

CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE

Name and address of submitting body:

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List of documents submitted in support of the Qualifications File

1. Qualification Pack (MIN/Q0207)– Annexure 1
2. Model Curriculum Driver Special vehicle – Annexure 2
 - Indicative list of tools/equipment to conduct the training
 - Trainers qualification
 - Lesson Plan
 - Distribution of training duration into theory/practical/OJT component
3. Accreditation Guideline for Training Partner– Annexure 3
4. Protocol for Affiliations of Assessment Agencies and Assessment Framework – Annexure 4
5. Skill gap report for Mining Sector– Annexure 5
6. Tools and Equipment list Driver Special Vehicle – Annexure 6
7. Recommendation Letter from Line Ministry- Annexure 7
8. Occupational Map– Annexure 8

SUMMARY

1	Qualification Title	Driver Special Vehicle (Explosive & Sprinkler)
2	Qualification Code, if any	MIN/Q0207
3	NCO code and occupation	NCO-2015/8111.2601; Blasting
4	Nature and purpose of the qualification (Please specify whether qualification is short term or long term)	The nature of qualification is <ul style="list-style-type: none"> - This is a Qualification Pack (QP) containing National Occupational Standards for the job role – Driver Special Vehicle Purpose of Qualification <ul style="list-style-type: none"> - To get unemployed people into work - To enable candidate to become a Driver Special Vehicle (Explosive & Sprinkler) - To upgrade the skills of people in work
5	Body/bodies which will award the qualification	Skill Council for Mining Sector
6	Body which will accredit providers to offer courses leading to the qualification	Skill Council for Mining Sector
7	Whether accreditation/affiliation norms are already in place or not , if applicable (if yes, attach a copy)	Yes, * Please refer, Annexure 3
8	Occupation(s) to which the qualification gives access	Blasting
9	Job description of the occupation	A Driver Special Vehicle in mining area is responsible for driving a sprinkler Truck/vehicle to control dust on a haul-road or an explosive carrier truck used to deliver explosives to mine sites. He/she know and understand the basic of mining operations, traffic rules to be followed in the mining area and safety guidelines for mining operations in line with Mine Vocation Training Rules.
10	Licensing requirements	Heavy Commercial Vehicle Driving License
11	Statutory and Regulatory requirement of the relevant sector (documentary evidence to be provided)	NA

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12	Level of the qualification in the NSQF	4
13	Anticipated volume of training/learning required to complete the qualification	510 Hours
14	Indicative list of training tools required to deliver this qualification	Annexure-6
15	Entry requirements and/or recommendations and minimum age	10 std. Pass; 20 years
16	Progression from the qualification (Please show Professional and academic progression)	<p>This entry should refer to one or more of the following: -</p> <ul style="list-style-type: none"> - access to other qualifications at the same NSQF level – Dumper/Tipper Operator, Loader Operator, Bulldozer Operator, Excavator Operator. - access to related qualification(s) at the next NSQF level – Mining Mate, Dragline Operator, Bucket Wheel Excavator Operator.
17	Arrangements for the Recognition of Prior learning (RPL)	<p>Presently the industry has a large work force of operators who are trained and experienced but not certified as per the NSQF norms. It is proposed to certify them under the RPL (Recognition of Prior Learning) program which will go a long way in facilitating their career progression.</p> <p>70% of the mining workforce is involved in small with area < 50 hectares and are mostly unorganised mines. These mines do not have basic infrastructure / capital to conduct training at their own. For unorganised sector the focus should be on health and safety including distribution of safety kits. Such program should be rolled out under Government funded scheme.</p>
18	International comparability where known (research evidence to be provided)	NA
19	Date of planned review of the qualification.	16/01/2021

