

QUALIFICATION PACK – OCCUPATIONAL STANDARD FOR INFRASTRUCTURE EQUIPMENT 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

Qualification Pack - Junior Crusher Operator

SECTOR:	INFRASTRUCTURE EQUIPMENT
SUB SECTOR:	Equipment Operations
OCCUPATION:	Operator
REFERENCE ID:	IES/Q0113
ALIGNED TO:	NCO-2004/NIL

Brief Job Description: A Junior Crusher Operator is responsible for assisting the operator to set the crusher and run the operations to get the required crushed material. He is required to help the operator continuously monitor the operations and guide him to make necessary adjustments.

Personal Attributes: The job requires an individual to be physically agile, strong and should have good eye sight. He should maintain constant alertness to the multiple concurrent activities during the crushing operations. He should possess basic math skills and is required to be mentally alert at all times.

Qualifications Pack Code	IES/Q0113		
Job Role	Junior Crusher Operator		
Credits(NSQF)	TBD	Version number	1.0
Sector	Infrastructure equipment	Drafted on	14/04/16
Sub-sector	Equipment Operations	Last reviewed on	26/04/16
Occupation	Operator	Next review date	30/04/18
NSQC Clearance on	NA		

Job Role	Junior Crusher Operator
Role Description	A Junior Crusher Operator is responsible for assisting the operator to set the crusher and run the operations to get the required crushed material. He is required to help the operator continuously monitor the operations and guide him to make necessary adjustments.
NSQF level	3
Minimum Educational Qualifications	Class VIII preferably.
Maximum Educational Qualifications	NA
Training (Suggested but not mandatory)	Certification Training in Crushing Operations preferred
Minimum Job Entry Age	18 years
Experience	Preferably 6 months to 1 year of experience assisting in crushing operations
Applicable National Occupational Standards (NOS)	<p>Compulsory</p> <ol style="list-style-type: none"> IES/N0137 Assist in carrying out Pre-operation checks on a crusher IES/N0138 Assist in crushing operations IES/N0139 Assist in regular maintenance of the crusher IES/N7601 Comply with worksite health and safety guidelines <p>Optional: N.A.</p>
Performance Criteria	As described in the relevant OS units

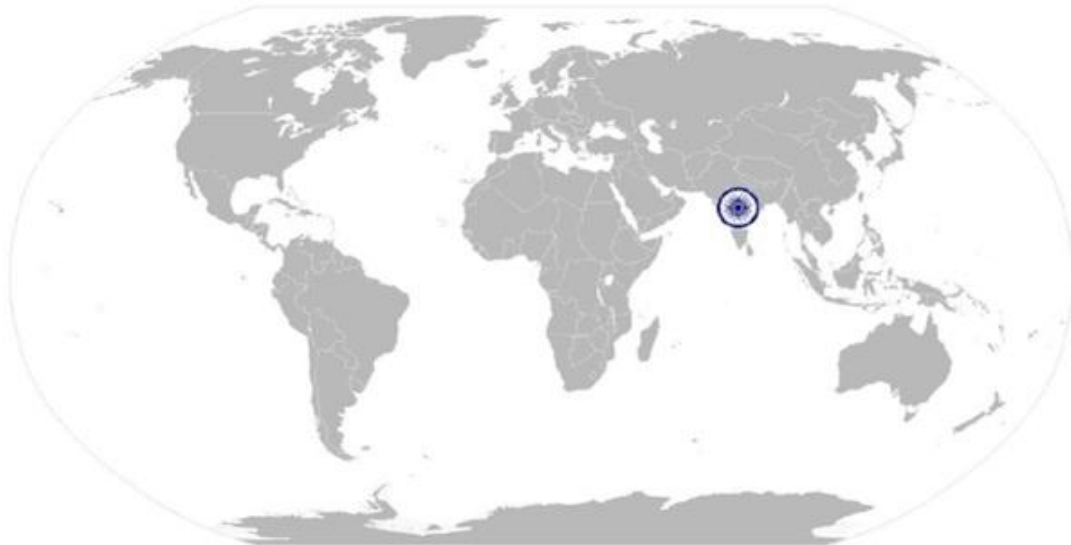
Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further 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	

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Assist in carrying out Pre-operation checks on a crusher

National Occupational Standard



Overview

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for activities that need to be carried out to prepare the crusher for a shift.

