



राष्ट्र की सेवा में 100 वर्ष

DGMS APPROVAL POLICY - 2013

FOREWORD

Chief Inspector of Mines (CIM), now also designated as Director General of Mines Safety, has been empowered to grant approval to various equipments for use in mines under relevant provisions of the Coal Mines Regulations, 1957, the Metalliferous Mines Regulations, 1961, Oil Mines Regulations, 1984, Mines Rescue Rules, 1985 framed under Section 57 & 58 of the Mines Act, 1952 and other provisions of the Electricity Act, 2003, Central Electricity Authority (Measures relating to Safety & Electric Supply) Regulations, 2010, besides statutory notifications issued under these regulations by the competent authority from time to time. It is done after proper application of mind keeping in view 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 and appliances for use in Coal, Metal and Oil mines in the interest of safety.

The Approval Policy outlining the process of approval has been followed in this Directorate for a long time and was being updated from time to time. The Approval Policy contains the general outline of the procedure to be followed while processing cases of approval of equipment, machinery, tools and appliance but its final consideration of approval is done only after proper application of mind on case to case basis for use in Coal, Metal and Oil mines in the interest of safety.

An approval Committee was constituted on 5.2.2013 comprising the following officers

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| <i>1. Dy. Director General of Mines Safety (Electrical)</i> | <i>- Chairman.</i> |
| <i>2. Dy. Director-General of Mines Safety (Mechanical),</i> | <i>-Member.</i> |
| <i>3. Director of Mines Safety (S&T)</i> | <i>- Member.</i> |
| <i>4. Director of Mines Safety (MSE)</i> | <i>- Member.</i> |
| <i>5. Dy. Director of Mines Safety (MSE/HQ)</i> | <i>- Secretary.</i> |

The approval committee met from time to time to review and update the procedures for approval of equipment, machinery, tools and appliance for use in mines in the light of changing scenario in the mining industry and Standards laid down by BIS and other international Standard- setting bodies.

The last Approval Policy was framed in the year 2009. The approval committee reviewed it in their various meetings held on 19.02.2013, 22.02.2013, 29.04.2013, 27.05.2013, 16th & 17th July 2013. The meeting which was held on 27.05.2013, besides other invitees DDG(HQ) and DDG(SEZ), Ranchi had also participated and valuable inputs were suggested by them to incorporate in the approval policy.

Based on the recommendations of the approval committee, the present amended approval policy 2013 has been framed to replace the Approval Policy, 2009.

It is hoped that the Approval Policy, 2013 in its present amended form will serve the mining industry more effectively and will ensure safety of the persons employed therein in a better way.

(Rahul Guha)
Director General of Mines Safety

Dated: 23rd July, 2013.

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1.0. PREAMBLE

- 1.1. The Approval Policy was last amended in the Year 2009 after reviewing the previous ones. With the passage of time and changing situations it was felt necessary to further review the same.

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

The Amended Approval Policy 2013 will become effective from 1st August, 2013.

2.0. BACKGROUND

- 2.1. It is universally understood that quality inputs result in quality output. This is true in all sphere of activity and is equally relevant in a hazardous occupation like mining where time and again experience has established the need for competent manpower, constant vigilance, sustained use of safe methods and fit for purpose, quality materials and equipment which would go a long way in achieving better safety and health conditions of workers engaged in mines. Use of faulty machinery, equipment, tools and materials had in the past resulted in accidents, disasters and dangerous situations. This needed framing of mine safety legislation requiring approval of certain equipment and material to be used in mines. However, grant of approval has been restricted to cover specific equipment and material only.

3.0. OBJECTIVE

- 3.1. The objective of granting approval to various equipment for use in mines to primarily fulfil the statutory obligations enshrined under different provisions of the Coal Mines Regulations, 1957; Metalliferous Mines Regulations, 1961; Oil Mines Regulations, 1984; Electricity Act, 2003, Central Electricity Authority (Measures relating to Safety & Electric Supply) Regulations, 2010 & Mines Rescue Rules, 1985; besides statutory notifications issued under these regulations by the competent authority from time to time. However, it is done after proper application of mind keeping in view the entire facts relating to the quality and performance of the plant, machinery and appliances suitable for use in Coal, Metal and Oil mines in the interest of safety.
- 3.2. Mining being a hazardous profession requires that the equipment, machinery and tools need to 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.

4.0. EQUIPMENT AND MATERIALS REQUIRING APPROVAL

- 4.1. All equipment, machinery, appliances and other materials requiring approval have been broadly categorized into
- (a) Environment monitoring instruments and devices,
 - (b) Personal protective equipment,
 - (c) Rescue apparatus,
 - (d) Electrical equipment and cables,
 - (e) Machineries and other equipment for carrying out mining operations,
 - (f) Explosives & accessories,
 - (g) Safety materials for use in underground mines,
 - (h) Various types of Supports and accessories for roof/side supporting in mines.
 - (i) Dust suppression/prevention systems in drilling machinery and haul roads,
 - (j) All types of lights, to be used in underground mines, hazardous area in Oil & Gas mines
 - (k) Other specific equipment, materials and appliances which the Directorate may consider necessary.
- 4.2. A list of equipment and materials presently requiring approval under the provisions of various statute, standards applicable and BIS licensing requirement is given at Appendix-I.

5.0. APPROVAL PROCEDURE

- 5.1.0. 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, appliances or material under special circumstances.
- 5.1.1. Equipment needs to conform to the relevant Indian Standard(s). In case there is no Indian Standard, relevant Standard of the country of its origin or any other internationally accepted standards may be considered by DGMS on merit.
- 5.1.2. If overseas manufacturer(s) conduct business in India through an Indian agent, all details of the Indian Agent such as name, correspondence address, contact

telephone numbers, FAX, e-mail etc., shall be furnished in the application. Further, the CEO/Owner/Proprietor of the foreign company shall submit along with the application, his written authorization in original to the Indian Agent for the purpose of follow-up etc. However, any correspondence on matters of approval shall be made with this Directorate only by the CEO/Owner/Proprietor of the manufacturing foreign company. Based on the above authorization, a copy of correspondence made with the manufacturer by this Directorate may be marked to the Indian Agent also.

5.1.3. The overseas manufacturer conducting business in India through an Indian Agent, shall inform this Directorate, the appointment/modification/termination in respect of the Indian Agent with specified due liability and responsibility. The acceptance of the Indian agent must be submitted along with the application.

5.1.4. The manufacturing facility of an Indian manufacturer submitting application for the first time, shall be inspected by an officer of this Directorate to ensure 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-IV.

5.1.5. The information, documents and test reports are scrutinised and if found in order, approval for field trial is granted.

5.1.6. After the equipment has been successfully field tried, performance reports duly signed by the representatives of the manufacturer and Owner/agent /manager/Head of Discipline of user(s) may be submitted preferably within two months of the completion of the field trial to this Directorate.

