



भारत सरकार/Govt. of India
श्रम एवं रोजगार मंत्रालय
Ministry of Labour & Employment
खान सुरक्षा महानिदेशालय
Directorate General of Mines Safety



APPROVAL POLICY-2015
(FIRST REVISION-10TH APRIL, 2015)

FOREWORD

Chief Inspector of Mines (CIM), also designated as Director General of Mines Safety, has been 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, 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 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 and appliances for use in Coal, Metal and Oil mines in the interest of safety.

The Approval Policy contains the general outline of the procedure to be followed while processing cases of approval of equipment, machinery, apparatuses, appliances and other materials for use in Coal, Metal and Oil mines.

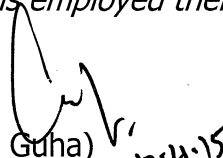
In order to review the Approval Policy and make it simple, transparent and suitable to user's need in the mineral industry, three different committees were set up following a stakeholders meeting at the Ministry of Labour & Employment on 18.6.2014.

The committees 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.

Based on the recommendations of the committees and inputs from experts & stakeholders, the present amended approval policy 2015 has been framed which supersedes all other approval policies with effect from 7th January 2015.

The first revision in the Approval Policy 2015 has been carried out on 10th April 2015.

It is hoped that the Approval Policy, 2015 (First Revision 10th April 2015) 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) 10.4.15
Director General of Mines Safety

Dated: 10th April 2015.

APPROVAL POLICY – 2015

(First revision: 10th April 2015)

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; PDIL: Projects & Development India Limited; EIL: Engineers India Ltd; DNV: Det Norske Veritas; TUV: Technischer Überwachungsverein; ISM: Indian School of Mines.

1.0. PREAMBLE

Mining is a hazardous occupation and a fight against natural forces. Mining accounts for only 1% of World Employment but it accounts for 7% of fatal accidents at work place. 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, apparatuses and other materials to be used in mines.

The Policy is a compilation of the standard procedures to be followed for grant of approval under relevant statute to specific appliances, equipment, machinery, apparatuses and other materials used in mines. The document is divided in 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, apparatuses and other materials for use in mines is aimed at fulfilling 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. It is done after due consideration of issues relating to the quality and performance of the equipment, machinery, apparatuses, appliances and other materials suitable for use in Coal, Metal and Oil mines.

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2.2 In mining, it is imperative that the appliances, equipment, machinery, apparatuses 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, apparatuses, appliances and other materials requiring approval have been broadly categorized into:

- (a) Environment monitoring instruments and devices;
- (b) Rescue apparatus;
- (c) Electrical equipment and cables;
- (d) Personal protective equipment;
- (e) Machineries and other equipment for carrying out mining operations;
- (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 types of lights, to be used in underground mines, hazardous areas in Oil & Gas mines; and
- (k) Other specific equipment, materials and appliances which the Directorate may consider necessary.

3.2 A list of appliances, equipment, machinery, apparatuses and other materials currently requiring DGMS approval by special order under the provisions of various statute, standards applicable and BIS licensing requirement is given at Appendix-I.

A list of appliances, equipment, machinery, apparatuses and other materials which can be used in mines with 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, apparatuses, appliances or other materials under special circumstances.

4.2 Appliances, equipment, machinery, apparatuses and other materials need to conform to the relevant Indian Standard(s) and/or DGMS Testing Protocol prescribed for the purpose. In case there is no Indian Standard/DGMS Testing Protocol, relevant

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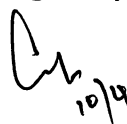
Standard of the country of its origin or any other internationally accepted standard(s) may be considered by DGMS on merit.

