Note

Subject: Review of the Approval policy-2015 (Second Revision-2016)-reg

Chief Inspector of Mines (CIM), also designated as Director General of Mines Safety, is empowered to grant approval to certain specific equipment, machinery, materials and appliances etc., for use in mines under relevant provisions of the Coal Mines Regulations, 2017, the Metalliferous Mines Regulations, 1961, the Mines Rescue Rules, 1985 framed under Section 57 & 58 of the Mines Act, 1952, besides statutory notifications issued under these regulations by the competent authority from time to time. It is done in view of the documents and test reports submitted by the manufacturer together with entire facts and circumstances attached to the situation relating to the quality and performance of the equipment, machinery, materials and appliances for use in Coal and Metal mines in the interest of safety.

Existing Approval Policy-2015 (Second Revision-05th May, 2016) was formulated in 2015. Based on the recommendations of the internal consultative committee, the amended approval policy (1st revision) was made on 7th January, 2015, 2nd revision on 5th May 2016. The Approval Policy contains the general outlines of the procedure to be followed while processing cases of approval of equipment, machinery, appliances and other materials for use in Coal, Metal mines and Oil Mines.

Further Coal Mines Regulation (CMR) 1957 had been amended as CMR 2017 and similarly Oil Mines Regulation as OMR 2017. Also, modern technology and high-capacity machines have been introduced in mines in due course of time and accordingly certain standards have also been revised. On-line system of approval had also been introduced in DGMS in 2017. Thus, there was need to review and redraft the policy in line with new CMR, 2017, OMR, 2017, revised standards and ONLINE approval system.

Therefore, in order to review the Approval Policy and make it simple, transparent and suitable to user's need in the mineral industry, a committee under chairmanship of Dy. DG (HQ) Dhanbad comprising members as Dy. DG (Mechanical), Dy. DG (Electrical), Director (MSE, Mechanical, Electrical and S &T) was set to review the existing Approval Policy in light of amendments in laws and recommend their valuable suggestions.

The committee met from time to time to review and update the procedures for approval of equipment, machinery, material and appliances for use in mines in the light of changing scenario in the mining industry and Standards laid down by BIS and other international Standards setting bodies. Based on the recommendations of the committee, the present amended approval policy has been framed. It is hoped that this

Approval Policy will serve the mining industry more effectively and will ensure safety of the persons employed therein in a better way.

However, to make it more transparent and effective, the draft Approval Policy are hereby placed in public domain for information of all stakeholders likely to be affected for a period of 30 days from the date it is made available to the public. Any suggestions, in this regard may be addressed to Director (MSE), DGMS HQ Dhanbad, by email (dir.msehq@gmail.com) and Director (S&T), DGMS HQ Dhanbad (dirsnt.hq@gmail.com). The suggestions should be sent in a proforma containing columns (i) specifying the name and address of the persons and organizations and column (ii) specifying the clause/point which is proposed to be modified and column (iii) specifying the revised clause/ provisions proposed to be submitted and the reasons therefore.

Note: *Modification in the Approval policy-2015 (Second Revision-2016) has been shown in* ***Blue Color****, additions in* ***green color****.*

FOREWORD

Chief Inspector of Mines (CIM), also designated as Director General of Mines Safety, is empowered to grant approval to certain specific equipment, machinery, materials and appliances etc., for use in mines under relevant provisions of the Coal Mines Regulations, 2017, the Metalliferous Mines Regulations, 1961, the Mines Rescue Rules, 1985 framed under Section 57 & 58 of the Mines Act, 1952, besides statutory notifications issued under these regulations by the competent authority from time to time. It is done in view of the documents and test reports submitted by the manufacturer together with entire facts and circumstances attached to the situation relating to the quality and performance of the equipment, machinery, materials and appliances for use in Coal and Metal mines in the interest of safety.

The Approval Policy contains the general outlines of the procedure to be followed while processing cases of approval of equipment, machinery, appliances and other materials for use in Coal and Metal mines. The applications are dealt through ONLINE mode to make the approval system more transparent.

In order to review the Approval Policy and make it simple, transparent and suitable to user's need in the mineral industry, a committee under chairmanship of Dy.DG (HQ) Dhanbad comprising members as Dy. DG (Mechanical), Dy. DG (Electrical), Director (MSE, Mechanical, Electrical and S &T) was set to review the existing Approval Policy in light of amendments in laws and recommend their valuable suggestions.

The committee met from time to time to review and update the procedures for approval of equipment, machinery, material and appliances for use in mines in the light of changing scenario in the mining industry and Standards laid down by BIS and other international Standards setting bodies. Based on the recommendations of the committee, the present amended approval policy 2024 has been framed.

Further, based on the recommendations of the internal consultative committee, the amended approval policy (1st revision) was made on 7th January, 2015, 2nd revision on 5th May 2016. The present Approval Policy, 2024 (third revision; … August 2024) all the earlier editions of Approval Policy of this Directorate with effect from .. …., 2024 will supersedes all previous policies with effect from ….2024.

The present edition brought out amendments suitably, considering the revisions of CMR, 1957 as CMR, 2017. It is hoped that the Approval Policy, 2024, in its present amended form (third revision; … August 2024) will serve the mining industry more effectively and will ensure safety of the persons employed therein in a better way.

Director General of Mines Safety
Dated:

APPROVAL POLICY – 2024

(Third Revision: …August 2024)

Abbreviations - DGMS: Directorate General of Mines Safety; BIS: Bureau of Indian Standards; S&T: Science & Technology; CIMFR: Central Institute of Mining and Fuel Research; IEC: International Electrotechnical Commission; IECEx: International Electrotechnical Commission System for certification to standards relating to equipment for use in explosive atmospheres; ATEX: Atmosphere Explosive; FLP: Flame Proof; IS: Intrinsically Safe; OEM: Original Equipment Manufacturer; ERDA: Energy Research and Development Administration; CPRI: Central Power Research Institute; ERTL: Electronics Regional Test Laboratory; NABL: National Accreditation Board for Testing and Calibration Laboratories.

1.0 PREAMBLE

Mining is a hazardous occupation and a fight against natural forces. The engagement of competent manpower, constant vigilance, sustained use of safe methods and fit for purpose, quality materials and equipment would go a long way in achieving better safety and health conditions of workers deployed in mines. In the past, use of faulty machinery, equipment, tools and materials had resulted in accidents, disasters and dangerous situations. This warranted framing of mine safety legislation requiring approval of certain specific appliances, equipment, machinery, apparatus and other materials to be used in mines.

The Policy is a compilation of standard procedures to be followed for grant of approval under relevant statute to specific appliances, equipment, machinery, apparatus and other materials used in mines. The document is divided into several sections, each dealing with a particular area of the approval procedure.

2.0 OBJECTIVE

2.1 The objective of granting approval to specific appliances, equipment, machinery, apparatus and other materials for use in mines is aimed at fulfilling the statutory obligations enshrined under different provisions of the Coal Mines Regulations, 2017; Metalliferous Mines Regulations, 1961; & Mines Rescue Rules, 1985; Central Electricity Authority Regulations (Measures relating to safety and Electric Supply) Regulations, 2023; besides statutory notifications issued under these regulations by the competent authority from time to time. It is done after due consideration of issues relating to the quality and performance of the equipment, machinery, apparatus, appliances and other materials suitable for use in Coal and Metal mines.

2.2 In mining, it is imperative that the appliances, equipment, machinery, apparatus and other materials remain safe, robust and reliable under prolonged usage, even in adverse conditions. In view of this, as a part of the process of approval, the actual performance in mines and pit worthiness of the products are also assessed, in addition to examining conformity to relevant standards.

3.0 EQUIPMENT AND MATERIALS REQUIRING APPROVAL

3.1 All equipment, machinery, apparatus, appliances and other materials requiring approval have been broadly categorized into:

(a) Environment monitoring instruments and devices;
(b) Rescue apparatus;
(c) Personal Protective equipment;
(d) Electrical equipment for use in explosive atmosphere;
(e) Machineries and other equipments /apparatus for carrying out mining operations as specified by CIM;
(f) Explosives & accessories;
(g) Safety materials for use in underground mines;
(h) Supports and accessories for roof/side supporting in mines;
(i) Dust suppression/prevention systems in mines;
(j) All type of lights to be used in underground coal/ Metalliferous mines and
(k) Other specific equipment, materials and appliances which the Chief Inspector of Mines may consider necessary.

3.2 The list of appliances, equipment, machinery, apparatus and other materials currently requiring DGMS approval by special order under the provisions of various statute, applicable standards and requirement of BIS license /QAR/QAN is given at **Appendix-I** and other specific equipment, materials and appliances which the Chief Inspector of Mines may consider necessary from time to time.

3.3 The list of appliances, equipment, machinery, apparatus and other materials which can be used in mines in compliance with the DGMS approval by general order has been furnished at **Appendix – II.**

4.0 APPROVAL PROCEDURE

4.1 The procedure for dealing with cases of approval is detailed in the various sections. However, there may be cases, which may deviate slightly from the laid down procedure due to unique nature of the equipment, machinery, apparatus, appliances or other materials under special circumstances.

4.2 Appliances, equipment, machinery, apparatus and other materials need to conform to the relevant Indian Standard(s) or an International Standard(s) adopted by BIS through harmonization or any guidelines as specified by Chief Inspector of Mines or DGMS Testing Protocol prescribed for the purpose. In case there is no Indian Standard/DGMS Testing Protocol, relevant standard of the country of its origin or any other internationally accepted standard(s) may be considered by DGMS on merit.

4.3 The foreign manufacturer intending to obtain approval of their products from DGMS, shall appoint an Indian agent to fulfill the obligations on behalf of the manufacturer towards installation & commissioning of the equipment, machinery, apparatus, appliances or other materials as well as post sales technical back-up, repair, maintenance and supply of original spares, etc., and shall also be responsible for quality and after sales service. A letter of authorization by foreign manufacturer/ applicant addressed to CIM/DG, authorizing their Indian Agent shall be submitted in the format given in **Appendix-XII.**

The profile of the Indian Agent, Deed of Partnership, list of Directors/Partners, its set up in this country clearly indicating the service team assigned with installation & commissioning, repair & maintenance support etc., details of registration of the company (Indian Agent) like Certificate of Incorporation/District Industrial Centre (DIC) registration/ Micro small and Medium Enterprises (MSME) Registration/ any other registration certificate issued by the appropriate Government are to be submitted along with the application.

NOTE: Indian Agent means an organisation of individual, partnership firm, company, corporation, association duly established and registered as per the Indian legislation and authorised by a manufacturer for specific purposes. Indian agent shall be responsible for quality, after sales service, etc.

4.4 The foreign manufacturer(s) conducting business in India, through an Indian agent shall furnish all details of the Indian agent such as name, correspondence address, point of contact telephone numbers, FAX, e-mail etc., in the application. The applicant as per Clause no. 5.1 shall submit his written authorization in original to the Indian Agent, along with the application. Based on the above authorization, a copy of correspondence made with the manufacturer by this Directorate, may be marked to the Indian agent also.

4.5 The manufacturing facility of the manufacturer seeking approval may be inspected by an officer of this Directorate to understand the competence and see the compliance with various technical requirements, to assess capability of the

manufacturer in respect of quality control, testing and other facilities. The report of such inspection shall be submitted in the format given in **Appendix-III.**

4.6 The foreign manufacturer submitting application for Electrical/ Electronic apparatus is required to submit test reports and QAR (Quality Assessment report) issued by IECEx Certification Bodies or QAN (Quality Assessment Notification) issued by ATEX Notified Bodies at the time of submission of application for field trial approval and subsequently at the time of approval. In case of other apparatus, Quality assessment reports of their manufacturing facilities by any internationally accredited bodies, shall be submitted.

4.7 For field trial approval, the information, documents, factory inspection report (if any), test reports and BIS license/QAR, QAN etc., are scrutinized, and if found in order, approval for field trial may be granted.

4.8 For regular approval, the information, documents, factory inspection report (if any), field trial performance report and BIS license/ QAR, QAN, etc., are scrutinized, and if found in order, regular approval may be granted.

Performance report duly signed by Owner/Agent/Manager of the mine or Head of the concerned department of user company, shall be submitted within two months of the completion of the field trial to this Directorate.

5.0 SUBMISSION OF APPLICATION

5.1 Before submitting application for approval the manufacturer/applicant shall get himself registered in the DGMS online portal [www.dgms.gov.in] by submitting the necessary documents/Certificates/informations.

Application for approval/renewal of approval shall be made in ONLINE in DGMS portal [www.dgms.gov.in] through approved log in credentials.

The application shall be made by the Owner or Proprietor or Partner or a Director on the Board of Directors of the company seeking approval, and shall be addressed to Chief Inspector of Mines (CIM)/'The Director General of Mines Safety'. Other than those mentioned above, if any other functionary of a company makes an application, he shall be authorized by the Board of Directors to do so, through a Power of Attorney in the prescribed format given in **Appendix-XI** and the same shall be submitted in original.

