



Skill Council For Mining Sector



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REIMAGINE FUTURE

Qualification Pack



Rig-Mounted Drill Operator

QP Code: MIN/Q1205

Version: 2.0

NSQF Level: 4

Skill Council for Mining Sector || FIMI House, B-311, Okhla Industrial Area, Phase-I
New Delhi-110020



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MIN/Q1205: Rig-Mounted Drill Operator

Brief Job Description

A rig-mounted drill operator prepares the drill rig, performs drill operations, carries out maintenance and troubleshooting, as well as follows proper reporting and documentation procedures.

Personal Attributes

This job requires the individual to concentrate on the job at hand and complete it efficiently and effectively. The individual should be physically agile, strong, have good eye-sight, and not suffer from color-blindness.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [MIN/N1214: Prepare Drill Rig](#)
2. [MIN/N1215: Perform Drill Operation on Drill rig](#)
3. [MIN/N1216: Perform routine maintenance and troubleshooting on the drill rig](#)
4. [MIN/N1217: Carry out reporting and documentation for Drill Rig](#)
5. [MIN/N1703: Follow Health, Safety, and Environmental Guidelines for opencast mines \(Including Mine Vocational Training Rule\)](#)
6. [DGT/VSQ/N0102: Employability Skills \(60 Hours\)](#)

Qualification Pack (QP) Parameters

Sector	Mining
Sub-Sector	Mining Operation
Occupation	Drilling/Cutting
Country	India
NSQF Level	4
Credits	17



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Aligned to NCO/ISCO/ISIC Code	NCO-2015/8111.0401
Minimum Educational Qualification & Experience	8th grade pass plus 2-year NTC plus 1 Year NAC OR 8th pass plus 1-year NTC plus 1-Year NAC plus CITS OR 10th grade pass and pursuing continuous schooling OR 10th grade pass (with 2 years relevant experience) OR Previous relevant Qualification of NSQF Level (3.0 Jr. Rig-Mounted Drill Operator with minimum education as 5th grade pass with 2 years relevant experience)
Minimum Level of Education for Training in School	
Pre-Requisite License or Training	NA
Minimum Job Entry Age	20 Years
Last Reviewed On	NA
Next Review Date	17/11/2025
NSQC Approval Date	02/01/2023
Version	2.0
Reference code on NQR	2022/MIN/SCMS/06990
NQR Version	1

Remarks:

Total Notional Duration: 510 Hours = Domain Theory Duration: 90 Hours+ Domain Practical Duration: 180 Hours + Domain OJT (Mandatory) Duration: 180 Hours + Employability Skills Duration: 60 Hours



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MIN/N1214: Prepare Drill Rig

Description

This unit is about preparing the Drill for activities that need to be carried out during a shift.

Scope

The scope covers the following :

- Conduct pre-operation checks
- Record details of checking and maintenance

Elements and Performance Criteria

Conduct pre-operation checks

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

- PC1.** ensure the water availability in the tank for dust wet drilling
- PC2.** check the condition of wiper, lights, and functioning of emergency stop buttons
- PC3.** adhere to time limits given by supervisor
- PC4.** check various controls, gauges, warning lamp and other safety devices
- PC5.** ensure that crown blocks are mounted securely
- PC6.** check all hose connections are in order, if using a compress air drill
- PC7.** check that drilling equipment is in safe operating condition
- PC8.** perform visual checks to detect cracks, wear and tear or any damage that could result in structural weakness
- PC9.** visually inspects to detect cracks or fractures in welded joints
- PC10.** apply grease to all greasing pins and pivot points
- PC11.** check under carriage and super structure in the drill.
- PC12.** check the drilling site is clear of other mine workers to avoid any accidents
- PC13.** follow the manufacturer's instructions which apply to the care and safe operation of the Drill.

Record details of checking and maintenance

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

- PC14.** maintain a checking/maintenance logbook to record all activities performed before starting the Drill
- PC15.** inform supervisor of problems that are beyond scope of his role

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** job specific documents e.g. daily maintenance checklist and importance of the same
- KU2.** risk and impact of not following defined procedures/work instructions



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- KU3.** escalation matrix for reporting identified problems
- KU4.** cost of equipment and loss for the company that results from damage of equipment
- KU5.** all direct/indirect cost of accidents to the company
- KU6.** implications of delays in process to the company
- KU7.** locally prepared emergency response /disaster management plan Safety Guidelines specified by Directorate General of Mine Safety (DGMS))
- KU8.** different types of mines and detail of the mine he is working in
- KU9.** mine organisation, timekeeping, need for discipline and punctuality
- KU10.** benching in quarries, dressing of overhangs, undercuts ,fencing, firstaid and hygiene
- KU11.** code of traffic inspecific areas of mine. Significance offences
- KU12.** standing orders inforce at the mine. Safety in the vicinity of machinery
- KU13.** shot-firing and Safety regulations. How and where to take shelter
- KU14.** tram ways and siding, Haulage rooms, Winding rooms, Boilers, Electrical Gears
- KU15.** duties of work men under Mines act
- KU16.** provision of wages, working hours and accident compensation as per Mines act.
- KU17.** mining safety procedures
- KU18.** outcome of violation of safely procedures
- KU19.** precautions to be taken when handling explosives
- KU20.** refresher training as per fourth schedule MVTR (1966) within one month of joining duties following absence from duties for a period exceeding one year.
- KU21.** about PPE'S to be used: Safety Helmet, Safety shoe, Safety goggles, Earmuff, Cloth hand gloves, Dust mask to protect from dust and noise, Fluorescent jacket
- KU22.** different types of drills and their specific use
- KU23.** proper use and care of machine and cables, picks, bits, sharpening, shaping etc
- KU24.** specification and details of blast hole drills used in open-cast mines
- KU25.** instrument panel, various controls their location and operation
- KU26.** lubrication of drills
- KU27.** various levers and switches in order to operate the Drill properly
- KU28.** different types of drill bits and their uses
- KU29.** common terminology vis-à-vis drilling
- KU30.** precautions against falls/gas/coal dust
- KU31.** routine checks essential before starting drill operations
- KU32.** common troubles and remedies
- KU33.** signage, mining areas igns and other safety and emergency signals
- KU34.** response to emergencies such as fire, accident, major failure etc.

