

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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E-mail address: scms@skillcms.in

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 –Open Cast Mines
Qualification Code	MIN/Q0211
Nature and purpose of the qualification	<p>This is a Qualification Pack (QP), corresponding to Level – 2 and includes 3 NOSs.</p> <p>Targeted learners: This qualification will equip the trainees to become Skilled Helper. He/she would assist the operator/ Technician in repairing, operating and servicing particular machinery or subsection in Open cast mines.</p> <p>Main purpose of the qualification – is to get unemployed people into work and also to upgrade the skills of level 1 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 –Open Cast Mines.</p> <p>Brief Job Description: Assistant operator/ Skilled Helper assists HEMM Operators, other equipment operators and Technicians in ensuring positioning and productive and safe operation of the HEMM and other extraction machinery. He assists in operation of ancillary equipment, hoists and pumps etc. He has to ensure the cleanliness of the equipment, assists the operator in conducting pre operational checks and work with</p>

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Technicians to carry our repair and maintenance jobs.																	
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"> - Horizontal access at the same NSQF Level to Other support Roles. - Vertical access at next NSQF level: with requisite up skilling and qualification enhancement. <p style="text-align: center;">Level- 3- Drilling Assistant / Explosive Handler. And/or Level-4 HEMM operator/Technician.</p>																
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.	<table border="1"> <thead> <tr> <th></th> <th>Mandatory/ Optional</th> <th>Estimated size (learning hours)</th> <th>Level</th> </tr> </thead> <tbody> <tr> <td>Includes 3 NOSs -</td> <td></td> <td></td> <td></td> </tr> <tr> <td>1.NOS-1 – Assist in carrying out pre operational check, servicing and maintenance of HEMM and other machinery</td> <td>M</td> <td rowspan="3" style="text-align: center;">250 Hours</td> <td rowspan="3" style="text-align: center;">2</td> </tr> <tr> <td>2. NOS -2 - Assist Mining operators in shifting, placement, cleanliness and operation of the machine.</td> <td>M</td> </tr> <tr> <td>3. NOS – 3 – Comply with worksite Health & Safety guidelines.</td> <td>M</td> </tr> </tbody> </table>		Mandatory/ Optional	Estimated size (learning hours)	Level	Includes 3 NOSs -				1.NOS-1 – Assist in carrying out pre operational check, servicing and maintenance of HEMM and other machinery	M	250 Hours	2	2. NOS -2 - Assist Mining operators in shifting, placement, cleanliness and operation of the machine.	M	3. NOS – 3 – Comply with worksite Health & Safety guidelines.	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 –Open Cast Mines

Qualification Pack: MIN/Q 0211

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.

		Marks Allocation			
Assessment outcomes	Assessment Criteria for outcomes	Total Mark (100)	Out Of	Theory	Skills Practical
		100	100	30	70
1. MIN/N0239: Assist in pre-operational check, servicing of HEMM	PC1. Assist in visual inspection of the body components for cracks and wear. Observe any unusual noise, vibration, leak, spillage, accumulation etc. and communicate the same to Technician / Operator.	40	3	2	1
	PC2. Inspect the bucket for any crack or damage. Inspect the tooth points and lock pin.		2	1	1

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PC3. Check the hydraulic oil levels, radiator water levels, any leakages	3	2	1
PC4. Check the track chain pad, bolts and links in crawler mounted equipment. Tighten bolts as required.	2	1	1
PC5. Check gauges, indicators, and sensor are fully functional. Observe any alarm message and report the same to Technician or Operator.	2	1	1
PC6. Check for any leakage in compressor unit and all fittings and air lines. The condition of trailing cable and cable joints.	2	1	1
PC7. Carry all the tools and tackles to complete the job.	2		2
PC8. To clean the work area and assist the Technician in conducting inspection and check different machine area.	3	1	2
PC9. Follow all the work instruction from Fitter / Technician related to routine maintenance.	1	1	0
PC10. Ensure that no maintenance task on the engine is performed when running or still hot.	1	0	1
PC11. Repair or replace faulty parts as per Technician or Operator's instructions.	2	1	1
PC12. Use various kinds of hand held and power-tools to lift, dismantle or assemble machine components.	2	1	1
PC13. Perform greasing & lubrication as directed by Operator / Technician.	3	1	2
PC14. Assist in oil changes, change of oil filters and air filters, replaces hoses, belts, water pumps and other parts.	3	1	2
PC15. Check fan belts, hoses, wiper blades and other safety equipment; check water and antifreeze levels; check air in tires and inflate	3	1	2