5.2 In case, there is any change in respect of the information furnished in the application earlier, the applicant shall immediately send information in the same format, duly revised.

5.3 With the application for approval, the manufacturer shall furnish details (make, model, Place/Country of manufacturing etc.,) of the components of the equipment, appliances etc,. Such details shall be similar to the details as per test reports given by the test houses/laboratories where the equipment, appliances etc. are tested. The test report(s) of the equipment/ machinery/apparatus/material/appliances BIS licence if any, QAR/QAN etc., are also to be submitted by the applicant.

5.4 In case of associated items manufactured by other manufacturers and the applicant is seeking approval for those associated items which are a part of equipment or machinery, the applicant shall ensure the quality, standards and genuineness.

Such approval issued for composite equipment or machinery shall not be interpreted as specific approval for those individual items. The applicant shall submit an undertaking to this extent.

5.5 The product may be required to be demonstrated by the manufacturer to this Directorate at a mutually agreed place, if asked for.

6.0 TESTING

6.1 Tests shall be carried out on an appliance/equipment/apparatus/machinery /material to ensure its conformity to the relevant standards. Any appliance/ equipment/apparatus/machinery/material where Indian Standard(s) and/or DGMS Testing Protocol exist, need to be tested as per the relevant standard/DGMS Testing Protocol.

6.2 In case of appliances / equipment / apparatus / machinery / material for which no Indian Standard and DGMS Testing Protocol exists, relevant International standard(s) may be accepted on its merit.

6.3 If BIS accepts any international standard and the same has been adopted as Indian standard, test reports based on those standards from any internationally accredited laboratory may be accepted on merit.

6.4 Imported appliance / equipment/ apparatus / machinery / material may be considered for approval based on the test reports and test certificates issued under IEC standard from any of the foreign accredited laboratories under IECEx certification scheme or under ATEX directives for equivalent standards. The test report shall contain, among others, all parameters of Testing Standard(s) vis-à-vis actual testing details with

results thereof. The same test report shall also be submitted along with "Certificate of Conformity" or "EC/EU Examination Certificate" issued by the relevant certification bodies. Lab certified drawings shall also be submitted while making the application.

6.5 Wherever applicable, valid BIS license shall be submitted along with the application. The foreign manufacturers, not having BIS license, shall submit valid QAR (Quality Assessment report) & Certificate of Conformity issued by IECEx Certification Bodies or valid QAN (Quality Assessment Notification) and EC type/EU type examination certificate under ATEX directives, as applicable.

6.6 Tests of all parameters of appliance/equipment/apparatus/machinery/material under relevant standard/ testing protocol or tests required by DGMS should be conducted preferably in a single test house. However, if, a particular test house does not have full facility for testing of all parameters of the required tests, the test report for rest of the parameters by other prescribed test houses may be accepted.

6.7 A copy of test report(s) / test certificate(s), from a prescribed laboratory has to be submitted along with the application. Test report(s) / test certificate(s) will contain, among others, an executive summary detailing (a) different tests conducted, (b) passing criteria for each test and (c) a remarks column indicating each test result as 'passed' or 'failed'. A copy of the drawing also needs to be submitted.

6.8 Test reports issued by Government of India laboratories like CIMFR/ERDA/CPRI/ERTL etc., may be accepted subject to confirmation of its ability to conduct tests in pursuance with prescribed National/International standards/DGMS testing Protocol. Test reports issued by NABL accredited test house (for those standards, for which accreditation has been granted) may also be accepted. The foreign test houses shall have accreditation from IECEx /ATEX for Ex-apparatus (electrical equipment for installation / use in hazardous areas) and in case of other apparatus from internationally accepted accreditation bodies, as the case may be. In the interest of safety, test report(s)/ test certificate(s) may be asked from an accredited laboratory which is not a part of manufacturer's test facility.

6.9 For such appliances/ equipment/ apparatus / machinery/material, manufactured in India, where no Indian standard exists and /or test facilities are not available in India, the test report of any internationally accredited laboratory/recognized laboratory of the country of origin, which is not ~~a~~ part of manufacturer's testing facility, may be accepted subject to condition that the testing has been conducted as per the test protocol or as per recognized international standards, if any.

6.10 In case of any proposal for R&D purpose from academic institutions or R&D Organizations recognized by Govt. of India, the test reports from NABL accredited laboratories or IECEx /ATEX accredited Laboratories or Indian government laboratories, conforming to the relevant standards may be considered. Such approvals are specific to facilitate technological development under R&D projects and no commercial marketing shall be done by applicants for use in mines.

7.0 EXAMINATION OF THE APPLICATION

7.1 In the first stage, the examination of an application for field trial, involves the following:

7.1.1 Whether the format has been correctly filled;

7.1.2 Whether documentary evidence has been submitted towards existence of the company;

7.1.3 Whether all information required as per application format has been submitted;

7.1.4 Whether all enclosures duly authenticated have been submitted, (in case of physical/offline documents, the same shall be self-certified by the applicant);

7.1.5 Whether, valid BIS certification/ QAR/QAN wherever applicable, submitted;

7.1.6 Scrutiny of test reports and test certificate, design drawings, technical details etc.;

7.1.7 Factory inspection report, wherever applicable;

7.1.8 Whether documentary evidence in support of appointment of an Indian Agent by a foreign manufacturer has been submitted.

7.2 Applicability of BIS license/QAR/QAN shall be mentioned in the application. For items requiring BIS license/QAR/QAN, approval for field trials may be accorded even if the application is not accompanied with valid BIS license/ QAR/QAN. However, regular approval may be granted only after submission of valid BIS license/QAR/QAN.

8.0 APPROVAL FOR FIELD TRIAL

8.1 After scrutinizing the documents and if found in order, the approval for field trial may be granted in favour of the manufacturer. The period of field trials may vary between three months to one year depending on the type of equipment, machinery, apparatus, material or appliances as given in **Appendix –V**.

Note: Consent of the mine authorities has to be taken for field trial and it shall be done preferably in Govt./Public sector (PSU) mines. In case of non-availability of Govt./PSU mines, reputed organized Private mines may be allowed.

8.2 The validity of field trial approval will be for a period of one year or twice the period of field trial prescribed for the equipment, machinery, apparatus, material or appliance, whichever is greater.

8.3 If a manufacturer is unable to complete the field trial(s) within the period accorded to him for the purpose, three consecutive extensions of one year each may be accorded based on a written application from the manufacturer. If the process of field trial could not be completed within extended period also, further extension of time may be considered if justifiable reasons by the manufacturer/applicant are submitted.

8.4 If during field trial period, there occurs any revision of Standard(s), the manufacturer/ applicant shall get the product under reference tested as per revised standards unless concurrently allowed by standardization authority and submit test report(s) to the Directorate for further approval /renewal.

8.5 In case of rescue and breathing apparatus, field trial/practical performance test may be conducted at prescribed test houses and/or one or more Rescue stations before grant of approval.

8.6 During field trial, if the applicant requests for inclusion/ exclusion of certain associated apparatus/ equipment in the interest of safety, they may be allowed (subject to submission of relevant documents) and the performance for the sake of field trial shall be considered from the date of such inclusion.

9.0 MONITORING OF THE FIELD TRIAL

9.1 Copies of field trial approval letters may be endorsed to concerned Dy. Director General of Mines Safety, In-charge of a zonal office of DGMS and to the mine management.

9.2 During field trials, the performance of the equipment/material/machinery/apparatus/appliances may be witnessed by the officer(s) of this Directorate.

9.3 In case of any shortcomings observed during field trials, the same will be communicated to the manufacturer. The manufacturer may seek extension of the field trial, which may be granted based on the merit of the case.

10.0 REPORTING OF RESULTS OF FIELD TRIAL

Field trial reporting format for different types of equipment / material / machinery / apparatuses / appliances are mentioned as **Appendix VI to X.**

11.0 GRANT OF APPROVAL

11.1 After successful completion of field trial and on receipt of satisfactory field trial report(s) from the user as specified in clause 4.8 of the approval policy (Third revision), the case is examined and approval may be granted for a period of five years.

11.2 While dealing the case of approval, recommendations of relevant Committees for development of Standards, Testing Protocol, Testing Memorandum, "Safe Operating Procedures", Committees appointed by the Chief Inspector of Mines for the purpose, DGMS circulars or any other protocol relating to testing and use of equipment, machinery, apparatus, appliance, material etc. may be considered for guidance.

11.3 In cases where the manufacturing facilities and /or location have changed, intimation to be given to this Directorate and change in registration to be made in the DGMS portal. The approval may be revalidated/amended at the discretion of this Directorate, subject to the submission of valid (i) QAR/QAN/ BIS license, (ii) the test reports corresponding to the new manufacturing place (iii) undertaking that there is no change in the design of equipment that has been tested at a laboratory basing on which the approval has been granted.

12.0 DGMS APPROVAL MARK/NO.

12.1 On grant of approval, a unique number is given (like DGMS SA-9/2023, in case of approval number 9 of the year 2023) for the particular equipment, machinery, apparatus, appliances or material. It is required to display the mark prominently so as to last till life of the equipment, machinery, apparatus, appliances or material by the manufacturer/ applicant (other than manufacturers of permitted explosives and detonators). Besides, the markings as required under the provisions of relevant standards, any applicable markings as per other rules and regulations in India shall be provided.

12.2 In case of explosives and detonators, the wrapper/outer sheath shall be marked with:

i) Manufacturer's name
ii) "DGMS approved P1/P3/P5" as the case may be, and
iii) "Conforms to the standard as tested in the laboratory"; conspicuously.

12.3 Marking on e-Detonators (Electronic detonators) shall be as per the IS 18462:2023 and e-Exploders as per the guidelines issued in this regard by BIS/DGMS.

13.0 RENEWAL OF APPROVAL

13.1 Application for renewal of approval shall be made by the manufacturer/applicant as specified in clause no. 5.1, at least 90 days prior to the expiry of the approval. The application shall be accompanied by the following:

i) Supply details during the last period of approval/ renewal of approval whichever is later;

ii) Copy of Original approval and/or last renewal, as the case may be;
iii) Performance reports in the appropriate format;
iv) Test reports (Batch testing, repeat test, functional ability test etc.) as required by the DGMS protocol/Circulars/revised standards.
v) The undertaking in case of NIL supply, as stated out at clause 13.2;
vi) Valid BIS license/QAR/QAN as applicable, among others; and
vii) Any other documents/reports which may be required during scrutiny of the application/proposal.

13.2 (a) Renewal of Approval may be considered for a period of five years, based on the satisfactory performance report(s) & other relevant parameters.

13.2(b) If the manufacturer has supplied equipment/ apparatus to different users during last period of approval/ renewal, the performance reports of maximum three users to whom maximum quantities of equipment/ apparatus / material etc., have been supplied, are to be provided.

13.2(c) In case of permitted explosives and detonators, if the manufacturer is not able to supply the product during the last approval period, two consecutive renewals each for a period of two years may be considered after which the approval may be treated as revoked. In such cases of non-supply, the manufacturer has to submit an undertaking that the product has not undergone any change from the sample(s) tested at test houses based on which approval was accorded.

In case of non-supply of appliances/equipment/apparatus/machinery/material (excluding explosives and detonators), (i) just after the regular approval, renewals for a period of two years may be considered; (ii) during the last approval/renewal period, renewal may be considered for a period of five years on the basis of the latest satisfactory performance report of the equipment in use, within its shelf life.

In both cases, the manufacturer shall furnish an undertaking regarding non-supply and also that the product has not undergone any change from the model tested at prescribed test houses, based on which approval was accorded.

13.2(d) In case of permitted explosives and detonators, where approval for one product of permitted explosives or detonators is accorded individually or compositely for different degrees of gassiness, renewal of such products may also be considered for lower degree of gassiness, based on the performance reports from the mines of higher degree of gassiness.

13.2(e) Further that renewal of approval of permitted explosives, detonators and accessories which have remained discontinued for a period of more than two years, the application for renewal shall be accompanied by a **fresh laboratory test report** in a laboratory as per the specified standards of test for the product, within its shelf life.

13.2(f) In case of change of testing standards/testing regime, the test report (s) are to be submitted conforming to the latest prevailing standards for consideration of renewal against supply/nil supply.

Note: *The renewal of approval due to non supply is to be considered only for two years to check the performance of the equipment for safety aspect and to accommodate changes in the testing standards.*

13.3 The criteria for grant of renewal would be, (i) satisfactory Performance reports from user(s) (ii) valid BIS license/QAR/QAN wherever applicable, (iii) test report /practical performance test report in case of breathing apparatus, self-rescuers or other rescue apparatus and any other items, if required.

13.4 In case of certain approved items like Longwall Powered Supports and its components or accessories, Road headers, Continuous Miners, High wall miner, Rescue apparatus, Man Riding System and other similar type of items requiring approval used in coal Mines, if the manufacturer does not come forward for obtaining renewal of the approval (the same been established by the user), the actual user at that point of time may apply for grant of renewal of the approval, provided that the said equipment / apparatus/ machinery/ appliances or material are still in healthy condition as declared by the nominated owner of that company, and in no way jeopardize the safety of men and machinery deployed in the mine. To that extent, an in-situ test report from a certification body/ test laboratory as per relevant standards, indicating their status of health and integrity of protection, Safety features etc., is required to be submitted. Such cases may be considered for renewal of approval on merit.