5.2.0. **APPLICATION FORMAT:**

5.2.1. Application needs to be made in a prescribed format given at Appendix-III. The application must be made by the owner, proprietor, partner of the company seeking approval or a Director on the Board of Directors of the Company in case of private or partnership company and small public company, and addressed to 'The Director General of Mines Safety'. If the application is not signed and addressed as above, the same is liable to rejection. The application form can be downloaded from the official website of DGMS. (At present, it is www.dgmsindia.in)

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

5.3.0. **TESTING:**

- 5.3.1. Testing is mainly divided into two parts, Type Tests and Routine Tests. Type tests are carried out on a prototype to ensure its conformity to the relevant standards. Details of type test and routine test are given in the relevant standards or specifications drawn/accepted by DGMS. A few products may require identification of samples by this Directorate before sending to the testing laboratory.
- 5.3.2. Prototype of any equipment, material or appliance where Indian Standards exist, need to be tested as per the relevant standard in a Government Laboratory/ Government approved Laboratory/DGMS approved Laboratory.
- 5.3.3. In case of equipment, material and appliance for which no Indian Standard exists, relevant International standard(s) may be accepted on its merit and need to be tested in India if facilities are available in any Government approved Laboratory.
- 5.3.4. If BIS accepts any international standard and the same has been adopted as our national standard, test reports based on these standards from any internationally accredited laboratory may be accepted on merit.
- 5.3.5. Tests of all parameters of equipment, appliance or material under relevant standard/ testing memorandum or tests required by DGMS should be conducted preferably in a single test house. If, however, a particular test house does not have full facility for testing of all parameters of the required tests and that Test house declares to that respect in writing, test report for rest of the parameters by other approved test house may be accepted.
- 5.3.6. Two copies of test certificates, from an approved laboratory one original, the other certified copy thereof have to be submitted along with the application. Two copies of the drawing one original and one certified (wherever applicable) need to be submitted also. In case of imported equipment/machinery etc., test conducted in India, to Indian standard or other international standard shall be submitted. In case no Indian standard exists and test facilities are not available in India, then the test report of the country of its origin/ any internationally accepted laboratory may be accepted subject to condition that the concerned laboratory figures in the list of various internationally accredited independent test houses.

5.4. **EXAMINATION OF THE APPLICATION**

- 5.4.1. In the first stage the examination of a particular case involves the following,
 - ❖ Whether the format has been correctly filled,

- ❖ Whether the company really exists based on the documentary evidence submitted,
- ❖ Whether all information required has been submitted,
- ❖ Whether all enclosures duly authenticated have been submitted.
- ❖ BIS certification and validity, if applicable,
- ❖ Examination of drawing submitted,
- ❖ Scrutiny of test reports and Factory Inspection report .

5.4.2. For items requiring BIS license, approval for field trials may be accorded even if the application is not accompanied with valid BIS license. However, approval shall be granted only after submission of valid BIS license.

5.4.3. The Factory Inspection may be made by an officer of this Directorate any time to assess/ reassess capability of the manufacturer in respect of quality control, testing and other facilities.

5.5. APPROVAL FOR FIELD TRIAL

5.5.1. After scrutinizing the documents and if found in order, the approval for field trial may be granted with letters addressed to the manufacturer and copies to the users and Indian Agents (wherever applicable). The period of field trials vary between 3 months to one year depending on the type of equipment, material or appliance as given in Appendix –II.

5.5.2. For items requiring field trial of minimum period of one year as listed in **Appendix-I**, the validity of the field trial approvals shall be for a period of two years.

5.5.3. If a manufacturer is unable to complete the field trials 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 a mine/ manufacturer is unable to complete field trial within extended period also, further extension of time may be considered if justifiable reasons by the manufacturer/mine management are submitted for not being able to complete the field trial.

5.5.4. If during field trial period, there occurs any revision of Standards applicable to the product, the manufacturer may be asked to submit test reports as per revised standards for further approval /renewal.

5.5.5. It is necessary to ensure that trials are conducted in mine(s) suitable for the purpose. In case of Rescue apparatus, field trial may be conducted at one or more Rescue stations before grant of approval.

5.6. MONITORING OF THE FIELD TRIAL:

- 5.6.1. Copies of the Approval for field trial letters are endorsed to concerned Dy. Director General of Mines Safety, In-charge of a zonal office of DGMS. The manufacturer shall inform concerned Director of Mines Safety/Dy. Director of Mines Safety (Electrical/Mechanical/ Mines) regarding details of field trial to be carried out in the mines.
- 5.6.2. During field trials, the performance of the equipment, material, tools and appliances may be witnessed by officer(s) of this Directorate.
- 5.6.3 In case any shortcomings are observed during field trials, the same are communicated both during the trials as well as at the end of the trials to the manufacturer along with a copy to the Indian Agent wherever applicable and the user. The manufacturer may seek extension of the field trial, which may be granted based on the merit of the case. There are cases when field trial report submitted by the user points out some deficiencies. Such reports are forwarded to the manufacturers and the Indian Agent wherever applicable for comments or for taking corrective measures and approvals are accorded only after rectification of the deficiencies or comments.

5.7. REPORTING OF RESULTS OF FIELD TRIAL:

- 5.7.1. Field trial reporting formats for different types of mechanical equipment, is given in Appendix- V A. The field trial report format for FLP/IS Apparatus, Cables etc. is given in Appendix-V B. The field trial reporting formats for Gas detectors/Dust samplers/Dust masks/Flame Safety lamps/Cap lamps/ Cap lamps Bulbs etc are given at Appendix V C. The reporting format for field trial for permitted explosives is given in Appendix-V D (1 & II). The format for field trial report for Miners Shoe is given in Appendix V E. The format for field trial report of Helmet and Reflective harness is given in Appendix- V F. The format for field trial report/performance report for Hydraulic props / Friction props/ Mechanical props, Indigenously manufactured legs for power support and Powered Support are at Appendix-V G, Appendix-V H and Appendix-V I respectively. The format for field trial report for Load cell(Electrical type) is given in Appendix V J. The format for field trial report for Fire resistant Brattice cloth is given in Appendix V K . The format for field trial report for Auto Warning Tell- Tale(warning device of Goafing and depillaring operations) is given in Appendix V L.

6.0. GRANT OF APPROVAL

- 6.1.0. After successful completion of field trial and on receipt of satisfactory field trial reports, the case is examined and approval is granted.

- 6.1.1. While dealing the case in the Directorate, recommendations of relevant Committees for development of Standards, Testing Protocol, Testing Memorandum, "Safe Operating Procedures", Committees appointed by the Directorate for the purpose, or other issues relating to use of equipment/machinery, appliances or materials may be considered for guidance.
- 6.1.2. Normally the approval shall be for a period of 2 (two) years during which, an actual field performance report needs to be generated and submitted to this Directorate.
- 6.1.3. The Directorate may also consider for some equipments like Powered Supports, Continuous Miner, Road Headers, Shuttle cars, Highwall Miner, Man Riding System etc. for approval with validity for entire accepted service life on case to case basis with stipulation of conditions to ensure quality standard and thereby ensuring safety.

6.2.0. DGMS APPROVAL MARK/NO:

- 6.2.1. On grant of approval all manufacturers are given a unique number (like DGMS SA-9/2012) for the particular equipment, etc. The manufacturers are required to display the mark prominently on every product.

