

QUALIFICATION PACK – OCCUPATIONAL STANDARD FOR INFRASTRUCTURE EQUIPMENT INDUSTRY



Contents

1. Introduction and Contacts..... Page no. 1
2. Qualifications Pack.....Page no.2
3. OS Units.....Page no.2
4. Glossary of Key TermsPage no.3

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

Contact Us:

Infrastructure
Equipment Skill Council

E-mail:

standards@iescindia.com

Ph no: +91 80 4212 6666



Introduction

Qualification Pack - Supervisor (Plant & Machinery)

SECTOR:	INFRASTRUCTURE EQUIPMENT
SUB SECTOR:	Equipment Operations
OCCUPATION:	Managerial & Supervisory - Equipment Operations
REFERENCE ID:	IES/Q0201
ALIGNED TO:	NCO-2004/ NIL

Brief Job Description:The Supervisor (Plant & Machinery) plans and schedules work related to equipment operations, allocates work to team members and guides till completion in line with safety, productivity and quality norms at the worksite. The Supervisor also maintains equipment operations related documentation, anchors interactions with stakeholders and assists the manager with P&M operations related matters to meet organization's objectives and customer's requirements.

Personal Attributes:The job requires the individual to have: attention to details; a sharp mind to spot and correct errors; ability to work for long hours; high level of concentration, analytical ability and team work. He should also be physically agile, strong, have good eye sight and cognitive reasoning.

Job Details	Qualifications Pack Code	IES/Q0201		
	Job Role	Supervisor (Plant & Machinery)		
	Credits(NSQF)	TBD	Version number	1.0
	Sector	Infrastructure Equipment	Drafted on	16/02/15
	Sub-sector	Equipment Operations	Last reviewed on	31/03/15
	Occupation	Managerial & Supervisory - Equipment Operations	Next review date	31/03/17

Job Role	Supervisor (Plant & Machinery)
Role Description	The Supervisor (Plant & Machinery) plans and schedules work related to equipment operations, allocates work to team members and guides till completion in line with safety, productivity and quality norms at the worksite. The Supervisor also maintains equipment operations related documentation, anchors interactions with stakeholders and assists the manager with P&M operations related matters to meet organization's objectives and customer's requirements.
NSQF level	7
Minimum Educational Qualifications*	Preferably Diploma in Mechanical/ Automobile Engineering
Maximum Educational Qualifications*	Bachelor's Degree in Mechanical/ Automobile Engineering
Training (Suggested but not mandatory)	Quality Systems, Project management, P&M Machine Maintenance related courses by OEMs
Experience	At least 8 years of experience in equipment operations (in case of non-degree / diploma education) At least 3 years of experience in supervision of equipment operations (in case of relevant Diploma/ Degree)
Applicable National Occupational Standards (NOS)	Compulsory <ol style="list-style-type: none"> IES/N0201Plan and supervise equipment operations IES/N0201Manage equipment operations related stakeholders IES/N0203Comply with worksite safety and quality standards IES/N7601Comply with worksite health and safety guidelines Optional: N.A.
Performance Criteria	As described in the relevant OS units

Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses 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.
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of OS.
Sub-functions	Sub-functions are sub-activities essential to fulfil achieving the objectives of the function.
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; he/she needs to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria	Performance Criteria 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 Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
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 Qualifications Pack is assigned a unique qualification 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 find the required one.
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 required performance.
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 up to the required standard.

Acronyms	Keywords /Terms	Description
	OS	Occupational Standard(s)
	NOS	National Occupational Standard(s)
	QP	Qualifications Pack
	NSQF	National Skill Qualifications Framework
	ITI	Industrial Training Institute
	HCV	Heavy Commercial Vehicle
	SHE	Safety Health and Environment
	SOP	Standard Operating Procedure
	TBD	To Be Determined
	MTTR	Mean Time To Repair
MTBF	Mean time between failures	

National Occupational Standard



Overview

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Abilities for carrying out planning and supervising equipment operations at the worksite