13.5 The performance reports shall be in the prescribed formats as given in **Appendix VI to Appendix X** relevant to the equipment, machinery, apparatus, material or appliances.
The performance reports may also be submitted in any other format as prescribed by the Directorate from time to time.

14.0 APPLICATION IN CASE OF REVISION OF STANDARDS

Indian and other Standards are subject to revisions. The approvals issued to the equipment, machinery, apparatus, material or appliances which had been granted based on pre-revised standards, are required to be revalidated for which the manufacturers/ applicants shall submit test report(s) conforming to the latest standards.

15.0 AMENDMENT / WITHDRAWAL OF APPROVAL

Any amendment or withdrawal of approval may be effected by the Directorate:

i) If Testing Regime has undergone a change;

ii) If at any time, any one of the conditions subject to which the approval has been granted is violated or not complied with;

iii) If any complaint from user or other concerned agency is received on quality or other technical aspects of the product or the reasons affecting safety and health of person, and the same is substantiated by the Directorate;

iv) If any sample check results in deficient quality;

v) If it is observed that the manufacturer has concealed any information regarding the material, design or construction of the equipment, appliances etc.,

vi) If, the manufacturer/ applicant failed to apply for renewal within a **period of three months of expiry** of approval/ renewal of approval. A grace period of further three months may be considered based on the valid justification.

vii) Any other reasons the Directorate feels appropriate.

16.0 MISCELLANEOUS

16.1 If the performance report and other relevant documents is not received within a reasonable time (first 15 days and further 10 days), no further reminders shall be given and the application may be recorded. However, if any adverse report is received subsequently, the approval shall be deemed to have been revoked forthwith.

16.2 Any application for approval or renewal shall be dealt as per the prescribed time line of this Directorate.

16.3 The factory inspection may be made by an officer of DGMS at any time to assess/ reassess capability of the manufacturer in respect of quality control, testing and other facilities. During Factory Inspection by DGMS, a representative from user(s) may be associated.

16.4 Authenticity of test certificates from Indian/international test laboratory(s) may be subject to verification.

16.5 If any Indian Standards have been harmonized with International standards that International standard may also be accepted for grant of approval of equipment / machinery / apparatus / material / appliance.

16.6 In case of new appliances/equipment/apparatus/machinery/materials being introduced in Indian mines for first time, approvals are accorded in pursuance with the Approval Policy and on the basis of successful application; they are notified by a general and special order under the relevant provisions of the statute.

16.7 The approved equipment, appliances etc, supplied to the user(s) shall be identical in material, design and construction to the samples(s) tested in the test houses whose reports are submitted with the application. No change in the design or construction including the materials etc. shall be made unless testing for the variation from the original design is done from an accredited laboratory as defined in clause 6.8 and an approval for the same is obtained from the Directorate in writing, failing which the approval shall be deemed to withdrawn.

16.8 The approval granted, among others, shall be subject to the applicable provisions of the Mines Act, 1952 and allied legislations, DGMS Circulars, guidelines, instructions etc., issued there under. An approval accorded to any equipment/appliance may be withdrawn, if at any point of time, it is observed that the manufacturer has concealed any information regarding the material, design or construction of the equipment, appliances etc., which has resulted in contravention of the aforesaid stipulations.

16.9 A consultative mechanism may be put in place to consider the issues relating to test houses, standards and testing and make suitable recommendations.

16.10 As a consequence to notification of the DGMS Approval Policy, 2024 (Third Revision **……, 2024**), suitable action as deemed necessary may be initiated by the respective test houses, manufacturers and users, under intimation to DGMS.

16.11 The Amended Approval Policy, 2024 (Third revision **…., 2024**) supersedes all the earlier editions of Approval Policy of this Directorate with effect from .. **…., 2024.**

Note: *Modification in the Approval policy-2015 (Second Revision-2016) has been shown in* ***Blue Color****, additions in* ***green color****.*

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APPENDIX-I

EQUIPMENT, MATERIALS& APPLIANCES REQUIRING DGMS APPROVAL BY SPECIAL ORDER

Sl. No.	EQUIPMENT	PROVISIONS OF REGULATIONS			STANDARD FOLLOWED	BIS Licence	REMARKS
		CMR, 2017	MMR, 1961	Mines Rescue Rules, 1985			
1.	Flame Safety Lamp	2(1)(d)	2(2)		IS:7577-1986	Required*	
2.	Cap Lamp a) Flexible cable for miners' cap lamps. b) Miners' cap lamp assemblies (incorporating Pb-acid batteries) c) Miners' cap lamp batteries (Pb-acid type) d) Miner's LED cap lamp/lights	2(1)(d)	2(2)		IS:2593-1984 IS:5679-1986 IS:2512-1978 IEC60079-35 Part (1 & 2) IS/IEC 60079/0-2017 IS/IEC 60079/11-2023	Required* Required* Required* Required for intrinsic safety*	
3.	Permitted Explosives a) Permitted explosives b) Detonators c) Detonating fuses d) Electronic detonators	2(1)(zu)	2(24)		IS:6609(Part-2/Sec.2)-1974 IS:6609(Part 3)-1973 IS:6609(Part 4)-1984 IS18462:2023		In addition to IS 6609 (Part-2/ Sec.2)-1974, IS:6609 (Part 3)-1973 and IS:6609(Part 4)-1984, the stipulations made in DGMS (Approval) Circular No.6 dated 17.11.2014 will also be followed.
4.	(a) CO detector/Tube type (a) CO detector other than tube type (b) H_2S Gas detector	129(6), 137(12)(a), 138(3), 141, 148(3) (c), 138(4) (c)(ii)&(iii)	116(3)(b) 120(1)(b) 122 126(3)(b) 141(5)		Tubes – IS:13293-1992 CO detectors – IS/IEC 60079/0-2017 IS/IEC 60079/11-2023 IS/IEC 60079-1:2014	Required for tube type detector*	
5.	CO_2 Detector	138(4)(c)(iii)			Tubes – IS:13293-1992 CO_2 detectors –	Required for tube type	

					IS/IEC 60079/0-2017 IS/IEC 60079/11-2023 IS/IEC 60079-1:2014	detector*	

EQUIPMENT, MATERIALS & APPLIANCES REQUIRING DGMS APPROVAL BY SPECIAL ORDER

SL.No	EQUIPMENT	STANDARD FOLLOWED		BIS Licence			REMARKS
		CMR, 1957	MMR, 1961	Mines Rescue Rules, 1985			
6.	Oxymeter	138(4)(c)(iii)			Tubes – IS:13293-1992 O_2 detectors – IS/IEC 60079/0-2017 IS/IEC 60079/11-2023 IS/IEC 60079-1:2014	Required for tube type detector*	
7.	Multigas detector	129(6), 138(4)(c)(ii) & (iii), 169(1)(a), 141 & 148 (3) (c)	122, 126(3)(b), 141		Tubes – IS:13293-1992 Multigas detectors –	Required for tube type detector*	
8.	(a) Portable Methanometer, (electrical type) (b) Infra red type	169(1) (a)	-		IS:9937-1981 IS/IEC 60079/0-2017 IS/IEC 60079/11-2023 IS/IEC 60079-1:2014		
9.	Exploders	200 & 192(9)	165(3)		IS: 9836-1981 Circuit tester: IS: 9836-1981		
11.	E-exploder (Electronic Exploder)	200 & 192(9)	165(3)		IS: 9836-1981 & DGMS Guidelines.		
12.	Powered Supports & its components	208(3)			ICIS-001:1991		In addition to ICIS-001:1991, the stipulations made in DGMS Guidelines, S & T /4(45)99/51 dated 17.01.2001, S & T /4(45)99/896(A), dated

							31.07.2004 and S & T/DG (S&T) PS (D&T)/3 (65)/98/541-568 dated 11.06.2003 will also be followed.
13.	Man Riding System	208(3)			IS-9494:1980 In case of man riding chair car system by rope haulage, IS 17241: 2019, in case of man riding chair lift system IS 17242; 2019, in case of Personnel carrier propelled by IC Engine DGMS Circular DGMS (S&T) / (Tech.) Circular No. 1 dated 13.08.2018 and other DGMS Circulars and Guidelines issued from time to time shall be followed.		In addition to IS 9494:1980, stipulation made in DGMS guidelines Mech(HQ)/R-H-M-R/670-D/12331-60, dated 01.09.82 will also be followed.

EQUIPMENT, MATERIALS & APPLIANCES REQUIRING DGMS APPROVAL BY SPECIAL ORDER

SL.No.	EQUIPMENT	STANDARD FOLLOWED					REMARKS
		CMR, 1957	MMR, 1961	Mines Rescue Rules, 1985			
14.	Winding Rope	208(3)			IS-1855: 2022; IS-3626:2001	Required*	Relevant DGMS Circulars and Guidelines issued from time to time shall be followed.
15.	Balance Rope	208(3)			IS 18532:2024	Required*	**-do-**
16.	Haulage rope for man riding	208(3)			IS-1855: 2022; IS-3626:2001	Required*	**-do-**
17.	Underground locomotive (Battery operated)	208(3), 100			TM 12 of British Coal, **IS-9123:**1979 (reaffirmed year 2020) IS 9999 : 1981		Relevant standard of the country of origin or any other internationally accepted standard(s) may be considered.

					(Reaffirmed Year : 2018) EN 1834 Part 1 to 3 AS/NZS:3584.2: 2021 (Part 1to 4),		DGMS Circulars and Guidelines issued from time to time shall be followed.
18.	Internal Combustion Engine **(Diesel operated Machine)**	208(3)			EN 1834 Part 1 to 3 AS/NZS:3584.2: 2021 (part 1to 4), IS-9999: 1981 (Reaffirmed Year : 2018) Brake IS 16470: 2020 or ISO 3450 (Wheel Mounted), IS/ ISO 10265 (crawler mounted) are to be read with ISO 19216. Steering system (Wheel Mounted): IS/ ISO 5010: 2019 (Reviewed in 2023) ROPS: IS/ISO 3471: 2008 (Reviewed in 2022) FOPS: ISO 10262 Starting system: IS/ISO 10264 Reviewed in 2022 Visibility: IS/ISO 5006: 2017 Reviewed in 2023 Risk assessment: IS 16819: 2018		Lots of accident reported due to FOPS, operator's field of view & other mechanical failure and operational faults. DGMS Circular DGMS(S&T) / (Tech.) Circular No.1 dated 13.08.2018
19.	Flame Proof and Intrinsically safe Equipment / Electrical equipment for	208(3)			IS/IEC 60079-0:2017 IS/IEC 60079-1:2014	Required*	DGMS Circulars and

	use in UG Coal Mines. **(Electrically operated machine to be used in in Underground coal mines with adequate structural strength, ergonomics, brakes, visibility index along with Flame Proof & Intrinsically safe increased safety Equipment / Electrical equipment.)**				IS/IEC 60079-7:2015 IS/IEC 60079-11:2023 IS/IEC 60079-28:2015 IS/IEC 60529:2001(Reaffirmed 2014) Brake IS 16470: 2020 or ISO 3450 (Wheel Mounted), IS/ ISO 10265 (crawler mounted) are to be read with ISO 19216. Steering system (Wheel Mounted): IS/ ISO 5010: 2019 (Reviewed in 2023) ROPS: IS/ISO 3471: 2008 (Reviewed in 2022) FOPS- IS 3449: 2005 Starting system: IS/ISO 10264 Reviewed in 2022 Visibility: IS/ISO 5006: 2017 Reviewed in 2023 Risk assessment: IS 16819: 2018 Mobile machines working UG – Safety -ISO 19296		Guidelines issued from time to time shall be followed. **Lots of accident reported due to FOPS, operator's field of view & other mechanical failure and operational faults (not following the SOP & COPs). Hence proposal shall be scrutinized by Electriacal, Mechanical and operational (Mining) aspects.**
20	Breathing apparatus			11(5)	IS-10245 (Part-I) 1996 IS-10245 (Part-II) 1994		A certificate issued by the Chief Controller of Explosives under gas

							Cylinder Rules, 1981 in respect of the oxygen cylinder and the valves has to be submitted to the test laboratory before testing and to this Directorate while seeking approval.
21.	Smoke helmets & apparatus serving same purpose			11(5)	IS-10245 (Part-III): 1999		
22.	Reviving apparatus			11(5)	IS-13366:1992		
23.	Self Rescuers	243(1)		11(5)	IS-15803:2008		
24.	Electrical lighting apparatus for use in UG coal mines	208(3)			IS/IEC 60079/0-2017 IS/IEC 60079/11-2023 IS/IEC 60079-1:2014 IS/IEC 60079-7:2015 IS-2206 (Part-I) IS/IEC 60079-28:2015 IS/IEC 60529:2001(Reaffirmed 2014)	Required*	
25.	(a)Gas detectors Telemonitoring Systems	169(1)(a), 170		11(5)	IS:13109 (Part21):1991 for performance test for respective gases as per relevant standards. IS/IEC 60079/0-2017 and IS/IEC 60079/11-2023 IS/IEC 60079-1:2014		Performance test as per requirement
	(b) Local Methane Detector	169(1)(a)			IS/IEC 60079/0-2017 and IS/IEC 60079/11-2023 IS/IEC 60079-1:2014		Performance requirement as per DGMS (Technical)