Generic Skills (GS)

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

- GS1.** fill out check-list/activity log books detailing maintenance activities conducted



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- GS2.** fill out administrative forms
- GS3.** read operators' manual
- GS4.** read and understand pre-operation checklist/activity log book
- GS5.** read and comprehend banners/signage
- GS6.** communicate with supervisors and peers in a proper manner adhering to the values of respect for individual
- GS7.** make decisions pertaining to the concerned area of work.
- GS8.** plan and organize the work order and jobs
- GS9.** organize all process manuals so that sorting/accessing information is easy
- GS10.** detect problems in day to day tasks
- GS11.** discuss possible solution with the supervisor for problem solving
- GS12.** make decisions in emergency conditions
- GS13.** follow instructions and work on areas of improvement identified
- GS14.** complete the assigned tasks with minimum supervision
- GS15.** complete the job within timelines and quality norms
- GS16.** use common sense and make judgments during day to day basis
- GS17.** use reasoning skills to identify and resolve basic problems
- GS18.** use intuition to detect any potential problems which could arise

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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Conduct pre-operation checks</i>	26	44	-	18
PC1. ensure the water availability in the tank for dust wet drilling	2	3	-	1
PC2. check the condition of wiper, lights, and functioning of emergency stop buttons	2	4	-	2
PC3. adhere to time limits given by supervisor	2	3	-	1
PC4. check various controls, gauges, warning lamp and other safety devices	2	3	-	1
PC5. ensure that crown blocks are mounted securely	2	3	-	1
PC6. check all hose connections are in order, if using a compress air drill	2	3	-	1
PC7. check that drilling equipment is in safe operating condition	2	3	-	1
PC8. perform visual checks to detect cracks, wear and tear or any damage that could result in structural weakness	2	4	-	2
PC9. visually inspects to detect cracks or fractures in welded joints	2	4	-	2
PC10. apply grease to all greasing pins and pivot points	2	4	-	2
PC11. check under carriage and super structure in the drill.	2	3	-	1
PC12. check the drilling site is clear of other mine workers to avoid any accidents	2	4	-	2
PC13. follow the manufacturer's instructions which apply to the care and safe operation of the Drill.	2	3	-	1
<i>Record details of checking and maintenance</i>	4	6	-	2



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. maintain a checking/maintenance logbook to record all activities performed before starting the Drill	2	3	-	1
PC15. inform supervisor of problems that are beyond scope of his role	2	3	-	1
NOS Total	30	50	-	20



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National Occupational Standards (NOS) Parameters

NOS Code	MIN/N1214
NOS Name	Prepare Drill Rig
Sector	Mining
Sub-Sector	Mining Operation
Occupation	Drilling/Cutting
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	21/07/2022
Next Review Date	17/11/2025
NSQC Clearance Date	02/01/2023



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MIN/N1215: Perform Drill Operation on Drill rig

Description

This unit is about performing drilling operation using a rig mounted drill machine

Scope

The scope covers the following :

- Locomote drill rig by trammig or towing
- Position and mount the drill
- Perform drilling operation

Elements and Performance Criteria

Locomote drill rig by trammig or towing

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

- PC1.** plan and organize the job according to given instructions
- PC2.** organise daily consumables according to the day's plan
- PC3.** operate propelling motor control levers to smoothly move the drill machine in all four directions
- PC4.** ensure all necessary precautions are adhered to before towing the drill to a distant site
- PC5.** raise drill guide to 1.5 m above ground level and make it horizontal to prevent any damage in transit.
- PC6.** ensure that the OEM prescribed limit for angles of inclination are followed during trimming and setting up of drills.
- PC7.** follow the standard operating procedure of marching of machine

Position and mount the drill

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

- PC8.** ensure a stable base for mounting the drill
- PC9.** avoid accidental fall of drill rod/hammer/ bit in the drilled blast hole
- PC10.** adjust the tracks by methodically manipulating the positions of oscillation cylinder valve and hydraulic track valve

Perform drilling operation

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

- PC11.** follow drill depth plans and ensure quality of holes by dipping and re-drilling before leaving drill area.
- PC12.** ensure that the highest level of quality is consistently maintained
- PC13.** ensure all associated products (couplings/rods etc.) are used to their maximum potential while ensuring their sustainability
- PC14.** reduce down time and wastage
- PC15.** demonstrate caution against hazards of drill machine in operation
- PC16.** follow the standard operating procedure while performing drill operation



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- PC17.** check that machine should not be moved over drilled hole
- PC18.** ensure three-point contacts with supports should always be followed while climbing / getting down to avoid fall from height
- PC19.** ensure machine should be kept clean and dry to avoid fall of persons
- PC20.** ensure wet drilling is being done to avoid dust generation