IES/N0201

Plan and supervise equipment operations

Unit Code	IES/N0201
Unit Title (Task)	Plan and supervise equipment operations
Description	This unit provides Performance Criteria, Knowledge & Understanding and Skills & Abilities for carrying out planning and supervising equipment operations at the worksite
Scope	This unit/task covers the following: <ul style="list-style-type: none"> Planning and supervision of equipment operations
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Planning and supervision of equipment operations	To be competent, the user/individual on the job must be able to: <p>PC1. Plan and schedule equipment operations in accordance with organization, SHE and worksite guidelines and procedures</p> <p>PC2. Plan and align equipment and resources required as per the task</p> <p>PC3. Select the equipment as per the project requirements</p> <p>PC4. Allocate the schedule of operators and other P&M support personnel as per the project requirements</p> <p>PC5. Appropriately allocate work to subordinate team-mates as per their experience/ skill levels</p> <p>PC6. Train and brief them on the work allotted</p> <p>PC7. Communicate job expectations, based on task and site conditions, clearly to the team-mates</p> <p>PC8. Monitor and supervise operations on an ongoing basis to meet project requirements</p> <p>PC9. Carry out appraisals and training of the team-mates at regular intervals</p> <p>PC10. Adhere to organization and worksite level policies/ procedures during operations</p> <p>PC11. Adhere to relevant quality processes/ standards during operations</p> <p>PC12. Complete role related documentation and reporting</p> <p>PC13. Resolve process level issues or queries based on interactions with other stakeholders and supervisors</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: <p>KA1. Organization and worksite related guidelines/ procedures related to equipment operations</p> <p>KA2. Expectations and responsibilities of the job role</p> <p>KA3. Details of the various job roles and responsibilities</p> <p>KA4. Responsibilities and line of reporting within the work area</p> <p>KA5. Method of obtaining/ giving feedback related to performance</p> <p>KA6. SHE policy of the company</p> <p>KA7. Quality standards like ISO applicable to equipment operations</p> <p>KA8. Risk and impact of not following defined procedures/ work instructions</p> <p>KA9. Implications of delays in process to the company</p> <p>KA10. Communication network/ channels followed by the organization</p> <p>KA11. Documentation and reporting protocol and formats</p>

National Occupational Standards

IES/N0201

Plan and supervise equipment operations

<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. The various kinds of infrastructure equipment and their uses</p> <p>KB2. Methods of estimation of manpower requirement</p> <p>KB3. The method to select the appropriate personnel for different types of projects</p> <p>KB4. Skill matrix/ other guidelines and method of classifying available personnel</p> <p>KB5. The process of clear communication and job allocation</p> <p>KB6. Various training and up-skilling interventions</p> <p>KB7. The procedure for monitoring employee performance</p> <p>KB8. The process of appraisal and its importance</p> <p>KB9. Process of maintaining operations related documentation</p> <p>KB10. Different communication channels / network for issue/ query resolution</p>
<p>Skills (S)</p>	
<p>A. Core Skills / Generic Skills</p>	<p>Writing Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Record any deviations/ incidents as per prescribed norms</p> <p>Reading Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA2. Read and comprehend basic English to read manuals of operations</p> <p>SA3. Read instructions, guidelines/procedures/rules related to the worksite and equipment operations</p> <p>Oral Communication (Listening and Speaking Skills)</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA4. Give clear instructions to co-workers, subordinates and other personnel</p>
<p>B. Professional Skills</p>	<p>Decision Making</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SB1. Make appropriate decisions pertaining to the concerned area of work with respect to intended work objective, span of authority, responsibility, laid down procedure and guidelines</p> <p>Plan and Organize</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SB2. Work with supervisors/ team mates to carry out work related tasks</p> <p>SB3. Plan work according to the required schedule and location</p> <p>Customer Centricity</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SB4. Ensure all customer needs are assessed and every effort is made to provide satisfactory service</p> <p>SB5. Ensure all routine customer requests are effectively allocated</p> <p>Problem Solving</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SB6. Refer problems outside area of responsibility to appropriate person</p> <p>Analytical Thinking</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SB7. Assess the resource requirement to accomplish the task with in</p>

National Occupational Standards

IES/N0201

Plan and supervise equipment operations

	schedule
	Critical Thinking
	The user/ individual on the job needs to know and understand how to: SB8. Analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently

NOS Version Control

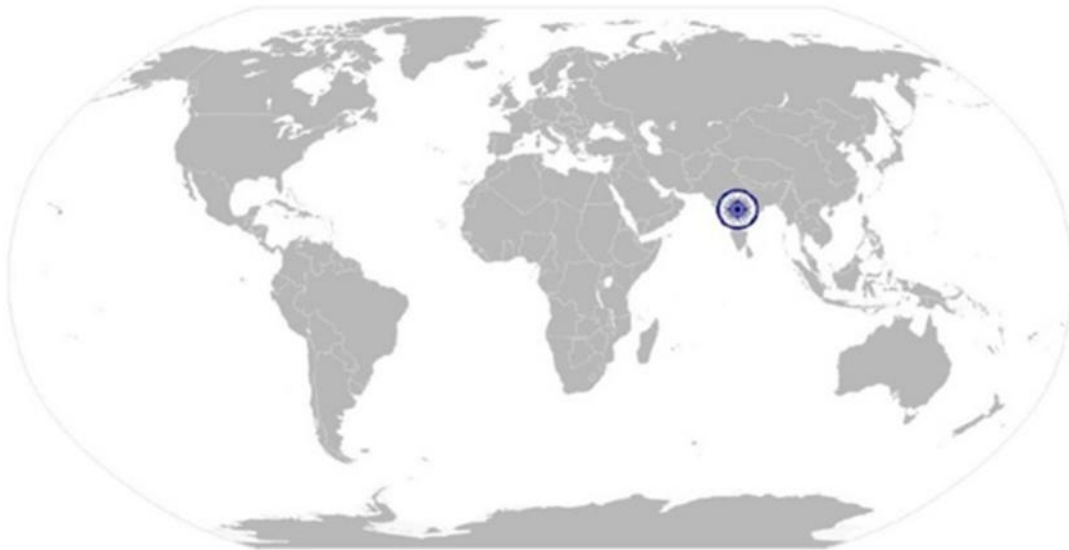
NOS Code	IES/N0201		
Credits(NSQF)	TBD	Version number	1.0
Sector	Infrastructure Equipment	Drafted on	16/02/15
Industry Sub-sector	Equipment Operations	Last reviewed on	31/03/15
Occupation	Managerial & Supervisory - Equipment Operations	Next review date	31/03/17

