



#### QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR MINING 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
- performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the understanding

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# Introduction

# Qualifications Pack - Assistant Support-Open Cast Mines

**SECTOR: MINING** 

**SUB-SECTOR:** Mining Operation

**OCCUPATION:** Loading & Hauling - Opencast Mines

**REFERENCE ID:** MIN/Q0211

**ALIGNED TO: NCO-2015/9311.0100** 

**Brief Job Description:** Asst. Support assist HEMM Operators, other equipment operators and Technicians in ensuring positioning and productive operation of the HEMM and other extraction machinery. Individual will assist the Operator / Fitter / Technician in operation of ancillary equipment, hoists and pumps etc. He has to ensure the cleanliness and lubrication of the equipment, assists the operator and Technicians in pre operational checks and repair and maintenance jobs.

**Personal Attributes:** The job requires skills in reading, writing and communication skills, ability to receive and understand directions from operator and technicians, basic knowledge of risk and work safety, and finally physique to sustain strenuous condition.





| Qualifications Pack Code | MIN/N0211                           |                  |            |
|--------------------------|-------------------------------------|------------------|------------|
| Job Role                 | Assistant Support - Open Cast Mines |                  |            |
| Credits (NSQF)           | TBD                                 | Version number   | 1.0        |
| Sector                   | Mining                              | Drafted on       | 08/08/2016 |
| Sub-sector               | Mining Operation                    | Last reviewed on | 27/09/2016 |
| Occupation               | Loading & Hauling Opencast Mines    | Next review date | 26/09/2019 |
| NSQC Clearance on        | DD/MM/YYYY                          |                  |            |

| Job Role  | Assistant Support - Open Cast Mines   |
|---|---|
| Role Description                                  | To assist Operators and Technicians in Open Cast Mining operation, in operation of HEMM and other machinery, in servicing and maintenance of varied machinery in the mine.  |
| NSQF level  | 2   |
| Minimum Educational Qualifications                | Class VIII  |
| Maximum Educational Qualifications                | Graduation  |
| Training (Suggested but not mandatory)            | <ol> <li>Basic understanding of HEMM types and their operation and purpose.</li> <li>Basic first aid and mine safety training.</li> <li>Basic training on usage of workshop tools and tackles.</li> <li>Machine operation training from OEM will be preferred.</li> </ol> |
| Minimum Job Entry Age                             | 18 Years  |
| Experience  | 0-1 years of related experience   |
| Applicable National Occupationnel Standards (NOS) | <ol> <li>Compulsory:</li> <li>MIN/N0239 – Assist in Pre operational checks and servicing of HEMM</li> <li>MIN/N0240 - Assist in shifting and operation of the machine.</li> <li>MIN/N0901– Comply with Worksite Health &amp; Safety</li> </ol>                            |
| Performance Criteria                              | As described in the relevant OS units   |



# Qualifications Pack for Assistant Support – Open Cast Mines



| 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.  |
| 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.                                      |
| Job Role                         | Job role defines a unique set of functions that together form a unique employment opportunity in an organization.   |
| 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 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.  |
| NOS                              | NOS are Occupational Standards which apply uniquely in the Indian context.  |
| Qualifications Pack<br>Code      | Qualifications Pack Code is a unique reference code that identifies a qualifications pack.  |
| Qualifications Pack              | 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 verify that this is the appropriate OS they are looking for.  |
| Knowledge and<br>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 or Generic<br>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   |
|----------------|---|
| SCMS           | Skill Council for Mining Sector                         |
| NOS            | National Occupational Standards                         |
| NSQF           | National Skill Qualification Framework                  |
| NVEQF          | National Vocational Educational Qualification Framework |
| NVQF           | National Vocational Qualification Framework             |
| OS             | Occupational Standard                                   |
| PC             | Performance Criteria                                    |
| QP             | Qualification Pack                                      |
| SSC            | Sector Skill Council                                    |
| HEMM           | Heavy Earth Moving Machinery                            |
| OEM            | Original Equipment Manufacturer                         |
| DGMS           | Director General of Mines & Safety                      |

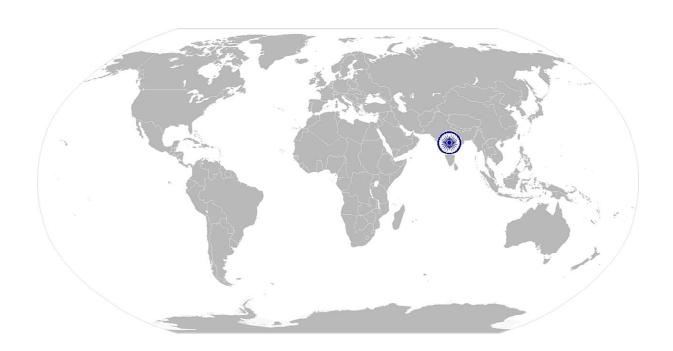






Assist in pre-operation checks and servicing of HEMM

# National Occupational Standard



# **Overview**

This unit is about providing necessary assistance to HEMM operators in carrying out the pre operational checks of the machine and assisting Operators and Technicians in servicing other machinery.



