

NSQF QUALIFICATION FILE GUIDANCE

Version 6: Draft of 08 March 2016

NSDA Reference

To be added by NSDA

CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE

Name and address of submitting body:

Skill Council for Mining Sector (SCMS)
FIMI House, B-311, Okhla Industrial, Phase-1
New Delhi-110020

Name and contact details of individual dealing with the submission

Name: A. K. Bhandari

Position in the organisation: Chief Executive Officer

Address if different from above

Same as above

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List of documents submitted in support of the Qualifications File

1. Sector Profiling
2. Occupational Map & Progression matrix
3. Protocol for Affiliation of Assessment Bodies and Assessment Framework
4. List of Companies which participated in the NOS development process including validation
5. Validation of Occupational Standards by Industry

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SUMMARY

Qualification Title	Assistant Support –Underground Mines
Qualification Code	MIN/Q 0213
Nature and purpose of the qualification	<p>This is a Qualification Pack (QP), corresponding to Level – 2 and includes three (3) NOSs.</p> <p>Targeted learners: This qualification will equip the trainees to become Skilled Helper / Asst. Operator. He/she would assist Operators or assist Technician in servicing specific machinery or subsection in Underground mines.</p> <p>Main purpose of the qualification – is to get unemployed people into work and also to upgrade the skills of workers / Helpers already in employment and to enable them to take up this job roles.</p>
Body/bodies which will award the qualification	Skill Council for Mining Sector.
Body which will accredit providers to offer courses leading to the qualification	Skill Council for Mining Sector.
Body/bodies which will carry out assessment of learners	<ol style="list-style-type: none">1. Anant Learning and Development, New Delhi.2. Aspiring minds, New Delhi3. Eduworld Consultants Pvt. Ltd, Punjab4. India Skills Pvt. Ltd, New Delhi5. Navriti Technologies Private limited, Karnataka6. Prima Competencies Pvt. Ltd., New Delhi7. Skill Mantra Edutech Consulting India Pvt. Ltd, MP8. Trendsetters Skill Assessors Pvt. Ltd, Haryana9. METTL, New Delhi10. MFEELD, New Delhi11. SP Institute of Workforce Development, Uttar Pradesh
Occupation(s) to which the qualification gives access	<p>Assistant Support – Underground Mines.</p> <p>Brief Job Description: Skilled Helpers assist operators and technicians in underground mines, including in haulage, conveyor operation, Drilling, coal cutting, water pump operation, SDL/LHD operation, Roof bolting and other equipment operations, repair and maintenance. He has to ensure the cleanliness of the equipment & worksite, assist the operator in pre operational checks and operation and assist the Technicians to carry our repair and maintenance jobs. He carries the tools and tackles from store to required site for repairing or maintenance.</p>

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Licensing requirements	No Licensing required. But must undergo Technical and gallery training as per first schedule, Mining Vocational Training Rules (MVTR) 1966.		
Level of the qualification in the NSQF	2		
Anticipated volume of training/learning required to complete the qualification	250 Hours		
Entry requirements and/or recommendations	Class-VIII pass		
Progression from the qualification	<p>This qualification provides entry to one or more of the following:</p> <ul style="list-style-type: none"> a) Horizontal mobility as Skilled Helper roles in Mining Operation or Engineering services. b) Vertical mobility as Asst. Operator / Operator roles of Ore extraction machinery / HEMM / UG Mine machines or as Technician in Engineering services with requisite upskilling and qualifications. 		
Planned arrangements for the Recognition of Prior learning (RPL)	RPL arrangements for in-service workers at mine location as per policies laid out by MSDE.		
International comparability where known	NA		
Date of planned review of the qualification.	26/09/2019		
Formal structure of the qualification			
Title of component and identification code.	Mandatory/ Optional	Estimated size (learning hours)	Level
Includes 3 NOSs -			
1. MIN/ N0243 – Assisting in getting work area ready and pre-operational checks.	M		
2. MIN/ N0244 – Assisting the operator for operation and assisting technician in maintenance & repair and breakdown.	M	250 Hours	2
3. MIN/ N0901 – Comply with worksite Health & Safety.	M		