[Back To Top](#)

IES/N0201

Manage equipment operations related stakeholders

National Occupational Standard



Overview

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Abilities for interacting and coordinating with various stakeholders during equipment operations.

IES/N0201

Manage equipment operations related stakeholders

National Occupational Standard

Unit Code	IES/N0201
Unit Title (Task)	Manage equipment operations related stakeholders
Description	This unit provides Performance Criteria, Knowledge & Understanding and Skills & Abilities for interacting and coordinating with various stakeholders during equipment operations.
Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Interaction with stakeholders • Assistance in sub-contractor management
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Interaction with stakeholders	To be competent, the user/individual on the job must be able to: <p>PC1. Receive work instructions and feedback from reporting manager or other senior construction team personnel at the work site</p> <p>PC2. Carry out work related activities in compliance with instructions and worksite requirements</p> <p>PC3. Analyze and present operations data like MTBF, MTTR, productivity analysis, cost to company etc on a periodic basis</p> <p>PC4. Generate system based requests for spares and consumables</p> <p>PC5. Report and to manager and other stakeholders periodically on equipment operations</p> <p>PC6. Keep stakeholders informed about repairs and maintenance of tools and machinery as required</p> <p>PC7. Assist the P&M manager in finalizing process-flow and resource level improvements</p> <p>PC8. Assist the P&M manager in providing alternative economical but productive and safe alternatives from an operations perspective</p> <p>PC9. Communicate to manager about employee management, i.e., shortages or performance related</p> <p>PC10. Communicate any potential hazards or expected process disruptions</p> <p>PC11. Plan for re-work based on feedback provided by manager/ other stakeholders</p>
Assistance in sub-contractor management	PC12. Provide correct and reliable feedback on equipment and personnel to the P&M manager
	PC13. Assist the P&M Manager to estimate the potential equipment/ manpower requirements from sub-contractors
	PC14. Assist in the evaluation of sub-contractors as per the equipment required
	PC15. Validate the submission of sub-contractor related documentation and work sheets as per company policy
	PC16. Supervise sub-contractor personnel in order to get optimum work performance
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the	The user/individual on the job needs to know and understand: <p>KA1. Expectations and responsibilities of the job roles (self and team)</p> <p>KA2. Details of the various job roles and responsibilities in various teams at</p>

IES/N0201

Manage equipment operations related stakeholders

<p>company / organization and its processes)</p>	<p>the worksite KA3. Responsibilities and line of reporting within the work area KA4. Escalation matrix for reporting identified problems KA5. The organization's rules, guidelines and standards KA6. Method of obtaining/ giving feedback related to performance KA7. Organizational policies and procedures KA8. SHE policy, quality policy and other worksite requirements KA9. Documentation and reporting requirements at the organization and worksite related to equipment operations</p>
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand: KB1. The various infrastructure equipment and their uses KB2. Equipment history sheet / professional engineering checklist KB3. Usage, capacity and functionality of various equipment KB4. Types and methods of computing operations data (MTBF, MTTR, productivity analysis, cost to company) KB5. Different spares and consumables required for operations KB6. Inventory levels and reordering patterns for common spares and consumables KB7. Repair and maintenance schedule for tools and equipment KB8. The method to evaluate and select sub-contractors KB9. Documentation and reporting formats/ protocols for sub-contractors KB10. Process and documentation related to evaluation of the performance of the subcontractor personnel</p>
<p>Skills (S)</p>	
<p>A. Core Skills / Generic Skills</p>	<p>Writing Skills The user/ individual on the job needs to know and understand how to: SA1. Record any deviations/ incidents as per prescribed norms</p> <p>Reading Skills The user/ individual on the job needs to know and understand how to: SA2. Read and comprehend basic English to read manuals of operations SA3. Read instructions, guidelines/procedures/rules related to the worksite and equipment operations</p> <p>Oral Communication (Listening and Speaking Skills) The user/ individual on the job needs to know and understand how to: SA4. Give clear instructions to co-workers, subordinates and other personnel</p>
<p>B. Professional Skills</p>	<p>Decision Making The user/ individual on the job needs to know and understand how to: SB1. Think through the problem, evaluate the possible solution(s) and suggest an optimum /best possible solution(s)</p> <p>Plan and Organize The user/ individual on the job needs to know and understand how to: SB2. Work with supervisors/ team mates to carry out work related tasks SB3. Plan work according to the required schedule and location</p> <p>Customer Centricity The user/ individual on the job needs to know and understand how to: SB4. Ensure all customer needs are assessed and every effort is made to</p>