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20	Formal structure of the qualification		
	Mandatory components		
	Title of component and identification code/NOSs/Learning outcomes	Estimated size (learning hours)	Level
(i)	MIN/N0232 Prepare vehicle and perform vehicle operation	258 Hours	4
(ii)	MIN/N0233 Deliver bulk explosives to the blast location	63 Hours	4
(iii)	MIN/N0234 Perform basic maintenance on vehicle	63 Hours	4
(iv)	MIN/N0902 Adhere to health & safety and MVTR requirements in OC Mines	126 hours	4
	Sub Total (A)	510 Hours	4
	Optional components		
	Title of component and identification code/NOSs/ Learning outcomes	Estimated size (learning hours)	Level
	No optional components		
	Sub Total (B)		
	<u>Total (A+B)</u>	510 Hours	-

SECTION 1
ASSESSMENT

21	<p>Body/Bodies which will carry out assessment:</p> <p>Assessment agency empanelled with Skill Council for Mining Sector (SCMS) with adequate skills set and on the job experience of the subject. It is mandated that only the certified assessors will undertake assessment. The Protocol for Affiliations of Assessment of Assessment Agencies and Framework attached as an annexure 4. The list is available at SCMS website that is www.skillcms.in</p>
22	<p>How will RPL assessment be managed and who will carry it out?</p> <p>RPL will be based on the same approved Qualification Pack and Assessment Criteria mentioned in the Qualification Pack and will be carried out as per normal SCMS assessment process. The Training Partner will identify and counsel candidates eligible for RPL through mobilization camps and advertisements. The mobilized candidates can be counselled, oriented about the standardized NSQF framework and basis their existing competency will be mapped against the suitable level of the concerned Job role for assessments. The candidates enrolled will be assessed by the Assessment Agency affiliated with the Sector Skill Council on the basis of assessment criteria decided by Sector Skill Council (SSC). The candidate will need to pass in the minimum assessment criteria of a particular QP decided by the SSC. Successfully assessed candidates with a valid Aadhaar or alternate ID (as per process) will be eligible Certification”.</p>
23	<p>Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, reliable and fair and show that these are in line with the requirements of the NSQF.</p> <p>A robust technology enabled assessment methodology has been designed keeping in mind the geographical/Physical constraints and target segment which assess a trainee’s knowledge and skill set through three methods:</p> <ul style="list-style-type: none"> • An offline Tablet based test through the use of Multiple Choice Text and Picture based questions in vernacular languages • Actual demonstration on the field • Viva <p>SCMS’s assessment strategy:</p> <ul style="list-style-type: none"> • Question sets are developed as per the weightage of each NOS of the Qualification Pack. • Assessment criteria for each Qualification Pack developed, in which each Performance criteria (PC) assigned marks based on NOS

	<ul style="list-style-type: none"> • Question Bank is developed to assess the theoretical and practical knowledge. To ensure the quality, each trainees get different set of question • Empanelment of subject matter expert as assessor primarily from the Industry to assess trainee specifically on practical skills as per Industry • Demands • 100% video recording of complete assessment process will be done by Assessment Agency. <p>Assessments are preferably conducted on tablets or pen & papers in regional languages according to the requirement.</p>
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24. Assessment evidences

Criteria for Assessment of Trainees

Job Role Driver Special Vehicle (Explosive & Sprinkler)

Qualification Pack MIN/Q0207

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 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 this criterion.
6	To pass the Qualification Pack, every trainee should score a minimum of 70% of aggregate marks to successfully clear the assessment.
7	In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.