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	tires and changes tires as necessary.				
	PC16. Assist technician in maintaining and repairing automotive fleet and small equipment		2	1	1
	PC17. Change and repair tires for the automotive fleet and responds to road service calls. Tow broken-down vehicles.		2	1	1
	PC18. Fuel, wash, and clean administrative vehicles.		1	0	1
	PC19. Assist in welding services as needed.		1	0	1
			40	17	23
2. MIN/N0240: Assist Mining operators in shifting, placement, cleanliness and operation of the machine.	PC1. Follow the work instruction for shifting and placement of machine.	40	2	1	1
	PC2. Ensure that the path is free from any obstruction. Ensure that no blasting operation is in progress in the area to be shifted.		2	1	1
	PC3. carry the trailing cable while placement of machine in case of electrical driven machines		2	1	1
	PC4. Guide the operator for placement of drill machine at distinctly marked position given by Mechanic/Technician/ surveyor.		2	1	1
	PC5. carry out visual inspection of the area before starting the operation		3	1	2
	PC6. Inspect the unloading area properly for any persons or machinery before starting the dumping operation. Ensure that the dumping area is free from cracks and subsidence.		2	1	1
	PC7. ensure that no person is present at the toe of unloading area		2	0	2
	PC8. report any abnormality from the machine operation to the operator		3	2	1
	PC9. Assist the operator in changing the rod of		3	1	2

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	drill machines.				
	PC10. Clear the drill cuttings / muck whenever advised by the operator.		3	1	2
	PC11. Perform water spraying on muck pile if in practice.		3	1	2
	PC12. Clean the operator's cabin. Clean the glasses of the operator cabins for better visibility before the start of machine in a shift		2	0	2
	PC13. Clean the foot plates, pedals and steps free from mud, dirt, oil, grease, ice and snow at regular intervals. Perform periodic cleaning of the entire machine.		2	1	1
	PC14. Help operators , such as earth drillers, jack hammer and mining machine operators during the extraction process.		3	1	2
	PC15. Assisting workers to extract geological materials, using hand tools and equipment;		2	1	1
	PC16. Signalling workers to start extraction as per supervisors / operators' instructions;		2	1	1
	PC17. Delivery and set-up of materials, devices and machine parts, using hand tools;		2	0	2
			40	16	24
MIN / N0901: Worksite Health & Safety	PC1. Comply with occupational health and safety regulations adopted by the employer.	20	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		2	1	1