IES/N0201

Manage equipment operations related stakeholders

	provide satisfactory service SB5. Ensure all customer requests are effectively allocated
	Problem Solving
	The user/ individual on the job needs to know and understand how to: SB6. Develop, implement and evaluate solutions to problems
	Analytical Thinking
	The user/ individual on the job needs to know and understand how to: SB7. Assess any expected process disruptions
	Critical Thinking
	The user/ individual on the job needs to know and understand how to: SB8. Analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently

NOS Version Control

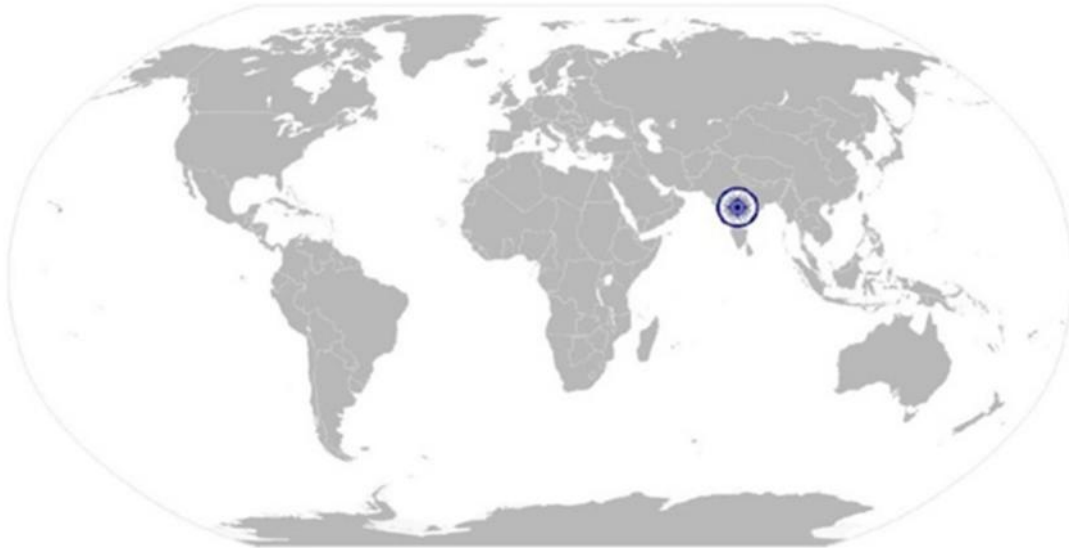
NOS Code	IES/N0201		
Credits(NSQF)	TBD	Version number	1.0
Sector	Infrastructure Equipment	Drafted on	16/02/15
Industry Sub-sector	Equipment Operations	Last reviewed on	31/03/15
Occupation	Managerial & Supervisory - Equipment Operations	Next review date	31/03/17

[Back To Top](#)

IES/N0203

Comply with worksite safety and quality standards

National Occupational Standard



Overview

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Abilities for ensuring the performance of equipment operations as per quality and project management standards at the worksite.

IES/N0203

Comply with worksite safety and quality standards

National Occupational Standard

Unit Code	IES/N0203
Unit Title (Task)	Comply with worksite safety and quality standards
Description	This unit provides Performance Criteria, Knowledge & Understanding and Skills & Abilities for ensuring the performance of equipment operations as per quality and project management standards at the worksite.
Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Worksite SHE and quality standards
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Worksite SHE and quality standards	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Comply with all organizational guidelines, SHE policy and quality standards during equipment operations</p> <p>PC2. Supervise the enforcement of all HSE related guidelines in equipment operations</p> <p>PC3. Plan procurement and provide safety gear and other equipment required to personnel for safe and productive operations.</p> <p>PC4. Carry out fire/ other disaster recovery drills on work site along with the HSE team</p> <p>PC5. Inspect fire extinguishers and other machine equipment for validity and plan procurement/ renewal for necessary equipment</p> <p>PC6. Carry out periodic walk-throughs to ensure that the worksite and workshop areas are clean and free from hazards as per the Safety, Health and Environmental policy/ guidelines</p> <p>PC7. Supervise the handling and disposal of waste based on environmental guidelines at the work place</p> <p>PC8. Participate, as required, in the investigation of near misses, accidents and incidents at the work site with the SHE and project management teams.</p> <p>PC9. Assist in gathering data and complete documentation related to accidents/ incidents and share with concerned personnel</p> <p>PC10. Assist with checking the project management plan to ensure operations are as per the quality and productivity specifications outlined</p> <p>PC11. Carry out routine random checks and inspections to keep a check on the quality of work carried out</p> <p>PC12. Inspect damage to equipment and suggest rectification as per the work protocol and quality standards</p> <p>PC13. Give feedback to team and stakeholders on the quality and productivity at the worksite on the continuous basis</p> <p>PC14. Carry out role related documentation and reporting</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company /	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. Organizational policies and procedures, Safety Policy and Quality standards documents</p> <p>KA2. Details of the various job roles and responsibilities within the worksite</p>