Compulsory NOS	Marks Allocation
Total Marks : 100	

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Assessment outcomes	Assessment Criteria for outcomes	Total Mark	Out Of	Theor y	Skills Practi cal
1. MIN/N0232 (Prepare vehicle and perform vehicle operation)	PC1. Check the vehicle features, such as any visible fluid leaks (oil, fuel, coolant), air pressure and treads of all wheels, oil levels of engine, transmission, radiator coolant and brake etc. and check and clean the windshield and mirrors for safe driving.	30	2	0	2
	PC2. Check proper signage / panels affixed to the van side panels as per required specifications.		1	1	0
	PC3. Check and ensure availability of at least 2 fire extinguishers for explosive van (CO2 & CCL4).		3	1	2
	PC4. Check and ensure that explosive van is fitted with earthing strap to take away static electricity.		2	0	2
	PC5. check the sprinkler pumps and pipes are functioning properly and the tanks are full (if prefilled).		2	1	1
	PC6. look out for people working and hazards such as trenches and cables		2	0	2
	PC7. Ensure vehicle load and operating speed is within limits specified by OEM / manager mines.		3	0	3
	PC8. Ensure all requisite safeguards for driving an explosive van, e.g. drive loaded van at 20km/hr. (max)in mines, not to fuel or refuel loaded van, not to allow any unauthorized person in van and not to leave the van unattended.		2	0	2
	PC9. Perform in-operation visual checks on critical gauges and maintain safe following distance, lane driving and lane changing etiquette,		2	0	2
	PC10. Slow, stop and secure the vehicle at a suitable location in a safe		2	1	1

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	manner.				
	PC11. Demonstrate the ability to reverse the vehicle in straight line and to one side.		2	0	2
	PC12. Ensure that vehicle is always parked on firm, level ground; with handbrake applied and drive and controls disengaged		2	0	2
	PC13. Avoid parking loaded explosive van in crowded place. for any urgent break down, he would not leave it unattended.		2	1	1
	PC14. Report problems/incidents in a timely manner and accurately using the appropriate format.		1	1	0
	PC15. Follow reporting procedures as prescribed by the employer, complete all documentation within stipulated time. and ensure documents are available to appropriate authorities to inspect		2	1	1
	Total		30	7	23
2. MIN/N0233 (Deliver bulk explosives to the blast location)	PC1. Identify and confirm location of and route to blast area as appropriate, identify the potential hazards to transportation and confirm that the loading position, including edge protection are safe and appropriate.	30	5	2	3
	PC2. Understand the site procedures for reporting and meet the specific site requirements for identification, registration and induction of contractors/visitors		5	2	3
	PC3. Identify and locate the site personnel with responsibility for oneself and the blast. delivery shall only be made to authorized persons and into approved magazines or approved temporary storage or handling areas.		5	2	3

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	PC4. Ensure that vehicle is safely driven and positioned at agreed optimum loading point/s according to operational procedures, site rules and loading requirements.		5	2	3
	PC5. Deliver the quantities and qualities of material/s as communicated by instruction of blasting in-charge.		5	2	3
	PC6. Ensure that the vehicle is safely driven to blast location in compliance with organisational and site procedures and DGMS guidelines in permission letter.		5	2	3
	Total		30	12	18
3. MIN/N0234 (Perform basic maintenance on Vehicle)	PC1. Track vehicle operating hours to assess the right service schedule.	15	1	0	1
	PC2. Clean air filter dust bowls, drain water and sediment /fuel separators, replenish coolants, lubricants and fluids, grease all greasing pins and pivot points, check tyre rims, air pressure etc.		1	0	1
	PC3. Clean footplates, pedals and steps free from mud, dirt, ice and snow		1	0	1
	PC4. Check battery levels and condition of the terminals and carry out minor adjustments if required.		1	0	1
	PC5. Complete timely and legibly daily/weekly maintenance/defect sheets as provided.		1	0	1
	PC6. Check and clean the sprinkler pumps, piping and spray systems.		1	0	1

