

QUALIFICATIONS PACK - OCCUPATIONAL STANDARD FOR MINING INDUSTRY



Contents

1. [Introduction and Contacts.....Page.1](#)
2. [Qualifications Pack.....Page.2](#)
3. [Glossary of Key TermsPage.3](#)
4. [OS Units.....Page.5](#)

What are Occupational Standard(OS)?

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

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Introduction Qualifications Pack-Roof Bolter

SECTOR: MINING

SUB-SECTOR: Underground Mines

OCCUPATION: Mining Operations

REFERENCE ID: MIN/Q 0417

ALIGNED TO: NCO-2004/7111.47

A Roof Bolter ensures quality checks on the roof for underground mines and bolts the same as and when required

Brief Job Description: Roof bolter bolts the roof for underground mines, conducts quality checks on output and maintains a safe & healthy working environment

Personal Attributes: This job requires technical knowledge of bolting, ability to plan and prioritize, quality consciousness, sensitivity to problem solving, quick decision making, safety orientation, Reading, writing and communication skills, Dexterity and high precision, ability to use internal ERP systems

Job Details

Qualification Pack Code	MIN/Q 0417		
Job Role	Roof Bolter		
Credits(NSQF)	TBD	Version number	1.0
Industry	Mining	Drafted on	15/12/2014
Sub-sector	Underground Mines	Last reviewed on	24/03/2015
Occupation	Mining Operations	Next review date	24/03/2017

Job Role	Roof Bolter
Role Description	The role is responsible for bolting, maintaining process parameters, conducting quality checks on output product and maintaining a safe & healthy working environment
NSQF level	4
Minimum Educational Qualification	Class X
Maximum Educational Qualification	Not Applicable
Training (Suggested but not mandatory)	<ol style="list-style-type: none"> 1. Different Bolting techniques used in organizations 2. 5S and Safety aspects 3. Problem Solving Techniques 4. Quality Management Systems
Experience	12 months as Roof Bolter (Helper)
Applicable National Occupational Standards	<p>Compulsory: Click on the hyperlink to read/download the required NOS</p> <ol style="list-style-type: none"> 1. MIN/ N0449 (Understand processes and equipment requirement to complete the task) 2. MIN/ N0450 (Conduct the roof bolting process) 3. MIN / N 0901 (Health and Safety) <p>Optional: Not Applicable</p>
Performance Criteria	As described in the relevant OS units

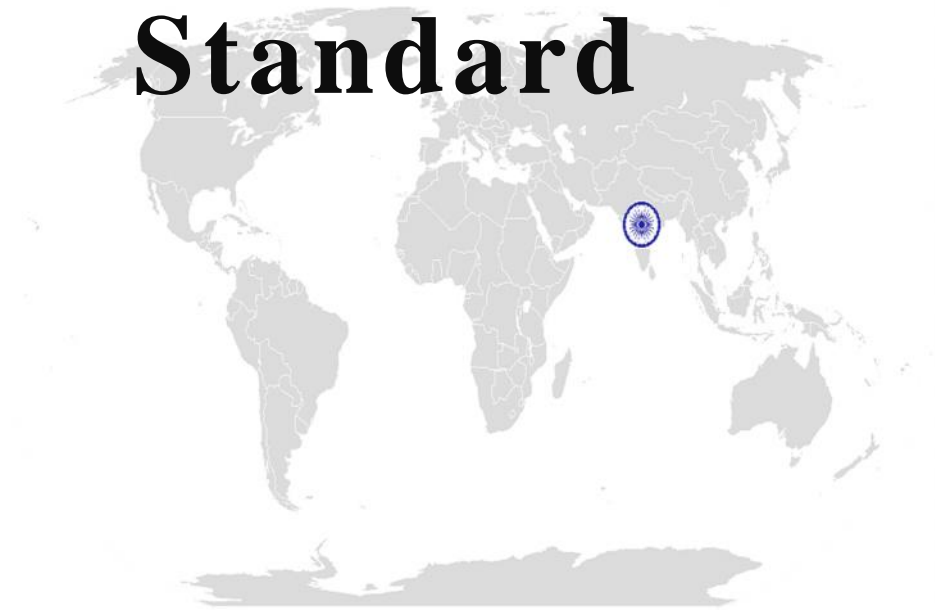
Definitions

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 standard 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 Standard 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 Standard which apply uniquely in the Indian context.
Qualification Pack Code	Qualification Pack Code is a unique reference code that identifies a Qualification pack.
Qualification Pack	Qualification Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualification Pack is assigned a unique qualification pack code.
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 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 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 Standard
	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	

MIN/ N 0449 Understand processes and equipment requirement to complete the task

National Occupational Standard



Overview

This unit is about understanding the job requirement and hence understand the activities & equipment associated with the process to complete the task.