6.3.0 RENEWAL OF APPROVAL:

- 6.2.1. Application for renewal of approvals shall be made by the manufacturer at least ninety days prior to the expiry of the approval. The application must be accompanied by satisfactory performance reports from user(s). For those items in which BIS license was made mandatory the approval for renewal will be granted based on validity of the BIS license.
- 6.2.2. The approval may be renewed for a period of 3 (three) years. For Explosives such renewal of approval may be given for 2 (Two) years only. However, if any manufacturer is not able to supply the product during the approval period two consecutive renewals each of two years may be accorded after which, the said approval may be treated as revoked. For explosives such renewal of approval may be for one year only. Any subsequent renewal may be considered on merit of the case.
- 6.2.3. The criteria for grant of renewal would be, (i) satisfactory Performance reports from user(s), (ii) no complaints about the product from the users or others and (iii) valid BIS license where applicable (iv) test report /practical performance test report in case of breathing apparatus, self rescuers or other rescue apparatus.
- 6.2.4. In case of certain approved items like Longwall Powered Supports and its associated components/ accessories, Road headers, Continuous Miners, Rescue apparatus, Man Riding System, equipments used in Oil Mines, etc., if the OEM

does not come forward for obtaining renewal of the approval, the actual user(s) at that point of time may apply for grant of renewal of the approval, provided that the said machinery, appliances or material are still in healthy condition as declared by the nominated owner of that company, in no way jeopardize the safety of men and machinery deployed in the mine, and it passes successfully the required Tests as per relevant standard(s). The case will be dealt for renewal of approval on merit.

- 6.2.5. The performance reports from mines for obtaining renewal of approval are required to be submitted in the prescribed formats as given at Para 5.7.1. For explosive products it will be submitted in Format VD- III. For items not covered in this Para will be required to be submitted in prescribed format given at **Appendix V M** or any other format required by the Directorate.

7.0. APPLICATION IN CASE OF REVISION OF STANDARDS:

- 7.1. From time to time, Indian and other Standards are subject to Revisions incorporating various changes including testing and quality control systems. An equipment, material or appliance, which had been granted approval based on, such standards need to be revalidated incorporating the changes under the revised Testing Standard(s). Manufacturers need to make immediate application for revalidation of the approval forthwith.

8.0. AMENDMENT / WITHDRAWAL OF APPROVAL -

- 8.1. Any amendment or withdrawal of permission/ 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 permission/approval has been granted is violated or not complied,
 - iii) If any complaint from user or other concerned agency on quality or other technical matter of the product or reasons affecting safety and health of person is received and the same is substantiated by the Directorate,
 - iv) If any sample check results in deficient quality.
 - v) Any other reasons brought to the notice of the Directorate.
 - vi) At any time in the interest of safety,

- 9.0.** The Amended Approval Policy, 2013 supersedes all the earlier Approval Policies of this Directorate.

ANNEXURE-A

In order to make DGMS Approval Policy, 2013 simplified, transparent and to suit users' need in the mineral industry for grant of approval of apparatus, equipment, machineries, etc for use in mines, three different committees were set up following a meeting of all stakeholders at the Ministry of Labour & Employment on 18.6.2014. The committees have submitted the reports and it was communicated to the ministry vide Letter NO. DGMS/MSE/Genl-2014/2296 dated 4.8.2014.

Based on the reports of the committees the following major changes in the approval policy are proposed to be made -

a. Oil Mines

- I. Equipment which are in use in Zone 1 & 2, Hazardous areas, of oil mines since long without specific approval, and which do not have proper documentation as regards to its date of installation, makers serial no. etc., will be regularized provided the concerned mine management or the original manufacturer seeks such approval from the directorate (DGMS) with an application accompanied with a report from a certification body indicating their status of health and integrity of protection, Safety features details, available O&M manuals. Such approvals shall be accorded for remaining lifetime of the equipment. Such approval will be "site and user specific" and would be under no circumstances transferable.
- II. For equipment which are already approved and in use, the approval issued will be deemed to have been granted for lifetime of the equipment. For such equipment, no further renewal would be necessary. It shall be the responsibility of the user company to maintain the safety and integrity of protection of the equipment approved. Failure, if any, shall be brought to the notice of DGMS for review and needful action.
- IIA. Following agencies may be considered for inspection and certification of equipment already in use since long in hazardous areas of oil mines, e.g. CIMFR, ERTL, PDIL, EIL, CEIL, DNV, TUV, Lloyds Register and Bureau Veritas. (The name of these organizations have been included based on the recommendations



of the Working group constituted during Expert Committee meeting at MOLE on 18.6.2014).

- III. Equipment intended for use in Zone 1 and Zone 2 hazardous areas of Oil Mines shall conform to relevant Indian Standards/IEC Standards. In case no such Indian Standard exists, relevant standards of the country of its origin may be accepted.
- IV. Imported equipment Intended for use in Zone 1 and Zone 2 hazardous areas of Oil mines in classified gassy atmospheres e.g. IIA, IIB and IIC may be considered for approval based on the test reports issued under IEC standard from any of the overseas accredited laboratory under IECEX certification scheme, without retesting in Indian Laboratories. However, the installation and use of electrical equipment shall be governed by the provisions of the Central Electricity Authority (Measures relating to Safety and Electricity Supply) Regulations, 2010.
- V. Test reports issued as per IEC standards will be accepted even if those were issued by a certification body having dual accreditation ie., from IEC.Ex and ATEX.
- VI. Initial or First Approval of an equipment issued shall be for a period of 5 (five) years and subsequent renewals will be for five years each, based on the performance report received from the user, even if the equipment need not have been supplied during the last validity period of the approval.

If the performance report is not received within 90 days from the date of issue of letter seeking performance report from the user, performance of the equipment will be considered satisfactory and approval will be renewed accordingly. However, if any adverse report is received subsequently the approval shall be deemed to have been revoked forthwith.

- VII. Field trial permission will normally be issued in ninety days time on receipt of all required documents from the applicant. In case manufacturers/applicants fail to

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comply with the requirements within the stipulated period, application will be liable to be rejected / recorded.

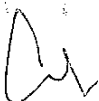
b. Testing procedures envisaged in DGMS approval policy

- I. IEC test reports issued by IECEX accredited testing laboratories for the imported equipment will be accepted for use in Coal Mines. The test report shall contain all the parameters of Testing Standard(s) and not only the "certificate of conformity".
- II. Regarding acceptance/accreditation of the laboratories including private accredited laboratories in India, test reports issued by Govt. / Govt. approved laboratories, like CIMFR, ERDA, CPRI and ERTL etc., will be accepted for equipment to be used in Coal Mines. In addition to this, test reports of test houses accredited by NABL will be accepted provided that the said test house is not a part of the concerned equipment manufacturer's testing facility.
- III. The approval for the imported equipment will be project specific only, if it is concerned with use in Coal Mines.