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** types of documentation in organization e.g. daily maintenance checklist and importance of the same
- KU2.** risk and impact of not following defined procedures/work instructions
- KU3.** rules and regulations of mine as per standard operating procedure (SOP)
- KU4.** risk and impact of not following company's SOP
- KU5.** escalation matrix for reporting identified problems
- KU6.** The duties and responsibilities associated with his job role as per the employer Cost of delays to the company
- KU7.** direct/ Indirect cost of accidents to the company
- KU8.** locally prepared emergency response /disaster management plan. Safety Guidelines specified by Directorate General of Mine Safety (DGMS))
- KU9.** different types of mines and detail of the mine he is working in
- KU10.** mine Organisation, time keeping, need for discipline and punctuality
- KU11.** benching in quarries, dressing of over hangs, undercuts, fencing, first aid and hygiene.
- KU12.** code of traffic in specific areas of mine. Significance of fences
- KU13.** standing orders in force at the mine. Safety in the vicinity of machinery
- KU14.** shot-firing and Safety regulations. How and where to take shelter
- KU15.** tramways and siding, Haulage rooms, Winding rooms, Boilers, Electrical Gears
- KU16.** duties of work men under Mines act.
- KU17.** provision of wages, working hours and accident compensation as per Mines act.
- KU18.** mining safety procedures
- KU19.** outcome of violation of safety procedures
- KU20.** precautions to be taken when handling explosives
- KU21.** Refresher training as per fourth schedule MVTR (1966) within one month of joining duties following absence from duties for a period exceeding one year.
- KU22.** detection and precaution against inflammable and noxious gases
- KU23.** about Drilling Machines. Diesel Engines, Electric Motors and compressors
- KU24.** different types of drills and their specific use.
- KU25.** various levers and switches in order to operate the Drill properly
- KU26.** drilling pattern and sequence of operations.
- KU27.** different types of drill bits and their uses
- KU28.** common terminology vis-à-vis drilling



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- KU29.** operation of different assemblies and sub-assemblies such as under-carriage, compressors, hydraulic/pneumatic systems
- KU30.** drill safety devices fitted on compressors
- KU31.** correct sequence of operation of different levers
- KU32.** transmissions of compressed air from compress or to Drill head.
- KU33.** selection of proper rotation speed and effect of excessive speeds on bit life
- KU34.** specification and details of blast hole drills used in open-cast mines
- KU35.** instrument panel, various controls their location and operation
- KU36.** lubrication system of drills
- KU37.** drill hole design and impact of poor drill hole design on blasting
- KU38.** offly rocks and air-blast
- KU39.** inclined hole, azimuth, deviation, dip
- KU40.** safety during drilling, marching and other operations
- KU41.** dangers from loose house joints and defective Houses
- KU42.** how to comply with all company Quality, Health, Safety and Environment policies and procedures
- KU43.** signage, mining area signs and other safety and emergency signals
- KU44.** wetcutting, drilling method, drilling pattern
- KU45.** dangers from cutting/ drilling in stone band
- KU46.** slope failures, Joint spacing, Caving
- KU47.** fleeting of ore cutting machine on gradient
- KU48.** keeping machinery reasonably free from dust
- KU49.** applicable regulations
- KU50.** danger of drilling in hot strata
- KU51.** short firing, miss fire, revealing holes, sleeping holes

Generic Skills (GS)

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

- GS1.** fill out check-list/activity log books detailing maintenance activities conducted
- GS2.** fill out administrative forms
- GS3.** read operators' manual
- GS4.** read and understand pre-operation checklist/activity log book
- GS5.** read and comprehend banners/signage
- GS6.** communicate with supervisors and peers in a proper manner adhering to the values of respect for individual
- GS7.** make decisions pertaining to the concerned area of work.
- GS8.** plan and organize the work order and jobs
- GS9.** organize all process manuals so that sorting/accessing information is easy
- GS10.** detect problems in day to day tasks



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- GS11.** discuss possible solution with the supervisor for problem solving
- GS12.** make decisions in emergency conditions
- GS13.** follow instructions and work on areas of improvement identified
- GS14.** complete the assigned tasks with minimum supervision
- GS15.** complete the job within timelines and quality norms
- GS16.** use common sense and make judgments during day to day basis
- GS17.** use reasoning skills to identify and resolve basic problems
- GS18.** use intuition to detect any potential problems which could arise

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Locomote drill rig by tramming or towing</i>	10	17	-	7
PC1. plan and organize the job according to given instructions	1	2	-	1
PC2. organise daily consumables according to the day's plan	1	2	-	1
PC3. operate propelling motor control levers to smoothly move the drill machine in all four directions	2	3	-	1
PC4. ensure all necessary precautions are adhered to before towing the drill to a distant site	1	2	-	1
PC5. raise drill guide to 1.5 m above ground level and make it horizontal to prevent any damage in transit.	2	3	-	1
PC6. ensure that the OEM prescribed limit for angles of inclination are followed during trimming and setting up of drills.	2	3	-	1
PC7. follow the standard operating procedure of marching of machine	1	2	-	1
<i>Position and mount the drill</i>	6	9	-	3
PC8. ensure a stable base for mounting the drill	2	3	-	1
PC9. avoid accidental fall of drill rod/hammer/ bit in the drilled blast hole	2	3	-	1
PC10. adjust the tracks by methodically manipulating the positions of oscillation cylinder valve and hydraulic track valve	2	3	-	1
<i>Perform drilling operation</i>	14	24	-	10
PC11. follow drill depth plans and ensure quality of holes by dipping and re-drilling before leaving drill area.	2	3	-	1