MIN/ N 0449 Understand processes and equipment requirement to complete the task

National Occupational Standard	Unit Code	MIN/N 0449
	Unit Title (Task)	Understand process and equipment requirement to complete the task
	Description	This OS unit is about understanding the job requirement, what processes need to be executed, what equipment will be used for the project and what is the required output considering the standards specified
	Scope	This unit/task covers the following: <ul style="list-style-type: none"> Understand the roof bolting requirements and associated equipment
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Performance Criteria
	Understand the roof bolting requirements, equipment and parameters to be set for the process	<p>PC1. Understand the right bolting methodology and process to be adopted for completing the work order through discussions with the supervisor/ master technician and reading the process manuals/ Work Instructions/Standard Operating Procedures</p> <p>PC2. Understand the various parameters tension, bolting angle, process cycle time etc before starting the process, as mentioned in the Work Instructions/ SOP manual</p> <p>PC3. Understand the material required and the equipment availability for executing the activity</p> <ul style="list-style-type: none"> Correctness of roof bolt availability Quality/Quantity of cement or resin capsules as required <p>PC4. Assess the area for Immediate requirement of dressing and temporary support before conducting roof bolting</p> <p>PC5. Conduct pre operation check of roof bolting machine</p> <ul style="list-style-type: none"> Lockability of the machine Different pneumatic/hydraulic units are functioning properly Check electrical apparatus condition for – overload protection, earth leakage and other electrical devices functioning Check levers, meters, gauges and preliminary operation of the drilling mast
	Knowledge and Understanding (K) w.r.t. the scope	

MIN/ N 0449 Understand processes and equipment requirement to complete the task

A. Regulatory context (knowledge of safety guidelines specified by Director General of Mine Safety (DGMS))	<p>The user/individual on the job needs to know and understand:</p> <ul style="list-style-type: none"> KA1. Different types of mines and detail of the mine he is working in KA2. Mine Organisation, time keeping, need for discipline and punctuality KA3. Galleries in underground mine, dressing of roof, stable and unstable strata etc 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 KA6. Duties of workmen KA7. Provision of wages, working hours and accident compensation as per Mines act KA8. Knowledge of mining safety procedures KA9. Impact of violation of safely procedures
B. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <ul style="list-style-type: none"> KB1. Relevant standards and procedures followed in the company KB2. Processes like Procurement, Store management, inventory management, quality management and key contact points for query resolution
C. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <ul style="list-style-type: none"> KC1. Mechanism of roof strata behaviour as per different types of rocks and bed separation process KC2. Purpose and theory of roof bolting KC3. Different types of bolting processes and associated equipment KC4. The impact of various Operational parameters – e.g. anchorage and load bearing, condition of intermediate strata, geological disturbances, make of water in strata KC5. Levers, meters, gauges and working of the drilling mast KC6. Conversant with different guidelines and directive issued by safety and statutory authorities from time to time KC7. Hazards and safety aspects involved and usage of relevant PPEs
Skills (S) [Optional]	
Element	Writing Skills

MIN/ N 0449 Understand processes and equipment requirement to complete the task

A. Core Skills/ Generic Skills	The user/ individual on the job needs to know and understand how to: SA1. Note down observations (if any) related to the bolting process SA2. Write information documents to internal departments/ internal teams or enter the information in online ERP systems under guidance of the supervisor
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA3. Read and interpret symbols and measurements used in the drawings SA4. Read equipment manuals and process documents to understand the equipment and processes better SA5. Read internal information documents sent by internal teams
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA6. Discuss task lists, schedules and activities with the supervisor SA7. Effectively communicate with the team members SA8. Question the supervisor in order to understand the nature of the problem and to clarify queries SA9. Attentively listen with full attention and comprehend the information given by the speaker
B. Professional Skills	Plan and Organize
	The user/individual on the job needs to know and understand how to: SB1. Plan and organize the work order and received from supervisor SB2. Organize all process/ equipment manuals so that sorting/ accessing information is easy SB3. Support the supervisor in scheduling tasks for helper and assistant supervisor
	Judgment and Critical Thinking
	The user/individual on the job needs to know and understand how to: SB4. Use common sense and make judgments during day to day basis SB5. Use reasoning skills to identify and resolve basic problems SB6. Use intuition to detect any potential problems which could arise during operations
	Desire to learn and take initiatives
	The user/individual on the job needs to know and understand how to:

MIN/ N 0449 Understand processes and equipment requirement to complete the task

	<p>SB7. Follow instructions and work on areas of improvement identified</p> <p>SB8. Complete the assigned tasks with minimum supervision</p> <p>SB9. Complete the job defined by the supervisor within timelines and quality norms</p>
	<p>Problem Solving and Decision making</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB10. Detect problems in day to day tasks</p> <p>SB11. Support supervisor in using specific problem solving techniques and detailing out the problems</p> <p>SB12. Discuss possible solution with the supervisor for problem solving</p> <p>SB13. Make decisions in emergency conditions in case the supervisor is not available(as per the authority matrix defined by the organization)</p>

MIN/ N 0449 Understand processes and equipment requirement to complete the task

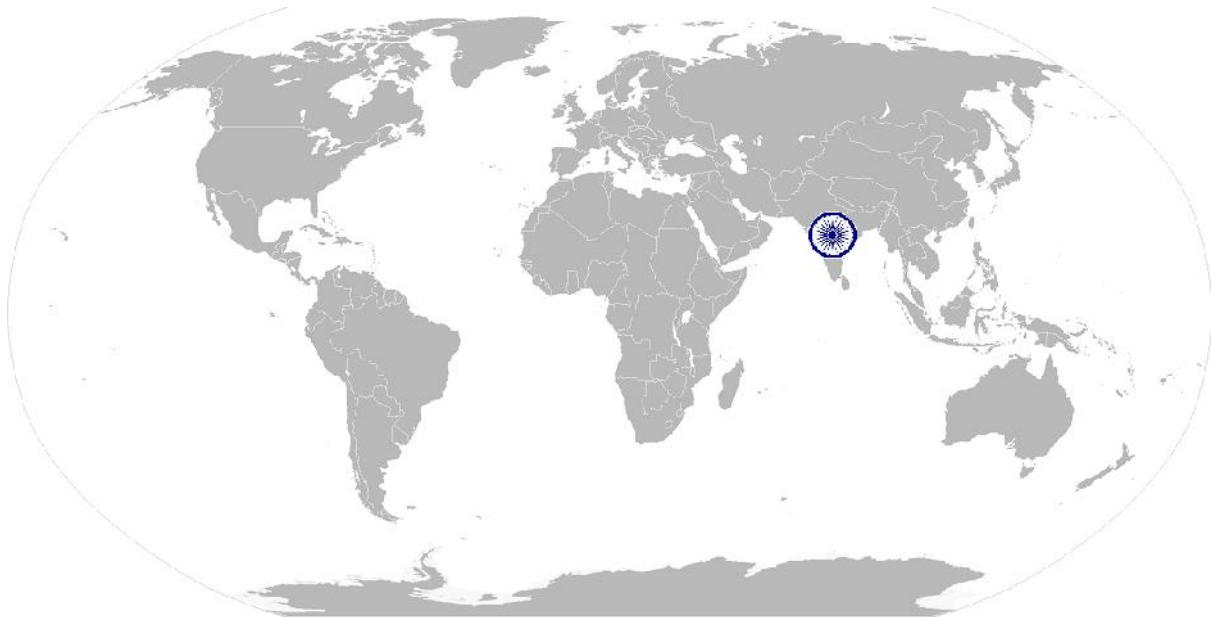
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NOS Code	MIN/ N0449		
Credits(NSQF)	TBD	Version number	1.0
Industry	Mining	Drafted on	15/12/2014
Industry Sub-sector	Underground Mines	Last reviewed on	24/03/2015
Occupation	Mining Operations	Next review date	24/03/2017

[Back to top](#)

National Occupational Standard



Overview

This unit is about conducting the actual bolting process as per the given work order and the standards specified by the organization