If any Indian Standards has been harmonized with International standards that International standard shall also be accepted in grant of approval of equipment.

c. Further Simplification of Procedure-

- I. For the imported equipment the application, together with documents and certifications so possessed, in soft copy bearing digital signature of the CEO of the company will also be accepted.
- II. During Factory Inspection by DGMS a representative from user(s) will be associated.
- III. Authenticity of test certificate from internationally accredited labs will be subject to verification.
- IV. Period of Field trial permission shall be reckoned from the date of installation of the equipment, apparatus, machinery, etc .



LIST OF EQUIPMENT, APPLIANCES, GADGETS, MATERIALS REQUIRING DGMS
APPROVAL FOR USE IN MINES IN HAZRDOUS CONDITIONS-

- 1) Permitted explosives and detonators
- 2) Exploders
- 3) Cap Lamps of all types and accessories
- 4) Gas Detectors- CO gas, CO₂, H₂S gas, Methanometers
- 5) Multi Gas detector / Toximeter, Oxymeter.
- 6) Tele monitoring (Gas and environmental conditions) system
- 7) Breathing Apparatus of all types
- 8) Self Rescuers of all types
- 9) Reviving Apparatus
- 10) Smoke Helmet & Apparatus serving same purpose.
- 11) Portable hand held lamp for use in Storage tanks (confined area)
- 12) Flame Safety Lamps
- 13) Powered Supports
- 14) Mechanically propelled vehicle for transport of explosives for belowground mines only
- 15) Man Riding Haulage System
- 16)
- 17) Winding Rope
- 18) Haulage rope for man riding
- 19) Underground Locomotive (Diesel)
- 20) Internal Combustion Engine
- 21) Flameproof and Intrinsically safety Electrical Equipment Cables used in high, medium and low voltage electrical systems & Flexible cables / control cables used for electrical systems for all voltages for use in U/G coal mines and Oil mines.
- 22) Electrical equipment for use in hazardous areas (Zone 2) of Oil Mines having Protection Techniques other than FLP, IS, Intrinsic Safety
- 23) New machinery , equipment, apparatus intended to be used first time in underground mines , oil mines, in hazardous conditions.



List of Appliances, Gadgets and Material that carry BIS certification ,
Standard COP, which can be used in Mines under general order by DGMS.

- 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



EQUIPMENT & MATERIALS REQUIRING DGMS APPROVAL

SL.NO.	EQUIPMENT	PROVISION OF REGULATION				STANDARD FOLLOWED	BIS LICENSING	REMARKS
		CMR, 1957	MMR, 1961	OMR, 1984	MINE RESCUE RULES, 1985			
1.	Flame Safety Lamp	2(2)	2(2)	11(5)		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(2)	2(2)			IS:2593-1984 IS:5679-1986 IS:2512-1978 IE(60079-35 Part 1 & 2) IS/IEC 60079-0:2004 IS/IEC 60079-1:2007 IS/IEC 60079-11-2006	Required Required Required (for electrical parts)	
3.	Permitted Explosives a) Permitted explosives b) Detonators c) Detonating fuses	2(23)	2(23)			IS:6609(part-2/Sec.2)-1974 IS:6609(part 3)-1974 IS:6609(part 4)-1984		Recommendations of the workshop on testing of permitted explosives held at DGMS(HQ) on Feb. 1994 being followed
4.	Tub Couplings	89(1)(c)	97(1)(c)					General design approval vide DGMS circulars No.4 of 1985 & No.1 of 1986. No individual approval
5.	(a) CO detector/Tube type (b) CO detector other than tube type	113(3)(c) 118A(3)(a)(I) 119(1)(b) 121 125(3)(b) 142(5)	116(3)(b) 120(1)(b) 10(2)(c) 122 126(3)(b) 141(5)			Tubes – IS:13293-1992 CO detectors – IS/IEC 60079-0:2004 IS/IEC 60079-11:2006	Required	These are intrinsically safe type instruments.

SL.NO.	EQUIPMENT	PROVISION OF REGULATION				STANDARD FOLLOWED	BIS LICENSING	REMARKS
		CMR, 1957	MMR, 1961	OMR, 1984	MINE RESCUE RULES, 1985			
6.	CO2 Detector	119(2)(d)(ii)				do		do
7.	Oxymeter	119(2)(c)(iii)				do		do
8.	Multigas detector/ Toximeter					do		Regulation as per the facility for measuring the gases
9.	(a) Gravimetric Dust Sampler (b) Personal Dust Sampler	123(3)(b)	124(2)(b)			NCB MRE 113 A design as prototype		
10.	Stone dust barrier	123(c)(2)	-					General design approval vide DGMS Circular No.6 (Legis) of 1975.
11.	(a) Portable Methanometer (b) Infra red type	145(1)(a)	-			Portable (electrical type) IS:9937-1981 IEC 60079-0:2004 IEC 60079-11:2006		
12.	Glass of Flame Safety Lamp	157(4)	151(4)			IS:5676-1986		
13.	Cap Lamp Bulbs	157(4)	151(4)			For 4V, 0.8A- IS: 2596-1980 4V, 1.0 A-		
14.	Oil for Flame Safety Lamp	157(5)	-			IS: 7577-1986		
15.	Mechanically propelled vehicle for transport of explosives	164(A)(2)(a)						General approval granted Circular approval 2/1986. Proposed by CCOE
16.	Exploders	174	165(3)			IS: 9836-1981 Circuit tester: IS: 9836-1981		
17.	Protective Footwear a) Safety rubber canvas boots. b) Protective boots for oilfield workmen.	191	182	87		IS: 3976-1995 IS:9885 (Part I)-1981	Required	

SL.NO.	EQUIPMENT	PROVISION OF REGULATION				STANDARD FOLLOWED	BIS LICENSING	REMARKS
		CMR, 1957	MMR, 1961	OMR, 1984	MINE RESCUE RULES, 1985			
	c) Leather safety footwear having direct moulded soles. d) Miners' safety boots with leather soles. e) Rubber knee boots. f) Leather safety shoes for women workers in mines and steel plants					IS: 11226-1993 IS:1989 (part I)-1986 IS:3738-1975 IS: 11225-1985	Required	
18.	Helmet	191-A	182A	88		IS:2925-1984	Required	
19.	Fire-resistant brattices including plastic sheeting and ventilation ducting. (a) Fire resistant brattice cloth. (b) Fire resistant brattice sheeting made from unsupported plastics. (c) Ventilation ducting-vinyl coated semi rigid. (d) PVC ventilation tubing (flexible ducting)	181(3)				(a) IS: 4355-1977 (b) IS: 11884-1986 (c) IS: 12814-1989 (d) IS: 3768-1996		
20.	Industrial Safety Belt & Harness	181(3)		27 & 93		IS3521-1999	Required	No separate approval required since 1993, if conforms to relevant IS and covered under BIS licensing scheme
21.	Friction Props And Prop Setting Devices	181(3)				IS-7586:1975		
22.	Hydraulic Props	181(3)				IS-8421:1977		
23.	Link Bars	181(3)				IS-9171:1979		
24.	Powered Supports	181(3)				ICIS-001:1991		
25.	Man Riding Haulage System	181(3)				IS-9494:1980		DGMS guideline Mech(HQ)/R-H-M-R/670-D/12331-60, dt 01.09.82