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC12. ensure that the highest level of quality is consistently maintained	1	2	-	1
PC13. ensure all associated products (couplings/rods etc.) are used to their maximum potential while ensuring their sustainability	2	3	-	1
PC14. reduce down time and wastage	1	2	-	1
PC15. demonstrate caution against hazards of drill machine in operation	1	2	-	1
PC16. follow the standard operating procedure while performing drill operation	1	2	-	1
PC17. check that machine should not be moved over drilled hole	2	3	-	1
PC18. ensure three-point contacts with supports should always be followed while climbing / getting down to avoid fall from height	2	3	-	1
PC19. ensure machine should be kept clean and dry to avoid fall of persons	1	2	-	1
PC20. ensure wet drilling is being done to avoid dust generation	1	2	-	1
NOS Total	30	50	-	20



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National Occupational Standards (NOS) Parameters

NOS Code	MIN/N1215
NOS Name	Perform Drill Operation on Drill rig
Sector	Mining
Sub-Sector	Mining Operation
Occupation	Drilling/Cutting
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	21/07/2022
Next Review Date	17/11/2025
NSQC Clearance Date	02/01/2023

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MIN/N1216: Perform routine maintenance and troubleshooting on the drill rig

Description

This unit is about performing routine maintenance and troubleshooting tasks on the Drill rig.

Scope

The scope covers the following :

- Routine maintenance
- Basic diagnostics and troubleshooting

Elements and Performance Criteria

Routine maintenance

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

- PC1.** track machine operating hours to assess their right service schedule.
- PC2.** clean air filter dust bowls
- PC3.** clean foot plates, pedals and steps free from mud, dirt, ice and snow
- PC4.** drain water and sediment /fuel separators
- PC5.** replenish coolants, lubricants and fluids
- PC6.** grease all greasing pins and pivot points
- PC7.** check battery levels and condition of the terminals and carrying out minor adjustments if required
- PC8.** check and maintain the tyre rims, air pressure, wheel nuts and treads.
- PC9.** check structural safety of the drill machine
- PC10.** complete timely and legibly daily/weekly maintenance sheets

Basic diagnostics and troubleshooting

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

- PC11.** ensure the machine is on firm and level ground before attempting to carry out any maintenance activity
- PC12.** ensure that no maintenance task on the engine is performed when running or still hot
- PC13.** ensure proper Lock out and Tag out scenario to avoid any untoward incident triggered due to unknowingly operation of machine / system under maintenance
- PC14.** assess when the problem is beyond his competence and report the problem to suitably qualified and competent personnel
- PC15.** complete timely and legibly defect sheets as provided by the company
- PC16.** take measures and precautions in regard to appropriate nature of mine operation to prevent detect and combat of mine fires as prescribed by mine officials
- PC17.** evacuation to safe location threatening the safety and health of workers
- PC18.** start, stop, restart, remove or alter not to be done without official authorisation



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Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** types of documentation in organization e.g. daily maintenance checklist and importance of the same
- KU2.** risk and impact of not following defined procedures/work instructions
- KU3.** rules and regulations of mine as per standard operating procedure (SOP)
- KU4.** risk and impact of not following company's SOP
- KU5.** escalation matrix for reporting identified problems
- KU6.** different types of mines and detail of the mine he is working in
- KU7.** mine organisation, timekeeping, need for discipline and punctuality
- KU8.** benching in quarries, dressing of over hangs, undercuts, fencing, first aid and hygiene.
- KU9.** code of practice in specific areas of mine. Significance offences
- KU10.** standing orders in force at the mine. Safety in the vicinity of machinery
- KU11.** shot-firing and Safety regulations. How and where to take shelter
- KU12.** PPE by workmen
- KU13.** tramways and siding, haulage rooms, winding rooms, boilers, electrical gears
- KU14.** duties of work men under Mines act
- KU15.** provision of wages and working hours as per Mines act
- KU16.** mining safety procedures
- KU17.** outcome of violation of safety procedures
- KU18.** precautions to be taken when handling explosives
- KU19.** Refresher training as per fourth schedule MVTR (1966) within one month of joining duties following absence from duties for a period exceeding one year
- KU20.** different types of drills and their specific use
- KU21.** Operation of different assemblies and sub-assemblies such as under-carriage, compressors, hydraulic/pneumatic systems
- KU22.** specification and details of blast hole drills used in open-cast mines
- KU23.** instrument panel, various controls their location and operation
- KU24.** lubrication of drills
- KU25.** various levers and switches in order to operate the Drill properly
- KU26.** drilling pattern and sequence of operations.
- KU27.** different types of drill bits and their uses
- KU28.** common terminology vis-à-vis drilling
- KU29.** safety during drilling, marching and other operations
- KU30.** comply with all company Quality, Health, Safety and Environment policies and procedures
- KU31.** signage, mining area signs and other safety and emergency signals
- KU32.** wetcutting, drilling method, drilling pattern
- KU33.** dangers from cutting/ drilling in stone band
- KU34.** fleeting of ore cutting machine on gradient



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- KU35.** keeping machinery reasonably free from dust
- KU36.** response to emergencies such as fire, accident, major failure etc
- KU37.** how to select, identify and use of right tools at right job

Generic Skills (GS)