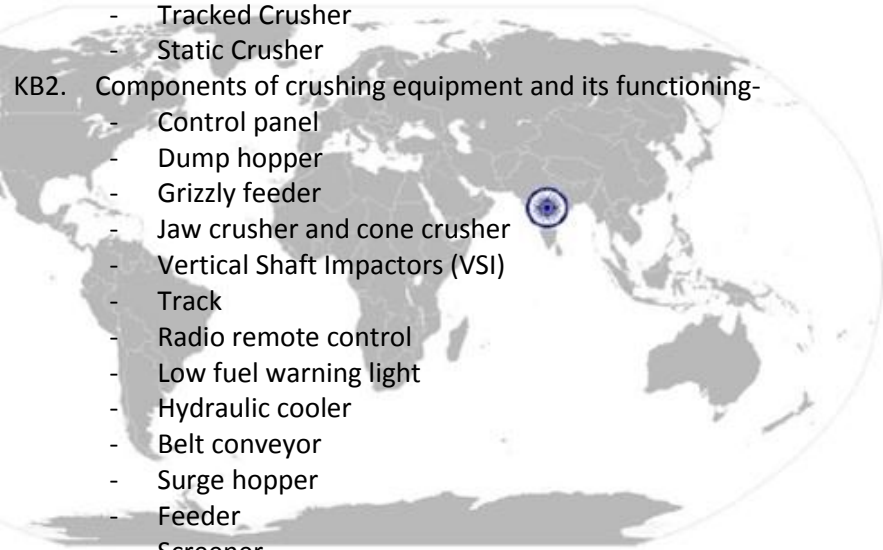
IES/N0137

Assist in carrying out Pre-operation checks on a crusher

Unit Code	IES/N0137
Unit Title (Task)	Assist in carrying out Pre-operation checks on a crusher
Description	This unit provides insight into activities that need to be carried out to prepare the crusher for a shift.
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Pre-operation checks • Material Checks • Reporting and documentation
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Pre-operation checks	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Assist in conducting visual inspection around the crushing equipment as per instructions from the operator/ supervisor</p> <p>PC2. Check for power connections electrical/diesel generators including fuel checks as per instructions from the supervisor</p> <p>PC3. Check the moveable parts in crushers like conveyor belts, rollers, stringers, etc. for wear and tear</p> <p>PC4. Clear the filters of impurities as per instructions from the operator/supervisor</p> <p>PC5. Assist in lubricating all the moving joints of the crushers as per instruction from the operator/ supervisor</p> <p>PC6. Check all the feeders for any wear and tear or malfunctioning as per instruction from operator/ supervisor</p> <p>PC7. Check the fittings, bolts, bearings, pads and lining in each crushers of the crushing unit and adjust it as per instruction from operator/ supervisor</p> <p>PC8. Assist the operator in checking the suitability of screeners with the production requirement</p> <p>PC9. Check Vertical Shaft Impactor (VSI) crusher, tips, liners, etc. as per instructions from the operator/ supervisor</p> <p>PC10. Check the tyre condition for required air pressure, cut/damage in wheeled crusher as per instructions from operator/ supervisor</p> <p>PC11. Check the wheel bolts, brakes, etc. in wheeled crusher as per instructions from operator/ supervisor</p> <p>PC12. Check and tighten the track pads bolts, nuts, etc. in tracked crusher as per instructions from operator/ supervisor</p> <p>PC13. Check the hoses, pipes for any leakage and take actions as per instructions from operator/ supervisor</p>
Material Checks	<p>PC14. Check raw materials at the site before starting the operation as per instructions from the operator/ supervisor</p> <p>PC15. Coordinate with other vehicle operators for procurement of the raw material as per standards of the organisation</p>
Reporting and	PC16. Assist in maintaining a checking/maintenance logbook to record all

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Assist in carrying out Pre-operation checks on a crusher

documentation	<p>activities performed before starting the operation</p> <p>PC17. Report defects precisely to the operator/supervisor</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. The organization's procedures and guidelines related to breakdown & maintenance services</p> <p>KA2. The performance standards & procedures followed in the company</p> <p>KA3. Reporting structure in the company</p> <p>KA4. Location of tools</p> <p>KA5. Contact person in case of queries on procedure or equipment</p> <p>KA6. Location and process for storage and disposal of waste material</p> <p>KA7. Safety policy of the company</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Different types of crushing equipment's, its uses and functions</p> <ul style="list-style-type: none"> - Wheeled Crusher - Tracked Crusher - Static Crusher <p>KB2. Components of crushing equipment and its functioning-</p> <ul style="list-style-type: none"> - Control panel - Dump hopper - Grizzly feeder - Jaw crusher and cone crusher - Vertical Shaft Impactors (VSI) - Track - Radio remote control - Low fuel warning light - Hydraulic cooler - Belt conveyor - Surge hopper - Feeder - Screener - Hydraulic and Hydraulic pump <p>KB3. Basics of engine and motor functions</p> <p>KB4. Types of raw materials and its physical qualities</p> <p>KB5. Different types of motors, gear boxes used in crusher, conveyor, feeder, etc.</p> <p>KB6. Significance and method of lubricating all parts of crushing equipment</p> <p>KB7. Basic electrical functioning and repairs</p> 
Skills (S)	
A. Core Skills / Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to:
	SA1. Record any deviations/ incidents as per prescribed norms
	Reading Skills
	The user/ individual on the job needs to know and understand how to:
	SA2. Read and comprehend basic English and regional language as applicable

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Assist in carrying out Pre-operation checks on a crusher

	to read manuals of operations, guidelines, etc.
	SA3. Comprehend basic sign and symbols at the worksite
	Oral Communication (Listening and Speaking Skills)
	The user/ individual on the job needs to know and understand how to:
	SA4. Use correct technical terms while interacting with supervisor
B. Professional Skills	Decision Making
	The user/ individual on the job needs to know and understand how to:
	SB1. Decide when to take assistance from the operator/supervisor
	Plan and Organize
	The user/ individual on the job needs to know and understand how to:
	SB2. Work with operators/supervisors/team mates to carry out work
	SB3. Plan for cleaning and lubricating the appropriate equipment every day
	Customer Centricity
	The user/ individual on the job needs to know and understand how to:
	SB4. Provide service of the highest order to ensure customer satisfaction
	Problem Solving
	The user/ individual on the job needs to know and understand how to:
	SB5. Identify immediate or temporary solutions to resolve mechanical issues
Analytical Thinking	
The user/ individual on the job needs to know and understand how to:	
SB6. Identify cause and effect relations in his area of work	
Critical Thinking	
The user/ individual on the job needs to know and understand how to:	
SB7. Analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently	