SL.NO.	EQUIPMENT	PROVISION OF REGULATION				STANDARD FOLLOWED	BIS LICENSING	REMARKS
		CMR, 1957	MMR, 1961	OMR, 1984	MINE RESCUE RULES, 1985			
26.	Cage Suspension Gear	181(3)				IS-7587:1993 & IS-9011:1978		
27.	Cage Suspension Gear Including Bridle Chains	181(3)						
28.	Winding Rope	181(3)				IS-1855:1977; IS-3626:1978	Required	
29.	Balance Rope	181(3)				IS-5203:1969	Required	
30.	Haulage rope for man riding	181(3)				IS-1855:1977; IS-3626:1978	Required	
31.	Underground conveyor belting	181(3)				IS-3181:2006 for PVC belting; BCS-730 for Steel cord belting. 15143:2002		IS for Steel cord belting under preparation.
32.	Underground locomotive (Diesel)	181(3) 95(1)				Reg 95(1) & TM 12 of British Coal, BIS-9999: 1981		
33.	Internal Combustion Engine	181(3) 95(1)			EN 1834 Part 1 to 3			
34.	Flame Proof and Intrinsically safe Equipment	181(3)				IS/IEC 60079-0:2004 IS/IEC 60079-1:2007 IS/IEC 60079-11-2006	Required	
35.	Automatic Contrivance	181(3)				Reg. 76(7) of CMR'57		
36.	Power Brake	181(3)				Reg. 74(2) of CMR'57		
37.	Automatic Speed Chart Recorder	181(3)				Reg. 76(6) of CMR'57		
38.	Emergency Steam Valve	181(3)				Reg. 74(3) of CMR'57		
39.	Water ampoules/ Gel ampoules for stemming high explosives (a) Self sealing PVC water ampoules for use in shot holes	181(3)				NCB 414/1964		
40.	High pressure hydraulic hose with its end fittings (Fire resistant)	181(3)				BCS-174:1992; BCS 638; EN 856:2003		To be included

SL.NO.	EQUIPMENT	PROVISION OF REGULATION				STANDARD FOLLOWED	BIS LICENSING	REMARKS
		CMR, 1957	MMR, 1961	OMR, 1984	MINE RESCUE RULES, 1985			
41.	Dust respirators	181(3)	182(B)			IS: 9473-1980	Required	
42.	Hydraulic fluid used in underground machinery (Fire resistant)					IS 10532:1983; IS 7895:1975		
43.	Cables used in high, medium and low voltage electrical systems & also flexible cables/ control cables used for electrical systems for all voltages. For use in U/G coal mines and oil mines.	181(3)		75(2)		IS-1554(Part-I & II) IS-9968 (Part-I & II), IS-1026; IS-691, 7098 (Part-I & II)	Required	NCB -188 Accepted
44.	Breathing apparatus				11(5)	IS-10245 (Part-I & II) 1996 (1 st rev.)		
45.	Smoke helmets & apparatus serving same purpose				11(5)	IS-10245 (Part-III): 1982		
46.	Reviving apparatus				11(5)(c)	IS-13366:1992		
47.	Self Rescuers	191D(1)			11(5)(f)	IS-15803:2008 IS/IEC 60079-0:2004 IS/IEC 60079-1:2007	Required	For FSR, for chemical O ₂ type EN-401 followed
48.	Electrical lighting apparatus	181(3)		75(2)		IS-2148, IS-2206 (Part-I)	Required	
49.	Electrical equipment for use in hazardous area (Zone 1 & 2)			75(2)		IS-2148, 5780, 13408, 13346, 13947 IS/IEC 60079-0:2004 IS/IEC 60079-1:2007 IS/IEC 60079-2:2007 IS/IEC 60079-6:2007 IS/IEC 60079-7:2006 IS/IEC 60079-11:2006 IS/IEC 60079-15:2005 IS/IEC 60079-18:2004 IS/IEC 60529:1989	Required	
50.	Gas detectors (Telemonitoring Systems)				11(5)	1. IS:13109 (part 21) 2. Performance test for respective gases as per relevant standards.		For methanometers IS:9937-1981

SL.NO.	EQUIPMENT	PROVISION OF REGULATION				STANDARD FOLLOWED	BIS LICENSING	REMARKS
		CMR, 1957	MMR, 1961	OMR, 1984	MINE RESCUE RULES, 1985			
						*60079/0-2004 60079/11-2004) *60079/0-2004		
51.	Portable hand lamps for use in storage tanks			55(6) (c) (ii)				API Standard followed
52.	Life line			27 & 93				-do-
53.	Petroleum storage tanks			55				API 620, 650
54.	Pipe lines and fittings (Specification approval if not as per ISS)			62				API-5L; ANSI-B31.4, B 31.8
55.	Safety Goggles	181(3) 191(D)	182(B)			EN 166, 170 & 172		General circular to be notified.
56.	Ear Plugs	181(3) 191(D)	182(B)			IS 9167-1979 & IS 6229-1971		
57.	Reflective/ High Visibility Harness	181(3) 191(D)	182(B)			EN 471:2003		General circular to be notified.
58.	Fire Fighting & Fire suppression systems including automatic fire detection and suppression systems	181(3)		73(1)				
59.	Steel supports (cogs, chock, props), Roof Bolts, Cement & Resin grouts	181(3)						

APPENDIX-II**FIELD TRIAL & REGULAR APPROVAL PERIOD FOR EQUIPMENT & MATERIALS REQUIRING DGMS APPROVAL**

S. No.	EQUIPMENT	PERIOD OF FIELD TRIAL	QUANTITY TO BE SUBJECTED TO FIELD TRIAL	PERIOD OF APPROVAL	REMARKS
1.	Flame Safety Lamp	Three months of 9 hrs. Each day	3 nos. in 3 mines.	Two (2) years followed by three (3) years	
2.	Cap Lamp	Six months for 9 hrs. each day	3 nos. in 3 mines.	do	
3.	Permitted Explosives and detonators	Six months.	100 Kgs (explosives)	Two (2) years followed by two (2) years.	Minimum 500 detonators for electric detonators. For delay, 200 for each delay Nos.
4.	Water/gel ampoules/stemming plugs.	Six months.	1000 nos.	Two (2) years followed by three (3) years.	
5.	Tub Couplings	-	-	-	General approval vide DGMS circular No.4 of 1985 & 1 of 1986
6.	Co detector	Three months	3 nos. in 3 mines.	Two (2) years followed by three (3) years.	
7.	Dust sampler	Three months for 9 hrs. each day	3 nos. in 3 mines.	do	
8.	Stone dust barrier	-	-	-	General approval vide DGMS circular No.6 (Legis) of 1975.
9.	Methanometer	Three months.	3 nos. 3 mines	Two (2) years followed by three (3) years	
10.	CO2 Detector	Three months.	3 nos. in 3 mines	do	
11.	Multigas Detector	Three months.	3 nos. in 3 mines	do	
12.	Oxymeter	Three months.	3 nos. in 3 mines	do	

