scaffold) on the basis of need and requirement		3	2	6
	PC7. use right components and follow erection procedure as per work method statement with respect to the types of scaffolds		5		
	PC8. erect separate scaffolds with platforms of same height (for large radius curves)		5	1	4
	PC9. check verticality of scaffold at first level of erection and correct (if required) before moving to the next level		2	1	1
	PC10. ensure correct method in case erection of scaffold in confined area or in large opening		3	2	6
	PC11. ensure shifting of scaffold material from ground level to the desired level manually or by using mechanical devices in a safe manner		2		
	PC12. check rigidity and stability of scaffold		3		
	PC13. provide adequate support to the scaffold erected as per standard practice		3	1	5
	PC14. provide and ensure support at every 6 m from permanent structure for high rise structure scaffold		3		
	PC15. ensure height of scaffold erected is within permissible limits and as per instruction		2	1	1
	PC16. fix walk boards, guard rail, toe boards and other components on the walking platform		2	1	1
	PC17. complete work within the allocated time with quality and safety		3	1	2
	PC18. report to superior for completion of work & for checking of scaffold, do any rework as suggested by engineer in charge or superior, and get it approved		2	1	1
	PC19. follow and ensure standards procedure are followed for dismantling of scaffold		20	6	14
	PC20. check for rigidity and stability of scaffold before dismantling and maintain during dismantling		8	3	5
	PC21. remove guard rails, toe boards, walk boards and other components sequentially		4	1	3
	PC22. ensure scaffolds are dismantle using proper tools & tackles		4	1	3
	PC23. lower scaffold material in a safe manner, manually or by using mechanical devices		4	2	2
	PC24. ensure that all the fixtures and small components are staked properly for further use		5	1	4
	PC25. clean and store scaffold components for further use		5	1	4
	Total		100	30	70
CON/N8001: Work effectively	PC1. pass on work related information/ requirement clearly to the team members	100	7	2	5

Assessment Criteria for Chargehand Scaffolding System

in a team to deliver desired results at the workplace	PC2. inform co-workers and superiors about any kind of deviations from work		7	2	5
	PC3. address the problems effectively and report if required to immediate supervisor appropriately		10	3	7
	PC4. receive instructions clearly from superiors and respond effectively on the same		7	2	5
	PC5. communicate to team members/subordinates for appropriate work technique and method		10	3	7
	PC6. seek clarification and advice as per the requirement and applicability		7	2	5
	PC7. hand over the required material, tools tackles, equipment and work fronts timely to interfacing teams		27	8	19
	PC8. work together with co-workers in a synchronized manner		27	8	19
	Total		100	30	70
CON/N8002: Plan and organize work to meet expected outcomes	PC1. understand clearly the targets and timelines set by superiors	100	7	2	5
	PC2. plan activities as per schedule and sequence		7	2	5
	PC3. provide guidance to the subordinates to obtain desired outcome		10	3	7
	PC4. plan housekeeping activities prior to and post completion of work		7	2	5
	PC5. list and arrange required resources prior to commencement of work		10	3	7
	PC6. select and employ correct tools, tackles and equipment for completion of desired work		10	3	7
	PC7. complete the work with allocated resources		10	3	7
	PC8. engage allocated manpower in an appropriate manner		10	3	7
	PC9. use resources in an optimum manner to avoid any unnecessary wastage		10	3	7
	PC10. employ tools, tackles and equipment with care to avoid damage to the same		7	2	5
	PC11. organize work output, materials used, tools and tackles deployed,		7	2	5
	PC12. processes adopted to be in line with the specified standards and instructions		7	2	5
	Total		100	30	70
CON/N9001: Work according to personal health, safety and environment protocol at construction site	PC1. identify and report any hazards, risks or breaches in site safety to the appropriate authority	100	7	2	5
	PC2. follow emergency and evacuation procedures in case of accidents, fires, natural calamities		7	2	5
	PC3. follow recommended safe practices in handling construction materials, including chemical and hazardous material whenever applicable		10	3	7
	PC4. participate in safety awareness programs like Tool Box Talks, safety demonstrations, mock drills, conducted at site		7	2	5

Assessment Criteria for Chargehand Scaffolding System

	PC5. identify near miss , unsafe condition and unsafe act		7	2	5
	PC6. use appropriate Personal Protective Equipment (PPE) as per work requirements including: <ul style="list-style-type: none"> • Head Protection (Helmets) • Ear protection • Fall Protection • Foot Protection • Face and Eye Protection • Hand and Body Protection • Respiratory Protection (if required) 		10	3	7
	PC7. handle all required tools, tackles , materials & equipment safely		7	2	5
	PC8. follow safe disposal of waste, harmful and hazardous materials as per EHS guidelines		7	2	5
	PC9. install and apply properly all safety equipment as instructed		13	4	9
	PC10. follow safety protocol and practices as laid down by site EHS department		13	4	9
	PC11. collect and deposit construction waste into identified containers before disposal, separate containers that may be needed for disposal of toxic or hazardous wastes		7	2	5
	PC12. apply ergonomic principles wherever required		7	2	5
		Total	100	30	70