- 4.3 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 Chief Executive Officer/Owner/Proprietor/Partner 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 Chief Executive Officer/Owner/Proprietor/Partner of the manufacturing foreign company or authorized signatory thereof. Based on the above authorization, a copy of correspondence made with the manufacturer by this Directorate may be marked to the Indian agent also.
- 4.4 The overseas manufacturer conducting business in India through an Indian Agent, shall inform the 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.
- 4.5 The manufacturing facility of an Indian manufacturer submitting application for the first time, may 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-III.
- 4.6 The information, documents and test reports are scrutinized, and if found in order, approval for field trial may be granted.
- 4.7 After successful completion of field trial of the equipment /machinery /apparatus /material/appliance, performance report duly signed by Owner/agent /manager of the mine or Head of Discipline of user company may be submitted preferably within two months of the completion of the field trial to this Directorate.

The performance report is scrutinized, and if found in order, regular approval may be granted.

5.0 APPLICATION FORMAT

- 5.1 Application needs to be made in a prescribed format given at Appendix-IV. The application shall 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. (Presently, it is www.dgms.gov.in)


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- 5.2 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 For the imported appliance/equipment/apparatus/machinery/material, the application together with documents and certifications so possessed, in soft copy bearing digital signature of the Chief Executive Officer of the company may also be accepted after due authentication and verification.

6.0 TESTING

- 6.1 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 and guidelines drawn/accepted by DGMS. A few products may require identification of samples by this Directorate before sending them to the testing laboratory.
- 6.2 Prototype of 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.
- 6.3 In case of appliance/equipment/apparatus/machinery/material for which no Indian Standard and/or DGMS Testing Protocol exists, relevant International standard(s) may be accepted on its merit.
- 6.4 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.
- 6.5 Imported appliance/equipment/apparatus/machinery/material may be considered for approval based on the test reports issued under IEC standard from any of the overseas accredited laboratory under IEC Ex certification scheme. The test report shall contain among others, all parameters of Testing Standard(s) vis-à-vis actual testing details with results thereof, and not only the "Certificate of Conformity".
- 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. If, however, 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 house may be accepted.
- 6.7 Two copies of test report including test certificate(s), from a prescribed laboratory one original, the other certified copy thereof have to be submitted along with the application. Test report(s) may contain, among others, an executive summary detailing (a) different tests conducted, (b) passing criteria for each test, and (c) a


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remarks column indicating each test result as 'passed' or 'failed'. Two copies of the drawing one original and one certified (wherever applicable) need to be submitted also.

- 6.8 Test reports issued by Government approved laboratories/ CIMFR /ERDA /CPRI /ERTL/ISM may be accepted. In addition to this, test reports of a test house accredited by NABL may also be accepted, subject to confirmation of its ability to conduct tests in pursuance with prescribe National/International standards/DGMS Testing Protocol, and the test house is not a part of any equipment manufacturer's testing facility.
- 6.9 In case no Indian standard exists and test facilities are not available in India, then the test report of any internationally accredited laboratory/recognized laboratory of country of origin, which is not a part of any appliance/equipment/apparatus/ machinery/material manufacturer's testing facility, may be accepted subject to condition that (a) the testing has been conducted as per the standard indicated by DGMS/ manufacturer, and (b) compliance of the stipulations of Chief Inspector of Mines, if any, in this regard.

7.0 EXAMINATION OF THE APPLICATION

7.1 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; and
- ❖ Scrutiny of test reports and factory inspection report.

7.2 Applicability of BIS license shall be mentioned in the application. 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 may be granted only after submission of valid BIS license.

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 with letters addressed to the manufacturer and copies to the users and Indian Agents (wherever applicable). The period of field trials may vary between


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three months to one year depending on the type of equipment, machinery, apparatus, material or appliance as given in Appendix –V.

- 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 a mine/machine 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.
- 8.4 If during field trial period, there occurs any revision of Standard(s) applicable to the product, the manufacturer shall get the product under reference tested as per revised standards and submit test report(s) to the Directorate for further approval /renewal.
- 8.5 It is necessary to ensure that trials are conducted in mine(s) suitable for the purpose. In case of rescue and breathing apparatus, field trial/practical performance test may be conducted at prescribed test house and/or one or more Rescue stations before grant of approval.