IES/N0203

Comply with worksite safety and quality standards

<p>organization and its processes)</p>	<p>KA3. Responsibilities and line of reporting within the work area KA4. Escalation matrix for reporting identified problems KA5. Contact details of the procurement team and process for procurement of equipment, spares and consumables KA6. Schedule and process for fire/ other disaster recovery drills KA7. Inspection and certification plan for equipment KA8. Rectification process and approval for damaged equipment KA9. Implications of delays in procurement process to the company KA10. Risk and impact of not following defined procedures/ work instructions KA11. Accident investigative procedure and documentation KA12. Production plan for the worksite and site productivity levels KA13. Documentation formats and process for SHE and quality</p>
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand: KB1. Different SHE related processes to be carried out during operations KB2. Methods to enforce SHE policy guidelines in operations KB3. Safety risks and hazards at worksite and means to mitigate these KB4. Types and methods of disaster recovery drills KB5. Various techniques to carry out quality checks on operations KB6. Methods of disposal of hazardous waste KB7. Types of equipment damage and the effects on quality</p>
<p>Skills (S)</p>	
<p>A. Core Skills / Generic Skills</p>	<p>Writing Skills The user/ individual on the job needs to know and understand how to: SA1. Record any deviations/ incidents as per prescribed norms</p> <p>Reading Skills The user/ individual on the job needs to know and understand how to: SA2. Read and comprehend basic English to read manuals of operations SA3. Read instructions, guidelines/procedures/rules related to the worksite and equipment operations</p> <p>Oral Communication (Listening and Speaking Skills) The user/ individual on the job needs to know and understand how to: SA4. Give clear instructions to co-workers, subordinates and other personnel</p>
<p>B. Professional Skills</p>	<p>Decision Making The user/ individual on the job needs to know and understand how to: SB1. Make appropriate decisions pertaining to the concerned area of work with respect to intended work objective, span of authority, responsibility, laid down procedure and guidelines</p> <p>Plan and Organize The user/ individual on the job needs to know and understand how to: SB2. Work with supervisors/ team mates to carry out work related tasks SB3. Plan work according to the required schedule and location SB4. Plan for regular maintenance on a daily basis before machine operations</p> <p>Customer Centricity The user/ individual on the job needs to know and understand how to: SB5. Ensure all customer needs are assessed and every effort is made to</p>

IES/N0203

Comply with worksite safety and quality standards

	provide satisfactory service SB6. Ensure all customer requests are effectively allocated
	Problem Solving
	The user/ individual on the job needs to know and understand how to: SB7. Identify immediate or temporary solutions to resolve issues
	Analytical Thinking
	The user/ individual on the job needs to know and understand how to: SB8. Evaluate the criticality of any damage to the plant and machinery and take appropriate action
	Critical Thinking
	The user/ individual on the job needs to know and understand how to: SB9. Analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently

NOS Version Control

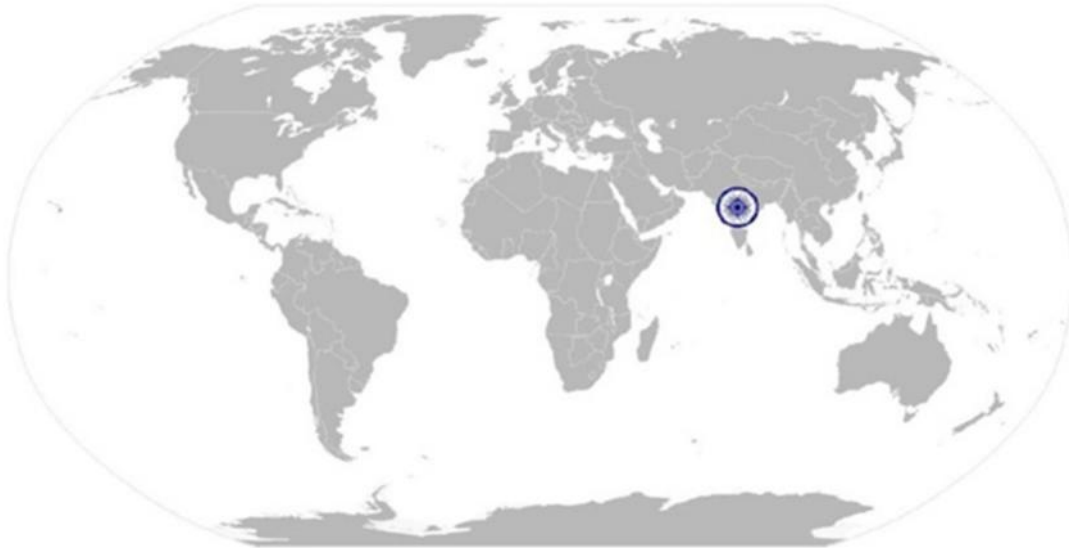
NOS Code	IES/N0203		
Credits(NSQF)	TBD	Version number	1.0
Sector	Infrastructure Equipment	Drafted on	16/02/15
Industry Sub-sector	Equipment Operations	Last reviewed on	31/03/15
Occupation	Managerial & Supervisory - Equipment Operations	Next review date	31/03/17