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

- GS1.** fill out check-list/activity log books detailing maintenance activities conducted
- GS2.** fill out administrative forms
- GS3.** read operators' manual
- GS4.** read and understand pre-operation checklist/activity log book
- GS5.** read and comprehend banners/signage
- GS6.** communicate with supervisors and peers in a proper manner adhering to the values of respect for individual
- GS7.** make decisions pertaining to the concerned area of work.
- GS8.** plan and organize the work order and jobs
- GS9.** organize all process manuals so that sorting/accessing information is easy
- GS10.** detect problems in day to day tasks
- GS11.** discuss possible solution with the supervisor for problem solving
- GS12.** make decisions in emergency conditions
- GS13.** follow instructions and work on areas of improvement identified
- GS14.** complete the assigned tasks with minimum supervision
- GS15.** complete the job within timelines and quality norms
- GS16.** use common sense and make judgments during day to day basis
- GS17.** use reasoning skills to identify and resolve basic problems
- GS18.** use intuition to detect any potential problems which could arise

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Routine maintenance</i>	18	28	-	11
PC1. track machine operating hours to assess their right service schedule.	2	3	-	1
PC2. clean air filter dust bowls	2	3	-	1
PC3. clean foot plates, pedals and steps free from mud, dirt, ice and snow	1	2	-	1
PC4. drain water and sediment /fuel separators	2	3	-	1
PC5. replenish coolants, lubricants and fluids	2	3	-	1
PC6. grease all greasing pins and pivot points	2	3	-	1
PC7. check battery levels and condition of the terminals and carrying out minor adjustments if required	2	3	-	2
PC8. check and maintain the tyre rims, air pressure,wheel nuts and treads.	1	2	-	1
PC9. check structural safety of the drill machine	2	3	-	1
PC10. complete timely and legibly daily/weekly maintenance sheets	2	3	-	1
<i>Basic diagnostics and troubleshooting</i>	12	22	-	9
PC11. ensure the machine is on firm and level ground before attempting to carry out any maintenance activity	2	3	-	1
PC12. ensure that no maintenance task on the engine is performed when running or still hot	2	3	-	1
PC13. ensure proper Lock out and Tag out scenario to avoid any untoward incident triggered due to unknowingly operation of machine / system under maintenance	2	3	-	2
PC14. assess when the problem is beyond his competence and report the problem to suitably qualified and competent personnel	1	2	-	1



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC15. complete timely and legibly defect sheets as provided by the company	1	3	-	1
PC16. take measures and precautions in regard to appropriate nature of mine operation to prevent detect and combat of mine fires as prescribed by mine officials	1	2	-	1
PC17. evacuation to safe location threatening the safety and health of workers	1	3	-	1
PC18. start, stop, restart, remove or alter not to be done without official authorisation	2	3	-	1
NOS Total	30	50	-	20



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National Occupational Standards (NOS) Parameters

NOS Code	MIN/N1216
NOS Name	Perform routine maintenance and troubleshooting on the drill rig
Sector	Mining
Sub-Sector	Mining Operation
Occupation	Drilling/Cutting
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	21/07/2022
Next Review Date	17/11/2025
NSQC Clearance Date	02/01/2023

Qualification Pack

MIN/N1217: Carry out reporting and documentation for Drill Rig

Description

This unit is about carrying out reporting and documentation.

Scope

The scope covers the following :

- Reporting of problem/incidents etc.
- Recording and Documentation

Elements and Performance Criteria

Reporting of problem/incidents etc.

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

- PC1.** report problems/incidents as applicable in a timely manner
- PC2.** report to the appropriate authority as laid down by the employer
- PC3.** follow reporting procedures as prescribed by the employer

Recording and Documentation

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

- PC4.** identify documentation to be completed relating to one's role
- PC5.** record details accurately using the appropriate format
- PC6.** complete all documentation within stipulated time.
- PC7.** make sure documents are available to all appropriate authorities to inspect

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** types of documentation in organization e.g. daily maintenance checklist and importance of the same
- KU2.** risk and impact of not following defined procedures/work instructions
- KU3.** rules and regulations of mine as per standard operating procedure (SOP)
- KU4.** risk and impact of not following company's SOP
- KU5.** escalation matrix for reporting identified problems
- KU6.** the duties and responsibilities associated with his job role as per the employer.
- KU7.** different types of mines and detail of the mine he is working in
- KU8.** commonly used mining terminology-Benches (width, height, etc.), haul roads(width, gradient), stability of slopes, over hang, undercut, high side, etc.
- KU9.** code of traffic in specific areas of mine and significance of fences
- KU10.** duties of work men under Mines act



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- KU11.** provision of wages, working hours and accident compensation as per Mines act
- KU12.** mining safety procedures
- KU13.** outcome of violation of safely procedures
- KU14.** precautions to be taken when handling heavy equipment

Generic Skills (GS)

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

- GS1.** fill up documentation applicable to one's role
- GS2.** a record of every inspection shall be maintained in a bound paged book kept for purpose dully signed and dated by person inspection
- GS3.** read English and/or vernacular language with few pauses and a constant speed
- GS4.** read and understand manuals, health and safety instructions, memos etc.
- GS5.** ability to read from different sources-books, screens in machines and signage
- GS6.** understand the various color codes, as per standard mining nomen clature
- GS7.** express statements or information clearly so that others can hear and understand
- GS8.** participate in and understand the main points of simple discussions
- GS9.** respond appropriately to any queries
- GS10.** communicate with supervisor
- GS11.** make decisions pertaining to the concerned area of work.
- GS12.** plan and organize the work order and jobs
- GS13.** organize all process manuals so that sorting/accessing information is easy
- GS14.** detect problems in day to day tasks
- GS15.** discuss possible solution with the supervisor for problem solving
- GS16.** make decisions in emergency conditions
- GS17.** follow instructions and work on areas of improvement identified
- GS18.** complete the assigned tasks with minimum supervision
- GS19.** complete the job with in timelines and quality norms
- GS20.** use common sense and make judgments during day to day basis
- GS21.** use reasoning skills to identify and resolve basic problems
- GS22.** use intuition to detect any potential problems which could arise