MIN/ N0450 Conduct the roof bolting process

National Occupational Standard

Unit Code	MIN/ N0450
Unit Title (Task)	Conduct the bolting Process - Operate the apparatus and bolt the roof as per the work order and the specified standards
Description	This OS unit is about conducting Bolting Operation as per the methodology selected and approved SSR (Systematic Support Rule) for the particular mine and the Standard Operating Procedures defined by the Organization and the outcome of the work order
Scope	<p>This unit/task covers the following:</p> <ul style="list-style-type: none"> • Check the process and working of the equipment • Conduct the roof bolting operations • Monitor process parameters to ensure error free process
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Check the operations of the machines and auxiliaries and conduct a test process	<p>PC1. Check for operation of core equipment as per setup documentation</p> <p>PC2. Inform machine setter/ engineer/ supervisor in case any defect or malfunction is observed</p>
Conduct the actual bolting process	<p>PC3. Drill bolt holes into roofs at specified distances from ribs or adjacent bolts or as per SSR (approved Systematic support Rule by DGMS)</p> <p>PC4. Force bolts into holes, using hydraulic mechanisms of self-propelled bolting machines, or other prevailing practice in the organization</p> <p>PC5. Remove drill bits from chucks after drilling holes and insert bolts into chucks.</p> <p>PC6. Position safety jacks to support underground mine roofs until bolts can be installed.</p> <p>PC7. Position bolting machines, and insert drill bits into chucks.</p> <p>PC8. Rotate chucks to turn bolts and open expansion heads against rock formations.</p> <p>PC9. Install truss bolts/ W-straps traversing entire ceiling spans</p> <p>PC10. Tighten ends of anchored truss bolts/w-straps using turnbuckles</p>

MIN/ N0450 Conduct the roof bolting process

Monitor process parameters to ensure error free process	<p>PC11. Note down the observations in the prescribed format</p> <p>PC12. Observe and analyze any irregularity in the process and take preventive steps so that the overall quality is as per the desired standards</p> <p>PC13. Inform the supervisor of any irregularity in process/ equipment Malfunctioning</p>
Knowledge and Understanding (K) w.r.t. the scope	
A. Regulatory context (knowledge of safety guidelines specified by Director General of Mine Safety (DGMS))	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. Different types of mines and detail of the mine he is working in</p> <p>KA2. Mine Organisation, time keeping, need for discipline and punctuality</p> <p>KA3. Galleries in underground mine, dressing of roof, stable and unstable strata etc</p> <p>KA4. Standing orders in force at the mine. Safety in the vicinity of machinery</p> <p>KA5. Shot-firing and Safety regulations. How and where to take shelter</p> <p>KA6. Duties of workmen</p> <p>KA7. Provision of wages, working hours and accident compensation as per Mines act</p> <p>KA8. Knowledge of mining safety procedures</p> <p>KA9. Impact of violation of safely procedures</p>
B. Organizational Context (Knowledge of the company / organization and its processes)	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Relevant manufacturing standards and procedures followed in the company</p> <p>KB2. Processes like Procurement, Store management, inventory management, quality management and key contact points for query resolution</p> <p>KB3. Quality norms and standards prescribed in the Quality Manual by the organization</p>
C. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KC1. Different types of bolting processes and associated equipment</p> <p>KC2. Different types of defects in bolting and their impact</p> <p>KC3. Different guidelines and directives issued by DGMS for roof bolting</p> <p>KC4. Mechanism of roof strata behaviour as per different types of rocks and</p>

MIN/ N0450 Conduct the roof bolting process

	<p>bed separation process</p> <p>KC5. Purpose and theory of roof bolting</p> <p>KC6. The impact of various Operational parameters – e.g. anchorage and load bearing, condition of intermediate strata, geological disturbances, make of water in strata</p> <p>KC7. Levers, meters, gauges and working of the drilling mast</p> <p>KC8. Basic understanding of electrical functioning (overload, earth leakage etc.) and mechanical functioning (pneumatic, hydraulic systems) of equipment</p> <p>KC9. Basic level operations of lifting equipment like hoists, cranes, pulley etc.</p> <p>KC10. Potential health and safety hazards and related Safety precautions to be undertaken</p>
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Skills (S) w.r.t. the scope