[Back To Top](#)

IES/N7601

Comply with worksite health and safety guidelines

National Occupational Standard



Overview

This unit is about adhering to health and safety requirements at the worksite during equipment operations.

IES/N7601

Comply with worksite health and safety guidelines

Unit Code	IES/N7601
Unit Title (Task)	Comply with worksite health and safety guidelines
Description	This unit is about adhering to health and safety requirements at the worksite during equipment operations.
Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Worksite health and safety
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Worksite health and safety	To be competent, the user/individual on the job must be able to: <p>PC1. Comply with safety, health, security and environment related regulations/ guidelines at the work site</p> <p>PC2. Use Personal Protective Equipment (PPE) and other safety gear such as seat belt, body protection, respiratory protection, eye protection, ear protection and hand protection</p> <p>PC3. Follow safety measures during operations to ensure that the health and safety of self or others (including members of the public) is not at risk</p> <p>PC4. Carry out operations as per the manufacturer's and worksite related health and safety guidelines</p> <p>PC5. Handle the transport, storage and disposal of hazardous materials and waste in compliance with worksite health, safety and environmental guidelines</p> <p>PC6. Follow safety regulations and procedures with regard to worksite hazards and risks</p> <p>PC7. Operate various grades of fire extinguishers, as applicable</p> <p>PC8. Support in administering basic first aid and report to concerned team members, as required, in case of an accident</p> <p>PC9. Respond promptly and appropriately to an accident/ incident or emergency situation, within limits of your role and responsibility</p> <p>PC10. Record and report details related to operations, incidents or accidents, as applicable</p>
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: <p>KA1. Health, safety, environmental(HSE) and security related policies/ guidelines of the organization and the worksite</p> <p>KA2. The importance of complying with health, safety, environmental and security guidelines at the worksite and during operations</p> <p>KA3. Contact details of personnel responsible for Health, Safety and environment (HSE) related matters</p> <p>KA4. Location of worksite storage, SHE team and safe assembly points</p> <p>KA5. Concerned personnel to reach out in case of emergencies and accidents/ incidents</p> <p>KA6. Reporting and documentation procedures for HSE and security matters</p>
B. Technical Knowledge	The user/individual on the job needs to know and understand: <p>KB1. Manufacturer's guidelines related to health and safety requirements</p>

IES/N7601

Comply with worksite health and safety guidelines

	<p>KB2. Common types of health, safety, environment and security risks related to the worksite and operations</p> <p>KB3. Types, use and importance of Personal Protective Equipment (PPE) and other safety gear</p> <p>KB4. Safe working practices to avoid common hazards and risks</p> <p>KB5. Guidelines for transport, storage and disposal of hazardous materials and waste</p> <p>KB6. Types of common hazards and risks at the worksite including fire, electrical, gas emergencies, accidents, incidents, structure collapse, machine breakdown</p> <p>KB7. Knowledge of safe lockdown/ stop of machinery use in case of emergencies and incidents/ accidents</p> <p>KB8. Types of fire extinguishers and their use</p> <p>KB9. Common injuries and appropriate basic first aid treatment eg. electrical shock, bleeding, wounds, fractures, minor burns, eye injuries</p>
Skills (S)	
A. Core Skills / Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: SA1. Document and report any health and safety related incidents/ accidents
	Reading Skills
	The user/ individual on the job needs to know and understand how to: SA2. Read and comprehend basic English to read manuals of operations SA3. Read all organizational and equipment related health and safety manuals and documents
	Oral Communication (Listening and Speaking Skills)
The user/ individual on the job needs to know and understand how to: SA4. Give clear instructions to co-workers, subordinates and other personnel	
B. Professional Skills	Decision Making
	The user/ individual on the job needs to know and understand how to: SB1. Make an appropriate timely decision in responding to emergencies/accidents in line with organizational/ worksite guidelines SB2. Use correct PPE and other safety gear while at the worksite
	Plan and Organize
	The user/ individual on the job needs to know and understand how to: SB3. Work with supervisors/ team mates to carry out work related tasks SB4. Plan work according to the required schedule and location
	Customer Centricity
	The user/ individual on the job needs to know and understand how to: SB5. Build and maintain positive and effective relationships with colleagues and customers
	Problem Solving
	The user/ individual on the job needs to know and understand how to: SB6. Seek appropriate assistance from other sources to resolve problems
Analytical Thinking	
The user/ individual on the job needs to know and understand how to:	