IES/N0137 Assist in carrying out Pre-operation checks on a crusher

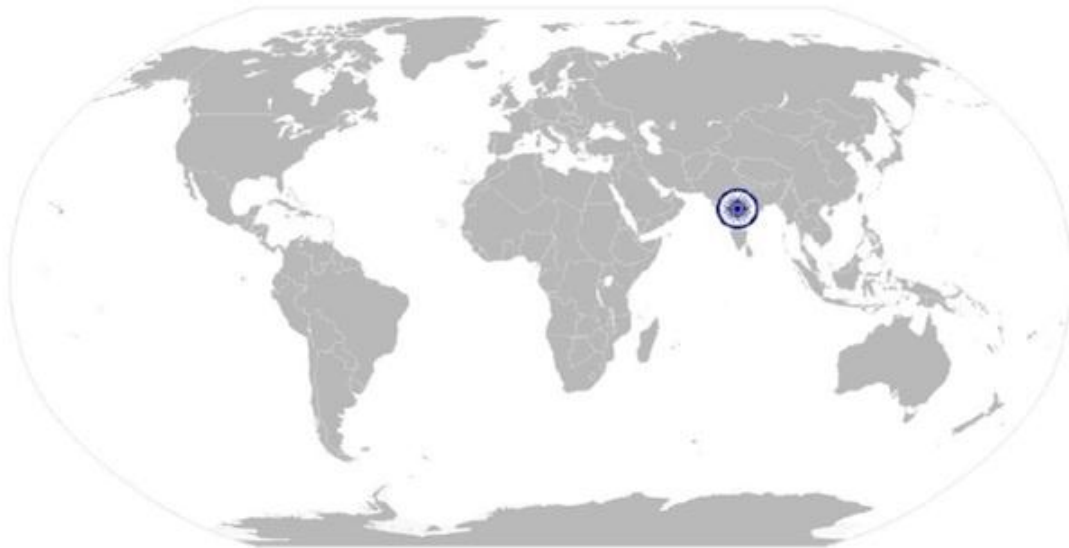
NOS Version Control

NOS Code	IES/N0137		
Credits(NSQF)	TBD	Version number	1.0
Sector	Infrastructure equipment	Drafted on	14/04/16
Industry Sub-sector	Equipment Operations	Last reviewed on	26/04/16
Occupation	Operator	Next review date	30/04/18

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National Occupational Standard



Overview

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for activities that are required for assisting in crushing operations.

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Assist in crushing operations

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Unit Code	IES/N0138
Unit Title (Task)	Assist in crushing operations
Description	This unit provides insight into activities that are required for assisting in crushing operations.
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Preparatory activities • Crushing operation • Safety during operation • Reporting and documentation
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Preparatory activities	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Check materials, ingredients, or products, visually or with hands, to ensure conformance to established standards</p> <p>PC2. Clean work areas and check for obstructions before starting the operations as per instructions from the operator/ supervisor</p> <p>PC3. Assist in checking chains, gear box, rollers, belts, scrolls, etc. for signs of wear during the operation</p> <p>PC4. Clear jammed materials or other items from machinery and equipment using appropriate tools as per instructions from the operator/ supervisor</p> <p>PC5. Transfer materials, supplies, and products between work areas, using moving equipment and hand tools as per instructions from the operator/ supervisor</p>
Crushing operation	<p>PC6. Give appropriate signals to the operator to start or stop the equipment</p> <p>PC7. Assist in setting mill gauges as per the fineness required for the grind as per instructions from the operator/ supervisor</p> <p>PC8. Check the continuity of flow, safety, and efficient operation as per the instructions from the operator/ supervisor</p> <p>PC9. Weigh or measure materials, ingredients, or products at specified intervals as per instructions from the operator/ supervisor</p> <p>PC10. Check for proper graded flow of materials into the crushers and control the speed and flow of material through conveyors</p> <p>PC11. Test samples materials or products to ensure compliance with Indian standard(IS) specifications</p> <p>PC12. Coordinate with the vehicle operators for collection of the output as per instructions from operator/ supervisor</p>
Safety during operation	<p>PC13. Wear dust masks, safety eye glasses, safety helmet, protective cloth, safety gloves as per the standards</p> <p>PC14. Make positive eye contact with other equipment operators at the site before crossing</p> <p>PC15. Assist in performing lockout and tag out whenever necessary</p>
Assist in maintaining reports and	<p>PC16. Assist in maintaining a checking/maintenance logbook to record all activities performed</p>

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Assist in crushing operations

documentation	PC17. Assist in recording input and output flow
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. The organization's procedures and guidelines related to breakdown & maintenance services</p> <p>KA2. The performance standards & procedures followed in the company</p> <p>KA3. Reporting structure in the company</p> <p>KA4. Timeframe in which the complaint/problem should be resolved</p> <p>KA5. Location of tools</p> <p>KA6. Contact person in case of queries on procedure or equipment</p> <p>KA7. Location and process for storage and disposal of waste material</p> <p>KA8. Safety policy of the company</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Different types of crushing equipment's, its uses and functions</p> <p>KB2. Components of crushing equipment and its functioning-</p> <ul style="list-style-type: none"> - Control panel - Dump hopper - Grizzly feeder - Jaw crusher and cone crusher - Vertical Shaft Impactors (VSI) - Track - Radio remote control - Low fuel warning light - Hydraulic cooler - Belt conveyor - Surge hopper - Feeder - Screener - Hydraulic and Hydraulic pump <p>KB3. Basics of engine and motor functions</p> <p>KB4. Types of raw materials and its physical qualities</p> <p>KB5. Different types of motors, gear boxes used in crusher, conveyor, feeder, etc.</p> <p>KB6. Significance and method of lubricating all parts of crushing equipment</p> <p>KB7. Basic electrical functioning and repairs</p>
Skills (S)	
A. Core Skills / Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to:
	SA1. Record any deviations/ incidents as per prescribed norms
	Reading Skills
The user/ individual on the job needs to know and understand how to:	
SA2. Read and comprehend basic English and regional language as applicable to read manuals of operations, guidelines, etc.	
SA3. Comprehend basic sign and symbols at the worksite	
Oral Communication (Listening and Speaking Skills)	
The user/ individual on the job needs to know and understand how to:	

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Assist in crushing operations