9.0 MONITORING OF THE FIELD TRIAL

- 9.1 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/ Mining) regarding details of field trial to be carried out in the mines.
- 9.2 During field trials, the performance of the equipment/material/machinery/apparatus /appliance may be witnessed by officer/officers of this Directorate.
- 9.3 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 manufacturer(s) and the Indian agent wherever applicable for comments or for taking


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corrective measures. Approvals are accorded only after rectification of the deficiencies or addressing of comments, and successful completion of field trials.

10.0 REPORTING OF RESULTS OF FIELD TRIAL

Field trial reporting format for different types of mechanical equipment, is given in Appendix- VI A. The field trial report format for FLP/IS Apparatus, Cables etc. is given in Appendix-VI B. The field trial reporting format for Gas detectors/Flame Safety lamps/Cap lamps etc are given at Appendix VI C. The reporting format for field trial of permitted explosives is given in Appendix-VI D (I & II). The format of field trial report/performance report for Powered Support is given at Appendix VI E. The format of field trial report/performance report for indigenously manufactured legs & hydraulic valves for power support are given at Appendix VI F and Appendix VI G, respectively.

11.0 GRANT OF APPROVAL

- 11.1 After successful completion of field trial and on receipt of satisfactory field trial report(s), the case is examined and approval may be granted for a period of five years.
- 11.2 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 any other protocol relating to testing and use of equipment, machinery, apparatus, appliance or material may be considered for guidance.
- 11.3 Where special conditions exist, DGMS may also consider for some equipments 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.

12.0 DGMS APPROVAL MARK/NO

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.

13.0 RENEWAL OF APPROVAL

- 13.1 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

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has been made mandatory, the approval for renewal may be granted based on valid BIS license.

- 13.2 Renewal of Approval may be considered for five years each, based on the performance report received from the user. For permitted explosives, if any manufacturer is not able to supply the product during the approval period, two consecutive renewals each for a period of two years may be accorded after which, the said approval may be treated as revoked. For any appliance/equipment/apparatus/machinery/material, renewal of Approval may be considered on the basis of performance report(s) of previous supplies, if manufacturer fails to supply in the period under consideration for renewal.
- 13.3 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 apparatuses, self rescuers or other rescue apparatuses.
- 13.4 In case of certain approved items like Longwall Powered Supports and its 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 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, and 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 may be considered for renewal of approval on merit.
- 13.5 The performance reports from mines for obtaining renewal of approval are required to be submitted in the prescribed formats as given at Para 10. For explosive products it will be submitted in Format furnished in Appendix VII.

For items not covered in this Para will be required to be submitted in prescribed format given at Appendix VIII.

The performance reports may also be submitted in any other format prescribed by the Directorate.

14.0 APPLICATION IN CASE OF REVISION OF STANDARDS

From time to time, Indian and other Standards are subject to Revisions incorporating various changes including testing and quality control systems. An equipment, machinery, apparatus, 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 application for revalidation of the approval based on, among others, test report of the product tested as per revised standard(s) forthwith.

15.0 AMENDMENT / WITHDRAWAL OF APPROVAL

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 with;
- 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; and
- vi) At any time in the interest of safety.

16.0 MISCELLANEOUS

- 16.1 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 /machinery/apparatus/material/appliance may be considered satisfactory and approval may be renewed accordingly. However, if any adverse report is received subsequently the approval shall be deemed to have been revoked forthwith.
- 16.2 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 comply with the requirements within the stipulated period, application is liable to be rejected / recorded.
- 16.3 The factory inspection may be made by an officer of DGMS 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.