# National Occupational Standards

MIN / N 0239



#### MIN/N0239

**Unit Code** 

#### Assist in pre-operation checks and servicing of HEMM

| Unit Title<br>(Task)                       | Assist in pre-operation checks and servicing of HEMM   |
|--|--|
| Description                                | This OS unit is about providing necessary assistance to the HEMM operators in carrying   |
|  | out the pre operational checks on the machine, lubrication of the machine and to   |
|  | prepare the machine for operation.   |
| Scope                                      | This unit/task covers the following:   |
|  |  |
|  | Assists in conducting the pre operational checks of the HEMM.  |
|  | Assist to identify the faults in machines, do routine maintained of HEMM.  |
|  | Assist technicians and operators in maintenance of other machinery.  |
|  |  |
| Performance Criteria(F                     | PC) w.r.t. the Scope   |
| Element                                    | Performance Criteria   |
| Assists in conducting                      | To be competent, the user/individual on the job must be able to:   |
| the pre operational                        | PC1. Assist in visual inspection of the body components for cracks and wear.   |
| checks of the HEMM.                        | Observe any unusual noise, vibration, leak, spillage, accumulation etc. and  |
|  | communicate the same to Technician / Operator.  PC2. Inspect the bucket for any crack or damage. Inspect the tooth points and lock |
|  | pin.   |
|  | PC3. Check the hydraulic oil levels, radiator water levels, any leakages   |
|  | PC4. Check the track chain pad, bolts and links in crawler mounted equipment.  |
|  | Tighten bolts as required.   |
|  | PC5. Check gauges, indicators, and sensor are fully functional. Observe any alarm  |
|  | message and report the same to Technician or Operator.   |
|  | PC6. Check for any leakage in compressor unit and all fittings and air lines. The  |
|  | condition of trailing cable and cable joints.  |
|  | PC7. Carry all the tools and tackles to complete the job.  |
| Assist to identify the                     | To be competent, the user/individual on the job must be able to:   |
| faults in machines, do routine maintenance | PC8. To clean the work area and assist the Technician in conducting inspection and check different machine area.                   |
| of HEMM.                                   | PC9. Follow all the work instruction from Fitter / Technician related to routine   |
| OI IILIVIIVI.                              | maintenance.   |
|  | PC10. Ensure that no maintenance task on the engine is performed when running or   |
|  | still hot.   |
|  | PC11. Repair or replace faulty parts as per Technician or Operator's instructions.   |
|  | PC12. Use various kinds of hand held and power-tools to lift, dismantle or assemble  |
|  | machine components.  |
|  | PC13. Perform greasing & lubrication as directed by Operator / Technician.   |
|  | PC14. Assist in oil changes, change of oil filters and air filters, replaces hoses, belts, water pumps and other parts.            |
|  | PC15. Check fan belts, hoses, wiper blades and other safety equipment; check water   |
|  | and antifreeze levels; check air in tires and inflate tires and changes tires as   |
|  | necessary.   |
|  |  |