	SA4. Use correct technical terms while interacting with supervisor
B. Professional Skills	Decision Making
	The user/ individual on the job needs to know and understand how to: SB1. Decide when to take assistance from the operator/supervisor
	Plan and Organize
	The user/ individual on the job needs to know and understand how to: SB2. Work with operators/supervisors/team mates to carry out work SB3. Plan for cleaning and lubricating the appropriate equipment every day
	Customer Centricity
	The user/ individual on the job needs to know and understand how to: SB4. Provide service of the highest order to ensure customer satisfaction
	Problem Solving
	The user/ individual on the job needs to know and understand how to: SB5. Identify immediate or temporary solutions to resolve mechanical issues
	Analytical Thinking
	The user/ individual on the job needs to know and understand how to: SB6. Identify cause and effect relations in his area of work
Critical Thinking	
The user/ individual on the job needs to know and understand how to: SB7. Analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently	



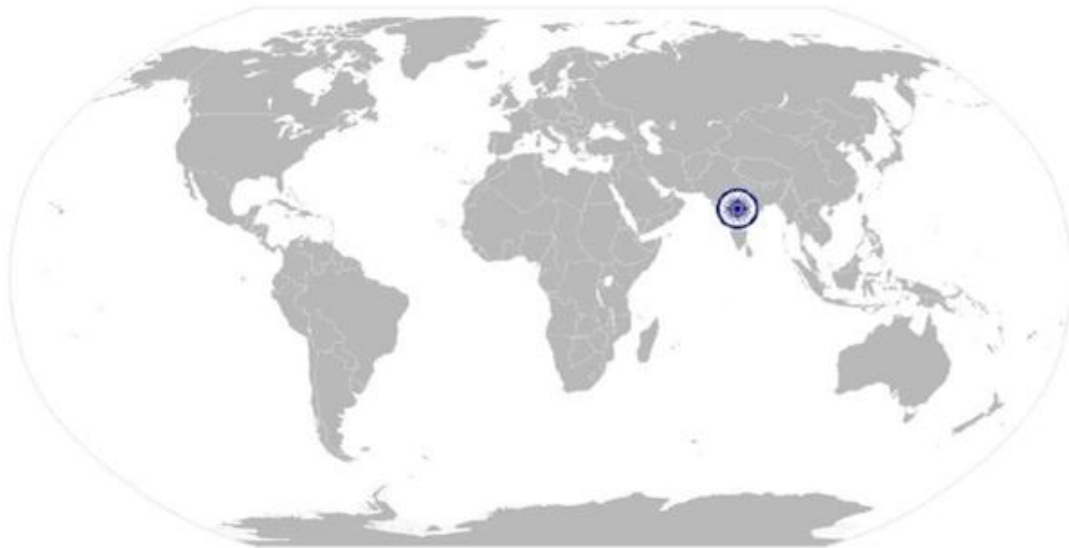
IES/N0138

Assist in crushing operations

NOS Version Control

NOS Code	IES/N0138		
Credits(NSQF)	TBD	Version number	1.0
Sector	Infrastructure equipment	Drafted on	14/04/16
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Occupation	Operator	Next review date	30/04/18

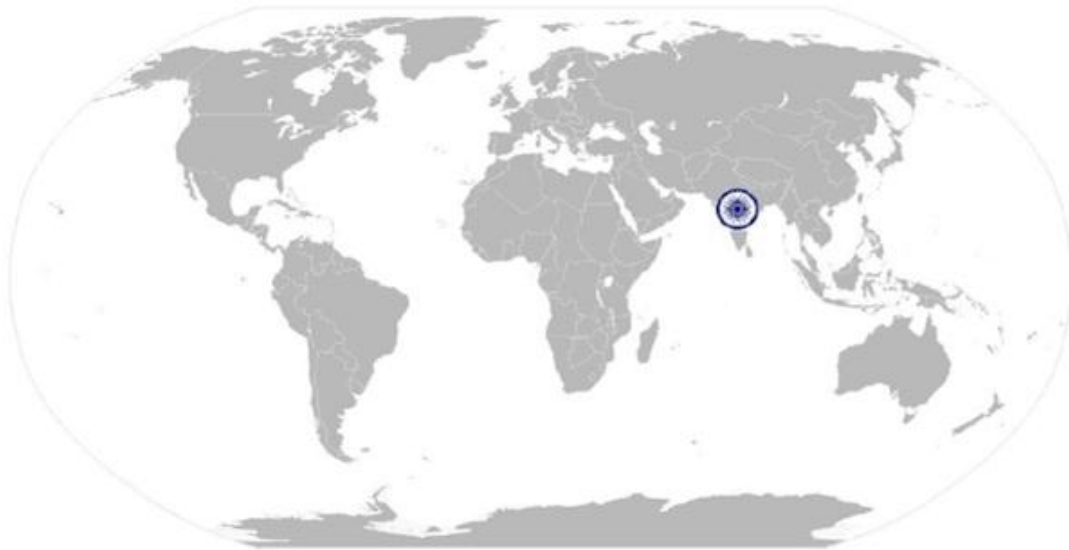
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IES/N0139

Assist in regular maintenance of the crusher

National Occupational Standard



Overview

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for activities that are required for assisting the operator in routine maintenance of the crusher