							Circular No. 6 of 2009 dated 12.03.2009

1. **The standards mentioned in the above table are for reference purpose. The latest amended standard shall prevail over the standards given in the table.**
2. ***BIS Licence required for indigenously manufactured products.**
3. **As there is no BIS standard for performance of Portable Gas Detectors and performance of H_2S Gas Detector , they are under formulation and will be uploaded upon completion.**

APPENDIX-II

EQUIPMENT, MATERIALS& APPLIANCES WHICH CAN BE USED IN MINES WITH DGMS APPROVAL BY GENERAL ORDER

1) Tub Couplings
2) Cap lamp Bulbs
3) Protective Footwear of all types
4) Helmets
5) Fire-resistant brattices including plastic sheeting and ventilation ducting
6) Industrial Safety Belt & Harness
7) Hydraulic props , Friction Props and Prop setting Devices
8) Link bars
9) Pipelines and fittings (specification approval if not as per ISS)
10) Safety Goggles
11) Ear Plugs
12) Reflective / High Visibility Harness
13) Fire Fighting & Fire suppression systems including automatic fire detection and suppression systems
14) Steel supports (Cogs, Chock, Props), Roof Bolts, Cement and Resin Grouts.
15) Noise/ Dosimeter
16) Dust Mask/ Dust Respirators
17) Underground Conveyor belting
18) High pressure hydraulic hose with its end fitting (Fire resistant)
19) Hydraulic fluid used in underground machinery (Fire Resistant)
20) Gravimetric /Personal Dust Sampler
21) Cage suspension Gear
22) Cage Suspension Gear including Bridle Chain
23) Automatic Contrivance
24) Power Brake
25) Automatic Speed Chart Recorder
26) Strata monitoring / Load cell/ Auto warning devices
27) Water barriers (substitute to Stone dust barrier) and other system to be used for the first time in underground coal mines.
28) Mechanically propelled vehicle for transport of explosives.
29) Water ampoules/Gel ampoules/Stemming plugs
30) Glass of Flame Safety Lamps
31) Oil of Flame Safety Lamps
32) Chemical additives
33) Emergency escape devices in oil mines.
34) Detaching Hooks.
35) Portable hand held lamps for use in storage tanks.
36) Life line.
37) Petroleum storage tanks.
38) Electrical cables
39) Audio- visual Alarm without power supply unit
40) Portable drilling machine (Hydraulic/Pneumatic operated)

APPENDIX-III

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

FACTORY INSPECTION FORMAT

Application Ref. Inspected by …….

Product: Date of inspection:

22. General Information:

a. Name of the applicant / Manufacturer.

b. Address:

(i) Factory:

(ii) Office:

c. Location of factory (specify landmark):

d. Telephone Nos./ Fax/ e-mail :
(i) Factory:

(ii) Office:

e. Factory Management (enclose organisation chart):

f. Registration No. of Company:

g. Accompanied by:

h. Quality assurance scheme (ISO 9000, etc.):

2. Comments on quality control of raw materials & traceability

3. Manufacture:

a. Products manufactured:

b. Technical collaboration:

c. Brief description of process of manufacturing:

d. Intermediate points where control is exercised:

e. Details of records maintained & controls used:

f. Method (s) of disposal of sub-standard product:

g. Units of production:

h. Production capacity (per day, per shift):

i. Details of manufacturing machinery: (attach list)

j. Technical comments on manufacturing capabilities and in process controls:

4. Comments on Packing and DGMS marking (where applicable):

5. Testing facilities
   a. Details of staff with qualification & experience (attach list):

   b. Competency of testing personnel:

   c. Equipment for testing and other facilities (attach list):

   d. Accuracy of instruments and calibration arrangements:

   e. Records maintained in testing laboratory including routine test records:

   f. Sampling and testing procedure:

6. Details of enclosures:
7. Accuracy of information given in application:
8. Comments on suitability of factory for grant of approval:

Signature:	Signature:
(Name & Designation):	(Name & Designation):
(Representative of Manufacturer)	(Inspecting Officer)
Date:	Date:

APPENDIX-IV

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

FORM OF APPLICATION FOR APPROVAL OF SAFETY EQUIPMENT/MATERIALS/ APPLIANCES FOR USE IN MINES

APPLICATION FOR APPROVAL OF ..... (Product name & Model)
MANUFACTURED BY M/s. .....
FOR USE IN ..... (Coal/Metal Mines)

Part – I

1. Name of the Company:

2. Name of the applicant with designation:

3. About the Company:

   (a) Full Postal address:

   (b) Telephone Nos. :

   (c) Fax/ e-mail, etc.:

4. Details of the Indian agent, if any (for overseas cos. Only):

   a) Name in Full (Capital letters only)
   b) Complete postal address
   c) Contact details: Mobile No. & Email id:

5. Details of
   a) Whether, the CEO/Owner/Proprietor of the manufacturing foreign firm shall submit along with the application, his written authorization in original to be Indian Agent for the purpose of various follow-up etc., or not.

6. Full postal address of the factory:
   (with Tel/Fax/e-mail, etc.)

General information :

1. Date of establishment of business:

2. Type of the company :

(Whether Private, Private ltd., Public Ltd.,PSU, Partnership, Or Hindu Undivided Family concern)

3. Names, addresses, mobile No. and Email ids of Managing Director, Directors, Partners, Proprietor or Karta as the case may be. (attach list if required):

4. Capital Investment :
   Machinery & Equipment
   (details of machinery to be attached)
   (BIS/QAN/QAR)
5. Certificate of incorporation issued by
   Registrar of firms or societies (enclosed attested copies of certificate):

6. Registration number allotted by the
   State & Director of Industries
   (enclose attested copy of certificates):

Part – II

1. Name of the equipment, material
   or appliance :
2. Description of the equipment, material
   or appliance:
3. Annual production capacity:

4. Actual production if any :

5. Unit price of the product:

Part – III (IF BIS/QAR/QAN not available)
Quality control, Inspection and Testing facilities

1. List of equipment for

   (a) Quality control:
   (b) Testing:

2. Manpower including their qualification & experience
   for:

   (a) Quality control:
   (b) Testing:

3. Scheme for quality assurance and testing viz.ISO, BIS etc
   (enclose copies of document):

Part – IV

1. Description of the equipment,
   material or appliance :
   (i) Brief write-up on the equipment with complete technical specifications like dimensions, weight, ratings, capacities etc.
   (ii) Photographs of the equipment (Front, rear, top and side views):

(iii) List of all components of the equipment with all details like model, make, capacity, ratings etc. authenticated by the test house.

2. Lab certified drawings of the equipment, material or appliance :
3. (a) Reference to Indian Standard or any other Standard to which the equipment, material or appliance conforms:

(b) Valid BIS License reference/QAR/QAN: (Attach certified copy, if applicable)

4. Test Report of the equipment, material or appliance from approved laboratories (Enclose original or certified copies):

5. Particulars of raw materials and components used in manufacture :
6. Operating instructions :

7. Instruction for maintenance:

8. Service life and shelf life:
9. Copy of Permission for trial manufacture of explosive/detonator from PESO (if applicable):

Part - V
Supplementary information

1. Any other equipment/ product approved By DGMS and details of the same:

2. Whether the product applied for is approved by any other Govt. agency? :

3. Whether the product is being used in any Other industry, if so, details thereof:

4. In renewal cases, details of previous approvals (first approval & subsequent renewals with no. & dates) and validity of last approval.

5. Any incident of failure of the approved item under reference within last approval period.

6. In case of failure, details thereof with place of incidence/ mine.
4. List of enclosures:

I/ We hereby certify that all information given in this application and all documents, drawings and reports enclosed with this application are correct. I/ We also undertake to abide by all the

conditions of approval in case it is accorded by DGMS. I/we also undertake to intimate DGMS forthwith any change of information furnished with this application.

Seal of firm

Signature:
Name:
Designation:
For and on behalf of ----------
(Name of the firm)

APPENDIX-V

FIELD TRIAL & REGULAR APPROVAL PERIOD FOR EQUIPMENT, MATERIALS& APPLIANCES REQUIRING DGMS APPROVAL BY SPECIAL ORDER

Sl. No.	EQUIPMENT	PERIOD OF FIELD TRIAL	QUANTITY TO BE SUBJECTED TO FIELD TRIAL	REMARKS
1.	Flame Safety Lamp	Three months of 10 hrs. each day at a single stretch.	One No.	
2.	Cap Lamp	Three months for 10 hrs. each day at a single stretch.	One No.	
3.	Permitted Explosives and Detonators	Six months.	100 Kgs (explosives)	Minimum 500 detonators for electric detonators. For delay, 200 for each delay.
4.	Permitted Electronic Detonator	Three months	100 Kgs (expolosives)	Minimum 500 detonators for Electronic detonators. For delay electronic detonators- 200 for each delay.
5.	CO detector	Three months	One No. for a particular type of mine. (Coal/metal/oil)	Minimum 30 readings shall be taken.
6.	CO_2 Detector	Three months.	-do-	-do-
7.	Oxymeter	Three months.	-do-	-do-
8.	Multigas Detector	Three months.	-do-	-do-
9.	Methanometer	Three months.	-do-	-do-
10.	Exploders	Six months.	2 Nos. in two mines	
11.	E-exploder	Three months	2 Nos. in two mines	
12.	Powered Supports & its components	Twelve months	One set.	
13.	Man Riding System	Twelve months (six months after installation)	One set.	
14.	Winding Rope	Twelve months (six months after installation)	Length as per the requirement of field trial in the mine.	
15.	Balance Rope	Twelve months (six months after installation)	-do-	
16.	Haulage rope for manriding	Twelve months (six months after installation)	-do-	
17.	Underground locomotive	Three months	One set.	

18.	Internal Combustion Engine	Three months	One set.	

FIELD TRIAL & REGULAR APPROVAL PERIOD FOR EQUIPMENT, MATERIALS& APPLIANCES REQUIRING DGMS APPROVAL BY SPECIAL ORDER

Sl. No.	EQUIPMENT	PERIOD OF FIELD TRIAL	QUANTITY TO BE SUBJECTED TO FIELD TRIAL	REMARKS
19.	Flame Proof and Intrinsically safe Equipment / Electrical equipment for use in hazardous area (Zone 1 /Zone 2)	Three months	One No. for a particular type of mine. (Coal)	
20.	Breathing apparatus	-	Four nos. of apparatus for performance test at one rescue station	Each apparatus needs to be passed during performance test.
21.	Smoke helmets & apparatus serving same purpose.	-	Performance test at one rescue station.	Each apparatus needs to be passed during performance test.
22.	Reviving apparatus	-	Performance test at one rescue station.	
23.	Self-Rescuers	-	Eight nos. of self-rescuers for performance test at one rescue station.	
24.	Electrical lighting fixtures/ apparatus for use in UG coal mines or Zone-1/Zone-2 hazardous areas of oil mines.	Three months	One number for a particular type of mine (coal).	
25.	Local Methane Detectors and Telemonitoring Systems	Three months	One No. for a particular type of mine. (Coal)	
26.	Coal Dust Explosibility Meter	Three months	One no. for a coal mine	

APPENDIX- VI A

PERFORMANCE REPORT OF MECHANICAL EQUIPMENT

1. PERFORMANCE REPORT OF MAN RIDING CHAIR LIFT SYSTEM

(For the Every Six months period from to)

Date of Inspection:

Mine: **Area:**

Name of the Manufacturer		
Location (From- To)		
Date of commissioning		
DGMS approval no.		
Permission No. under Reg. 93(7) of CMR 2017.		
Valid up to:		
Length of travel (m) and Max. Gradient		
Sl.No.	DESCRIPTION	STATUS
1.0	**PUMP STATION**	
a)	Hour meter reading	
b)	Ref. No. of Electric Motor	
c)	Coupling condition	
d)	Fastening/Mounting of motor	
e)	Oil leakage condition	
f)	Boost pressure (MPa)	
g)	Working pressure (MPa)	
h)	Oil cooler condition	
i)	Oil condition /Working Temp.	
j)	Oil level/ Previous Oil Change HMR	
k)	Oil filter Condition	
l)	Vibration if any	
2.0	**DRIVE UNIT**	
a)	Drive Unit Motor seepage	
b)	Outer leakage of Oil	
c)	Speed Indicator	
d)	Condition of Foundation of frame and Fastenings of drive unit	
e)	Provision of SAHR braking	
f)	Brake Test Result (Braking distance)	
g)	Condition of Drive Sheave lining	
h)	Clearance between drive sheave and Drive Frame	
i)	Condition of Brake Pads	
j)	Clearance between Brake Pads and Drive sheave face	
k)	Condition of Bearing	
3.0	**EMBARKING AND DIS-EMBARKING STATION AT DRIVE UNIT**	
a)	Condition of Lining of pulleys	

b)	Bearings of pulleys	
c)	Embarking rail with starting device	
d)	Disembarking rail with back run stop device	
e)	Fastening of complete construction	
f)	Stability/Vibration of the structure	
4.0	**GATE WAY AREA**	
a)	Number of Curve stations	
b)	Safety provisions at Curve stations	
c)	Number of Intermediate stations	
d)	Safety provisions at Intermediate stations	
e)	Center to center rope distance	
f)	Fastening/Stability of all stations	
g)	Safety distance in all respects	
h)	Condition of lining of pulleys	
i)	Condition of Roll bearings of pulleys	
j)	Stability/Vibration of the Curve station	
k)	Stability/Vibration of the Intermediate station	
5.0	**EMBARKING AND DIS-EMBARKING STATION AT RETURN UNIT**	
a)	Condition of Lining of pulleys	
b)	Condition of bearings of pulleys	
c)	Embarking rail with starting device	
d)	Disembarking rail with back run stop device	
e)	Fastening of complete construction	
f)	Stability/ vibration of the structure	
6.0	**RETURN STATION AND TENSIONING TOWER**	
a)	Condition of Lining of return pulley	
b)	Condition of bearings of pulleys	
c)	Main rope, return pulley and tensioning rope directions at return pulley (In the same plane or not)	
d)	Condition of Suspension at trolley	
e)	Condition of Rollers of trolley	
f)	Condition of rails and suspensions	
g)	Alignment of counter weight	
h)	Condition of tensioning rope and rope clamps	
i)	Stability of tensioning tower	
j)	Max. travel of counter weights	
7.0	**CHAIRS**	
a)	Total no. of Chairs in operation	
b)	Numbering of all chairs & History book	
c)	Condition of Rollers of Suspension assembly	
d)	Condition of Bush bearing and Shaft of Suspension Assembly	

e)	Average life of Rope Chuck	
f)	Chair suspension and Seats comfort	
g)	Max. clearance between chair and floor	
h)	Provision of stretcher at all stations	
8.0	**Rope**	
a)	Original rope size, mm	
b)	Name of Rope manufacturer	
c)	Rope changed on date (Life obtained)	
d)	Actual rope size and %reduction	
e)	Condition of rope	
f)	No. of joints	
g)	Splicing conforming to IS 5245-1:1969	
h)	Spinning of Rope along the travel	
9.0	**ELECTRICAL CONTROL DEVICES**	
a)	Proper function of start and stop device	
b)	No. of pull cord switches (at an interval of 45meters)	
c)	Over speed tripping device against rope speed	
d)	Right position and function of counter weight limit switches	
e)	Provision of AVA at an interval of 200meters	
f)	Proper function of audio visual alarm	
g)	Functioning of pre-start alarm (min 10sec. gap)	
h)	Lighting arrangements at Pump station and other stations	
i)	Accessibility of controls to Operator	
j)	Proper function of page phones/other communication	

GENERAL CONDITIONS	
Condition of Floor along the travel	
Condition of Roof and Sides along the travel	
Condition of Goal posts/pipe posts	
Circulation of Separate SOPs	
NDT of rope and vital components (Test report no. and Date) Attach the copy of test report	
No. of Authorized Fitters	
Name of the Authorized Engineer	
History of Accidents if any	
Overall Performance	
Any other information:	

Name and Signature Name and Signature of Survey Name and Signature of Mine

of Service Engineer	officer	Engineer
Name and Signature of Mine Manager		Name and Signature of Agent

2. PERFORMANCE REPORT OF MAN RIDING CAR SYSTEM

(For the Every Six months period from to)

Date of Inspection:

MINE: AREA:

Sl.No	Description	Status
1.	Manufacturer Name	
2.	Hauler Capacity/ Make	
3.	Date of Installation	
4.	DGMS Approval No. & Valid up to:	
5.	DGMS Permission No.& Valid up to:	
6.	Length of Man-Riding	
7.	Permitted No. of cars and persons	
8.	**Route and Profile of Roadway**	
a.	Maximum gradient	
b.	Rail size (lb/yd) min. 60 lb	
c.	Track gauge, mm	
d.	Straightness and leveling of the track	
e.	Minimum clearance between car and sides	
f.	Condition of ballasting	
g.	Provision of Manholes as per regulations	
h.	Condition of rail joints with fish plates	
i.	Provision of sand at the end of the track	
9.	**Details of Haulage Engine**	
a.	Drum Diameter, mm	
b.	Condition of Foundation and bolts	
c.	Functioning of speed indicator (digital)	
d.	Functioning of car location indicator	
e.	Functioning of Automatic warning system during slow banking	
f.	Functioning of Dead man's handle	
g.	Functioning of slack rope protection	
h.	Functioning of over speed protection at motor (tripping speed, km/h)	
i.	Functioning of upper and lower over travel limit switches	
j.	Condition of couplings	
k.	Operator Seat, Comfort & lighting	
l.	Guarding of all moving parts	
10.	**Details of Rope and Cappel**	
a.	Name of Rope Manufacturer	
b.	Original Rope Diameter, mm	
c.	Date of installation	
d.	Date of recapping	
e.	Reduction in Rope dia, %	
f.	Condition of Rope lubrication	

g.	Details of Rope Cappel: i) Make: ii) Test certificate No.: iii) Date of fixing of Cappel:	
h.	Hambone clamp details: i) Test Certificate No.:	
	ii) Hambone clamp tightening torque, N-m	
i.	Condition of White Metal Rope Cappel with pin and locking arrangement	
11.	**Power pack Pump**	
a.	Working pressure, MPa	
b.	Condition of spare pump	
c.	Condition of oil and filters	
d.	Function of Filter choke indicator	
e.	Function of Hydraulic valves	
f.	Oil leakages if any	
12.	**Brakes Examination**	
a.	Performance of Thruster Brake	
b.	Performance of Caliper Brake	
c.	Performance of Inching Operation	
d.	Condition of brake paths on the Brake drum	
13.	**Man Riding Cars**	
a.	Condition of Brake Pads	
b.	Condition of D-couplings, links and Safety chains between cars	
c.	Anti-rust coating to all vital parts	
d.	Pressure in the car pressure gauge (PSI)	
e.	Governor tripping speed, km/h	
f.	Governor tested on date	
g.	Functioning of hand emergency brake valves, quick release couplings	
h.	Oil leakages if any	
i.	Condition of bogie pivot and lubrication	
j.	Clearance between brake pad and track, mm	
k.	Testing of brakes manually by operating levers in the cars	
l.	Function of pantographs on the-both ends of the cars	
m.	Functioning of Alternator and lighting	
14.	**Electrical Protections On Hauler**	
a.	Functioning of E/L protection	
b.	Functioning of O/L protection	
c.	Functioning of motor bearing temperature protection	
d.	Functioning of motor winding temperature protection	
e.	Maintaining of pantograph signal line	

f.	Functioning of blinkers in the haulage roadway	
g.	Condition of general lighting in the haulage Roadway	
h.	Functioning of pre-start alarm and caution message in haulage room and at all stations (Mention the delay time)	
i.	Separate signal line in the haulage Road apart from pantograph signal line	
j.	Functioning of Loud hailing communication system in haulage Road at an interval of 200m.	

GENERAL CONDITIONS

Condition of Floor along the travel	
Condition of Roof and Sides along the travel	
Red retro reflector at the front and rear sides of the Cars	
Circulation of Separate SOPs	
Provision of Maintenance shed for checking condition of bogies, etc	
NDT of rope and vital components (Test report no. and Date) Attach the copy of test report	
No. of Authorized Fitters	
Name of the Authorized Engineer	
History of Accidents if any	
Overall Performance	
Any other information:	

Name, Date and Signature of Service Engineer

Name, Date and Signature of Safety officer

Name, Date and Signature of Mine Engineer

Name, Date and Signature of Mine Manager

Name, Date and Signature of Agent

3. Performance report of Wire Rope

1.	Name of the mine	
2.	Name of the winder/Haulage	
3.	Name of the manufacturer of Wire Rope	
4.	Date of installation	
5.	Complete details of the Wire rope (copy of test reports to be enclosed)	
6.	Diameter of wire rope	
7.	Construction	
8.	Breaking load	
9.	Life achieved so far	
10.	Wire rope Recapping carried out on and a copy of test report to be enclosed.	
11.	Rope inspection carried out by a competent person as required under Regulation (a copy of report to be enclosed)	
12.	Corrosion, Pitting etc, if any	
13.	Any other information (during the operation)	
14.	Satisfactory/Not satisfactory	
15.	Any other Information	

Signature of Colliery Engineer

Signature of Colliery Manager

4. Performance report of I.C. Engine operated Equipment

Details of Equipment:

Sl.No.	Items	Equipment details
1	Name of Equipment	
2	Name of Manufacturer	
3	I.C.Engine Make, Capacity	
4	Mine / Company where equipment was in use	
5	Period of use (HMR)	
6	Details of Approval U/Reg.208(3) of CMR,2017	
7	Permission details U/Reg.2081(1) of CMR,2017	
8	Date of Commissioning	
9	Competent Persons/ Authorized Agency for maintenance of I.C.Engine	
10	Date of inspection	

Observations:

Sl.No	**Description**	Status
1	SOP for use of mobile diesel powered transport equipment	
2	Quantity of air in the district (Ventilation)	
3	Methane monitoring system	
4	Starting arrangement (Pneumatic/Hydraulic/Other)	
5	Concentration of noxious gas (After Conditioner limits)	
a	Carbon dioxide (Manufacturer's recommendation)	
b	Carbon mono-oxide(1100 ppm by Volume)	
c	Nitrogen dioxide (100 ppm by Volume)	
d	Nitric Oxide (900 ppm by Volume)	
6	Gradient of the road way	
7	Examination of diesel Engine as per OEM	
8	Provision of Deadman type switch	
9	Transport rule framed by Manager	
10	Posting of copies and Signals of transport rules at conspicuous places	
11	Condition of Service brake	
12	Condition of Parking brake	
13	Parking brake Interlock with Operator door/others	
14	Condition of head lights	
15	Red retro reflector at the rear of the vehicle	
16	Foot boards at each end	
17	Audio / Visual alarm as per Standard	
18	Gong hammer	
19	Portable fire extinguisher	
20	Ergonomically designed operator seat	
21	Protective canopy conforming to standard	
23	Safety file of I.C.Engine as per Standard/Manufacturer	
24	Examination of Brakes (Record)	
a	Deceleration Test	
b	Stand still Test	
c	Uphill & downhill Test	

25	Performance of Accumulators	
26	Clearance of Vehicle below chassis and from sides	
27	Whether, operators trained and familiar with safe operating procedures	
28	Examination of Vehicle Roadway (Record)	
29	Parking Station or Garage	
30	Precautions against coal dust	
31	Design & Construction of Diesel Vehicle	
a	Clean air inside the engine	
b	Condition of exhaust conditioner	
c	Direction of vehicle exhaust	
d	Flames or sparks from vehicle	
g	Stability of the Equipment	
32	Functioning of Safety Shut-downs of I.C.Engine	
a	Low-lube oil pressure cut-off	
b	High body-temperature cut-off	
c	High emission temperature cut-off	
d	Low coolant level cut-off	
e	Low water in wet scrubber cut-off	
f	High coolant temp. cut-off	
g	High Methane content Shutdown	
33	Hydro-static Testing of Flame-proof fittings of Engine as per standard once in every two years	
34	Testing of Engine Safety shutdowns and calibration of Censors as per standard once in every two years	
35	Visibility to the Operator	
36	Transport and storage of fuel	
37	Filling Station as per Standard	
38	Make of Fire resistance hydraulic fluid. Test report conforming to G.O.no.DGMS/Mech/ Tech.Cir.(Approval)/ No.02 dt 13.02.2015	
39	Condition of Hydraulic Filters	
40	Make of Fire resistance hydraulic hose. Test report conforming to G.O.no.DGMS/Mech/ Tech.Cir.(Approval)/ No.04 dt 13.02.2015	
41	Quarterly examination of exhaust gas samples at any NABL/Govt. approved laboratories	
42	Condition and activation of Fire Suppression system	
43	Overall Performance	
44	Suggestions if any	

Name, Date and Signature of Safety officer	Name, Date and Signature of Mine Engineer	Name, Date and Signature of Mine Manager

6. Performance report of Locomotives

Details of Equipment:

Sl.No.	Items	Equipment details
1.	Name of Manufacturer	
2.	Capacity	
3.	Mine / Company where equipment is in use	
4.	Period of use (HMR)	
5.	Details of Approval	
6.	Permission details	
7.	Date of Commissioning	
8.	Competent Persons for maintenance	
9.	Date of inspection	

Observations:

	Field Names	Data Entry Area
1.	Gradient of the haulage way	
2.	Parking Brake performance	
3.	Service Brake performance (Record)	
4.	Provision of K.M Indicator	
5.	Provision of Parking arrangement	
6.	Provision of Head Light, backlight	
7.	Provision of Provision of Horn	
8.	Provision of Provision of Audio Visual Alarm	
9.	Provision of Fire Extinguishers	
10.	Provision of Proper seat for the operator	
11.	Provision of standard Canopy	
12.	Operator visibility	
13.	Red retro reflectors at all sides of the vehicle	
14.	Noise levels	
15.	Provision of Desander, wherever required	
16.	Provision of Emergency stop	
17.	Clearance from the Roof and Sides	
18.	Status of Locomotive track (Record)	
19.	Performance of FLP/IS electrical items	
20.	Location of Battery charging and changing arrangement	
21.	Stability of the Locomotive	
22.	Overall performance	
23.	Suggestions, if any	

Name, Date and Signature of Safety officer	Name, Date and Signature of Mine Engineer	Name, Date and Signature of Mine Manager

APPENDIX- VI B

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

PERFORMANCE REPORT OF FLP/ I.S. APPARATUS, etc,.