| MIN/N0239   | Assist in pre-operation checks and servicing of HEMM  |
|---|---|
| Assist Technicians and operators in maintenance of other machinery.                   | To be competent, the user/individual on the job must be able to PC16. Assist technician in maintaining and repairing automotive fleet and small equipment. PC17. Change and repair tires for the automotive fleet and responds to road service calls. Tow broken-down vehicles. PC18. Fuel, wash, and clean administrative vehicles. PC19. Assist in welding services as needed.  |
| Knowledge and Unders  | tanding (K)   |
| A. Organizational Context (Knowledge of the company / organization and its processes) | The user/individual on the job needs to know and understand: KA1. Workplace standing instructions KA2. The performance standards and procedure followed in the company KA3. Reporting structure KA4. Location of tools KA5. Spares issuance policy.   |
| B. Technical<br>Knowledge   | The user/individual on the job needs to know and understand: KB1. safety features of machine KB2. Should understand the work instructions KB3. Should know different greasing points in the equipment KB4. Should know the optimum level of the rin radiator KB5. Should know the capacity of different oils in machine KB6. Should know the capacity of fuel tank in the machine KB7. Should know the basics of compressed air operated equipment KB8. Should know the basics of electrical driven equipment KB9. Knowledge on application of different types of hand tools KB10. Visual checks to identify damage, defects, cracks or leaks beforehand. |
| Skills (S)  | AM 111 - CH III   |
| A. Core Skills/ Generic Skills  | Writing Skills  The user/ individual on the job needs to know and understand how to:  SA1. Should be able to observe any external problem in equipment and report it to operator.  SA2. Should be able to write log book and other reports.  SA3. Company guidelines.  SA4. Safety procedure and safety guidelines.   |
| Reading Skills  |   |
|   | The user/individual on the job needs to know and understand how to:  SA5. Read the instructions, guidelines, procedure, rules, signage's related to the works.  SA6. Read the risk management plan of the job  Oral Communication (Listening and Speaking skills)   |







| /IN/N0239              | Assist in pre-operation checks and servicing of HEMM   |  |
|------------------------|--|--|
|                        | The user/individual on the job needs to know and understand how to:  |  |
|                        | SA7. Interact effectively with operator in order to clarify instruction and other  |  |
|                        | issues   |  |
|                        | SA8. Use correct technical term while interacting with operator and other  |  |
|                        | personnel.   |  |
|                        | SA9. Should able to present report to concern authority or person with details.  |  |
| B. Professional Skills | Decision Making  |  |
|                        | The user/individual on the job needs to know and understand how to:  |  |
|                        | SB1. Decide on types of tools and tackles to be used.  |  |
|                        | Plan and Organize  |  |
|                        | The user/individual on the job needs to know and understand:   |  |
|                        | SB2. Plan work according to the schedule.  |  |
|                        | SB3. Plan for cleaning of the equipments.  |  |
|                        | Customer Centricity  |  |
|                        | The user/individual on the job needs to know and understand how to:  |  |
|                        | SB4. Provide services of the highest order to ensure customer satisfaction.  |  |
|                        | Problem Solving  |  |
|                        | The user/individual on the job needs to know and understand how to:  |  |
|                        | SB5. Report problem that he can't resolve appropriate authority  |  |
|                        | SB6. Identify sources of support that can be availed for problem solving.  |  |
|                        | Analytical Thinking  |  |
|                        | The user/individual on the job needs to know and understand how to: SB7. Evaluate the complexity of task to determine for any assistance required.               |  |
|                        | Critical Thinking  |  |
|                        | The user/individual on the job needs to know and understand how to:  SB8. Analyze, evaluate and apply the information gathered from observations and experience. |  |





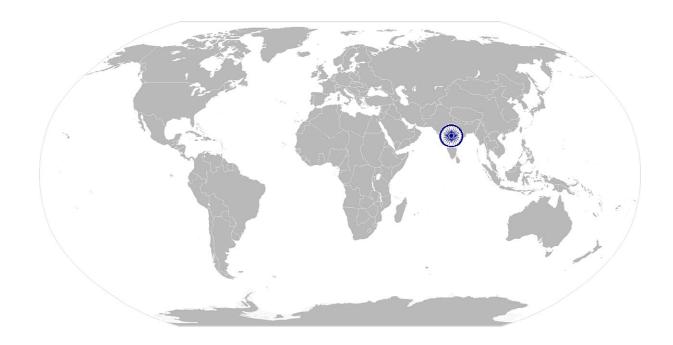


#### MIN/N0239

## Assist in pre-operation checks and servicing of HEMM

# **NOS Version Control**

| NOS Code       | MIN/N0239                        |                  |            |
|----------------|----------------------------------|------------------|------------|
| Credits (NSQF) | TBD                              | Version number   | 1.0        |
| Sector         | Mining                           | Drafted on       | 08/08/2016 |
| Sub-sector     | Mining Operation                 | Last reviewed on | 27/09/2016 |
| Occupation     | Loading & Hauling Opencast Mines | Next review date | 26/09/2019 |



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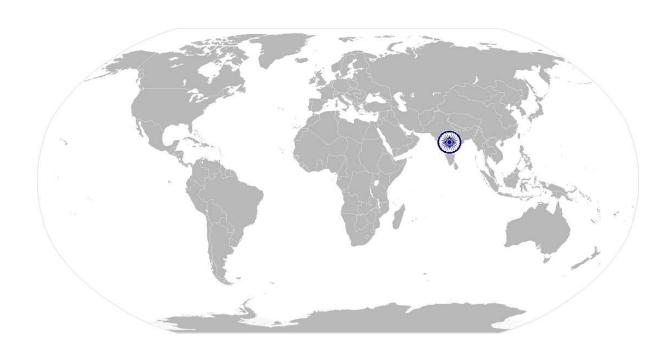






MIN/N0240 Assist in shifting and operation of the machine.