S. No.	EQUIPMENT	PERIOD OF FIELD TRIAL	QUANTITY TO BE SUBJECTED TO FIELD TRIAL	PERIOD OF APPROVAL	REMARKS
13.	Glass of Flame Safety Lamp	Three months.	3 nos. in 3 mines	do	
14.	Cap Lamp Bulbs	Three months for 9 hrs. each day.	20 nos. each in 3 mines.	do	
15.	Oil for Flame Safety Lamp	Three months.	50 Litres	do	
16.	Mechanically propelled vehicle for transport of explosives	-	-	-	DGMS Circular No.36 of 1972 followed as guideline
17.	Exploders	Six months.	2 nos. in two mines	Two (2) years followed by three (3) years.	
18.	Protective Footwear	Six months.	3 pairs each in three mines	do	
19.	Safety goggles	Six months.	30 nos.	do	
20.	Reusable Ear Plugs	Six months.	100 nos.	do	
21.	Visibility harness	Six months	30 nos.	do	
22.	Noise level meter	Six months.	2 nos.	do	
23.	Steel supports	Six months.	5 nos. each in three mines	do	
24.	Roof bolts.	Six months.	2% of one batch, in three mines.	do	
25.	Cement & resin grout.	Six months.	2% of one batch, in three mines.	do	
26.	Chemical additives for dust suppression in coal mines.	Twelve months	2% of one batch, in three mines.	do	
27.	Emergency escape devices in oil mines	Twelve months	1 no. in 1 mine	do	
28.	Dust suppression/prevention systems in drilling m/c	Three months.	1 no. in 1 mine	do	
29.	All lighting fixtures/systems used in all U/G mines.	Twelve months	1 No. each in three mines	do	
30.	Environmental monitoring system/ telemonitoring systems	Six months.	1 No. each in three mines.	do	
31.	Helmet	Six months	3 nos. each in three mines	do	

S. No.	EQUIPMENT	PERIOD OF FIELD TRIAL	QUANTITY TO BE SUBJECTED TO FIELD TRIAL	PERIOD OF APPROVAL	REMARKS
32.	Fire-resistant brattices including plastic sheeting and ventilation ducting.	Six months	One roll of 50 m. Each in 3 mines	do	
33.	Safety Belt/full body harness	Six months	10 nos.	do	No separate approval required if conforms to IS-3521:1983 and covered under BIS licensing scheme
34.	Friction Props And Prop Setting Devices	Twelve months	50 nos.	do	
35.	Hydraulic Roof Support	Twelve months	50 nos.	do	
36.	Link Bars	Twelve months	50 nos.	do	
37.	Powered Supports	Twelve months	One set.	do	
38.	Man Riding Haulage System	Twelve months	One set.	do	
39.	Detaching Hook	Twelve months	Four sets.	do	
40.	Cage Suspension Gear Including Bridle Chains	Twelve months	One set each.	do	
41.	Winding Rope	Twelve months	One length.	do	
42.	Balance Rope	Twelve months	do	do	
43.	Haulage rope for manriding	Twelve months	do	do	
44.	Underground conveyor belting	Twelve months	No restriction.	do	
45.	Underground locomotive	Three months	One set.	do	
46.	Internal Combustion Engine	Three months	One set.	do	
47.	Flame Proof and Intrinsically safe Equipment	Three months	One set.	do	
48.	Automatic Contrivance	Three months	One set.	do	
49.	Power Brake	Three months	One set.	do	
50.	Automatic Speed Chart Recorder (ARSI)	Three months	One set.	do	
51.	Emergency Steam Stop Valve	Three months	One set.	do	
52.	Water ampoules/ Gel ampoules for stemming high explosives	Six months	1000 nos.	do	
53.	High pressure hydraulic hose with its end fittings.	Twelve months	No restriction.	do	
54.	Dust respirators.	Three months, 8 hours each day	10 Nos. in at least three mines.	do	

S. No.	EQUIPMENT	PERIOD OF FIELD TRIAL	QUANTITY TO BE SUBJECTED TO FIELD TRIAL	PERIOD OF APPROVAL	REMARKS
55.	Hydraulic fluid used in underground machinery	1000 Hrs.	In two machines.	do	Trials to be carried out in at least 2 mines.
56.	Cables used in high, medium and low voltage electrical systems & also flexible cables/ control cables used for electrical systems of all voltages.	Three months.	50 meters to 100 meters depending on situation and equipment with which it is fitted.	do	Shot firing cable and cable under NCB 188-1975 specifications are approved for one year only.
57.	Breathing apparatus	-	Performance test at two rescue stations.	do	
58.	Smoke helmets & apparatus serving same purpose	-	Performance test at two rescue stations.	do	
59.	Reviving apparatus	-	Performance test at two rescue stations.	do	
60.	Self Rescuers	-	Performance test at two rescue stations.	do	
61.	Electrical lighting apparatus	Three months	One set.	do	
62.	Electrical equipment for use in hazardous area (Zone 1 & 2)	Three months	One set.	do	
63.	Gas detectors	Three months	3 nos. in 3 mines	do	Minimum 30 readings shall be taken and compared in each mine.
64.	Portable hand lamps for use in storage tanks	-	3 nos. in 3 mines	do	API Standards followed.
65.	Life Line	-	-	do	do
66.	Petroleum storage tanks	-	-	do	API 620, 650
67.	Pipe lines and fittings (Specifications approval if not as per ISS)	-	-	do	API-5L; ANSI- B31.4, B 31.8

GOVT. OF INDIA

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

(To be submitted in duplicate)

APPLICATION FOR APPROVAL OF (Product name & Model)

MANUFACTURED BY M/s.

FOR USE IN (Coal/Metal/Oil 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 telephone nos.
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 and tel. nos. 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)
5. Certificate of incorporation issued by Registrar of firms or societies (enclose 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

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. Specification of the equipment, material or appliance :
2. Drawings of the equipment, material or appliance :
3. Reference to Indian Standard or any other Standard to which the equipment, material or appliance conforms:
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:
- 7A. Service life and shelf life :
8. Enclose attested copy of BIS license (where applicable) :

Certification Marks Licence No.----- date -----

9. One complete sample of the equipment, material or appliance (wherever required) :

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. 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)

**DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR
GOVT. OF INDIA**

FACTORY INSPECTION FORMAT

Application Ref.