IES/N7601

Comply with worksite health and safety guidelines

	SB7. Assess the intensity of the fire accident and operate fire extinguishers
	Critical Thinking
	The user/ individual on the job needs to know and understand how to: SB8. Analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently

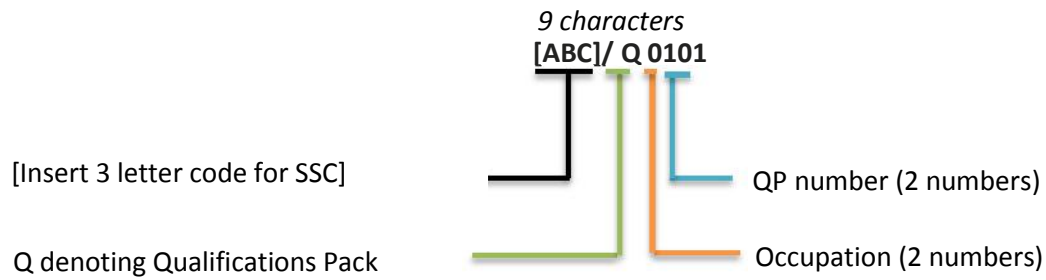
NOS Version Control

NOS Code	IES/N7601		
Credits(NSQF)	TBD	Version number	1.0
Sector	Infrastructure Equipment	Drafted on	16/02/15
Industry Sub-sector	Equipment Operations	Last reviewed on	31/03/15
Occupation	Managerial & Supervisory - Equipment Operations	Next review date	31/03/17

[Back To Top](#)

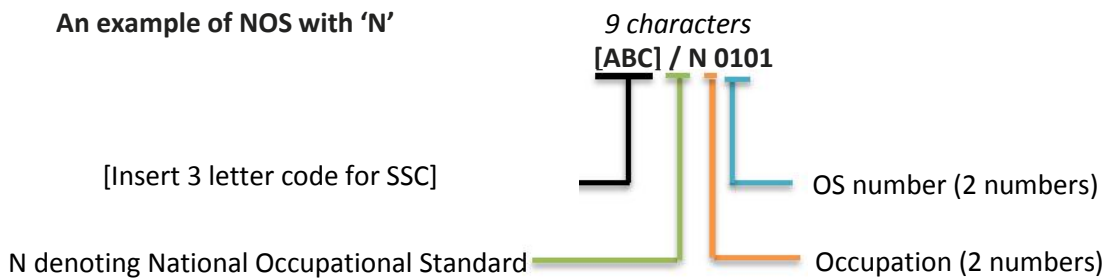
Nomenclature for QP and NOS units

Qualifications Pack



Occupational Standard

An example of NOS with 'N'



Nomenclature for QP and NOS units

The following acronyms/codes have been used in the nomenclature above:

Sub-sector	Range of Occupation numbers
Equipment Operations	1 to 10
Equipment Service and spares	11 to 20
Equipment Production	21 to 40
Equipment Sales	41 to 50
Equipment Financing	51 to 55
Core Enablers	56 to 65
Other Enablers	66 to 75
Common Occupations	76 to 85

Sequence	Description	Example
Three letters	Industry name	IES
Slash	/	/
Next letter	Whether QP or NOS	N
Next two numbers	Occupation code	01
Next two numbers	OS number	01

CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role Supervisor (Plant & Machinery)

Qualification Pack IES/Q0201

Sector Skill Council Infrastructure Equipment

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 theory part will be based on knowledge bank of questions created by the SSC
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5. To pass the Qualification Pack, every trainee should score a minimum of 50% aggregate
6. 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

NOS	Performance Criteria	Total Marks	Out Of	Marks Allocation	
				Theory	Skills Practical
1. IES/N0201 Plan and supervise equipment operations	PC1. Plan and schedule equipment operations in accordance with organization, SHE and worksite guidelines and procedures	40	4	1	3
	PC2. Plan and align equipment and resources required as per the task		3	0	3
	PC3. Select the equipment as per the project requirements		3	0	3
	PC4. Allocate the schedule of operators and other P&M support personnel as per the project requirements		3	0	3
	PC5. Appropriately allocate work to subordinate team-mates as per their experience/ skill levels		4	1	3
	PC6. Train and brief them on the work allotted		4	1	3
	PC7. Communicate job expectations, based on task and site conditions, clearly to the team-mates		3	1	2
	PC8. Monitor and supervise operations on an ongoing basis to meet project requirements		2	0	2