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SECTION 1 **ASSESSMENT**

Body/Bodies which will carry out assessment:

Name of assessment bodies:

1. Anant Learning and Development, New Delhi.
2. Aspiring minds, New Delhi
3. Eduworld Consultants Pvt. Ltd, Punjab
4. India Skills Pvt. Ltd, New Delhi
5. Navriti Technologies Private limited, Karnataka
6. Prima Competencies Pvt. Ltd., New Delhi
7. Skill Mantra Edutech Consulting India Pvt. Ltd, MP
8. Trendsetters Skill Assessors Pvt. Ltd, Haryana
9. METTL, New Delhi
10. MFEELD, New Delhi
11. SP Institute of Workforce Development, Uttar Pradesh

Will the assessment body be responsible for RPL assessment?

Yes - RPL assessment process as laid out by MSDE.

Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, consistent and fair and show that these are in line with the requirements of the NSQF:

In line with defined assessment criteria, comprises written test, viva and practical assessment through certified assessors only. It has planned to use audio-video recording of assessment.

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ASSESSMENT EVIDENCE

Complete a grid for each component as listed in “Formal structure of the qualification” in the Summary.

NOTE: this grid can be replaced by any part of the qualification documentation which shows the same information – i.e. Learning Outcomes to be assessed, assessment criteria and the means of assessment.

CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role Assistant Support –Underground Mines

Qualification Pack MIN/Q0213

Sector Skill Council Mining

Sr. No.	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 of the theory/knowledge will be based on written test/viva-voce or both while skill test shall be hands on practical. Behavior and attitude will be assessed while performing the task.
3	Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training Centre (as per assessment criteria given)
4	Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training Centre based on these 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.

Assessment outcomes	Assessment Criteria for outcomes	Total Mark	Out Of	Marks Allocation	
				Theory	Skills Practical
		100	100	30	70
1. MIN/N0243: Assisting in getting work area ready and pre-operational checks.	PC1. Clean the haulage track, mining machinery and work area,	35	3	1	2
	PC2. Couple / uncouple haulage tubs / carriages,		3	1	2
	PC3. Check oil and lubricants level.		1	1	2
	PC4. To immediately notify any unsafe material or cut wire or any such broken		2	0	2

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	things to Operator / Technicians.				
	PC5. Carry out daily greasing and lubrication of conveyors and machine drives as per schedule or as directed by Operator / technician.		3	1	2
	PC6. Help replace any drill bit as per instruction from Operator / technicians. Help replace any support and mesh supports etc.		3	1	2
	PC7. Follow the work orders.		2	2	0
	PC8. Assist the Operator and Technician in conducting daily inspection and check of the machine.		3	1	2
	PC9. Carry out preliminary & visual checks. Observe any unusual noise, vibration, leak, spillage, accumulation etc. and communicate the same to Operator / Technician / Fitter.		3	1	2
	PC10. Check track chain bolts and give torque if required. Check belts, chains and other drive components.		2	1	1
	PC11. Take readings of meter and gauge measurements & sensor standards and inform Operator / Technician.		2	1	1
	PC12. Carry required tools, daily consumables and parts required during the shift operation to the machine and for repair and maintenance.		2	0	2
	PC13. Clean the machine parts or subassemblies for technicians to carry out fault repair.		2	0	2
	PC14. Use the tools in proper way and as per direction of operator / technician.		2	0	2
		Total	35	11	24
2. MIN/N0244: Assisting the operator for operation and	PC1. Understand the basic operations of each machine in underground mines.		5	3	2
	PC2. Follow the instruction of		2	1	1