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	PC7. Check an explosive van thoroughly within 24 hours before loading of explosives.		1	0	1
	PC8. Check and ensure that fire extinguishers (e.g. one each of co2 and ccl4) are within expiry period and functioning.		1	0	1
	PC9. Ensure the parking brake and indicators are used to prevent any accident		2	1	1
	PC10. Ensure the machine is on firm and level ground before attempting to carry out any checking and ensure that no maintenance task on the engine is performed when running or still hot.		2	1	1
	PC11. Check and identify out-of-range readings on the instrument panel and various control gauges to detect possible cause of failure.		1	0	1
	PC12. Assess when the problem is beyond his competence and report the problem to suitably qualified and competent personnel		2	1	1
	Total		15	3	12
4. MIN/N0902 (Adhere to health & safety and MVTR requirements in OC Mines)	PC1. Comply with safety, health, security and environment related regulations / guidelines at the mine and follow the safe operation procedure (SOP) made before hand in consultation with the DGMS and implement the same.		3	2	1
	PC2. Use PPE (personal protective equipment) and other safety gears such as seat belt, body protection, respiratory protection,		2	1	1

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	eye protection, ear protection and hand protection.			
	PC3. Carry out operations as per the manufacturer's and worksite related health and safety guidelines and take requisite care not to damage any power, utility and pneumatic lines and protect self and machinery from unwarranted exposure.	2	1	1
	PC4. Follow safety measures in the OC mining or outdoor environment to ensure that the health and safety of self or others (including members of the public) are not at risk.	1	0	1
	PC5. Ensure that no unauthorized personnel or equipment are present in specified work area and ensure that no other operators travel on or stand near the loader	2	0	2
	PC6. Utilize judiciously various signaling devices available in the mining equipment and HEMMs, such as turn signal, parking indicator, air horn etc.	2	0	2
	PC7. Ensure that HEMM or other such transportation and moving machinery are always parked on firm, level ground; with handbrake applied and drive and controls disengaged	2	0	2
	PC8. Undertake all prescribed measures while camping in a remote site or camp, including compliance to safety procedures in case of inundation, fire hazard, gas occurrence etc.	2	1	1

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	PC9. Support in administering first aid and resuscitation measures to fellow team members and operate various grades of fire extinguishers, as applicable.		2	0	2
	PC10. Handle the transport, storage and disposal of hazardous materials and waste in compliance with worksite guidelines as prescribed by DGMS and mine manager.		2	1	1
	PC11. Deal with misfires as per laid out process and during blasting operation, take shelter at the miner's station.		2	1	1
	PC12. Respond promptly and appropriately to an accident/ incident or emergency situation, within limits of the role and responsibility.		3	1	2
	Total		25	8	17
	QP Total		100	30	70

Means of assessment 1

The emphasis is on 'learning-by-doing' and practical demonstration of skills and knowledge based on the performance criteria. The assessment papers for theory and practical are developed by Subject Matter Experts (SME) available with the Assessment Agency as per the performance and assessment criteria mentioned in the Means of assessment 2 Qualification Packs. Tests are administered and marks for theory paper and practical's demonstrating the selling techniques, handling of jewellery and retail sales counter. All the components and the performance criteria are covered during the test.

Means of assessment 2

The assessments for theory is carried out in Offline mode (TAB) and the practical assessments is carried out with the availability of the equipment at the TC, as predefined for the job role.

Pass/Fail

To pass the Qualification Pack, every trainee should score a minimum of 50% in each NOS with aggregate of 70% in overall.

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SECTION 2

25. EVIDENCE OF LEVEL

Title/Name of qualification/component: Special vehicle Drivel- MIN/Q 0207			
NSQF Domain	Key requirements of the job role	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 so diligence and hardworking is a desired attribute for individuals in this role. The individual should also be skilled in operating the explosive vehicles.	Special vehicle driver, drive the water Tanker and Explosive van to deliver explosive on blast site with considering all safety precaution.	4
Professional knowledge	Introduction to engine, transmission, their use and function. Understanding of the vehicle aggregates and assemblies, including steering mechanisms, service brakes and parking brakes, alarms and signalling devices, instrument panel, controls, levers and switches, correct oil pressures and temperatures etc. Operation of sprinkler pump and spray system and critical operating parameters Safe constriction and DGMS guidelines for a explosive carrier vehicle.	Check dairy fitness of the vehicle i.e. vehicle aggregates and assemblies, including steering mechanisms, service brakes and parking brakes, alarms and signalling devices, instrument panel, controls, levers and switches, correct oil pressures and temperatures etc. in respect of Health and Safety.	4
Professional	Make decisions pertaining to the concerned area of	Provide explosive at blast site in given time or	4