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- 16.5 If any Indian Standards has 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/apparatuses/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 sample(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 and an approval for the same is obtained from the Directorate in writing. [1]
- 16.8 With the application for approval, the manufacturer shall furnish details (make, model etc.) of all the components of the equipment, appliances etc. which are not manufactured by them. Such details shall be validated by the test houses/laboratories where the equipment, appliances etc. are tested. [2]
- 16.9 In case of electrical or electronic equipment/appliances, the manufacturer shall furnish a declaration regarding the explosion protections provided to the equipment viz. flameproof, intrinsically safe, increased safety etc. It will be the responsibility of the manufacturer to submit copies of all relevant test reports in support of such declarations. [3]
- 16.10 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., may be regularized provided the concerned mine management or the original manufacturer seeks such approval from the Directorate 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, equipment and user specific" and would be non-transferable.

It shall be the responsibility of the user company/establishment to maintain the safety and integrity of protection of the equipment approved. Failure, if any, shall be brought to the notice of DGMS forthwith for review and needful action.


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CIMFR, ERTL, PDIL, EIL, DNV, TUV, Lloyds Register and Bureau Veritas may be considered for inspection and certification of equipment already in use in hazardous areas of oil mines. Other academic, scientific and research organization(s) of repute may also be engaged by the user Company/establishment for inspection and certification after due authentication and verification.

- 16.11 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 thereunder. 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. [4]
- 16.12 All applications for renewal of approval of permitted explosives, detonators and accessories which have remained discontinued for a period of more than two years i.e. from the date of last validity till the date of receipt of the application for renewal at this Directorate shall be accompanied by a fresh test report of the product not older than one year from the date of receipt of the above application at this Directorate. [5]
- 16.13 A consultative mechanism may be put in place to consider issues relating to test houses, standards and testing and make suitable recommendations.
- 16.14 As a consequence to notification of the DGMS Approval Policy 2015 (First revision 10th April 2015), suitable action, as deemed necessary may be initiated by the respective test house, manufacturer and user, under intimation to DGMS.
- 17.0** The Amended Approval Policy, 2015 (First revision 10th April 2015) supersedes all the earlier Approval Policies of this Directorate with effect from 10th April 2015.

[1], [2], [3], [4], [5] Inserted vide first revision 10th April 2015

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EQUIPMENT, MATERIALS & APPLIANCES REQUIRING DGMS APPROVAL BY SPECIAL ORDER

Sl.No.	EQUIPMENT	PROVISION OF REGULATION					STANDARD FOLLOWED	BIS Licence	REMARKS
		CMR, 1957	MMR, 1961	OMR, 1984	Mines Rescue Rules, 1985				
1.	Flame Safety Lamp	2(2)	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(2)	2(2)				IS:2593-1984 IS:5679-1986 IS:2512-1978 IEC 60079-35 Part (1 & 2) IS/IEC 60079-0:2004 IS/IEC 60079-11:2006	Required* Required* Required* Required* Required for intrinsic safety*	
3.	Permitted Explosives a) Permitted explosives b) Detonators c) Detonating fuses	2(23)	2(24)				IS:6609(Part-2/Sec.2)-1974 IS:6609(Part 3)-1973 IS:6609(Part 4)-1984		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 (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) 122 126(3)(b) 141(5)				Tubes – IS:13293-1992 CO detectors – IS/IEC 60079-0:2004 IS/IEC 60079-1:2007 IS/IEC 60079-11:2006	Required for tube type detector*	
4 A.	H ₂ S Gas detector	181(3)	----			73(1)			
5.	CO ₂ Detector	119(2) (c)(iii)					Tubes – IS:13293-1992 CO ₂ detectors – IS/IEC 60079-0: 2004 IS/IEC 60079-1:2007 IS/IEC 60079-11:2006	Required for tube type detector*	

[Signature]
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EQUIPMENT, MATERIALS & APPLIANCES REQUIRING DGMS APPROVAL BY SPECIAL ORDER