# National Occupational Standard



# **Overview**

This unit is about providing necessary assistance to operators in shifting, placement, cleanliness and operation of machine.



# National Occupational Standards



#### MIN/N0240 Assist in shifting and operation of the machine.

| MIN /N 0240  |  |
|--|--|
| Assist in shifting and operation of the machine  |  |
| This unit is about providing necessary assistance to operator in shifting, placement, cleanliness and operation of machine at the place designated by the in charge.   |  |
| <ul> <li>This unit/task covers the following:</li> <li>To assist in shifting and placement of machine</li> <li>provide necessary assistance during the operation of machine</li> <li>Cleaning of machine.</li> <li>Assist in varied other and extraction jobs</li> </ul> |  |
|  |  |

#### Performance Criteria(PC) w.r.t. the Scope

| Element   | Performance Criteria  |  |
|---|---|--|
| To assist in shifting and placement of machine  Provide necessary | To be competent, the user/individual on the job must be able to  PC1. Follow the work instruction for shifting and placement of machine PC2. Ensure that the path is free from any obstruction. Ensure that no blasting operation is in progress in the area to be shifted. PC3. carry the trailing cable while placement of machine in case of electrical driven machines  PC4. Guide the operator for placement of drill machine at distinctly marked position given by Mechanic/Technician/ surveyor.  PC5. carry out visual inspection of the area before starting the operation PC6. Inspect the unloading area properly for any persons or machinery before starting the dumping operation. ensure that the dumping area is free from cracks and subsidence  PC7. ensure that no person is present at the toe of unloading area  PC8. report any abnormality from the machine operation to the operator |  |
| assistance during the   | PC9. Assist the operator in changing the rod of drill machines.   |  |
| operation of machine  | PC10. Clear the drill cuttings / muck whenever advised by the operator.   |  |
|   | PC11. Perform water spraying on muck pile if in practice.   |  |
| Cleaning of equipment   | PC12. Clean the operator's cabin. Clean the glasses of the operator cabins for better visibility before the start of machine in a shift  PC13. Clean the operator's cabin. Clean the glasses of the operator cabins for better visibility before the start of machine in a shift.   |  |
| Assist in varied extraction jobs.                                 | <ul> <li>PC14. Help operators, such as earth drillers, jack hammer and mining machine operators during the extraction process.</li> <li>PC15. Assisting workers to extract geological materials, using hand tools and equipment.</li> <li>PC16. Signaling workers to start extraction as per supervisors / operators' Instructions.</li> <li>PC17. Delivery and set-up of materials, devices and machine parts, using hand tools.</li> </ul>  |  |
| Knowledge and Understanding (K)                                   |   |  |







| MIN/N0240 | Assist in shifting and operation of the machine. |
|-----------|--|
|           |  |

| IVIIN/NU24U            | Assist in shifting and operation of the machine.                                     |
|------------------------|--|
| B. Organizational      | The user/individual on the job needs to know and understand:                         |
| Context                | KA1. The organization's procedure and guidelines                                     |
| (Knowledge of the      | KA2. The performance standards and procedures followed in organization               |
| company /              | KA3. Reporting structure of organization   |
| • • •                  | KA4. Contact person in case of queries on procedure or product                       |
| organization and       | KA5. Location and process for disposal of scrap material.                            |
| its processes)         |  |
| B. Technical           | The user/individual on the job needs to know and understand:                         |
| Knowledge              | KA6. Should be aware of the risk and risk management plan of the job                 |
| · ·                    | KA7. Knowledge on working at height safety   |
|                        | KA8. Basic knowledge of machine features   |
|                        | KA9. Knowledge of code of practice for different operations                          |
|                        | KA10. Knowledge of health hazards and ergonomics                                     |
| Skills (S)             |  |
| C. Core Skills/        | Writing Skills   |
| Generic Skills         | The user/ individual on the job needs to know and understand how to:                 |
|                        | SA1. Write simple records of any observation or incident.                            |
|                        | SA2. Note measurement, gauge reading etc. for various process in the prescribed      |
|                        | format.  |
|                        |  |
|                        | Reading Skills   |
|                        | The user/individual on the job needs to know and understand how to:                  |
|                        | SA3. Should be able to read the instructions and signage at work place               |
|                        | Oral Communication (Listening and Speaking skills)                                   |
|                        | The user/individual on the job needs to know and understand how to:                  |
|                        | SA4. Interact effectively with machine operator in order to clarify instructions and |
|                        | other issues.  |
|                        | SA5. Should be able to alert all persons in immediate vicinity in case of any        |
|                        | emergency. SA6. Use correct technical terms while communicating with operator.       |
|                        | SAO. Ose correct technical terms while communicating with operator.                  |
| D. Professional Skills | Decision Making  |
|                        | The user/individual on the job needs to know and understand how to:                  |
|                        | SB1. Take decision on types of tools to be used.                                     |
|                        | SB2 Take decision on use of fire extinguisher in case of fire incident.              |
|                        | Plan and Organize  |
|                        | The user/individual on the job needs to know and understand:                         |
|                        | SB1. Carry out work in line with the instruction of operator and as per timeline.    |
|                        | SB2. Plan work according to the job location.  |
|                        | Customer Centricity  |
|                        | The user/individual on the job needs to know and understand how to:                  |
|                        | SB3. Provide service of highest order to ensure customer satisfaction                |
|                        | 223. 1.0   |