IES/N0139 Assist in regular maintenance of the crusher

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Unit Code	IES/N0139
Unit Title (Task)	Assist in regular maintenance of the crusher
Description	This unit provides insight into activities that are required for assisting the operator in routine maintenance of the crusher
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Routine maintenance • Repair and troubleshooting • Reporting and documentation
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Routine maintenance	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Assist in performing scheduled maintenance</p> <p>PC2. Check the tyre condition – proper air pressure, any cut/damage in wheeled crusher as per instructions from the operator/ supervisor</p> <p>PC3. Assist in checking of bearings at gearboxes, rollers and motor</p> <p>PC4. Replenish coolants, lubricants, fluids and screeners as per instructions from the operator/ supervisor</p> <p>PC5. Check the fuel tanks for any leaks as per instructions from the operator/ supervisor</p> <p>PC6. Lubricate all the moving parts as per instructions from the operator/ supervisor</p> <p>PC7. Assist in performing periodic equipment structural inspection and corrective measures like welding</p> <p>PC8. Check crusher plate, liners, other critical parts conditions and carry out minor adjustments if required as per instructions from the operator/ supervisor</p>
Repair and troubleshooting	<p>PC9. Assist in identifying service needs, defects, hazardous conditions and take daily, weekly, monthly and yearly preventive or corrective maintenance</p> <p>PC10. Assist in repair or replacement of defective components as per instructions from the operator/ supervisor</p> <p>PC11. Assist in identifying missing or defective components or controls and replace them as per instructions from the operator/ supervisor</p> <p>PC12. Comply with safety requirements</p>
Reporting and documentation	PC13. Report defects precisely to the operator and supervisor if beyond scope of his role
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. The organization’s procedures and guidelines related to breakdown & maintenance services</p> <p>KA2. The performance standards & procedures followed in the company</p> <p>KA3. Reporting structure in the company</p> <p>KA4. Timeframe in which the complaint/problem should be resolved</p> <p>KA5. Location of tools</p>

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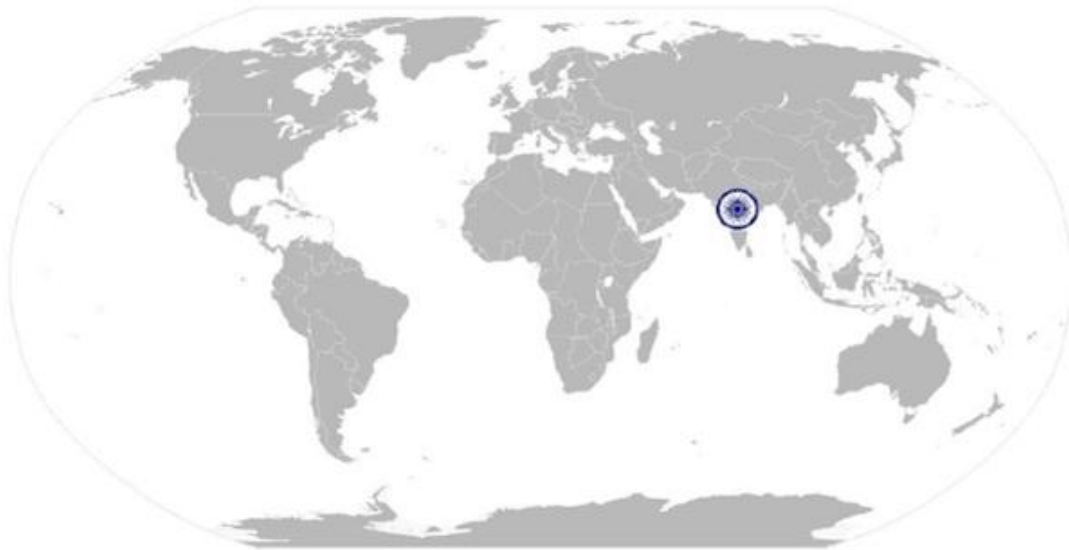
Assist in regular maintenance of the crusher

	<p>KA6. Contact person in case of queries on procedure or equipment KA7. Location and process for storage and disposal of waste material KA8. Safety Policy of the company</p>
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand: KB1. Different types of crushing equipment's, its uses and functions KB2. Components of crushing equipment and its functioning- - Control panel - Dump hopper - Grizzly feeder - Jaw crusher and cone crusher - Vertical Shaft Impactors (VSI) - Track - Radio remote control - Low fuel warning light - Hydraulic cooler - Belt conveyor - Surge hopper - Feeder - Screener - Hydraulic and Hydraulic pump KB3. Basics of engine and motor functions KB4. Different types of motors, gear boxes used in crusher, conveyor, feeder, etc. KB5. Significance and method of lubricating all parts of crushing equipment KB6. Basic electrical functioning and repairs</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 and regional language as applicable to read manuals of operations, guidelines, etc. SA3. Comprehend basic sign and symbols at the worksite</p> <p>Oral Communication (Listening and Speaking Skills) The user/ individual on the job needs to know and understand how to: SA4. Use correct technical terms while interacting with the operator/supervisor</p>
<p>B. Professional Skills</p>	<p>Decision Making The user/ individual on the job needs to know and understand how to: SB1. Decide when to take assistance from the operator/supervisor</p> <p>Plan and Organize The user/ individual on the job needs to know and understand how to: SB2. Work with operators/supervisors/team mates to carry out work</p> <p>Customer Centricity The user/ individual on the job needs to know and understand how to:</p>

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Assist in regular maintenance of the crusher