(Please strike off whichever is not applicable)

1. (a) Complete details of the electrical apparatus with type of protection:

   (b) Name of manufacturer :

   (c) Reference to DGMS field – trial approval letter :
2. Name of the mine where the equipment was installed :
3. Location, quality, quantity, of air (ventilation):
4. Humidity at the site of installation :
5. Degree of gassiness of seam/zone:
6. Date of commencement of field trial :
7. Date of reporting of performance :
8. Purpose for which equipment was used:
9. Audibility (clear/not clear) and the distance at which audibility fades out :
10. Environmental effects on the performance of the system, If any :
11. (a) Performance of insulation monitoring device, if provided.

    (b) Insulation Resistance values at the time of reporting:
12. Suitability of components for rough usage.

13. Temperature class/temperature rise of enclosure/glass/other components.
14. Facilities for cable connections:

15. Facilities for cable compounding.

16. Facilities for earthing of body/neutral.

17. Comments on flame path/flame gap/fastenings.

18. Wattage (H.P.) / Amperage/ Voltage at which field trial was conducted.
19. Facilities for fixation/ anchoring/ Installation.
20. Efficacy of interlocking mechanism, if provided.
21 Efficacy of protective devices with available setting details. O/L, U/V, E/L, single phasing preventor etc,.

22. (a) Facilitates for testing of earth leakage relay

    (b) Provision of lock/cover over "Reset" switch to obviate unauthorised operation.

23. Facilities for replacement of parts/maintenance.

24. Failure of equipment during field trial, If any.
25. Any modification suggested.

26. Remarks on the performance and Pit worthiness of the system/equipment.

Countersigned by:

Signature
Date:
Name & Designation
(Mine Manager)
Contact No.

Signature:
Date:
Name & Designation:
(Agent)
Contact No.

APPENDIX-VI C

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

FIELD TRIAL REPORT FOR GAS DETECTORS/ FLAME SAFETY LAMPS/ CAP LAMPS

1. Details of equipment on trial:

2. Reference of DGMS field trial approval letter with validity date:
3. Name (s) of mine where trials conducted:

4. Designation(s) of persons using trial equipment:

5. Degree of gassiness of seam where trials conducted:

6. Period of field trial: From…….. To…… (dates)

7. Number of days trial conducted:

8. Location where trials conducted (specify dev/dep/old workings/ sealed off area):

9. Readings with the equipment: **

Date	Location (pit/ seam/ district)	Readings			Temp. & humidity at trial location	Remarks
		With trial equipment	With approved equipment	By chemical analysis from Govt. approved labs		

10. Environmental effects on readings/ performance:

11. Replacement of spare parts during trials:

12. Comments on ease of use, maintenance & repair:

13. Note on failure of equipment if any:

14. Did the equipment in any way endangered safety? (if yes, details thereof)

15. Adequacy of operation and maintenance instruction/ manual:

16. Suggestion for improvements if any:

17. Remarks on pit worthiness and performance:

Countersigned by:

Signature
Date:
Name & Designation
(Mine Manager)
Contact No.

Signature:
Date:
Name & Designation:
(Agent)
Contact No.

(All field trial reports must be signed/countersigned by the Manager/ Agent of the mine)

* Strike out which is not applicable

**Reading for 3 months (Minimum 30 readings and not more than one reading in a day) shall be taken with the trial equipment and compared.

APPENDIX: VI D-I

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

FIELD TRIAL REPORT ON PERFORMANCE AND SAFETY CHARACTERISITCS OF _____ EXPLOSIVE COMPOSITION

1. (a) Name of explosive/detonator :

(b) Name of manufacturer :

(c) Type of explosive/detonator :
(i) Instantaneous/Delay detonator:
(ii) P1 / P3 / P5 :
(iii) NG based (gel/ semi-gel/ powder) :
Slurry (aluminized/ other)/ Emulsion

2. Details of DGMS approval (for trials)

(a) Letter No. & date :
(b) Valid upto :
(c) For gassy seams of _____ degree :

3. Details of sites of trial
(i) (a) Name of the seam :
(b) Degree of gassiness :

(ii) Name of the district/ panel

(a) Working thickness, gradient of seam, etc. :
(b) Nature of coal (hardness, cleavages, band, etc.) :
(c) Method of work (development, depillaring, BOS, etc.) :

4. (a) Period of trial :

(c) Total quantity (Kg) of explosive used during trial blasts :

(d) Total no. of detonators tested :
(e) No. of shots fired during trial blasts :

5. General remarks

(a) Name of DGMS official who attended the blast: Sri _____ on _____

(b) Blast details (appended) :

(c) Determination of post detonation fumes by :
(Apparatus)

(d) Comparative assessment of the performance &

Safety characteristics of the explosive with other Comparable composition(s) :

6. Conclusion regarding suitability of explosive :

Signature:	Signature:	Signature:
(Name & Designation):	(Name & Designation):	(Name & Designation):
(Technical Officer of Manufacturer)	(Mines Manager)	(Agent)
Contact No. _____	_____	_____
Date:	Date:	Date:

APPENDIX: VI DII

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

BLAST DETAILS

Sl. No.		Particulars	1st Blast	2nd Blast	3rd Blast	Remarks
1.		Site of trial blast:				
2.		Ventilation:				
	(a)	Distance of face from last ventilation connection:				
	(b)	Quantity of air at the last ventilation connection:				
	(c)	Velocity of air at the face:				
	(d)	Method of coursing air to the face:				
	(e)	Percentage of inflammable gas in general body of air, at the face:				
3.		Gallery dimensions:				
4.	(a)	Depth of cut:				
	(b)	Depth of holes:				
5.		No. of holes:				
6.		Quantity of explosives used (Kgs):				
7.		Tonnage of coal produced per Kg of explosive/per detonator:				
8.		Comments on fragmentation,throw, etc. :				
9.		Misfires, if any:				
10.		Depth of sockets, presence of explosive in socket, any other unusual happening, such as deflagration, etc.				
11.		Post detonation fumes (Applicable for explosives)				
	(a)	Comments on the visible fumes produced				
	(b)	By _____ apparatus i. CO% ii. NO + NO_2 %				
12.		Effect on roof, sides from blasting vibrations:				

13.		General comments regarding handling, storage, transport, priming, cartridge material, etc.:				
14.		Any other remarks:				

Signature:
(Name & Designation):
(Technical Officer of Manufacturer)
Contact No.
Date:

Signature:
(Name & Designation):
(Mines Manager)
Contact No.
Date:
Office Seal

Signature:
(Name & Designation):
(Agent of the Mines)
Contact No.
Date:
Office seal :

APPENDIX- VI E

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

FIELD TRIAL REPORT / PERFORMANCE REPORT OF HYDRAULIC VALVES OF POWERED SUPPORTS

1) Detailed specification of the Valves
   a) Type of Valves

(LINEAR CONTROL/ROTARY CONTROL / YIELD / LEG PILOT OPERATED NON-RETURN / RAPID YIELD)

   b) Capacity of Valves
   c) Valves used with which support (Types, specifications etc.)
   d) Whether indentification tag / marking provided in each valve or valve bank showing the type of operaion of the valves / valve of a bank ?
2) DGMS approval no. and date
3) Period of validity of the approval
4) Drawing no. of the valves supplied
5) Name and address of the Original manufacturer of the support with which the valves have been used
6) Name and address of the Applicant / Manufacturer to whom approval of valves has been accorded
7) DGMS approval no. and mark as embossed on the valves
8) Whether the Manufacturer has submitted copy of the DGMS approval letter and maintenance schedule of valves to the User?
9) Adequacy of the operation manual or maintenance schedule of the valves supplied by the manufacturer
10) Year and month of manufacture of the valves as embbossed on the valves
11) Name of the mine and longwall panel in which the valves were installed
12) No. of valves installed
13) Date of installation
14) Period of operation
15) Period for which performance report is being sent
16) Total nos. of cycles of operation of the valves during the above period
17) Total nos. of cycles of operation of the valves after approval of field trial / since first installed (Give panel wise break-up)
18) Whether rcords of production tests conducted by the manufacturer, as per Clause 11.1 of the guidelines for mabufacture of hudraulic valves for legs of powered roof supports, as circulated vide DGMS Circulat No. S&T/DG(S&T)PS(D&T)/3(65)/98/541, dated 11.06.2003, have been submitted to the user during supply of the legs.
19) Whether the user complied with the provision of clause 16 of the Guidelines (Provisional) for indigenous manufacture of hydraulic valves for legs of powered roof supports, as

circulated vide DGMS Circular No. S&T/DG(S&T)PS(D&T)/ 3(65)/ 98/541, dated 11.06.2003.

Whether results of the field onservations have been properly maintained and submitted to this office in the prescribed format by the Agent/ Manager of the mine using the valves for field trial at an interval of three months? If yes, mention the reference letter no. and date of submission of the above reports.

20) Performance of the valves during the period of field trial / period of use for which performance report is being sent
   a) Was there any problem of compatibility of the legs with the powered supports? If so, specify
   b) Average, minimum and maximum setting pressures recorded
   c) Performance of valves during main weighting and periodic weighting period
   d) Leakage condition of the valves
   e) Condition of the valves during use
      (i) Any serious defect, deformation or failure of the valves or its components during use.
      (ii) Whether such defect or failure has beenbrought to the notice of DGMS?
      (iii)

21) Whether valves' components have been sourced from a manufacturer other than the approved manufacturer of the valve assembly?

23) Details of major repairing done, if any

a) No. of valves overhauled or repaired.

b) Overhauling or repairing done under whose supervision?

c) Whether any joint inspection was made by the representatives of OEM and the User Company and any certificate was issued regarding quality of repairing or overhauling? If so, copy of such certificates shall be enclosed.

d) Whether different items or spare parts used during the repairing / overhauling of the valves were procured from OEM?

e) Whether all the valves, overhauled or repaired, conform in all respects with the original valves supplied by OEM and for which approval was granted?

24) Whether reference of all the valves installed in the supports in a longwall face along with all relevant details regarding their period of use and performace maintained in a register?

25) Whether 20% of the valves installed in a face were withdrawn from use by the user every year and got it tested from an approved test house as per the prescribed test schedule. (The same valve shall not be tested for more than one time).

26) Whether the test report has been submitted to this Directorate? If yes, mention the reference no. and date of submission of the test report.

27) Remarks on the performance and suitability of the valves

28) Any modification suggested
29) Any other relevant information

Signature:	Countersigned by:
Date:	Date:
Name & Designation:	Name & Designation:
Contact No.	Contact No.

(All field trial or performance report must be signed / countersigned by the Manager / Agent of mine)

APPENDIX VIF

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

FIELD TRIAL REPORT/PERFORMANCE REPORT OF LEGS FOR POWERED SUPPORTS

1) Details specification of the leg
   a) Type of leg (STDA / DTDA)
   b) Capacity of legs
   c) Legs used with which support
2) DGMS approval no. and date
3) Period of validity of the approval
4) Drawing no. of the leg supplied
5) Name and address of the Original manufacturer of the support with which the legs have been used
6) Name and address of the Applicant or Manufacturer to whom approval of leg has been accorded earlier
7) DGMS approval no. and mark as embossed on the legs
8) Whether the Manufacturer has submitted copy of the approval letter and maintenance schedule to the User?
9) Adequacy of the operation manual or maintenance schedule
10) Year and month of manufacture of the legs as embossed on the support
11) Name of the mine/ panel in which the legs were installed
12) No. of legs installed
13) Date of installation
14) Period of operation
15) Period for which performance report is being sent
16) Total nos. of cycles of operation of the legs during the above period
17) Total nos. of cycles of operation of the legs after approval of field trial / since first installed (Give panel wise break-up)
18) Performance of the legs during the period of field trial/ period of use for which performance report is being sent
    a) Was there any problem of compatibility of the legs with the powered supports? If so, specify
    b) Average, minimum and maximum setting pressures recorded
    c) Average, minimum and maximum yielding pressures recorded
    d) Pressure records during main weighting and periodic weighting period
    e) Performance of legs during main weighting and periodic weighting period
    f) Leakage condition of the legs
    g) Convergence of the legs
    h) Result of routine condition monitoring (RCM) (Enclose copy of RCM)
    i) Any serious defect, deformation or development of cracks or failure of the legs or its components during use
    j) Whether such defect or failure has been brought to the notice of DGMS?