Inspected by

Product:

Date of inspection:

1. General Information:

a. Name of the applicant:

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

REMARKS OF REVIEWING OFFICER

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:
(Name & Designation):
(Representative of Manufacturer)
Date:

Signature:
(Name & Designation):
(Inspecting Officer)
Date:

PERFORMANCE REPORT FOR MECHANICAL EQUIPMENT

- (1) Name of the item :
- (2) Name of the manufacturer :
- (3) Mine/ company where the equipment was in use :
- (4) Period of use/whether continuing/discontinued :
- (5) Life achieved so far :
- (6) General performance so far :

Detailed report for different items (Strikeout which is not applicable)

- (1) Rope –
 - (i) Degree of wear,
 - (ii) Corrosion,
 - (iii) Stretch,
 - (iv) Internal lubrication
 - (v) General workmanship
 - (vi) Diameter etc.
- (2) Suspension gears –
 - (i) Wear of pins
 - (ii) Interchangeability with the connecting members
 - (iii) Workmanship
 - (iv) Corrosion
 - (v) Surface finish
 - (vi) Problem in dismantling and assembling
 - (vii) Dimension
 - (viii) Surface and subsurface flaws
- (3) F.R.H.F.
 - (1) Effect on the torque
 - (2) Viscosity
 - (3) Water content
 - (4) Temperature rise
 - (5) Consumption pattern

- (6) Effect on hose failure
- (7) Compatibility with seals & pumps
- (8) Effect on the working pressure

(4) High Pressure hose

- (i) Outside dia & Bore as per standard,
- (ii) History of failure,
- (iii) Quality of end fittings,
- (iv) Interchangeability
- (v) Life obtained
- (vi) Leakage from the crimped joints etc.

(5) Man Riding haulage/system

- (i) Effectiveness of hydraulic brake of the man riding car
- (ii) Effectiveness of signalling from the car to the engine house,
- (iii) Effective brake of the haulage engine,
- (iv) Condition of rope
- (v) Rope attachment with the car
- (vi) Seating capacity & comfort
- (vii) Distance indicator
- (viii) General performance.

(6) Automatic contrivance/power brake/speed recording/emergency steam stop valve (Delete which is not applicable)

- (1) Functioning during overspeed
- (2) Functioning during slow banking
- (3) Functioning during overwinding
- (4) Mechanical linkage between power brake and contrivance
- (5) Effectiveness of the power brake
- (6) Effectiveness of the caturact cylinder
- (7) Jerks/abnormal vibration during lifting
- (8) Effectiveness of the steam stop valve
- (9) Leakage of steam from the joints
- (10) Sensitivity of the speed indicator
- (11) Quality of the speed chart
- (12) Ease in the interpretation of the recording system
- (13) Workmanship

(7) Loco, IC Engine –

- (i) Brake
- (ii) Sanding arrangement
- (iii) Warning device
- (iv) Performance of exhaust conditioner
- (v) Flame prop
- (vi) Catalytic Enverter
- (vii) Head light
- (viii) Seating comfort
- (ix) Canopy

(x) Starting.

(8) Fire Resistant Conveyor Belts

- (i) Condition of top & bottom covers
- (ii) Condition of edges
- (iii) Wear
- (iv) Elongation
- (v) Tonnage of material handled so far

Signature with date

Name:

Designation:

Organisation:

Contact No:

PERFORMANCE REPORT OF FLP/ I.S. APPARATUS, CABLE ETC.

(Please strike off whichever is not applicable)

1. (a) Complete details of the
 elect. Equipment with type
 of protection/cable:

 (b) Name of manufacturer :

 (c) Reference to DGMS field –
 trial permission 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 in case of
 oil mines:

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/I single phasing preventor etc.
21. (a) Facilitates for testing of earth leakage relay

- (b) Provision of lock/cover over “Reset” switch to obviate unauthorised operation.
22. Facilities for replacement of parts/maintenance.
23. Failure of equipment during field trial,
If any.
24. Any modification suggested.
25. Remarks on the performance and
pitworthyness of the system/equipment.

(S e a l)

Signature with date

Name :

Designation :

Contact No.

**DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR
GOVT. OF INDIA**

FIELD TRIAL REPORT FOR GAS DETECTORS/ DUST SAMPLERS/ DUST MASKS/ FLAME SAFETY LAMPS/
CAP LAMPS/BULBS

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		

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

Signature:

Date:

Date:

Name & Designation

Name & Designation:

(Mine Manager)

(Agent)

Contact No.

Contact No.

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

* Strike out which is not applicable

** Minimum 30 readings shall be taken with the trial equipment and compared.

**DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR
GOVT. OF INDIA**

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

1. (a) Name of explosive :

(b) Name of manufacturer :

(c) Type of explosive :

(i) P1 / P3 / P5 :

(ii) 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 :

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

(c) 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:

(Name & Designation):

(Technical Officer of Manufacturer)

Contact No. _____

Date:

Signature:

(Name & Designation):

(Mines Manager)

Date:

Signature:

(Name & Designation):

(Agent)

Date:

BLAST DETAILS

Sl. No.		Particulars	1 st Blast	2 nd Blast	3 rd 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:				
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 -				

	(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:

Signature:

(Name & Designation):

(Agent of the Mines)

Contact No.

Date:

Office seal :

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

1. (a) Name of explosive :

(b) Name of manufacturer :

(c) Type of explosive :

(i) P1 / P3 / P5 :

(ii) NG based (gel/ semi-gel/ powder) :
Slurry (aluminized/ other)/ Emulsion

2. Details of DGMS approval (for trials)

(d) Letter No. & date :

(e) Valid upto :

(f) For gassy seams of _____ degree :

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

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

4. General comments on:

(a) Explosive performance :

(b) Post detonation fume characteristics :

(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 :

Signature:

(Name & Designation):

(Technical Officer of Manufacturer)

Contact No.

Date:

Signature:

(Name & Designation):

(Mines Manager)

Contact No.

Date:

Signature:

(Name & Designation):

(Agent of the Mines)

Contact No.

Date:

Office seal :

PROFORMA FOR FIELD TRIAL REPORT FOR FOOTWEAR

1. DETAILS OF THE FOOTWEAR ON TRIAL
 - (a) Name of footwear with type and model
 - (b) Manufactured by
 - (c) Reference of DGMS FIELD TRIAL approval letter
 - (d) Date of validity.

2. Name of Mines:

2A. Address of Mine:

3. Name of Mineral:

4. Name of worker to whom the footwear issued.

5. Nature of work performed.

6. Date of issue of footwear

7. Working conditions in the mine.

- | | |
|-----------------|--------------|
| (a) Floor/ Roof | Hard or Soft |
| | Dry or Wet. |

(b) Inclination of foot-path for the use of workers.

8. Approximate distance walked every day,
including the distance from mine to home.

9. Actual number of days the footwear was used.

10. Nature of wear of the footwear.

(a) Condition of Upper.

(b) Condition of Sole.

(c) Condition of Toe.

(d) Failure of stitching or tearing, if any.

(e) Separation of upper from sole, if any.

11. Pitworthiness.

12. General comments.

Signature:

(Name & Designation):

(Mines Manager)

Contact No.

Date:

Signature:

(Name & Designation):

(Agent)

Contact No.

PROFORMA FOR FIELD TRIAL REPORT FOR HELMET/REFLECTIVE HARNESS**1. DETAILS OF THE HELMET/ REFLECTIVE HARNESS ON TRIAL**

- (a) Name
- (b) Manufactured by
- (c) Reference of DGMS FIELD TRIAL approval letter
- (d) Date of validity.