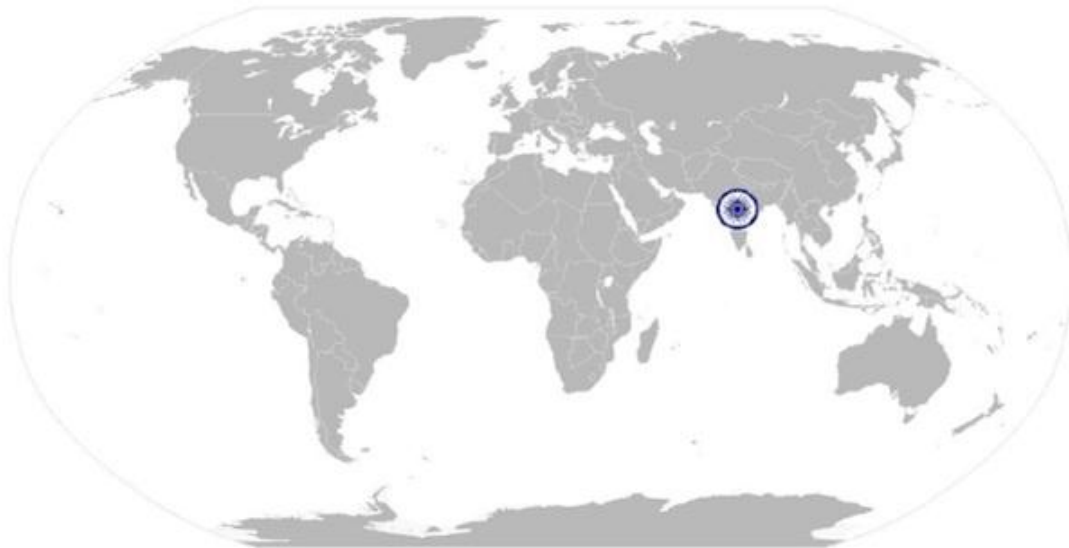
	SB3. Provide service of the highest order to ensure customer satisfaction
	Problem Solving
	The user/ individual on the job needs to know and understand how to: SB4. Identify immediate or temporary solutions to resolve mechanical issues
	Analytical Thinking
	The user/ individual on the job needs to know and understand how to: SB5. Identify cause and effect relations in his area of work
	Critical Thinking
The user/ individual on the job needs to know and understand how to: SB6. Analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently	



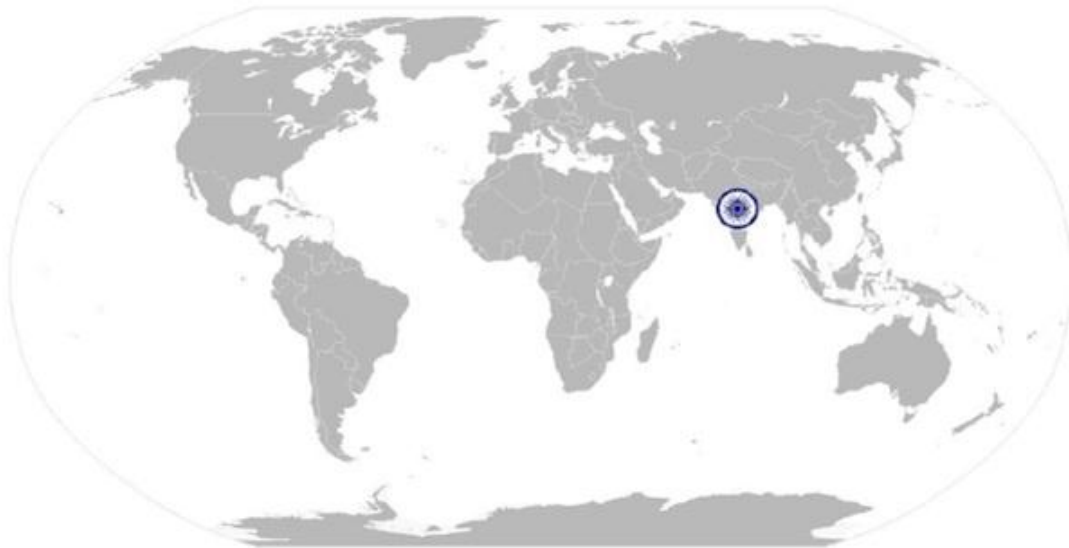
IES/N0139 Assist in regular maintenance of the crusher
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NOS Code	IES/N0139		
Credits(NSQF)	TBD	Version number	1.0
Sector	Infrastructure equipment	Drafted on	14/04/16
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Occupation	Operator	Next review date	30/04/18

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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

National Occupational Standard

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: PC1. Comply with safety, health, security and environment related regulations/ guidelines at the work site PC2. Use Personal Protective Equipment (PPE) and other safety gear as applicable to the equipment and the worksite 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 PC4. Carry out operations as per the manufacturer’s and worksite related health and safety guidelines PC5. Handle the transport, storage and disposal of hazardous materials and waste in compliance with worksite health, safety and environmental guidelines PC6. Operate various grades of fire extinguishers, as applicable PC7. Support in administering basic first aid and report to concerned team members, as required, in case of an accident PC8. Respond promptly and appropriately to an accident/ incident or emergency situation, within limits of your role and responsibility PC9. Record and report details related to operations, incidents or accidents, as applicable
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: KA1. Health, safety, environmental(HSE) and security related policies/ guidelines of the organization and the worksite and its importance KA2. Personnel responsible for Health, Safety and environment (HSE) related matters and their contact details KA3. Location of worksite storage, HSE team and safe assembly points KA4. Reporting and documentation procedures for HSE and security matters
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Manufacturer’s guidelines related to health and safety requirements KB2. Common types of health, safety, environment and security risks related to the worksite and operations KB3. Types, use and importance of Personal Protective Equipment (PPE) and other safety gear KB4. Safe working practices to avoid common hazards and risks KB5. Guidelines for transport, storage and disposal of hazardous materials and waste

IES/N7601

Comply with worksite health and safety guidelines

	<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 e.g. electrical shock, bleeding, wounds, fractures, minor burns, eye injuries</p>
Skills (S)	
<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: SA1. Document and report any health and safety related incidents/ accidents</p>
	<p>Reading Skills</p>
	<p>The user/ individual on the job needs to know and understand how to: SA2. Read and comprehend basic symbols and signage related health and safety SA3. Read organizational and equipment related health and safety manuals and documents SA4. 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: SA5. Give clear instructions to co-workers, subordinates and other personnel SA6. Use correct technical terms while interacting with supervisor</p>
<p>B. Professional Skills</p>	<p>Decision Making</p>
	<p>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</p>
	<p>Plan and Organize</p>
	<p>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</p>
	<p>Customer Centricity</p>
	<p>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</p>
	<p>Problem Solving</p>
	<p>The user/ individual on the job needs to know and understand how to: SB6. Seek appropriate assistance from other sources to resolve problems</p>
	<p>Analytical Thinking</p>
	<p>The user/ individual on the job needs to know and understand how to: SB7. Assess the intensity of the fire accident and operate fire extinguishers</p>
<p>Critical Thinking</p>	
<p>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</p>	