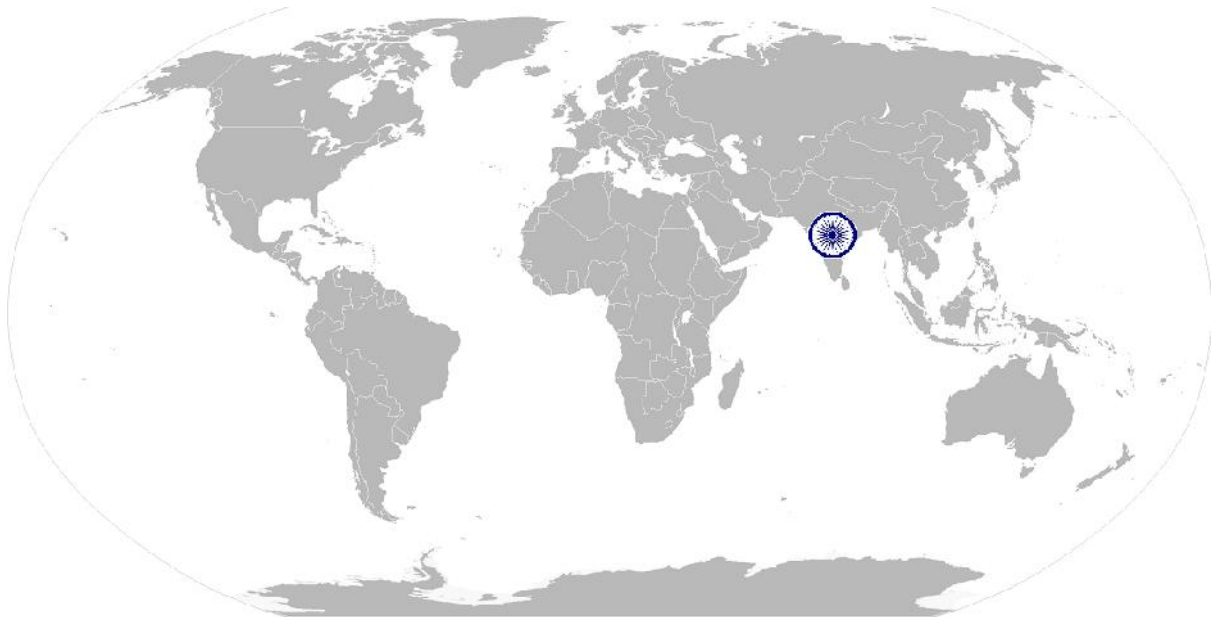
<p>A. Core Skills/</p> <p>Generic Skills</p>	<p>Writing Skills</p>
	<p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Note measurements, equipment panel readings for various process parameters in the required reporting formats</p>
	<p>Reading Skills</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA2. Read equipment manuals and process documents to understand the equipment and processes better</p> <p>SA3. Read internal information documents send by internal customers (other functions within the organization) the equipment in the plant area</p> <p>SA4. Read parameter reading on various types of monitoring panels</p>
	<p>Oral Communication (Listening and Speaking skills)</p>
<p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. Discuss task lists, schedules and activities with the operator and supervisor</p> <p>SA6. Effectively communicate with the team members Question the operator/ supervisor in order to understand the</p>	

MIN/ N0450 Conduct the roof bolting process

	<p style="text-align: center;">nature of the problem and to clarify queries</p> <p style="text-align: center;">SA7. Attentively listen with full attention and comprehend the information given by the speaker</p>
B. Professional Skills	Plan and Organize
	<p>The user/individual on the job needs to know and understand how to:</p> <p style="text-align: center;">SB1. Plan and organize the work order and jobs received from the supervisor</p> <p style="text-align: center;">SB2. Organize all process/ equipment manuals so that sorting/ accessing information is easy</p> <p style="text-align: center;">SB3. Support the supervisor in scheduling tasks for helper and assistant operator</p>
	Judgment and Critical Thinking
	<p>The user/individual on the job needs to know and understand how to:</p> <p style="text-align: center;">SB4. Use common sense and make judgments during day to day basis</p> <p style="text-align: center;">SB5. Use reasoning skills to identify and resolve basic problems</p> <p style="text-align: center;">SB6. Use intuition to detect any potential problems which could arise during operations</p>
	Desire to learn and take initiatives
	<p>The user/individual on the job needs to know and understand how to:</p> <p style="text-align: center;">SB7. Follow instructions and work on areas of improvement identified</p> <p style="text-align: center;">SB8. Complete the assigned tasks with minimum supervision</p> <p style="text-align: center;">SB9. Complete the job defined by the supervisor within the timelines and quality norms</p>
	Problem Solving and Decision making
	<p>The user/individual on the job needs to know and understand how to:</p> <p style="text-align: center;">SB10. How to detect problems in day to day activities</p> <p style="text-align: center;">SB11. Support supervisor in using specific problem solving techniques and detailing out the problems</p> <p style="text-align: center;">SB12. Discuss possible solution with the supervisor for problem solving</p> <p style="text-align: center;">SB13. Make decisions in emergency conditions in case the supervisor is not available(as per the authority matrix defined by the organization)</p>