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Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Reporting of problem/incidents etc.</i>	13	22	-	9
PC1. report problems/incidents as applicable in a timely manner	5	8	-	3
PC2. report to the appropriate authority as laid down by the employer	4	7	-	3
PC3. follow reporting procedures as prescribed by the employer	4	7	-	3
<i>Recording and Documentation</i>	17	28	-	11
PC4. identify documentation to be completed relating to one's role	4	7	-	3
PC5. record details accurately using the appropriate format	4	7	-	3
PC6. complete all documentation within stipulated time.	4	7	-	2
PC7. make sure documents are available to all appropriate authorities to inspect	5	7	-	3
NOS Total	30	50	-	20



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National Occupational Standards (NOS) Parameters

NOS Code	MIN/N1217
NOS Name	Carry out reporting and documentation for Drill Rig
Sector	Mining
Sub-Sector	Mining Operation
Occupation	Drilling/Cutting
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	21/07/2022
Next Review Date	17/11/2025
NSQC Clearance Date	02/01/2023



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MIN/N1703: Follow Health, Safety, and Environmental Guidelines for opencast mines (Including Mine Vocational Training Rule)

Description

This unit is about adhering to health, safety and environmental guidelines at the Open Cast Mines while executing various tasks, maintenance and operations.

Scope

The scope covers the following :

- Follow work-site health and safety measures
- Follow Environmental guidelines

Elements and Performance Criteria

Follow work-site health and safety measures

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

- PC1.** comply with safety, health, and security-related regulations/guidelines at the opencast mine
- PC2.** follow the safety instructions given by the workman's inspector
- PC3.** follow adequate safety while working at haul roads, heights, overburden dumps, sump area, stockyard, near moving parts, etc.
- PC4.** take safety precautions while working on sites (sub-station, workshop etc.), with equipment, and conducting welding and cutting operations
- PC5.** follow appropriate Safe Operating Procedure (SOP) while dealing with explosives
- PC6.** respond promptly and appropriately to an accident/ incident or an emergency situation, within limits of the role and responsibility
- PC7.** provide first aid to an injured person
- PC8.** operate various types of fire extinguishers to control different types of fire at a worksite when required
- PC9.** use appropriate PPE as per the requirement
- PC10.** maintain hand hygiene by washing hands with alcohol based sanitisers/soap
- PC11.** disinfect the machine/tools before and after work/task
- PC12.** maintain hygiene at the work site
- PC13.** report any symptoms of illness to the shift-incharge

Follow Environmental guidelines

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

- PC14.** identify the environmental impact of related opencast mining operations
- PC15.** follow the process for collecting, storing and disposing of the hazardous material and waste (like used oil, lubricant, battery, etc.) in compliance with worksite guidelines
- PC16.** ensure not to mix topsoil with waste in day to day tasks
- PC17.** ensure that HEMM is washed at the designated location



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- PC18.** ensure the productivity of the machine for material/fuel conservation
- PC19.** follow the mineral conservation practices specified by the organization in accordance with MCDR-2017 (Mineral Conservation and Development Rules)
- PC20.** assist supervisor for reducing environmental impact caused due to related mining operations

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1.** about various environmental awareness program related to mining, organized by the various government bodies/company
- KU2.** safety guidelines specified by Directorate General of Mine Safety (DGMS)
- KU3.** basic mining terminologies and definitions
- KU4.** means of access and egress from the mines, location of workshop, haul roads and working face including dump yards
- KU5.** duties of workers under The Mines act-1952
- KU6.** working hours and accident compensation as per The Mines act-1952
- KU7.** about precautions to be taken when handling heavy equipment
- KU8.** various problems/incidents likely to occur
- KU9.** hierarchy of the reporting
- KU10.** machine operation, condition of the machine and worksite
- KU11.** proper documents specific to the machine
- KU12.** role of workmen inspector, safety committee and internal safety organization
- KU13.** the process of top soil removal and management
- KU14.** mine sump and pumping system of the mines
- KU15.** about mine safety standard including light illumination level, noise levels, dust level, pollutants, etc at the work-site
- KU16.** common sources of pollution in the mines and ways to minimize it
- KU17.** safety equipment like safety shoes, safety belt, tight fit clothing, hand gloves, safety goggles, gas detector, safety lamp, self-contained breathing apparatus, gum boots, ear plugs, face mask, etc.
- KU18.** shot-firing / blasting related safety regulations including taking shelter during blasting
- KU19.** emergency response /disaster management plan prepared by the organization
- KU20.** signages, mining area-specific signs, and other safety and emergency signals
- KU21.** the outcome of violation of safety procedures
- KU22.** basic personal and workplace hygiene
- KU23.** importance of sensitization towards different genders and PWD (Persons with Disabilities)

Generic Skills (GS)

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

- GS1.** fill up documentation applicable to one's role



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- GS2.** make decisions on the concerned area of work
- GS3.** read and interpret manuals, health, and safety instructions, memos, etc.
- GS4.** plan and organize the work order and jobs
- GS5.** use reasoning skills to identify and resolve fundamental problems
- GS6.** complete the assigned tasks timely