2. Name and full address of Mines:**3. Name of Mineral:****4. Name of worker(s) to whom the helmet/ reflective harness was issued.****5. Nature of work performed.****6. Date of issue of helmet/ reflective harness.****7. Working conditions in the mine.**

- (a) Floor/ Roof
 - Hard or Soft
 - Dry or Wet.
 - Dustiness.

8. Actual number of days the helmet/ reflective harness was used.**9. Nature of wear of helmet**

- (a) Condition of the shell
- (b) Condition of the harness

10. Reflectiveness- clear or not :-**11. Pitworthyness/Suitability:-****12. General comments.**

Signature (Name)

(Agent)

Mine:

Mobile No/Contact No

Office seal

Signature (Name)

(Manager)

Mine:

Mobile No/Contact No.

Office seal

*Delete whichever is not applicable.

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

FIELD TRIAL REPORT/ PERFORMANCE REPORT OF HYDRAULIC PROPS / FRICTION PROPS/
MECHANICAL PROPS

1. Detailed specification of the prop
 - a) Type of prop (Hydraulic / Friction/ Mechanical)
 - b) Capacity of prop
 - c) Closed and open height
 - d) Whether provided with pressure gauge
2. DGMS approval no. and date
3. Period of validity of the approval
4. Drawing no. of the prop supplied
5. Name and address of the Original manufacturer of the props
6. DGMS approval no. and mark as embossed on the props
7. Year and month of manufacture of the props
8. Whether year and month of manufacture of the props has been embossed on the support?
9. Whether the Manufacturer has submitted copy of the approval letter and maintenance schedule to the User?
10. Adequacy of the operation manual or maintenance schedule
11. Name of the mine or panel or district in which the props were installed or used
12. General ventilation and water condition of the places where the props were installed or used
13. No. of props installed
14. Date of installation
15. Period of operation or use
16. Period for which performance report is being sent
17. Total nos. of cycles of operation i.e. total nos. of times the props have been withdrawn and re-set since first installed
18. Total nos. of cycles of operation of the props after approval of field trial / since first installed (Give panel or district wise break-up)
19. Performance of the props during the period of field trial/ period of use for which performance report is being sent
 - a) Average, minimum and maximum setting pressures recorded (For props provided with pressure gauge)
 - b) Average, minimum and maximum yielding pressures recorded (For props provided with pressure gauge)
 - c) Pressure records during main weighting and periodic weighting period (wherever applicable)
 - d) Performance of props during severe weighting or adverse roof condition (wherever applicable)
 - e) Leakage condition of the props

- f) Maximum convergence of the props
- g) Any serious defect, deformation or development of cracks or failure of the props or its components during use.
- h) Whether such defect or failure has been brought to the notice of DGMS?
- i) Ease or smoothness of withdrawal of props
- j) Whether remote withdrawal is possible or not?

20. Details of major repairing done, if any

- a) No. of props 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 props, overhauled or repaired, conform in all respects with the original props supplied by OEM and for which approval was granted?

21. Whether the props have been tested by the user for its efficacy during its use? If so, results of such tests shall be enclosed.

22. Any modification suggested

23. Remarks on the performance and suitability of the props

24. 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 by the Manager and countersigned by the Agent of the mine)

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

**FIELD TRIAL REPORT / PERFORMANCE REPORT OF INDIGENOUSLY MANUFACTURED 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)

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)

**DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR
GOVT. OF INDIA**

FIELD TRIAL REPORT FOR LOAD CELL (Electrical type)

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. Degree of gassiness of seam where trials conducted:
5. Designation(s) of persons using trial equipment:
6. Period of field trial: From..... To..... (dates)
7. Details of trial conducted**:

Date with time	Location (pit/ seam/ district)	Charging time of Read Out Unit	Readings by Read Out Unit			Observation on Load characteristics	Remarks
			Initial	Final	Difference		

8. Performance of electrical components:
9. Replacement of spare parts during trials:
10. Comments on ease of use, maintenance & repair:
11. Note on failure of equipment if any:
12. Did the equipment in any way endangered safety?

(if yes, details thereof)

13. Adequacy of operation and maintenance instruction/ manual:

14. Suggestion for improvements if any:

15. Remarks on pit worthiness and performance:

16. Any other comment:-

Countersigned by:

Signature:

Date:

Date:

Name & Designation:

Name & Designation

Name & Designation:

(Person taking the Readings)

(Manager of Mine)

(Agent of Mine)

Contact No. _____

Date:

Date:

Date:

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

* Strike out which is not applicable

** Minimum 30 readings shall be taken with the trial equipment and compared.

**DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR & EMPLOYMENT
GOVT. OF INDIA**

FIELD TRIAL REPORT FOR FIRE RESISTANT BRATTICE CLOTH

1. Details of equipment on trial :
2. Name of Manufacturer :
3. Reference of DGMS field trial approval letter with validity date :
4. Name (s) full address of mine where trials was conducted :
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 were conducted (specify) dev/dep/old workings sealed of area)
9. Comments on ease of use, maintenance :
10. Note on failure of material if any :
11. Did the Brattice Cloth in any way endangered safety? (if yes, details thereof)
12. Suggestion for improvements, if any :
13. Remarks on pit worthiness and performance :

Signature:

Date:

Name & Designation:

Phone No.

Countersigned by:

Date:

Name & Designation

Phone No.

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

FIELD TRIAL PERFORMANCE REPORT (Auto Warning Tell-Tale)

1. Name of Instrument:- AUTO WARNING TELL-TALE (WARNING DEVICE OF GOAFING AND DEPILLARING OPERATIONS)

2. Name of manufacturer:-

3. Name of Mine and company :-
Where trial has been undertaken

4. Seam No. Depillaring Panel No.
Gassiness Pillar Size- m x m
Avg depth of the panel-
Extraction Commencement Date of the Depillaring Panel-
Height of gallery where instrument was installed-
Width of gallery where instrument was installed-

5. Nature of immediate Roof (up to 15m) and its thickness-

6. Instrument Trigger Setting at- mm

7. Period of Trial -- From To

8. Instrument Observations Record-

Location (Name of dip/rise)	Distance from immediate in bye goaf line	Date & Time	Initial reading	Reading on date	Difference	Indication of LED Indicator Glow (Yes/No)	Dates and time of first/ local/ main falls in goaf	Remarks

9. Comments about function and defects in the Instrument:-

10. Any Suggestion for to improvement:-

11. Over Performance of the Instrument (Satisfactory/Unsatisfactory):-

12. Name and signature of the Manufacturer's Technical Officer:-

13. Signatures of –

Manager-
Mine-
Date-

Agent
Mine-
Date-

ISO(Name and designation)
Date-

PROFORMA FOR PERFORMANCE REPORT (General Items)

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 & organization :
3. Degree of Gassiness (for Coal Mines) /
Gass Group (for Oil Mines) :-
4. Full Address of Mine:
5. Name of Mineral:
6. Name of worker to whom the equipment/apparatus was issued :
(wherever applicable)
A. 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. Pitworthiness.
11. General comments (Satisfactory/Unsatisfactory) :

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

Office seal

Signature (Name)
(Manager)
Mine:
Mobile No/Contact No.
Date:

Office seal