#### MIN/N0240 Assist in shifting and operation of the machine.

#### **Problem Solving**

The user/individual on the job needs to know and understand how to:

- SB4. Report problems that you cannot resolve to appropriate authority
- SB5. Identify sources of support that can be availed for problem solving for various kind of problems

#### **Analytical Thinking**

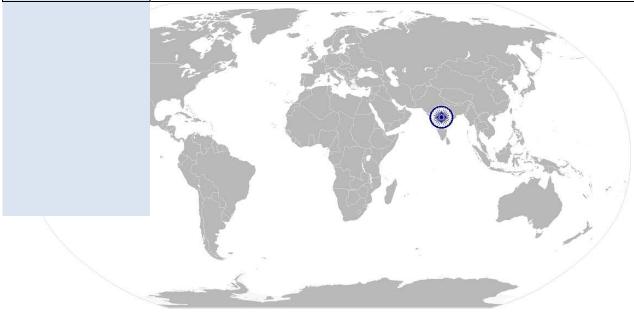
The user/individual on the job needs to know and understand how to:

SB6. Evaluate the complexity of the task to determine if he/she needs any assistance from the senior

#### **Critical Thinking**

The user/individual on the job needs to know and understand how to:

SB7. Analyze, evaluate and apply the information gathered from observation, experience, reasoning to act efficiently and effectively.







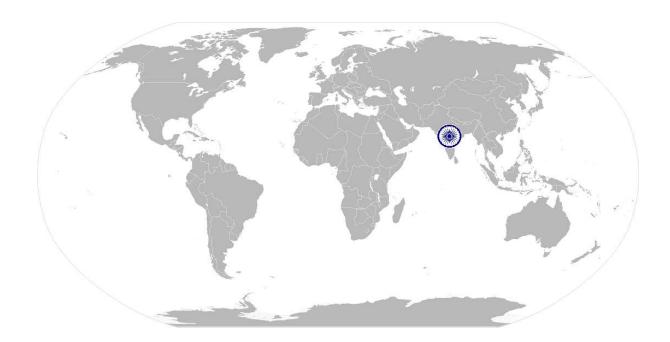


MIN/N0240

## Assist in shifting and operation of the machine.

# **NOS Version Control**

| NOS Code       | MIN/N0240                        |                  |            |  |  |  |  |
|----------------|----------------------------------|------------------|------------|--|--|--|--|
| Credits (NSQF) | TBD Version number 1.0           |                  |            |  |  |  |  |
| Sector         | Mining                           | Drafted on       | 08/08/2016 |  |  |  |  |
| Sub-sector     | Mining Operation                 | Last reviewed on | 27/09/2016 |  |  |  |  |
| Occupation     | Loading & Hauling Opencast Mines | Next review date | 26/09/2019 |  |  |  |  |



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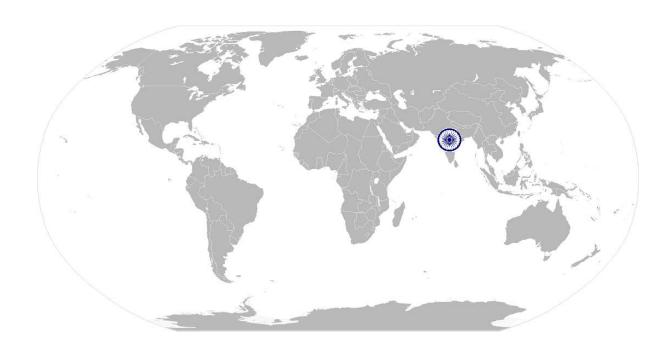
MIN/N0901