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assisting technician in maintenance & repair and breakdown.	supervisors/operators/Technicians.	45			
	PC3. Check the machine vicinity is clear of any obstructions and no unauthorised person is present there. To notify the operator accordingly.		2	0	2
	PC4. Switch on / off of conveyors, hoists and lifting tackles, dewatering pumps etc. as per Operator / Technicians instruction.		3	1	2
	PC5. Do coupling and decoupling of haulage tubs and carriages as required.		3	0	3
	PC6. Carry out regular visual checks and communicate to technician/ operator any unusual noise, vibration, leak, spillage, accumulation etc.		3	1	2
	PC7. To take note of any alarm message during operation and report the same to Technician or Operator.		4	1	3
	PC8. Carry the supports and other materials for timberman and roof bolter etc.		3	1	2
	PC9. Make himself available all the time to the Operator during machine operation.		2	1	1
	PC10. Take direction from Technician and identify right machine spares, tools and tackles required for the repair and maintenance job on the machines.		3	0	3
	PC11. To get necessary authorisation and approval from Technician and mechanic for issuance of the spare parts, replacement consumables, tool bits, support materials and other materials.		2	0	2
	PC12. To get the items issued from store and carry right tools and tackles required to attend the breakdown or maintenance.		2	0	2
	PC13. Follow all the work instruction from Fitter / Technician to help them in routine maintenance.		3	1	2

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	PC14. Tighten all nut bolts properly after maintenance.		3	0	3
	PC15. Do the housekeeping of the area after maintenance.		2	1	1
	PC16. Ensure proper disposal of worn out machine components at right place.		3	1	2
		Total	45	12	33
3. MIN/Q0901: Health & Safety	PC1. Comply with occupational health and safety regulations adopted by the employer.		2	1	1
	PC2. Follow mining operations procedures with respect to materials handling and accidents.		2	1	1
	PC3. Follow the correct safety steps in case of accident or major failure.		2	1	1
	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

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		Total	20	7	13
	QP Total		100	30	70
	Percentage Weightage:			30%	70%
	Minimum Pass% to qualify (aggregate):			50%	

Means of assessment 1

Written test, viva and practical assessment, in line with defined assessment criteria and approved assessment policy.

Pass/Fail

To pass the Qualification Pack, every trainee should score a minimum of 50% in every NOS.

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SECTION 2

EVIDENCE OF LEVEL

Summary of Direct Evidence:

Generic NOS is/are linked to the overall authority attached to the job role.

OPTION A

Title/Name of qualification/component: Assistant Support –Underground Mines - MIN/Q 0213			
NSQF Domain	Outcomes of the Qualification/Component	How the job role relates to the NSQF level descriptors	NSQF Level
Process	This process requires the individual to concentrate on the job at hand and complete it without any accidents. Diligence and hardworking is a desired attribute for individuals in this role. The individual should also be skilled to assist operator, technician and seniors to service and maintain UG mine machinery and carry out the necessary instruction given by seniors.	prepares equipments to carry out process that are repetitive on regular basis, more of practice. Follow all the work instruction from Fitter / Technician to help them in routine maintenance.	2
Professional knowledge	Basic knowledge of different UG mine machines and their functionalities - a) Haulage of tubs, coupling, decoupling etc. b) Conveyor systems to transport rocks and minerals. c) Drill to make hole in the coal seam, d) Rock or Coal cutting machines. e) Different types of pumps to drain out water from mines. f) SDL/LHD to transport coal. g) Machines to operate winding engine/ cage for lift and withdrawn the miner from mines. h) Roof bolting machines operation. i) Gas detectors and precautions to be taken against	Material tools and application in a limited context of visual inspections, understands context of inspection and maintenance work and right quality	2

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Title/Name of qualification/component: Assistant Support –Underground Mines - MIN/Q 0213			
NSQF Domain	Outcomes of the Qualification/Component	How the job role relates to the NSQF level descriptors	NSQF Level
	<p>noxious gases.</p> <p>k) Know right lubricants for conveyors, drives, gearboxes, chain and sprocket drives and greasing point of different machines.</p> <p>l) Know the right set of tools and tackles required for Maintenance.</p> <p>m) Different types of jacks and lifting tackles and their capacity.</p> <p>n) Comply with occupational health and safety regulations adopted by the employer.</p>		
Professional skill	<p>Planning of work according to the schedule.</p> <p>Decide when to conduct the routine maintenance</p> <p>Decide on types of tools and tackles to be used.</p> <p>Analyze repetitive issues and discuss with supervisor/mechanic.</p> <p>Planning for cleaning of the equipments.</p> <p>Detect problems in day to day tasks.</p> <p>Report problem that he can't resolve to appropriate authority</p> <p>Identify sources of support that can be availed for problem solving.</p>	limited service skill, used in limited context, select and apply tools, assist in operation and maintenance works with no variables,	2
Core skill	<p>Note gauge and meter readings,</p> <p>Write simple short reports.</p> <p>Read the instructions and symbols given at workplace</p> <p>Read information sent by others</p> <p>Read the risk management plan of the job.</p> <p>Effectively communicate with the Operator / Technician / team members</p> <p>Question internal customer/supervisor appropriately in order to understand the nature of the instructions.</p> <p>Attentively listen and comprehend the information given</p>	receive and transmit written and oral messages, basic arithmetic knowledge, understanding hygiene and environment and work place safety	2