MIN/ N0450 Conduct the roof bolting process

	SB14. Support the supervisor and master technique in problem solving using specific problem solving techniques
	Quality Consciousness
	The user/individual on the job needs to know and understand how to: SB15. Guide the helper and the assistant operator in maintaining the quality SB16. Quality Standards as described in the internal Quality Manual SB17. Relate the impact of various processes and parameters the product quality



MIN/ N0450 Conduct the roof bolting process

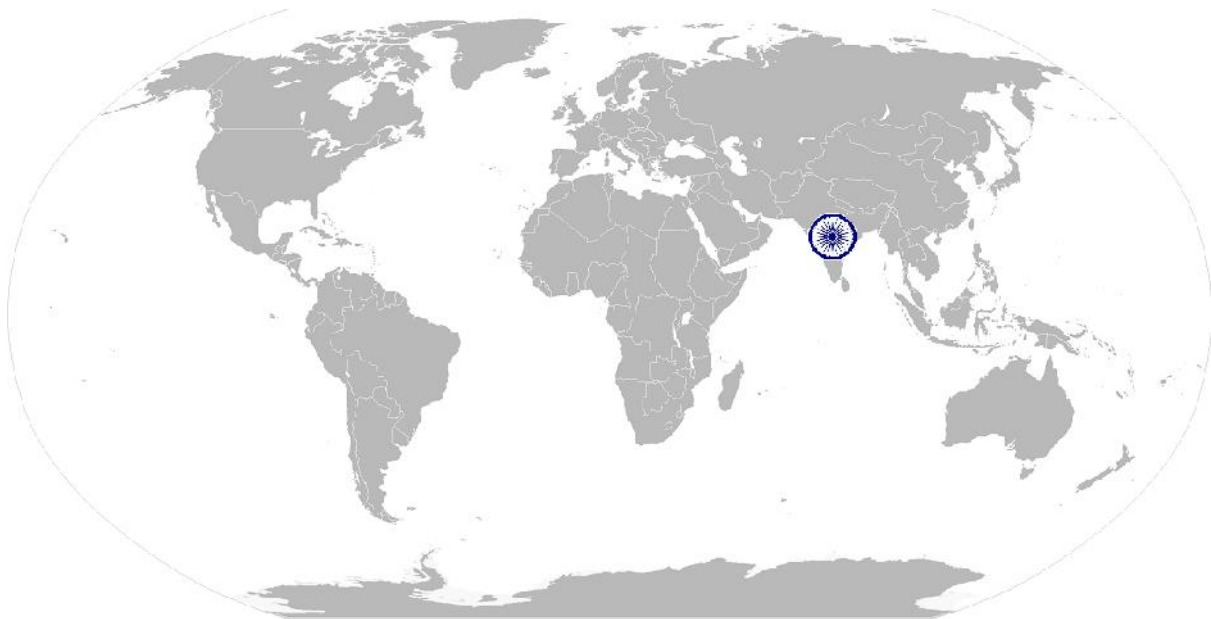
NOS Version Control

NOS Code	MIN/ N0450		
Credits(NSQF)	TBD	Version number	1.0
Industry	Mining	Drafted on	15/12/2014
Industry Sub-sector	Underground Mines	Last reviewed on	24/03/2015
Occupation	Mining Operations	Next review date	24/03/2017



[Back to top](#)