19. Whether leg components have been sourced from the manufacturer and used with old legs? If yes,

i) Whether prototype tests as per the requirements manufacture in the guidelines for indigenous manufacture of Single Telescopic Leg or Double Telescopic Leg for Powered Roof Support (circulated vide letter no. S&T/4(45)/99/51, dated 16.01.2001 and S&T/4(45)99/896(A), dated 31.07.2002) have been carried out after assembling the new components with existing components?

ii) Whether approval for using such leg components with old leg components has been obtained from DGMS?

iii) Whether interchangeability and compatibility of the leg components in relation to other components has been ensured by the manufacture in order to meet original design and application requirements.

iv) Under whose supervision the existing components have been assembled with the new components?

v) Whether the existing component assembled with the new components were in good condition as per original design and application requirements?

vi) Whether production test has been carried out on the legs after such components have been assembled with existing components of the legs?

vii) Whether any test certificate to this effect has been submitted to DGMS?

viii) The test facilities maintained at users end

ix) No. of such assembled legs used

20. Details of major repairing done, if any

a) No. of legs overhauled or repaired

b) Overhauling or repairing done under whose supervision?

c) Whether any joint inspection was made by the representatives of OEM and the User Company and any certificate was issued regarding quality of repairing or overhauling? If so, copy of such certificates shall be enclosed.

d) Whether different items or spare parts used during the repairing/ overhauling of the legs were procured from OEM?

e) Whether all the legs, overhauled or repaired, conform in all respects with the original legs supplied by OEM and for which approval was granted?

21. Any modification suggested

22. Remarks on the performance and suitability of the legs

23. Any other relevant information

Signature
Date:
Name & Designation:
Contact No.

Countersigned by:
Date:
Name & Designation:
Contact No.

(All field trial or performance report must be signed/ countersigned by the Manager / Agent of the mine)

APPENDIX VIG

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

FIELD TRIAL REPORT/ PERFORMANCE REPORT OF POWERED SUPPORTS

1. Detailed specification of the support
   a) Type of support
   b) No. of legs
   c) Capacity of support
   d) Capacity of rear and front legs

2. DGMS approval no. and date
3. Period of validity of approval
4. Drawing no. of the support, as approved
5. Name and address of the Original manufacturer
6. Name and address of supplier or authorized Indian agent, if any
7. Name and address of the Applicant to whom
8. DGMS approval no. and mark as embossed on the support
9. Year and month of manufacture of the supports as embossed on the support
10. Name of the mine/ panel in which the support was installed
11. Whether manufacturer has submitted operation manual or maintenance schedule before installation
12. Adequacy of the operation manual or maintenance
13. No. of support units installed
14. Date of installation
15. Period of operation
16. Period for which performance report is being sent
17. Total nos. of cycles of operation of the support during the above period
18. Total nos. of cycles of operation of the support after approval of field trial /since first installed (Give panel wise break-up)
19. Performance of the support during the period of field trial/period of use for which performance report is being sent
    a) Average/minimum and maximum setting pressures recorded
    b) Average /minimum and maximum yielding pressures recorded
    c) Pressure records during main weighting and periodic weighting period
    d) Performance of powered supports during main weighting and periodic weighting period
    e) No. of legs changed during the above period and manufacturer of the above legs
    f) Leakage condition of the legs and the support system
    g) Performance of the control valves
    h) Convergence of the legs
    i) Result of routine condition monitoring (RCM) (Enclose copy of RCM)
    j) Any serious defect, deformation or development of cracks or failure of the supports or its components during use.
    k) Whether such defect or failure has been brought to the notice of DGMS?

20. Details of major repairing done, if any

i) No. of supports overhauled or repaired.
ii) Overhauling or repairing done under whose supervision?
iii) Whether any joint inspection was made by the representatives of OEM and the User Company and any certificate was issued regarding quality of repairing or overhauling? If so, copy of such certificates shall be enclosed.
iv) Whether different items or spare parts used during the repairing/ overhauling of the support were procured from OEM?
v) Whether all the supports, overhauled or repaired, conform in all respects with the original supports supplied by OEM and for which approval was granted?

21. Any modification suggested
22. Remarks on the performance and suitability of the powered supports
23. Any other relevant information

Signature
Date:
Name & Designation
Contact No.

Countersigned by:
Date:
Name & Designation:
Contact No.

(All field trial or performance report must be signed by the Manager and countersigned by the Agent of the mine)

APPENDIX- VI H (i)

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOU AND EMPLOYMENT
GOVT. OF INDIA

Practical Performance Tests of Self Contained Breathing Apparatus (SCBA)

Name of the test:-

Job no.:-

Name of the test subject:-

Examined by Doctor:-

Witness of the test:

D-1 TEST SUBJECTS

D-1.1 Breathing apparatus…… has been tested by…… who regularly uses SCBA and whose medical history is known to be satisfactory. He has been medically examined before the test and certified fit for such tests by Dr…….. The person was suitably clothed.

D-2 Medical Attention

D-2.1 The tests have been done under the supervision of Dr.
……
……
……

D-3 Preparation of apparatus to be tested.

D-3.1 i) Cylinder evacuation before charging – Evacuated and purged. (Yes/No)

ii) A sample of compressed oxygen has been analyzed for oxygen content & flow of oxygen into apparatus has been measured. (Yes/No)

iii) After the purifier is charged & the apparatus assembled; the resistance to breathing has been measured. (Yes/No)

iv) The apparatus with the charged cylinder to prescribed pressure and ready for use. Then test for leak tightness was done. (Yes/No)

D-3.2 Not applicable (in Rescue Stations)

D-4 Test Procedures

D-4.1 i) Two kinds of tests are done.
(b) **Walking Test** (One in which two subjects/persons wearing the apparatus walk at regular rate of 6.5 Km/Hr. on a level course/path.)

REMARKS of the Subject:

.....
.....
.....
.....
.....

a) **WORK SIMULATION TEST** (One in which two different persons work in practical conditions)
Note: Each test is continuous without removal of apparatus for a period equal to working duration of apparatus except that rest period of 5 minutes is taken after 15 minutes period of use.

REMARKS of the Subject:

.....
.....
.....
.....
.....

D-4.1.1The work simulation tests shall comprise:

a) Carry of sand bags over a distance of at least 9m & building a 1.4 m high stopping.

b) Negotiating a circuit of the gallery which comprises:
(1) Steps and ramp

(2) A restricted height carrying from 1.2m to 1.0 m

(3)A restricted height varying from 0.4 to 1.0 m An opening 0.6 m high x 0.9 m wide x 3.7 m long

c) Carrying, pushing or pulling on a stretcher a dummy body weighing 68 kg around the same circuit of the gallery

d) Passing sand bags through a steel tube 3.7 m long x 0.7 m in dia

e) Repeated raising and lowering of a weight of 25.4 kg from a height of 1.8 m by means of a rope and pulley.

f) Climbing over three 1.2 m high hurdles.

g) Climbing Up & down a vertical ladder with a 460 mm^2 opening around the ladder

h) Carrying & making chock (wooden slippers) pieces in still air in a climatic chamber where the temperatures measured by hygrometer are

1) Dry bulb 45 ± 3^0 C &
2) Wet bulb 3 - 5^0 C lower than the dry bulb.

D-4.2 i) During test periods and at the end of each test

a) Inhaled air is sampled & tested. (Comments)
b) The temp, cylinder pressure & ambient temp are recorded. (Readings)
c) The medical practitioner asks such clinical observations considered necessary by him. (Comments)

ii) When a face piece is worn the test includes

a) A period of speech by each subject is tested. (Comments)
b) The inward faces leakage is checked subjectively/individually using a suitable vapour of characteristic smell.(Comments)

iii) At the end of each test

a) The persons (subjects) are medically examined (Comments)
b) The apparatus is examined for leak tightness (Comments)
c) Oxygen/air flow (Comments)
d) Resistance to breathing (Comments)
e) Excessive wear of parts and physical damage (Comments)

Signature of the Officer
Conducted test
Name……
Designation…….
Place of Posting……

Signature of the subject
Name ……
Designation ……
Place of posting……

Signature of Manager (Mine)/Supdt.(Rescue Station)

Signature of GM (Rescue)

APPENDIX- VI H (ii)

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

CERTIFICATE OF MEDICAL EXAMINATION BEFORE AND AFTER TEST WITH BREATHING APPARATUS

1) Name :…….
(practice regularly with Breathing Apparatus and Medical history is known to be satisfactory)
2) Age :……..
3) Designation :……
4) Colliery/Mine : ……
5) Comments of the Medical Officer regarding fitness:

Observations:

Sl. No.	NAME	DURATION OF APPLICATION	PULSE		Blood Pressure		REMARKS FOR CONDITION OF PERSON AFTER USE
			Before Application	After Application	Before Application	After Application	
1.							
2.							
3.							
4.							

(Signature of Medical Officer)
Designation:
Place of posting:

APPENDIX- VI -I (i)

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

PRACTICAL PERFORMANCE TEST OF SELF CONTAINED SELF RESCUER (SCSR) [Underground]

SL.NO ,BATCH NO.& MAKE OF THE APPARATUS :

DATE OF TESTING :

DETAILS OF TEST SUBJECT:-

1) Name :
2) Age :
3) Height :
4) Weight :
5) Last date of Annual Medical Exam done on :
6) Status of the test subject- active rescue trained person
(Report of Medical examination immediately before the test is attached herewith)

TEST PROCEDURE

Selected test subject is well acquainted with the apparatus and instructions given for use of the correct procedure of opening, donning and of the operation of the apparatus. Test procedures were carried out by test subject in dark in Underground without assistant. However, the test subject was accompanied by one assistant viz……during test.

RECORDING OF FOLLOWING PARAMETERS AT VARIOUS POINTS OF THE ESCAPE ROUTE WAS DONE AND RESULT AS FOLLOWS:-

1) Average Temperature
2) Average Relative humidity

ESCAPE EXCERCISES DETAILS

1) Escape exercise conducted underground in ……Colliery from……..to……..
2) Total duration : From……to……(……minutes)

ASSESMENT BY THE TEST SUBJECT FOR THE APPARATUS

1) Operation of the starter
2) Comfort of breathing
3) Comfort of wearing
4) Overall performance

Signature of Test Officer	Signature of Assistant	Signature of the test subject
( )	( )	( )
Designation……	Designation……	Designation……

Signature of Superintendent (Rescue)

Signature of GM (Rescue)

APPENDIX- VI -I (ii)

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

PRACTICAL PERFORMANCE TEST OF SELF CONTAINED SELF RESCUER (SCSR)
[At rest] on surface

SL.NO ,BATCH NO. & MAKE OF THE APPARATUS :

DATE OF TESTING :

DETAILS OF TEST SUBJECT:-

1) Name :
2) Age :
3) Height :
4) Weight :
5) Last date of Annual Medical Exam done on :
6) Status of the test subject- active rescue trained person
(Report of Medical examination immediately before the test is attached herewith)

TEST PROCEDURE
Selected test subject is well acquainted with the apparatus and instructions given for use of the correct procedure of opening, donning and of the operation of the apparatus. Test procedure were carried out by test subject in dark without assistant. However, the test subject was accompanied by one assistant viz……during test.

RECORDING OF FOLLOWING PARAMETERS OF THE ENVIRONMENT IN THE TRAINING GALLERY DURING THE TEST WHERE THE TEST SUBJECT PERFORMED THE TEST.

1) Average Temperature
2) Average Relative humidity

ESCAPE EXCERCISE DETAILS(TEST AT REST)

1) Subject has not performed any work
2) Subject has sat comfortably
3) Apparatus has placed so as not to impeded by the mass
4) Total duration: From……to……..(……minute)

ASSESMENT BY THE TEST SUBJECT FOR THE APPARATUS

1) Operation of the starter
2) Comfort of breathing
3) Comfort of wearing

4) Overall performance

Signature of Test Officer Signature of Assistant Signature of the test Subject
( ) ( ) ( )
Designation…… Designation…… Designation……

Signature of Superintendent (Rescue)

Signature of GM (Rescue)

APPENDIX- VI -I (iii)

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

PRACTICAL PERFORMANCE TEST OF SELF CONTAINED SELF RESCUER (SCSR)
[Tread Mill]

SL.NO , BATCH NO. & MAKE OF THE APPARATUS :

DATE OF TESTING :

DETAILS OF TEST SUBJECT:-
1) Name :
2) Age :
3) Height :
4) Weight :
5) Last date of Annual Medical Exam done on :
6) Status of the test subject- active rescue trained person
(Report of Medical examination immediately before the test is attached herewith)

TEST PROCEDURE
Selected test subject is well acquainted with the apparatus and instructions given for use of the correct procedure of opening, donning and of the operation of the apparatus. Test procedure was carried out by test subject in dark without assistant. However, the test subject was accompanied by one assistant viz……during test.