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Title/Name of qualification/component: Assistant Support –Underground Mines - MIN/Q 0213			
NSQF Domain	Outcomes of the Qualification/Component	How the job role relates to the NSQF level descriptors	NSQF Level
	by speaker.		
Responsibility	Skilled Helper assist operators and technicians in UG mines, including in haulage, conveyor operation, Drilling, coal cutting, water pump operation, SDL/LHD operation, Roof bolting and other equipment operations, repair and maintenance. He has to ensure the cleanliness of the equipment & worksite assists the operator in pre operational checks and operation and assists the Technicians to carry our repair and maintenance jobs. He carries the tools and tackles from store to required site for repairing or maintenance.	No direct responsibility. Works under instruction and close supervision of Operator and Technicians.	2

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SECTION 3

<p>What evidence is there that the qualification is needed?</p> <p>SCMS carried out comprehensive survey and collected feedback from industry with respect to roles for which qualification packs development are required. The occupational map was finalised accordingly. The need of this particular qualification was revalidated during the comprehensive interaction with Industry in the process of seeking their input for QP/NOS development.</p>
<p>What is the estimated uptake of this qualification and what is the basis of this estimate?</p> <ul style="list-style-type: none">• Skills Gap analysis Reports for industry demand.• Estimated uptake planned for 500 RPL of in-service workers.
<p>What steps were taken to ensure that the qualification(s) does/do not duplicate already existing or planned qualifications in the NSQF?</p> <ul style="list-style-type: none">• NSDC list of Approved and Under-Development QPs were checked prior to commissioning the work.• NSDC QRC team also confirmed the same.• Checked at www.nqr.gov.in
<p>What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated?</p> <ul style="list-style-type: none">• SCMS Review committee will review all QP/NOS at regular periodicity or as per NSDC guidelines.• Review will be based on –<ol style="list-style-type: none">a) Revalidation of minimum requisites to perform in a Job role from pan India industry partners.b) Any change in technology and process relevant to the particular QP and Job roles.
<p>Has the qualification been through a formal approval procedure(s)? (If so, explain the process and the outcome.)</p> <p>Yes, NSDC QRC process has been adhered to. This includes minimum 30 validations for the QP from employers in the sector. This has been across small, medium and large companies.</p>
<p>What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated?</p> <p>SCMS Review committee will review all QP/NOS at regular periodicity or as per NSDC guidelines. The review will factor in -</p> <ul style="list-style-type: none">• Feedback from the Industry and Industry Association• Recommendation and suggestions from the Industry Player and Industry Association
<p>What arrangements are in place to inform people about the qualification(s) and the advantages it offers?</p> <ul style="list-style-type: none">• Employer workshops for buy-in and recognition• Training centres are being enrolled and informed of the potential• Counselling sessions by training provider for potential recruits are being encouraged

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SECTION 4

EVIDENCE OF PROGRESSION

What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?

This qualification allows Horizontal and vertical mobility options.

- a) Horizontal mobility as Skilled Helper roles in Mining Operation or Engineering services.**
- b) Vertical mobility as Timberman / Asst. Operator / Operator roles of Ore extraction machinery / HEMM / UG Mine machines or as Technician in Engineering services with requisite upskilling and qualifications.**

Businesses or organisations are expected to use this qualification as a basis in recruiting workers

Annexure 1: Occupational Map