National Occupational Standard



Overview

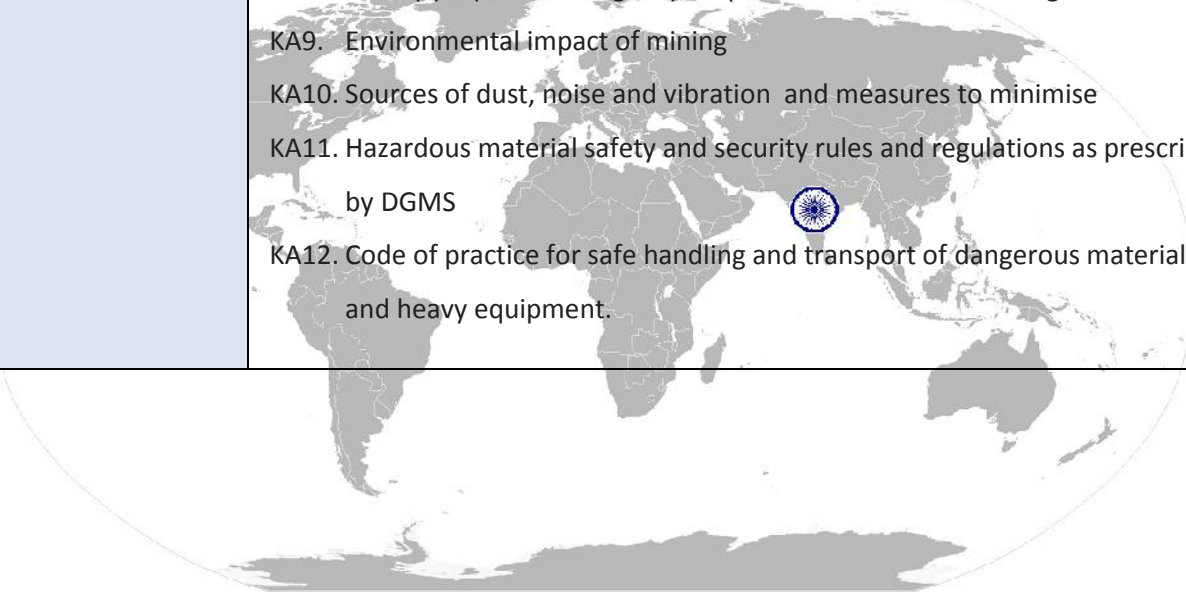
This unit is about health and safety measures critical in mines

MIN/ N0901 Health and Safety

National Occupational Standard	Unit Code	MIN/N 0901
	Unit Title (Task)	Health and Safety
	Description	This unit is about health and safety measures critical in mines
	Scope	This OS unit/task covers the following: <ul style="list-style-type: none"> Health and safety measures critical in mines
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Performance Criteria
	Safety, Security and Administrative	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. Comply with occupational health and safety regulations adopted by the employer.</p> <p>PC2. Follow mining operations procedures with respect to materials handling and accidents</p> <p>PC3. Follow the correct safety steps in case of accident or major failure</p> <p>PC4. Comply with safety regulations and procedures in case of fire hazard.</p> <p>PC5. Operate various grades of fire extinguishers.</p> <p>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</p> <p>PC7. Perform storage and transport of hazardous materials compliant with safety guidelines prescribed by DGMS.</p> <p>PC8. Deal with misfires as per statutory requirement</p> <p>PC9. Identify characteristics of post-blast fumes and take necessary precautions.</p> <p>PC10. Wears safety gear such as hard hat, respiratory protection, eye protection, ear protection</p> <p>PC11. Follow the manufacturer’s instructions for care and safe operation of the equipment.</p>

MIN/ N0901 Health and Safety

Knowledge and Understanding (K)	
A. Regulatory context (knowledge of safety guidelines specified by Director General of Mine Safety (DGMS))	<p>The user/individual on the job needs to know and understand:</p> <ul style="list-style-type: none"> KA1. Galleries in underground mine, dressing of roof, stable and unstable strata etc KA2. First aid and Hygiene KA3. Code of traffic in specific areas of mine. Significance of fences 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 KA6. Knowledge of mining safety procedures KA7. Impact of violation of safety procedures KA8. Locally prepared Emergency Preparedness / Disaster Management Plan. KA9. Environmental impact of mining KA10. Sources of dust, noise and vibration and measures to minimise KA11. Hazardous material safety and security rules and regulations as prescribed by DGMS KA12. Code of practice for safe handling and transport of dangerous material and heavy equipment.