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Title/Name of qualification/component: Special vehicle Drivel- MIN/Q 0207			
NSQF Domain	Key requirements of the job role	How the job role relates to the NSQF level descriptors	NSQF Level
skill	<p>work.</p> <p>Plan and organize the work order and jobs.</p> <p>Organize all process manuals so that sorting/ accessing information is easy</p> <p>Detect problems in day to day tasks</p> <p>Discuss possible solution with the supervisor for problem solving</p> <p>Make decisions in emergency conditions.</p> <p>Use common sense and make judgments during day to day basis</p> <p>Use reasoning skills to identify and resolve basic problems</p>	control dust on haul road and make decisions pertaining to the concerned area of work. Detect problems in day by day tasks and able to resolve them. Also able to make decision in emergency condition.	
Core skill	<p>Read and interpret Information from the sketches and engineering drawings.</p> <p>Note down observations (if any) related to the fire fighting process</p> <p>Discuss task lists, schedules and activities with the supervisor</p> <p>Effectively communicate with the team members</p> <p>Plan and organize the work order and jobs received from the supervisor</p>	Records and note down the routine work and observation and comply task list related to safety aspect such as fire-fighting process, handling Explosive safely, control dust on hual road etc. and notify the same to senior. Hence, Communication written and oral, with minimum required clarity, skill of basic arithmetic and algebraic principles are required.	4
Responsibility	Sprinkler and Other Vehicle Driver in mining industry is an ancillary job role. The individual	Works independently as per the instruction of Blasting In-charge/ Shift In-charge/Mines Manager	4

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Title/Name of qualification/component: Special vehicle Drivel- MIN/Q 0207			
NSQF Domain	Key requirements of the job role	How the job role relates to the NSQF level descriptors	NSQF Level
	assigned this role could be driving a sprinkler truck to control dust on a haul-road or could be driving an explosive carrier to deliver explosives in designated mine area. Besides knowledge of driving fundamentals, the role requires the individual to know and understand the basic of mining operations, traffic rules to be followed in the mining area and safety guidelines for mining operations prescribed by DGMS.		

SECTION 3
EVIDENCE OF NEED

26. What evidence is there that the qualification is needed? What is the estimated uptake of this qualification and what is the basis of this estimate?

Need of the qualification?

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. Refer Annexure-5 Skill gap Report for Indian Mining Sector.

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

Industry relevance?

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.

SCMS undertaken validation from the industry players and also industry endorsement from 37 end user industry which are mix of 17 large (lease sized over 200 hectares) companies, 06 medium lease (more than 50 and less than 200 hectare) companies and 11 small leases (less than 50 hectare) companies.

Uses of Qualifications and industry uptake

The qualification will be used to carry out short term / long term skilling of youth to make them employable for the company and also for up-skilling and certification of in-service workers. These trained manpower will be absorbed in all Opencast mines.

27. Recommendation from the concerned Line Ministry of the Government/Regulatory Body

The qualification packs are being shared with our Line Ministry i.e. Ministry of Mines. Refer Annexure-7 for recommendation letter from line ministry.

28. 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, there is no duplicity

29. 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.
- The Next Review Date of this QP is 16 January 2021.

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?

Horizontal Mobility: - With some years of experience, the Driver Special Vehicle can move to other occupation and take up the job role as Dumper/tipper operator, Loader operator, Bulldozer Operator.

Vertical Mobility:- With some experience and require upskilling the Driver Special Vehicle could upgrade to become Mining Mate, Dragline Operator, Bucket Wheel Excavator.

(Refer Annexure-8 for Mining Sector Occupational Map.)