Comply with Worksite Health & Safety

# National Occupational Standard



# **Overview**

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



# National Occupational Standards



## MIN/N0901

## Comply with Worksite Health & Safety

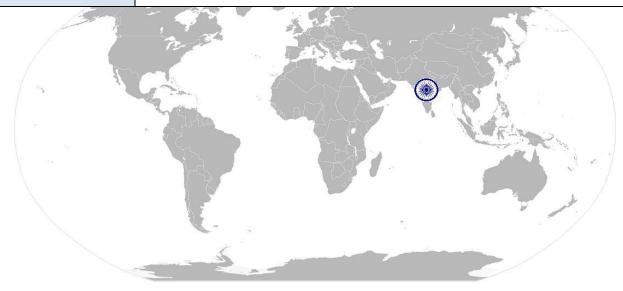
| Unit Code                       | MIN/ N0901  |
|---------------------------------|---|
| Unit Title<br>(Task)            | Comply with worksite health and safety  |
| Description                     | This unit provides the information regarding worksite health and safety.  |
| Scope                           | This unit is about adhering to health and safety requirements at the worksite during equipment operations.  |
| Performance Criteria(F          | PC) w.r.t. the Scope  |
| Element                         | Performance Criteria  |
| Safety, Security and            | To be competent, the user/individual on the job must be able to   |
| Administrative                  | 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 such as seat belt, body protection, respiratory protection, eye protection, ear protection and hand protection.              |
|                                 | 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. Follow safety regulations and procedures with regard to worksite hazards and risks.  |
|                                 | PC7. Operate various grades of fire extinguishers, as applicable.  PC8. Support in administering basic first aid and report to concerned team   |
|                                 | members, as required, in case of an accident.   |
|                                 | PC9. Respond promptly and appropriately to an accident/ incident or emergency situation, within limits of your role and responsibility.   |
|                                 | PC10. Record and report details related to operations, incidents or accidents, as applicable  |
|                                 | PC11. Follow the manufacturer's instructions for care and safe operation of the equipment.  |
| Knowledge and Under             | standing (K)  |
| Regulatory Context              | The user/individual on the job needs to know and understand:  |
| (Knowledge of the               | KA1. Benching in quarries, dressing of overhangs, undercuts, fencing. KA2. First aid and Hygiene.   |
| company /                       | KA3. Code of traffic in specific areas of mine. Significance of fences.   |
| organization and its processes) | KA4. Standing orders in force at the mine. Safety in the vicinity of Machinery.  KA5. Shot-firing and Safety regulations. How and where to take shelter? Knowledge of mining safety procedures. |







| MIN/N0901 | Comply with Worksite Health & Safety  |
|-----------|---|
|           | KA6. Outcome of violation of safety procedures.                                       |
|           | KA7. Locally prepared Emergency Preparedness / Disaster Management Plan.              |
|           | KA8. Process for reporting any unsafe act/condition in work area which may            |
|           | endanger his or his colleague's life.   |
|           | KA9. Environmental impact of mining.  |
|           | KA10. Sources of dust, noise and vibration and measures to minimize.                  |
|           | KA11. Hazardous material safety and security rules and regulations as prescribed by   |
|           | DGMS.   |
| Technical | The user/individual on the job, needs to know and understand:                         |
|           | The user/individual on the job needs to know and understand:                          |
| Knowledge | KB1. Basic knowledge of safety aspects in Open cast operations.                       |
|           | KB2. Technical and gallery training as per first schedule, Mining Vocational Training |
|           | Rules (MVTR) 1966.  |
|           | KB3. Refresher training as per first schedule, Mining Vocational Training Rules       |
|           | (MVTR) 1966. if absent from mines for a period of One year or more before re-         |
|           |   |
|           | employment.   |
|           |   |