MIN/ N0901 Health and Safety

NOS Version Control

NOS Code	MIN/N 0901		
Credits(NSQF)	TBD	Version number	1.0
Sector	Mining	Drafted on	15/12/2014
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[Back to top](#)



CRITERIA FOR ASSESSMENT OF TRAINEES

Roof Bolter

MIN/Q 0417

Skill Council for Mining Sector

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 centre (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training centre based on this criteria
5. To pass the Qualification Pack, every trainee should score a minimum of 70% 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

Assessable Outcome	Assessment criteria	Total Mark (100)	Out Of	Marks Allocation	
				Theory	Skills Practical
1. MIN/ N0449 (Understand processes and equipment requirement to complete the task)	PC1. Understand the right bolting methodology and process to be adopted for completing the work order through discussions with the supervisor/ master technician and reading the process manuals/ Work Instructions/Standard Operating Procedures	35	7	4	3
	PC2. Understand the various parameters tension, bolting angle, process cycle time etc. before starting the process, as mentioned in the Work Instructions/ SOP manual		7	4	3
	PC3. Understand the material required and the equipment availability for executing the activity Correctness of roof bolt availability Quality/Quantity of cement or resin capsules as required.		7	4	3
	PC4. Assess the area for Immediate requirement of dressing and temporary support before conducting roof bolting.		7	4	3
	PC5. Conduct pre operation check of roof bolting machine Lock ability of the machine Different pneumatic/hydraulic units		7	4	3

	are functioning properly Check electrical apparatus condition for – overload protection, earth leakage and other electrical devices functioning Check levers, meters, gauges and preliminary operation of the drilling mast.				
		Total	35	20	15
2. MIN/ N0450 (Conduct the roof bolting process)	PC1. Check for operation of core equipment as per setup documentation	35	3	2	1
	PC2. Inform machine setter/ engineer/ supervisor in case any defect or malfunction is observed		3	2	1
	PC3. Drill bolt holes into roofs at specified distances from ribs or adjacent bolts or as per SSR (approved Systematic support Rule by DGMS)		3	2	1
	PC4. Force bolts into holes, using hydraulic mechanisms of self-propelled bolting machines, or other prevailing practice in the organization		3	2	1
	PC5. Remove drill bits from chucks after drilling holes and insert bolts into chucks.		3	2	1
	PC6. Position safety jacks to support underground mine roofs until bolts can be installed.		3	2	1
	PC7. Position bolting machines, and insert drill bits into chucks.		3	2	1
	PC8. Rotate chucks to turn bolts and open expansion heads against rock formations.		3	2	1
	PC9. Install truss bolts/ W-straps traversing entire ceiling spans.		3	2	1
	PC10. Tighten ends of anchored truss bolts/w-straps using turnbuckles.		2	1	1
	PC11. Note down the observations in the prescribed format.		2	1	1

	PC12. Observe and analyse any irregularity in the process and take preventive steps so that the overall quality is as per the desired standards.		2	1	1
	PC13. Inform the supervisor of any irregularity in process/ equipment Malfunctioning.		2	1	1
		Total	35	22	13
3. MIN / N 0901 (Health and Safety)	PC1. Comply with occupational health and safety regulations adopted by the employer.	30	3	2	1
	PC2. Follow mining operations procedures with respect to materials handling and accidents		3	2	1
	PC3. Follow the correct safety steps in case of accident or major failure		2	1.5	0.5
	PC4. Comply with safety regulations and procedures in case of fire hazard.		2	1	1
	PC5. Operate various grades of fire extinguishers.		3	2	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		3	2	1
	PC7. Perform storage and transport of hazardous materials compliant with safety guidelines prescribed by DGMS.		3	2	1
	PC8. Deal with misfires as per statutory requirement		3	2	1
	PC9. Identify characteristics of post-blast fumes and take necessary precautions.		3	2	1
	PC10. Wears safety gear such as hard hat, respiratory protection, eye protection, ear protection		3	2	1
	PC11. Follow the manufacturer's instructions for care and safe operation of the equipment.		2	1.5	0.5
		Total	30	20	10