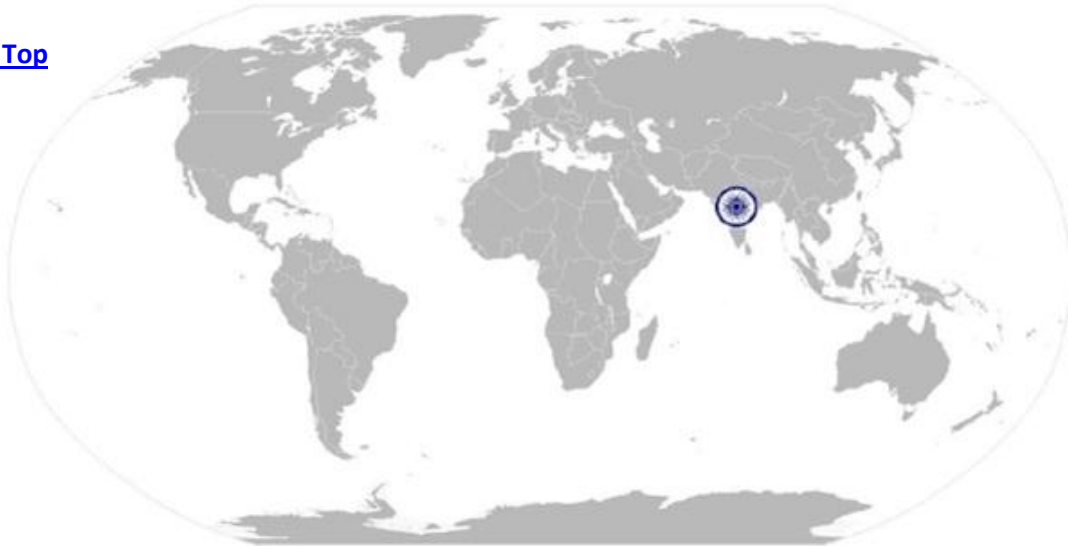
IES/N7601

Comply with worksite health and safety guidelines

NOS Version Control

NOS Code	IES/N7601		
Credits(NSQF)	TBD	Version number	1.0
Sector	Infrastructure equipment	Drafted on	14/04/16
Industry Sub-sector	Equipment Operations	Last reviewed on	26/04/16
Occupation	Operator	Next review date	30/04/18

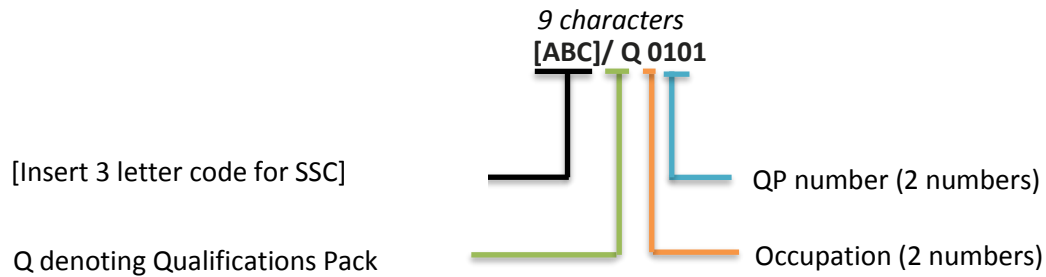
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Annexure

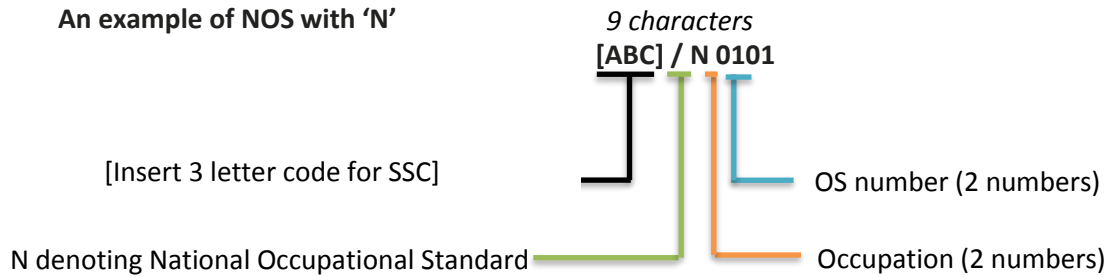
Nomenclature for QP and NOS

Qualifications Pack



Occupational Standard

An example of NOS with 'N'



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 Junior Crusher Operator

Qualification Pack IES/Q 0113

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 40% in each NOS and 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.