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Follow work-site health and safety measures</i>	20	34	-	15
PC1. comply with safety, health, and security-related regulations/guidelines at the opencast mine	2	2	-	1
PC2. follow the safety instructions given by the workman's inspector	1	3	-	1
PC3. follow adequate safety while working at haul roads, heights, overburden dumps, sump area, stockyard, near moving parts, etc.	3	3	-	1
PC4. take safety precautions while working on sites (sub-station, workshop etc.), with equipment, and conducting welding and cutting operations	1	3	-	1
PC5. follow appropriate Safe Operating Procedure (SOP) while dealing with explosives	2	3	-	2
PC6. respond promptly and appropriately to an accident/ incident or an emergency situation, within limits of the role and responsibility	2	3	-	1
PC7. provide first aid to an injured person	2	3	-	1
PC8. operate various types of fire extinguishers to control different types of fire at a worksite when required	1	3	-	1
PC9. use appropriate PPE as per the requirement	2	4	-	2
PC10. maintain hand hygiene by washing hands with alcohol based sanitisers/soap	1	2	-	1
PC11. disinfect the machine/tools before and after work/task	1	2	-	1
PC12. maintain hygiene at the work site	1	1	-	1
PC13. report any symptoms of illness to the shift-incharge	1	2	-	1
<i>Follow Environmental guidelines</i>	10	16	-	5



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. identify the environmental impact of related opencast mining operations	2	2	-	1
PC15. follow the process for collecting, storing and disposing of the hazardous material and waste (like used oil, lubricant, battery, etc.) in compliance with worksite guidelines	1	2	-	1
PC16. ensure not to mix topsoil with waste in day to day tasks	2	2	-	1
PC17. ensure that HEMM is washed at the designated location	2	2	-	1
PC18. ensure the productivity of the machine for material/fuel conservation	1	3	-	-
PC19. follow the mineral conservation practices specified by the organization in accordance with MCDR-2017 (Mineral Conservation and Development Rules)	1	3	-	1
PC20. assist supervisor for reducing environmental impact caused due to related mining operations	1	2	-	-
NOS Total	30	50	-	20



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Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	MIN/N1703
NOS Name	Follow Health, Safety, and Environmental Guidelines for opencast mines (Including Mine Vocational Training Rule)
Sector	Mining
Sub-Sector	Mining Operation
Occupation	HSE Functions, , Exploration, Mineral Estimation, Planning, Mine Surveying, Drilling/Cutting, Shot firing/Blasting, Loading and Hauling - Opencast, Specialized Operations, Electrical Services, Mechanical Services, Instrumentation and Control Systems, Ore Processing
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	30/06/2022
Next Review Date	17/11/2025
NSQC Clearance Date	17/11/2022



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DGT/VSQ/N0102: Employability Skills (60 Hours)

Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

Scope

The scope covers the following :

- Introduction to Employability Skills
- Constitutional values - Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Career Development & Goal Setting
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

Elements and Performance Criteria

Introduction to Employability Skills

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

- PC1.** identify employability skills required for jobs in various industries
- PC2.** identify and explore learning and employability portals

Constitutional values - Citizenship

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

- PC3.** recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.
- PC4.** follow environmentally sustainable practices

Becoming a Professional in the 21st Century

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

- PC5.** recognize the significance of 21st Century Skills for employment
- PC6.** practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life

Basic English Skills

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



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- PC7.** use basic English for everyday conversation in different contexts, in person and over the telephone
- PC8.** read and understand routine information, notes, instructions, mails, letters etc. written in English
- PC9.** write short messages, notes, letters, e-mails etc. in English

Career Development & Goal Setting

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

- PC10.** understand the difference between job and career
- PC11.** prepare a career development plan with short- and long-term goals, based on aptitude

Communication Skills

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

- PC12.** follow verbal and non-verbal communication etiquette and active listening techniques in various settings
- PC13.** work collaboratively with others in a team

Diversity & Inclusion

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

- PC14.** communicate and behave appropriately with all genders and PwD
- PC15.** escalate any issues related to sexual harassment at workplace according to POSH Act

Financial and Legal Literacy

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

- PC16.** select financial institutions, products and services as per requirement
- PC17.** carry out offline and online financial transactions, safely and securely
- PC18.** identify common components of salary and compute income, expenses, taxes, investments etc
- PC19.** identify relevant rights and laws and use legal aids to fight against legal exploitation

Essential Digital Skills

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

- PC20.** operate digital devices and carry out basic internet operations securely and safely
- PC21.** use e- mail and social media platforms and virtual collaboration tools to work effectively
- PC22.** use basic features of word processor, spreadsheets, and presentations

Entrepreneurship

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

- PC23.** identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research
- PC24.** develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion
- PC25.** identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity

Customer Service

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

- PC26.** identify different types of customers
- PC27.** identify and respond to customer requests and needs in a professional manner.



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PC28. follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

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

PC29. create a professional Curriculum vitae (Résumé)

PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively

PC31. apply to identified job openings using offline /online methods as per requirement

PC32. answer questions politely, with clarity and confidence, during recruitment and selection

PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. need for employability skills and different learning and employability related portals

KU2. various constitutional and personal values

KU3. different environmentally sustainable practices and their importance

KU4. Twenty first (21st) century skills and their importance

KU5. how to use English language for effective verbal (face to face and telephonic) and written communication in formal and informal set up

KU6. importance of career development and setting long- and short-term goals

KU7. about effective communication

KU8. POSH Act

KU9. Gender sensitivity and inclusivity

KU10. different types of financial institutes, products, and services

KU11. how to compute income and expenditure

KU12. importance of maintaining safety and security in offline and online financial transactions

KU13. different legal rights and laws

KU14. different types of digital devices and the procedure to operate them safely and securely

KU15. how to create and operate an e- mail account and use applications such as word processors, spreadsheets etc.