RECORDING OF FOLLOWING PARAMETERS AT VARIOUS POINTS OF THE ESCAPE ROUTE WAS DONE AND RESULT AS FOLLOWS:-

1) Average Temperature
2) Average Relative humidity

ESCAPE EXCERCISES DETAILS (Tread Mill)

1) Walking on tread mill at speed of 8km/hour for one minute
2) Walking on Tread Mill at speed of 2.4Km/hours and 20% inclination for 29 minutes
3) Total duration : From…….TO……(…….minute)

ASSESMENT BY THE TEST SUBJECT FOR THE APPARATUS

1) Operation of the starter
2). Comfort of breathing
3).Comfort of wearing
4). Overall performance

Signature of Test Officer Signature of Assistant Signature of the test subject
( ) ( ) ( )
Designation…… Designation…… Designation……

Signature of Superintendent (Rescue)

Signature of GM (Rescue)

APPENDIX- VI I (iv)

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

COMMENTS OF THE TEST SUBJECT FOR SELF RESCUER/BREATHING APPARTUS & REVIVING/RESUSCITAING APPARATUS

1. Did any parts of the apparatus catch on projections at any time? Yes/No
2. Did you notice any sharp edge or burns on the apparatus? Yes/No
3. Did saliva or condensate interfere with your breathing? Yes/No
4. Did any material coming in to contact with you whilst wearing the apparatus cause any irritation? Yes/No

5. How was the weight of the apparatus? Light/Average/Unsuitably Heavy
6. Was the harness quick and easy to put on t and did it effect you donning the apparatus? Yes/No

7. Did the harness remain as adjusted and was it comfortable? Yes/No
8. Did you have any problem of opening, donning or operating the apparatus? Yes/No
9. Did the breathing circuit become blocked at any time? Yes/No
10. Did the nose clip form a good seal? Yes/No
11. Did the apparatus interfere with other safety equipment? Yes/No
12. Did the apparatus impede your head or body movement? Yes/No
13. Was there an adequate supply of oxygen at all time? Yes/No
14. Was there any undue resistance to breathing? Yes/No
15. Was the temperature of the inspired air intolerable? Yes/No
16. Was the surface temperature of the apparatus acceptable? Yes/No
17. Was the apparatus comfortable? Yes/No

Signature of Subject

Signature of Superintendent (Rescue Station)

APPENDIX- VI I (v)

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

CERTIFICATE OF MEDICAL EXAMINATION BEFORE AND AFTER TEST WITH SELF RESCUER

1) Name :.....
2) Age :.....
3) Designation :.....
4) Colliery/Mine : .....
5) Comments of the Medical Officer regarding fitness:

Observations:

Sl. No.	NAME	DURATION OF APPLICATION	PULSE		Blood Pressure		REMARKS FOR CONDITION OF PERSON AFTER USE
			Before Application	After Application	Before Application	After Application	
1.							
2.							
3.							
4.							
5.							
6.							

(Signature of Medical Officer)
Designation:
Place of posting:

APPENDIX- VI J (i)

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

Practical Performance Test Report of Reviving/Resuscitating Apparatus-

Sl. No.	Date	Name of the person	Desig.	Colliery/mine	Duration of use	Signature
1.						
2.						
3.						
4.						

Tests / Feel	Report / Remarks of user	Performance
Inhalation & exhalation		
Air requirement		
Feeling		
Additional Demand of OXYGEN		
Application		
Face Mask		
Obstructed Airway warning		
Inhalation / Exhalation cycle		

All Tests conducted in normal atmosphere.

Mines Manager / Superintendent (Mines Rescue Station)

APPENDIX-VI J (ii)

APPENDIX-VIIDIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

CERTIFICATE OF MEDICAL EXAMINATION BEFORE AND AFTER TEST WITH REVIVING APPARATUS/RESUSCITATING APPARATUS

1) Name :.....
2) Age :.....
3) Designation :.....
4) Colliery/Mine :.....
5) Comments of the Medical Officer regarding fitness:

Observations:

Sl. No.	NAME	DURATION OF APPLICATION	PULSE		Blood Pressure		REMARKS FOR CONDITION OF PERSON AFTER USE
			Before Application	After Application	Before Application	After Application	
1.							
2.							
3.							
4.							

(Signature of Medical Officer)
Designation:
Place of posting:

APPENDIX-VII

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

PROFORMA FOR PERFORMANCE REPORT OF BREATHING APPRATUS, REVIVING/RESUSCITATING APPRATUS

1. DETAILS OF THE EQUIPMENT/APPARATUS/ PRODUCT
   (a) Name & Model -
   (b) Manufactured by-
   (c) Reference of DGMS approval letter-
   (d) Date of validity.

2. Name of Mine/Rescue station:

3. Full Address of Mine/Rescue station:
4. Number of apparatus maintained in the mine/rescue station:
5. Detail of emergencies in which the apparatus was used during last approval/renewal period:
6. No. of practices in which the apparatus was used (last calendar year):

7. Condition of the equipment/apparatus after each use:

8. Complaints of users (if any):

9. General comments (Satisfactory/ unsatisfactory):

Signature:	Signature:
(Agent/General Manager/Head of discipline)	(Mine manager/Rescue Superintendent):
Contact No.	Contact No.
Date:	Date:
Office Seal	Officeseal :

APPENDIX-VIII

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

PROFORMA FOR PERFORMANCE REPORT OF SELF RESCUER

1. DETAILS OF THE EQUIPMENT/APPARATUS/PRODUCT
   (a) Name & Model:
   (b) Manufactured by:
   (c) Reference no. of DGMS approval letter:
   (d) Date of validity:
2. Name of Mine/Rescue station:
3. Full Address of Mine/Rescue station:
4. Number of apparatus maintained in the mine/rescue station:
5. Number of apparatus in the Mine/Rescue Station subjected to functional ability tests as per DGMS (Technical) Circular No. 08 dated 27.10.2008 during the last approval/renewal periods:
6. Result of functional ability tests as per DGMS (Technical) Circular No. 08 dated 27.10.2008 (of all tests during the last approval /renewal period w.e.f. 05.05.2016):
7. General comments (Satisfactory/ unsatisfactory):

Signature:	Signature:
(Agent/General Manager/Head of discipline)	(Mine manager/Rescue Superintendent):
Contact No.	Contact No.
Date:	Date:
Office Seal	OfficeSeal :

APPENDIX-IX

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

CONSOLIDATED REPORT ON PERFORMANCE AND SAFETY CHARACTERISITCS OF _____ EXPLOSIVE COMPOSITION REQUIRED FOR RENEWAL OF APPROVAL

1. (a) Name of explosive/detonator :
   (b) Name of manufacturer :
   (c) Type of explosive :
      (i) P1 /P3/P5 :
      (ii) Instantaneous/Delay detonators :
      (iii) NG based (gel/ semi-gel/ powder) :
         Slurry (aluminized/ other)/ Emulsion

2. Details of DGMS approval (for trials)
   (c) Letter No. & date :
   (d) Valid upto :
   (e) For gassy seams of _____ degree :

6. (a) Name of mine(s) to which this consolidated report relates :

   (b) Degree of gassiness of the seam where explosive /detonator was used (tick which one is applicable): I/ II/ III

   (c) Total quantity of explosive used during the period:

4. General comments on:
   (a) Explosive performance (Satisfactory/unsatisfactory) :
   (b) Post detonation fume characteristics (CO and NO/NO_2 fumes in ppm):
   (c) Frequency of misfires or any other unusual occurrences (specify) :

   (d) Blast vibration effects on roof & sides :
   (e) Safety & ease in handling, storage, Transport, priming, etc. :
   (f) Any other remarks :

5. Comparative assessment of the performance & Safety characteristics of the explosive with other Comparable composition(s) :

6. Conclusion regarding suitability of explosives : Suitable/unsuitable

~~Signature:~~
~~(Name & Designation):~~
~~(Technical Officer of Manufacturer)~~
~~Contact No.~~
~~Date:~~

Signature:	Signature:
(Name & Designation):	(Name & Designation):
(Mines Manager)	(Agent of the Mines)
Contact No.	Contact No.
Date:	Date:
Office Seal	Office Seal :

* Performance report to be directly sent to DGMS office by speed post/courrier.

APPENDIX-X

DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
GOVT. OF INDIA

PROFORMA FOR PERFORMANCE REPORT (General Items)

3. DETAILS OF THE EQUIPMENT/APPARATUS/ PRODUCT
   (e) Name & Model -
   (f) Manufactured by-
   (g) Reference of DGMS approval letter-
   (h) Date of validity.

4. Name of Mine & organization :
3. Degree of Gassiness (for Coal Mines) /

4. Full Address of Mine:
5. Name of Mineral:
6. Name of worker to whom the equipment/apparatus was issued :
   (wherever applicable)
6A. Nature of work performed:
7. Location where the product/equipment/apparatus was placed:
8. Period for which the equipment/apparatus was used: From_____ To _____
9. Condition of the equipment/apparatus after use:
10. Pit worthiness.
11. Performance of the product (tick which one is applicable):Satisfactory/Unsatisfactory

Signature (Name) (Agent)/ Head of Discipline in Company Mine: Mobile No/Contact No Date:	Signature (Name) (Manager) Mine: Mobile No/Contact No. Date:
Office seal	Office seal

APPENDIX-XI

Format for Power of Attorney

(For signing the application, application format and related documents with regard to the approval/renewal of approval of apparatus/equipments from DGMS)

(On the stamp paper of appropriate value)

(To be notarised)

Know all men by these presents, we _____ (name and address of the registered office of the manufacturer do hereby constitute, appoint and authorise Mr. / Ms. _____ _____ (name and residential address) who is presently employed with us and holding the position of _____, to be the Company's true and lawful attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our application for the DGMS approval/ renewal of approval of our manufactured products including signing and submission of all necessary documents / letters, and providing information / responses to the DGMS, representing us in all matters before DGMS, and generally dealing with DGMS in all matters in connection with our application for the approval/renewal of approval /field trial permission from DGMS.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.

The common seal of (name of the company) have been hereunto affixed pursuant to the Resolution of the Board of Directors Passed on the (date, month, year)	For (name of manufacturer) (Signature of the executants*) (Name, Title and Address)

Accepted

(Signature of Authorised Signatory)
(Name, Title and Address)
In the presence of:
Witness
1.
2.

*Excutant:- Director in the Board of Director.

(Copy of the board resolution duly certified by any Director in the Board of Directors /company secretary of the company to be submitted with the power of attorney)

APPENDIX-XII

FORMAT FOR AUTHORIZATION OF INDIAN AGENT

I, hereby authorize Mr./Mrs. _____ (designation) of M/s _____ (Name of Indian company with complete address) as the Indian representative of M/s _____ (Applicant)
for following work.

1.
2.
3.

In addition to the above, Mr./Mrs. _____ (designation) of M/s _____ (Name of Indian company) will be jointly responsible with Mr./Mrs. _____ (Applicant) in terms of operational safety features and quality of the equipment/appliance/material/apparatus supplied in mines.

(Signature of the applicant with company seal)

APPENDIX-XIII

FORMAT FOR ACCEPTANCE OF AUTHORISATION

I, _____ (Name & Designation) of M/s _____ (Name of the Indian company with complete postal address) hereby accept the responsibility ~~as the~~ Indian representative of M/s _____ (Name of the applicant) ~~to~~
Our responsibilities are as follows.

1.

2.

3.

In addition to the above, I will be jointly responsible with M/s _____(Applicant) in terms of operational safety features and quality of the equipment/appliance/material/apparatus supplied in mines.

(Signature of the Indian representative with company seal)

APPENDIX-XIV

1.0 The gas detector shall be tested (for each gas to be measured) in an environment of 25%, 50%, 75% and 100% target gas concentration. At least three readings shall be taken for each concentration of gases.

2.0 Gas detector shall conform to the following standard:

Type of sensor	Minimum range	Resolution	Accuracy	Alarm
Methane/Combustible gases	5%	0.1 of the full scale division	± 2% of the full scale division	Adjustable within the range of 0.5 to 1.25% of methane combustible gas
Oxygen	25%	0.1%	± 2% of the full scale division	18%
Carbon Mono Oxide	1000 ppm	1 ppm	± 2% of the full scale division	0.5%
Carbon Di Oxide	10%	0.1%	± 2% of the full scale division	40ppm
Hydrogen Sulphide	100ppm	1 ppm	± 0.5% of the full scale division	5 ppm
Nitrous fumes	50 ppm	1 ppm	± 0.5% of the full scale division	5 ppm