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	extinguishers.				
	PC6. Work responsibly and as safe and careful as possible so as not to put the health and safety of self or others at risk, including members of the public		2	1	1
	PC7. Perform storage and transport of hazardous materials compliant with safety guidelines prescribed by DGMS.		2	0	2
	PC8. Deal with misfires as per statutory requirement		1	1	0
	PC9. Identify characteristics of post-blast fumes and take necessary precautions.		2	1	1
	PC10. Wears safety gear such as hard hat, respiratory protection, eye protection, ear protection.		1	0	2
	PC11. Follow the manufacturer's instructions for care and safe operation of the equipment.		1	0	1
		Total	20	7	13
	QP Total		100	39	61
	Percentage Weightage:			39%	61%
	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 –Open Cast Mines - MIN/Q 0211 Level:2			Level: 2
NSQF Domain	Outcomes of the Qualification/Component	How the job role relates to the NSQF level descriptors	NSQF Level
Process	This process requires the person to carry out repetitive support and assistance as Skilled helper while following workplace safety guidelines. He/she extends assistance to Operator, Technician and Seniors as per given work instructions. He/she assists machine operation, equipment upkeep and servicing, carries tools & tackles, helps in troubleshooting and repairing.	prepares equipments ready to carry out process that are repetitive on regular basis, more of practice	2
Professional knowledge	<ul style="list-style-type: none"> • Basic Knowledge of different HEMM and other machinery in Open cast Mines, machine features and their operations. • Checklist for monitoring, standard operating parameters, • Right lubricants and different greasing points and schedules, • Ancillary support services like electrical / pneumatic supply etc. • Knowledge of Safety features of machine. • Should understand the work instructions. • Knowledge on application of different types of hand tools. • Should be aware of the risk and risk management plan. 	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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NSQF Domain	Outcomes of the Qualification/Component	How the job role relates to the NSQF level descriptors	NSQF Level
Professional skill	<ul style="list-style-type: none"> Assisting in pre-operational checks. Greasing & Lubrication as per direction or checklist. Assisting in fault identification. Carriage of tools tackles & spares. Assist in consumable replacement and maintenance activities. Carrying or help laying the electrical cables / pneumatic lines etc. Assist or guide operator for positioning of machines. Assist in shifting and placement of machines. Carry trailing Electrical or pneumatic cables. Assist operator in operation of different machinery. Assisting operators in varied extraction jobs. Carry the consumables, like bits, drill, rods. Etc. Carry out work in line with the instruction of operator and as per timeline. Report problems that you cannot resolve to appropriate authority. Identify sources of support that can be availed for problem solving for various kinds of problems. 	Limited service skill, used in limited context, selects and applies tools, assist in operation and maintenance works with no variables.	2
Core skill	<ul style="list-style-type: none"> Should be able to observe any external problem in equipment and report it to operator. Should be able to write log book and other reports. Company guidelines. Safety procedure and safety guidelines. Read the instructions, guidelines, procedure, rules, signage's related to the works. Read the risk management plan of the job. Interact effectively with Operator in order to clarify instruction and other issues Use correct technical term while interacting with 	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 –Open Cast Mines - MIN/Q 0211 Level:2			Level: 2
NSQF Domain	Outcomes of the Qualification/Component	How the job role relates to the NSQF level descriptors	NSQF Level
	<p>operator and other personnel.</p> <ul style="list-style-type: none"> • Should able to present report to concern authority or person with details. 		
Responsibility	<p>Asst operator/ Skilled Helper assist HEMM Operators, other equipment operators and Technicians in ensuring operation, servicing and maintenance of machine. He has to ensure the cleanliness of the equipment, assists the operator in conducting pre operational checks and work with Technicians to carry our repair and maintenance jobs. Some of the equipments where he assists are Shovel, Drill, Bucket Wheel Excavator, Dragline, Crane, etc</p>	<p>No direct responsibility. Works under instruction and close supervision of Operator and Technicians.</p>	2

SECTION 3

EVIDENCE OF NEED

What evidence is there that the qualification is needed?

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.

What is the estimated uptake of this qualification and what is the basis of this estimate?

- Skills Gap analysis Reports for industry demand.
- RPL certification of approx. 800-1000 in-service workers yearly.

What steps were taken to ensure that the qualification(s) does/do not duplicate already existing or planned qualifications in the NSQF?

- 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

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?

- SCMS Review committee will review all QP/NOS at regular periodicity or as per NSDC guidelines.
- Review will be based on –
 - 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.

Has the qualification been through a formal approval procedure(s)?

(If so, explain the process and the outcome.)

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.

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?

SCMS Review committee will review all QP/NOS at regular periodicity or as per NSDC guidelines. The review will factor in -

- Feedback from the Industry and Industry Association
- Recommendation and suggestions from the Industry Player and Industry Association

What arrangements are in place to inform people about the qualification(s) and the advantages it offers?

- 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.

Potential mobility options are –

- a) Horizontal: Other Support roles at the same NSQF Level.**
- b) Vertical : Level- 3- Drilling Assistant / Explosive Handler. And/or Level-4 HEMM operator/Technician.**

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

Annexure 1: Occupational Map