SL.No	EQUIPMENT	PROVISION OF REGULATION				STANDARD FOLLOWED	BIS Licence	REMARKS
		CMR, 1957	MMR, 1961	OMR, 1984	Mines Rescue Rules, 1985			
6.	Oxymeter	119(2) (c)(iii)				Tubes – IS:13293-1992 O ₂ detectors – IS/IEC 60079-0: 2004 IS/IEC 60079-1:2007 IS/IEC 60079-11:2006	Required for tube type detector*	
7.	Multigas detector	113(3)(c), 119(2) (c)(ii & iii), 145(1)(a), 121 & 125 (3) (d)	122, 126(3)(b), 141	73 (1)		Tubes – IS:13293-1992 Multigas detectors – IS/IEC 60079-0: 2004 IS/IEC 60079-1:2007 IS/IEC 60079-11:2006	Required for tube type detector*	
8.	(a) Portable Methanometer, (electrical type) (b) Infra red type	145(1) (a)	-			IS:9937-1981 IEC 60079-0:2004 IS/IEC 60079-1:2007 IEC 60079-11:2006		
9.	Exploders	174	165(3)			IS: 9836-1981 Circuit tester: IS: 9836-1981 ICIS-001:1991		
10.	Powered Supports & its components	181(3)						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.
11.	Man Riding System	181(3)				IS-9494:1980		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.

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EQUIPMENT, MATERIALS & APPLIANCES REQUIRING DGMS APPROVAL BY SPECIAL ORDER

SL.N o.	EQUIPMENT	PROVISION OF REGULATION					STANDARD FOLLOWED	REMARKS
		CMR, 1957	MMR, 1961	OMR, 1984	Mines Rescue Rules, 1985			
12.	Winding Rope	181(3)					IS-1855:2003; IS-3626:2001	Required*
13.	Balance Rope	181(3)					IS-5203:1969	Required*
14.	Haulage rope for man riding	181(3)					IS-1855:2003; IS-3626:2001	Required*
15.	Underground locomotive	181(3) 95(1)					TM 12 of British Coal, IS-9999: 1981	Relevant standard of the country of origin or any other internationally accepted standard(s) may be considered.
16.	Internal Combustion Engine	181(3)					EN 1834 Part 1 to 3 AS/NZS:3584:2006 part 1 to 3	
17.	Flame Proof and Intrinsically safe Equipment / Electrical equipment for use in UG Coal Mine or hazardous area (Zone 1 /Zone 2) of oil mines	181(3)		75(2)			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*
18.	Cables used in high, medium and low voltage electrical systems & flexible cables/ control cables used for electrical systems of all voltages for use in U.G coal mines / oil mines.	181(3)		75(2)			IS-1554(Part-I & II) IS-9968 (Part-I & II), IS 14494 of 1998 IS- 7098 (Part-I & II)	Required*
19.	Breathing apparatus				11(5)		IS-10245 (Part-I) 1996 IS-10245 (Part-II) 1994	

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EQUIPMENT, MATERIALS & APPLIANCES REQUIRING DGMS APPROVAL BY SPECIAL ORDER

SL.No	EQUIPMENT	PROVISION OF REGULATION				STANDARD FOLLOWED	BIS Licence	REMARKS
		CMR, 1957	MMR, 1961	OMR, 1984	Mines Rescue Rules, 1985			
20.	Smoke helmets & apparatus serving same purpose				11(5)	IS-10245 (Part-III): 1999		
21.	Reviving apparatus				11(5)	IS-13366:1992		
22.	Self Rescuers	191D(1)			11(5)	IS-15803:2008		
23.	Electrical lighting apparatus for use in UG coal mines or Zone-1/Zone-2 hazardous areas of oil mines.	181(3)		75(2)		IS/IEC 60079/0-2004, IS/IEC 60079/11-2004, IS/IEC 60079-1:2007 IS/IEC 60079-7:2006 IS-2206 (Part-I)	Required*	
24.	(a) Gas detectors Telemonitoring Systems	145(1)			11(5)	IS:13109 (Part21):1991 for performance test for respective gases as per relevant standards. IS/IEC 60079/0-2004 and IS/IEC 60079/11-2004 IS/IEC 60079-1:2007		
	(b) Local Methane Detector	145 (1)				IS/IEC 60079/0-2004 and IS/IEC 60079/11-2004 IS/IEC 60079-1:2007		Performance requirement as per DGMS (Technical) Circular No. 6 of 2009 dated 12.03.2009

1. The standard 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 H2S Gas Detector , they are under formulation and will be uploaded upon completion.