Total Marks: 100				Marks allocation	
Assessment Outcomes	Assessment Criteria for the outcome	Total Marks	Out Of	Theory	Skills Practical
1. IES/N0137 Assist in carrying out pre-operation checks on a crusher	PC1. Assist in conducting visual inspection around the crushing equipment as per instructions from the operator/ supervisor	35	3	1	2
	PC2. Check for power connections electrical/diesel generators including fuel checks as per instructions from the supervisor		2	0	2

	PC3. Check the moveable parts in crushers like conveyor belts, rollers, stringers, etc. for wear and tear		2	0	2
	PC4. Clear the filters of impurities as per instructions from the operator/supervisor		3	1	2
	PC5. Assist in lubricating all the moving joints of the crushers as per instruction from the operator/ supervisor		2	0	2
	PC6. Check all the feeders for any wear and tear or malfunctioning as per instruction from operator/ supervisor		2	0	2
	PC7. Check the fittings, bolts, bearings, pads and lining in each crushers of the crushing unit and adjust it as per instruction from operator/ supervisor		3	1	2
	PC8. Assist the operator in checking the suitability of screeners with the production requirement		3	1	2
	PC9. Check Vertical Shaft Impactor (VSI) crusher, tips, liners, etc. as per instructions from the operator/ supervisor		1	0	1
	PC10. Check the tyre condition for required air pressure, cut/damage in wheeled crusher as per instructions from operator/ supervisor		1	0	1
	PC11. Check the wheel bolts, brakes, etc. in wheeled crusher as per instructions from operator/ supervisor		1	0	1
	PC12. Check and tighten the track pads bolts, nuts, etc. in tracked crusher as per instructions from operator/ supervisor		2	1	1
	PC13. Check the hoses, pipes for any leakage and take actions as per instructions from operator/ supervisor		2	1	1
	PC14. Check raw materials at the site before starting the operation as per instructions from the operator/ supervisor		2	1	1

	PC15. Coordinate with other vehicle operators for procurement of the raw material as per standards of the organisation		2	1	1
	PC16. Assist in maintaining a checking/maintenance logbook to record all activities performed before starting the operation		2	1	1
	PC17. Report defects precisely to the operator/supervisor		2	1	1
		Total	35	10	25
2. IES/N0138 Assist in crushing operations	PC1. Check materials, ingredients, or products, visually or with hands, to ensure conformance to established standards	30	3	1	2
	PC2. Clean work areas and check for obstructions before starting the operations as per instructions from the operator/supervisor		2	0	2
	PC3. Assist in checking chains, gear box, rollers, belts, scrolls, etc. for signs of wear during the operation		3	1	2
	PC4. Clear jammed materials or other items from machinery and equipment using appropriate tools as per instructions from the operator/supervisor		2	0	2
	PC5. Transfer materials, supplies, and products between work areas, using moving equipment and hand tools as per instructions from the operator/supervisor		2	1	1
	PC6. Give appropriate signals to the operator to start or stop the equipment		1	0	1
	PC7. Assist in setting mill gauges as per the fineness required for the grind as per instructions from the operator/supervisor		1	0	1
	PC8. Check the continuity of flow, safety, and efficient operation as per the instructions from the operator/supervisor		2	1	1

	PC9. Weigh or measure materials, ingredients, or products at specified intervals as per instructions from the operator/ supervisor		1	0	1
	PC10. Check for proper graded flow of materials into the crushers and control the speed and flow of material through conveyors		1	0	1
	PC11. Test samples materials or products to ensure compliance with Indian standard(IS) specifications		2	1	1
	PC12. Coordinate with the vehicle operators for collection of the output as per instructions from operator/ supervisor		2	1	1
	PC13. Wear dust masks, safety eye glasses, safety helmet, protective cloth, safety gloves as per the standards		1	0	1
	PC14. Make positive eye contact with other equipment operators at the site before crossing		2	1	1
	PC15. Assist in performing lockout and tagout whenever necessary		2	1	1
	PC16. Assist in maintaining a checking/maintenance logbook to record all activities performed		1	0	1
	PC17. Assist in recording input and output flow		2	1	1
		Total	30	9	21
3. IES/N0139 Assist in regular maintenance of the crusher	PC1. Assist in performing scheduled maintenance	20	2	1	1
	PC2. Check the tyre condition – proper air pressure, any cut/damage in wheeled crusher as per instructions from the operator/ supervisor		1	0	1

	PC3. Assist in checking of bearings at gearboxes, rollers and motor		2	1	1
	PC4.Replenish coolants, lubricants, fluids and screeners as per instructions from the operator/ supervisor		1	0	1
	PC5.Check the fuel tanks for any leaks as per instructions from the operator/ supervisor		2	1	1
	PC6. Lubricate all the moving parts as per instructions from the operator/ supervisor		1	0	1
	PC7. Assist in performing periodic equipment structural inspection and corrective measures like welding		2	1	1
	PC8. Check crusher plate, liners, other critical parts conditions and carry out minor adjustments if required as per instructions from the operator/ supervisor		1	0	1
	PC9. Assist in identifying service needs, defects, hazardous conditions and take daily, weekly, monthly and yearly preventive or corrective maintenance		2	1	1
	PC10. Assist in repair or replacement of defective components as per instructions from the operator/ supervisor		1	0	1
	PC11. Assist in identifying missing or defective components or controls and replace them as per instructions from the operator/ supervisor		1	0	1
	PC12. Comply with safety requirements		1	0	1
	PC13. Report defects precisely to the operator and supervisor if beyond scope of his role		3	1	2
		Total	20	6	14
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	15	1	0	1

	PC2. Use Personal Protective Equipment (PPE) and other safety gear as applicable to the equipment and the worksite		1	0	1
	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		2	1	1
	PC4. Carry out operations as per the manufacturer's and worksite related health and safety guidelines		1	0	1
	PC5. Handle the transport, storage and disposal of hazardous materials and waste in compliance with worksite health, safety and environmental guidelines		2	1	1
	PC6. Operate various grades of fire extinguishers, as applicable		1	0	1
	PC7. Support in administering basic first aid and report to concerned team members, as required, in case of an accident		2	1	1
	PC8. Respond promptly and appropriately to an accident/ incident or emergency situation, within limits of your role and responsibility		2	0	2
	PC9. Record and report details related to operations, incidents or accidents, as applicable		3	1	2
		Total	15	4	11
Grand Total			100	29	71