	PC9. Carry out appraisals and training of the team-mates at regular intervals		3	1	2
	PC10. Adhere to organization and worksite level policies/ procedures during operations		3	1	2
	PC11. Adhere to relevant quality processes/ standards during operations		3	1	2
	PC12. Complete role related documentation and reporting		3	1	2
	PC13. Resolve process level issues or queries based on interactions with other stakeholders and supervisors		2	0	2
		Total	40	8	32
2. IES/N0202Manage equipment operations related stakeholders	PC1. Receive work instructions and feedback from reporting manager or other senior construction team personnel at the work site	50	3	1	2
	PC2. Carry out work related activities in compliance with instructions and worksite requirements		3	1	2
	PC3. Analyze and present operations data like MTBF, MTRR, productivity analysis, cost to company etc on a periodic basis		5	0	5
	PC4. Generate system based requests for spares and consumables		3	0	3
	PC5. Report to manager and other stakeholders periodically on equipment operations		2	0	2
	PC6. Keep stakeholders informed about repairs and maintenance of tools and machinery as required		3	1	2
	PC7. Assist the P&M manager in finalizing process-flow and resource level improvements		3	1	2
	PC8. Assist the P&M manager in providing alternative economical but productive and safe alternatives from an operations perspective		3	1	2
	PC9. Communicate to manager about employee management, i.e., shortages or performance related		4	1	3
	PC10. Communicate any potential hazards or expected process disruptions		3	0	3
	PC11. Plan for re-work based on feedback provided by manager/ other stakeholders		3	0	3

	PC12. Provide correct and reliable feedback on equipment and personnel to the P&M manager		3	1	2
	PC13. Assist the P&M Manager to estimate the potential equipment/manpower requirements from sub-contractors		3	0	3
	PC14. Assist in the evaluation of sub-contractors as per the equipment required		3	0	3
	PC15. Validate the submission of sub-contractor related documentation and work sheets as per company policy		3	0	3
	PC16. Supervise sub-contractor personnel in order to get optimum work performance		3	0	3
	Total		50	7	43
3. IES/N0203 Comply with worksite safety and quality standards	PC1. Comply with all organizational guidelines, SHE policy and quality standards during equipment operations	40	3	0	3
	PC2. Supervise the enforcement of all SHE related guidelines in equipment operations		2	0	2
	PC3. Plan procurement and provide safety gear and other equipment required to personnel for safe and productive operations.		3	0	3
	PC4. Carry out fire/ other disaster recovery drills on work site along with the SHE team		3	0	3
	PC5. Inspect fire extinguishers and other machine equipment for validity and plan procurement/ renewal for necessary equipment		3	0	3
	PC6. Carry out periodic walk-throughs to ensure that the worksite and workshop areas are clean and free from hazards as per the Safety, Health and Environmental policy/ guidelines		3	1	2
	PC7. Supervise the handling and disposal of waste based on environmental guidelines at the work place		3	0	3
	PC8. Participate, as required, in the investigation of near misses, accidents and incidents at the work site with the SHE and project management teams.		3	1	2
	PC9. Assist in gathering data and complete documentation related to accidents/ incidents and share with concerned personnel		2	0	2

	PC10. Assist with checking the project management plan to ensure operations are as per the quality and productivity specifications outlined		3	0	3
	PC11. Carry out routine random checks and inspections to keep a check on the quality of work carried out		3	1	2
	PC12. Inspect damage to equipment and suggest rectification as per the work protocol and quality standards		3	1	2
	PC13. Give feedback to team and stakeholders on the quality and productivity at the worksite on the continuous basis		3	1	2
	PC14. Carry out role related documentation and reporting		3	1	2
		Total	40	6	34
4. IES/N7601 Comply with worksite health and safety guidelines	PC1. Comply with safety, health, security and environment related regulations/ guidelines at the work site	30	3	0	3
	PC2. Use Personal Protective Equipment (PPE) and other safety gear such as seat belt, body protection, respiratory protection, eye protection, ear protection and hand protection		4	1	3
	PC3. Follow safety measures during operations to ensure that the health and safety of self or others (including members of the public) is not at risk		3	0	3
	PC4. Carry out operations as per the manufacturer's and worksite related health and safety guidelines		3	0	3
	PC5. Handle the transport, storage and disposal of hazardous materials and waste in compliance with worksite health, safety and environmental guidelines		4	1	3
	PC6. Follow safety regulations and procedures with regard to worksite hazards and risks		2	0	2
	PC7. Operate various grades of fire extinguishers, as applicable		2	0	2
	PC8. Support in administering basic first aid and report to concerned team members, as required, in case of an accident		3	0	3
	PC9. Respond promptly and appropriately to an accident/ incident		3	1	2

	or emergency situation, within limits of your role and responsibility				
	PC10. Record and report details related to operations, incidents or accidents, as applicable		3	1	2
		Total	30	4	26