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**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


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- 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.


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**DIRECTORATE GENERAL OF MINES SAFETY
MINISTRY OF LABOUR AND EMPLOYMENT
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:


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- 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:


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**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**

(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:


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(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. (a) Reference to Indian Standard or any other Standard to which the equipment, material or appliance conforms:

(b) Valid BIS License reference:
(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:

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) :


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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)


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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 9 hrs. Each day	One No.	
2.	Cap Lamp	Six months for 9 hrs. each day	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.	CO detector	Three months	One No. for a particular type of mine. (Coal/metal/oil)	Minimum 30 readings shall be taken.
5.	CO ₂ Detector	Three months.	-do-	-do-
6.	Oxymeter	Three months.	-do-	-do-
7.	Multigas Detector	Three months.	-do-	-do-
8.	Methanometer	Three months.	-do-	-do-
9.	Exploders	Six months.	2 Nos. in two mines	
10.	Powered Supports & its components	Twelve months	One set.	
11.	Man Riding System	Twelve months	One set.	
12.	Winding Rope	Twelve months	Length as per the requirement of field trial in the mine.	
13.	Balance Rope	Twelve months	-do-	
14.	Haulage rope for manriding	Twelve months	-do-	
	Environmental monitoring system/ tele-monitoring systems	Six months.	One No. for a particular type of mine. (Coal/metal/oil)	
15.	Underground locomotive	Three months	One set.	
16.	Internal Combustion Engine	Three months	One set.	

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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
17.	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/oil)	
18.	Cables used in high, medium and low voltage electrical systems & also flexible cables/ control cables used for electrical	Three months.	Up to 100 meters or more depending on situation and equipment for a particular type of mine (Coal/oil).	
19.	Breathing apparatus	-	Performance test at one rescue station.	
20.	Smoke helmets & apparatus serving same purpose.	-	Performance test at one rescue station.	
21.	Reviving apparatus	-	Performance test at one rescue station.	
22.	Self Rescuers	-	Performance test at one rescue station.	
23.	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/oil).	
24.	Gas detectors (Local Methane Detectors and Telemonitoring Systems)	Three months	One No. for a particular type of mine. (Coal/metal/oil)	


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

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) Date of installation and life achieved so far :
- (6) Complete details of the item :
- (7) History of failure :
- (8) Performance – Satisfactory/Not satisfactory :


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


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(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) Design Working Pressure
- (vi) Life obtained
- (vii) 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

(9) Loco, IC Engine –

- (i) Brake
- (ii) Sanding arrangement
- (iii) Warning device

- (iv) Performance of exhaust conditioner
- (v) Flame prop
- (vi) Catalytic Inverter
- (vii) Head light
- (viii) Seating comfort
- (ix) Canopy
- (x) Starting.

(10) 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

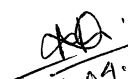
Signature with date

Name:

Designation:

Organisation:

Contact No:


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

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
Pit worthiness of the system/equipment.

(Seal)

Signature with date

Name :

Designation :

Contact No.