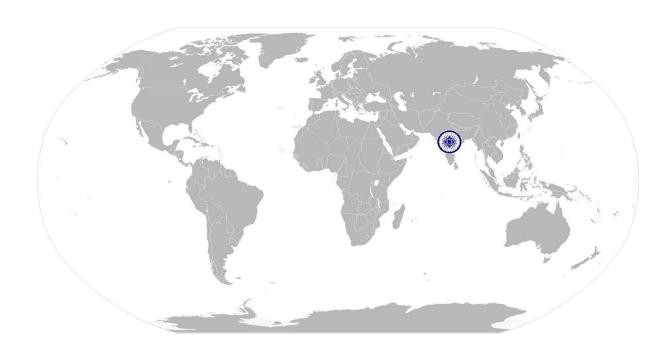




## **Comply with Worksite Health & Safety**

# **NOS Version Control**

| NOS Code       | MIN/N0901                        |                  |            |  |  |
|----------------|----------------------------------|------------------|------------|--|--|
| Credits (NSQF) | TBD                              | 1.0              |            |  |  |
| Sector         | Mining                           | Drafted on       | 08/08/2016 |  |  |
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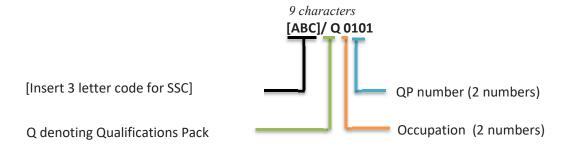




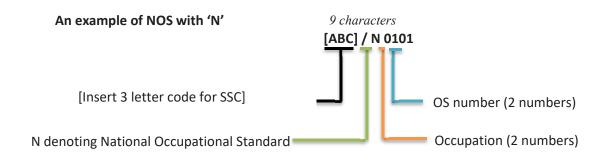
#### **Annexure**

## **Nomenclature for QP and NOS**

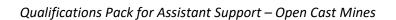
# **Qualifications Pack**



#### **Occupational Standard**



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

| Sub-sector                        | Range of Occupation numbers |
|-----------------------------------|-----------------------------|
| Exploration & Resource Management | 01 to 50                    |
| Mining Operations                 | 01 to 80                    |
| Engineering Services              | 01 to 60                    |
| Mineral Beneficiation             | 01 to 80                    |

| Sequence         | Description                       | Example |
|------------------|-----------------------------------|---------|
| Three letters    | Industry name                     | MIN     |
| Slash            | /                                 | /       |
| Next letter      | Whether <b>Q</b> P or <b>N</b> OS | N       |
| Next two numbers | Occupation code                   | 01      |
| Next two numbers | OS number                         | 01      |





#### **CRITERIA FOR ASSESSMENT OF TRAINEES**

**Job Role** Assistant Support -Open Cast Mines

Qualification Pack MIN/Q0211

Sector Skill Council Mining

#### **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% in every NOS
- 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

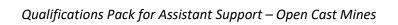
|  |   |                        |           | Marks A | llocation           |
|--|---|------------------------|-----------|---------|---------------------|
| Assessment outcomes  | Assessment Criteria for outcomes  | Total<br>Mark<br>(100) | Out<br>Of | Theory  | Skills<br>Practical |
|  |   | 100                    | 100       | 30      | 70                  |
| 1. MIN/N0239: Assist in pre operational check, servicing of HEMM | PC1. Assist in visual inspection of the body components for cracks and wear. Observe any unusual noise, vibration, leak, spillage, accumulation etc. and communicate the same to Technician / Operator. | 40                     | 3         | 2       | 1                   |
|  | PC2. Inspect the bucket for any crack or damage. Inspect the tooth points and lock pin.   |                        | 2         | 1       | 1                   |
|  | PC3. Check the hydraulic oil levels, radiator water levels, any leakages  | 3                      | 3         | 2       | 1                   |
|  | PC4. Check the track chain pad, bolts and links in crawler mounted equipment. Tighten bolts as required.  |                        | 2         | 1       | 1                   |
|  | PC5. Check gauges, indicators, and sensor are fully functional. Observe any alarm message and report the same to Technician or Operator.  |                        | 2         | 1       | 1                   |
|  | PC6. Check for any leakage in compressor unit and all fittings and air lines. The condition of trailing cable and cable joints.   |                        | 2         | 1       | 1                   |