KU16. how to identify business opportunities

KU17. types and needs of customers

KU18. how to apply for a job and prepare for an interview

KU19. apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

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

GS1. read and write different types of documents/instructions/correspondence

GS2. communicate effectively using appropriate language in formal and informal settings



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- GS3.** behave politely and appropriately with all
- GS4.** how to work in a virtual mode
- GS5.** perform calculations efficiently
- GS6.** solve problems effectively
- GS7.** pay attention to details
- GS8.** manage time efficiently
- GS9.** maintain hygiene and sanitization to avoid infection

Qualification Pack

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Introduction to Employability Skills</i>	1	1	-	-
PC1. identify employability skills required for jobs in various industries	-	-	-	-
PC2. identify and explore learning and employability portals	-	-	-	-
<i>Constitutional values - Citizenship</i>	1	1	-	-
PC3. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.	-	-	-	-
PC4. follow environmentally sustainable practices	-	-	-	-
<i>Becoming a Professional in the 21st Century</i>	2	4	-	-
PC5. recognize the significance of 21st Century Skills for employment	-	-	-	-
PC6. practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life	-	-	-	-
<i>Basic English Skills</i>	2	3	-	-
PC7. use basic English for everyday conversation in different contexts, in person and over the telephone	-	-	-	-
PC8. read and understand routine information, notes, instructions, mails, letters etc. written in English	-	-	-	-
PC9. write short messages, notes, letters, e-mails etc. in English	-	-	-	-
<i>Career Development & Goal Setting</i>	1	2	-	-

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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC10. understand the difference between job and career	-	-	-	-
PC11. prepare a career development plan with short- and long-term goals, based on aptitude	-	-	-	-
<i>Communication Skills</i>	2	2	-	-
PC12. follow verbal and non-verbal communication etiquette and active listening techniques in various settings	-	-	-	-
PC13. work collaboratively with others in a team	-	-	-	-
<i>Diversity & Inclusion</i>	1	2	-	-
PC14. communicate and behave appropriately with all genders and PwD	-	-	-	-
PC15. escalate any issues related to sexual harassment at workplace according to POSH Act	-	-	-	-
<i>Financial and Legal Literacy</i>	2	3	-	-
PC16. select financial institutions, products and services as per requirement	-	-	-	-
PC17. carry out offline and online financial transactions, safely and securely	-	-	-	-
PC18. identify common components of salary and compute income, expenses, taxes, investments etc	-	-	-	-
PC19. identify relevant rights and laws and use legal aids to fight against legal exploitation	-	-	-	-
<i>Essential Digital Skills</i>	3	4	-	-
PC20. operate digital devices and carry out basic internet operations securely and safely	-	-	-	-
PC21. use e- mail and social media platforms and virtual collaboration tools to work effectively	-	-	-	-
PC22. use basic features of word processor, spreadsheets, and presentations	-	-	-	-



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Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Entrepreneurship</i>	2	3	-	-
PC23. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research	-	-	-	-
PC24. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion	-	-	-	-
PC25. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity	-	-	-	-
<i>Customer Service</i>	1	2	-	-
PC26. identify different types of customers	-	-	-	-
PC27. identify and respond to customer requests and needs in a professional manner.	-	-	-	-
PC28. follow appropriate hygiene and grooming standards	-	-	-	-
<i>Getting ready for apprenticeship & Jobs</i>	2	3	-	-
PC29. create a professional Curriculum vitae (Résumé)	-	-	-	-
PC30. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively	-	-	-	-
PC31. apply to identified job openings using offline /online methods as per requirement	-	-	-	-
PC32. answer questions politely, with clarity and confidence, during recruitment and selection	-	-	-	-
PC33. identify apprenticeship opportunities and register for it as per guidelines and requirements	-	-	-	-
NOS Total	20	30	-	-



Skill Council For Mining Sector



GOVERNMENT OF INDIA
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REIMAGINE FUTURE

Qualification Pack

National Occupational Standards (NOS) Parameters

NOS Code	DGT/VSQ/N0102
NOS Name	Employability Skills (60 Hours)
Sector	Cross Sectoral
Sub-Sector	Professional Skills
Occupation	Employability
NSQF Level	4
Credits	2
Version	1.0
Last Reviewed Date	NA
Next Review Date	17/11/2025
NSQC Clearance Date	17/11/2022

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Element/ 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 Element/ PC.
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC.
3. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.
4. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below).
5. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training center based on these criteria.
6. To pass the Qualification Pack assessment, every trainee should score the Recommended Pass % aggregate for the QP.
7. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.



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Qualification Pack

Minimum Aggregate Passing % at QP Level : 70

(Please note: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
MIN/N1214.Prepare Drill Rig	30	50	0	20	100	10
MIN/N1215.Perform Drill Operation on Drill rig	30	50	0	20	100	20
MIN/N1216.Perform routine maintenance and troubleshooting on the drill rig	30	50	0	20	100	20
MIN/N1217.Carry out reporting and documentation for Drill Rig	30	50	0	20	100	20
MIN/N1703.Follow Health, Safety, and Environmental Guidelines for opencast mines (Including Mine Vocational Training Rule)	30	50	-	20	100	20
DGT/VSQ/N0102.Employability Skills (60 Hours)	20	30	-	-	50	10
Total	170	280	-	100	550	100



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Qualification Pack

Acronyms

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

Qualification Pack

Glossary

Sector	Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/ related set of functions in an industry.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code.
Unit Code	Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N'
Unit Title	Unit title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Scope	Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required.



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Qualification Pack

Knowledge and Understanding (KU)	Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
Organisational Context	Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/ Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today’s world. These skills are typically needed in any work environment in today’s world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.