**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		

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

** Reading for 3 months (Minimum of 30 readings) shall be taken with the trial equipment and compared.

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

**FIELD TRIAL REPORT ON PERFORMANCE AND SAFETY CHARACTERISTICS 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 :


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(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:
(Name & Designation):
Designation):

(Technical Officer of Manufacturer)
Contact No. _____

Date:

Signature:
(Name & Designation):


(Mines Manager)

Date:

Signature:
(Name &

(Agent)

Date:


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**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:				

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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 :

AKA.
10.04.2015

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


**FIELD TRIAL REPORT / PERFORMANCE REPORT OF Indigenously manufactured
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 identification tag / marking provided in each valve or valve bank showing the type of operation 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 embossed 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 records of production tests conducted by the manufacturer, as per Clause 11.1 of the guidelines for 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, 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 observations 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 been brought to the notice of DGMS?
 - (iii)


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- 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 performance 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)


10.04.2015

**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.

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

Countersigned by:

Date:

Name & Designation:

Contact No.

**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)


10.09.2015 45

**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-4.1.1 The 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 mm² 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±3⁰ C &
 - 2) Wet bulb 3 - 5⁰ 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)

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10.04.2015

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.....
posting.....
Place of Posting.....

Signature of the subject
Name

Designation

Place of Posting of

Signature of Chief Manager (Min)/Supdt.(RS)

Signature of GM (Rescue)

Handwritten signature
10.09.2015

**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:

**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 procedure 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 EXERCISES DETAILS

- 1) Escape exercise conducted underground inColliery
from.....to.....
- 2) Total duration : From.....to.....(.....minutes)

ASSESSMENT 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

()

()

()

Desig.....

Desig.....

Desig.....

Signature of Superintendent (Rescue)

Signature of GM (Rescue)

AKD
10.04.2015

**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.

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10.04.2015

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 EXERCISE 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)

ASSESSMENT 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

()

Desig.....

Signature of Assistant

()

Desig.....

Signature of the test Subject

()

Desig.....

Signature of Superintendent (Rescue)

Signature of GM (Rescue)

Handwritten signature
10.04.2015

**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 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 AT VARIOUS POINTS OF THE ESCAPE ROUTE WAS DONE AND RESULT AS FOLLOWS:-

- 1) Average Temperature
- 2) Average Relative humidity

ESCAPE EXERCISES 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)

ASSESSMENT 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

()

()

()

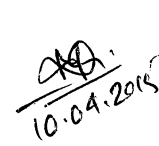
Desig.....

Desig.....

Desig.....

Signature of Superintendent (Rescue)

Signature of GM (Rescue)


10.04.2015


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

COMMENTS OF THE TEST SUBJECT

1. Did any parts of the apparatus catch on projections at any time?
2. Did you notice any sharp edge or burns on the apparatus?
3. Did saliva or condensate interfere with your breathing?
4. Did any material coming in to contact with you whilst wearing the apparatus cause any irritation?
5. How was the weight of the apparatus?
6. Was the harness quick and easy to put on t and did it effect you donning the apparatus?
7. Did the harness remain as adjusted and was it comfortable?
8. Did you have any problem of opening, donning or operating the apparatus?
9. Did the breathing circuit become blocked at any time?
10. Did the nose clip form a good seal?
11. Did the apparatus interfere with other safety equipment?
12. Did the apparatus impede your head or body movement?
13. Was there an adequate supply of oxygen at all time?
14. Was there any undue resistance to breathing?
15. Was the temperature of the inspired air intolerable?
16. Was the surface temperature of the apparatus acceptable?
17. Was the apparatus comfortable?
18. Any other comments?
 - a)
 - b)
 - c)

Signature of Superintendent(Rescue)

Signature of Subject


10.04.2015

**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:

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[Signature]
10.04.2015

**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)

[Signature]
10.09.2015

**DIRECTORATE 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:

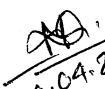
Observations:

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:


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

CONSOLIDATED REPORT ON PERFORMANCE AND SAFETY CHARACTERISTICS 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 :
 4. (a) Name of mine(s) to which this consolidated report relates :
(b) Degree of gassiness :
(c) 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:

Office Seal

Signature:


(Name & Designation):

(Agent of the Mines)

Contact No.

Date:

Office seal :


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

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)
- 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. 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