# Qualifications Pack for Assistant Support – Open Cast Mines



|   | PC7. Carry all the tools and tackles to complete the job.   |    | 2  |    | 2  |
|---|---|----|----|----|----|
|   | PC8. To clean the work area and assist the Technician in conducting inspection and check different machine area.  |    | 3  | 1  | 2  |
|   | PC9. Follow all the work instruction from Fitter / Technician related to routine maintenance.   |    | 1  | 1  | 0  |
|   | PC10. Ensure that no maintenance task on the engine is performed when running or still hot.   |    | 1  |    | 1  |
|   | PC11. Repair or replace faulty parts as per Technician or Operator's instructions.  |    | 2  | 1  | 1  |
|   | PC12. Use various kinds of hand held and power-tools to lift, dismantle or assemble machine components.   |    | 2  | 1  | 1  |
|   | PC13. Perform greasing & lubrication as directed by Operator / Technician.  |    | 3  | 1  | 2  |
|   | PC14. Assist in oil changes, change of oil filters and air filters, replaces hoses, belts, water pumps and other parts.   |    | 3  | 1  | 2  |
|   | PC15.Check fan belts, hoses, wiper blades and other safety equipment; check water and antifreeze levels; check air in tires and inflate tires and changes tires as necessary. |    | 3  | 1  | 2  |
|   | PC16. Assist technician in maintaining and repairing automotive fleet and small equipment   |    | 2  | 1  | 1  |
|   | PC17. Change and repair tires for the automotive fleet and responds to road service calls. Tow broken-down vehicles.  |    | 2  | 1  | 1  |
|   | PC18. Fuel, wash, and clean administrative vehicles.  |    | 1  | 0  | 1  |
|   | PC19. Assist in welding services as needed.   |    | 1  | 0  | 1  |
|   |   |    | 40 | 17 | 23 |
| 2. MIN/N0240: Assist<br>Mining operators in<br>shifting, placement, | PC1. Follow the work instruction for shifting and placement of machine.   | 40 | 2  | 1  | 1  |
| cleanliness and operation of the machine.                           | PC2. Ensure that the path is free from any obstruction. Ensure that no blasting operation is in progress in the area to be shifted.   |    | 2  | 1  | 1  |
|   | PC3. carry the trailing cable while placement of machine in case of electrical driven machines  |    | 2  | 1  | 1  |







|  | PC15. Assisting workers to extract geological materials, using hand tools and equipment;  PC16. Signalling workers to start extraction as per supervisors / operators' instructions;  | 2 | 1 | 1 |
|--|---|---|---|---|
|  | 2015 4 111 1 1 1 1 1 1  |   |   |   |
|  | PC14. Help operators , such as earth drillers, jack hammer and mining machine operators during the extraction process;  | 3 | 1 | 2 |
|  | PC13. Clean the foot plates, pedals and steps free from mud, dirt, oil, grease, ice and snow at regular intervals. Perform periodic cleaning of the entire machine.   | 2 | 1 | 1 |
|  | PC12. Clean the operator's cabin. Clean the glasses of the operator cabins for better visibility before the start of machine in a shift   | 2 |   | 2 |
|  | PC11. Perform water spraying on muck pile if in practice.   | 3 | 1 | 2 |
|  | PC10. Clear the drill cuttings / muck whenever advised by the operator.   | 3 | 1 | 2 |
|  | PC9. Assist the operator in changing the rod of drill machines.   | 3 | 1 | 2 |
|  | toe of unloading area  PC8. report any abnormality from the   | 3 | 2 | 1 |
|  | PC6. Inspect the unloading area properly for any persons or machinery before starting the dumping operation. Ensure that the dumping area is free from cracks and subsidence.  PC7. ensure that no person is present at the | 2 | 1 | 2 |
|  | PC5. carry out visual inspection of the area before starting the operation  | 3 | 1 | 2 |
|  | PC4. Guide the operator for placement of drill machine at distinctly marked position given by Mechanic/Technician/ surveyor.  | 2 | 1 | 1 |



# Qualifications Pack for Assistant Support – Open Cast Mines



| PC4. Comply with safety regulations and procedures in case of fire hazard.  |       | 2  | 0 | 2  |
|---|-------|----|---|----|
| PC5. Operate various grades of fire extinguishers.  |       | 2  | 1 | 1  |
| PC6. Work responsibly and as safe and careful as possible so as not to put the health and safety of self or others at risk, including members of the public |       | 2  | 1 | 1  |
| PC7. Perform storage and transport of hazardous materials compliant with safety guidelines prescribed by DGMS.  |       | 2  | 0 | 2  |
| PC8. Deal with misfires as per statutory requirement  |       | 1  | 1 | 0  |
| PC9. Identify characteristics of post-blast fumes and take necessary precautions.   |       | 2  | 1 | 1  |
| PC10. Wears safety gear such as hard hat, respiratory protection, eye protection, ear protection.   |       | 1  | 0 | 2  |
| PC11. Follow the manufacturer's instructions for care and safe operation of the equipment.  |       | 1  | 0 | 1  |
|   | Total | 20 | 7 | 13 |