DGMS Approval Policy 2009

1.0 PREAMBLE

1.1 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. It is believed that this document will help in clearing many doubts, which may arise in course of the approval process and help all concerned in understanding the system in a more comprehensive manner.

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 quality materials and equipment which would go a long way in achieving better safety and health conditions of workers engaged in the mines. Use of faulty machinery, equipment, tools and materials had in the past resulted in accidents, disasters and dangerous situations. This had led to 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 is to primarily fulfill the statutory obligations enshrined under different provisions of Coal Mines Regulations, 1957; Metalliferous Mines Regulations, 1961; Oil Mines Regulations, 1984; Indian Electricity Rules, 1956 & Mines Rescue Rules, 1985; besides statutory notifications issued under these regulations by the competent authority from time to time.

3.2 Mining is a hazardous occupation and therefore the equipment machinery, tools and materials used in mines need to be safe, robust and reliable capable of working safely under hostile environment. The equipment need to remain safe under prolonged usage may be even in adverse conditions. In view of this, within 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 RQUIRING APPROVAL

4.1 All equipment, machinery, appliances and other materials requiring approval have been broadly categorized into,

a. Environmental 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. Steel supports, roof bolts, cement & resin grout for roof/side supporting in mines.
i. Fire fighting & fire suppression systems in all HEMMs, materials and chemicals to be used in fire fighting & fire suppression systems in mines.
j. Dust suppression/prevention systems in drilling machinery and haul roads.
k. All types of lights, lighting fixtures and system including lights on board mobile machinery, in HEMMs, Machinery and Plants, Indicators or signal lights to be used in mines both on surface and belowground including oil and gas mines.
l. Other specific equipment and materials.

4.2 A list of equipment and materials requiring approval under the provisions of various statute, standards followed and BIS licensing requirement is given at Appendix-I. The list also includes the equipment requiring approval through notification in official gazette issued under enabling provisions of DGMS from time to time. The said notifications are given at Appendix-IA.

5.0 APPROVAL PROCEDURE

5.1 The general procedures for dealing with cases of approval is given in the following paras. In most of the cases this procedure is followed. However, there may be cases, which may deviate slightly from the laid down procedure under special circumstances or due to unique nature of the equipment or material.

5.1.1 Application needs to be made in a proper format specified by DGMS. The original application must be made by the owner, proprietor, partner of the company seeking approval or a Director in 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'.

5.1.2 Equipment needs to conform to relevant Indian Standards. In case there is no Indian Standards, relevant Standards of the country of origin (ISO/En/ Din, etc.) may be accepted by DGMS on its merit.

5.1.3 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 certified by the Laboratory need to be submitted also. In case of imported equipment/machinery etc., test certificates of foreign origin may be accepted subject to the concerned laboratory figuring in the list of various internationally accredited test laboratories.

5.1.4 If overseas manufacturers conduct business in India through an Indian agent, complete details of the Indian Agent like name, correspondence address,

contact telephone numbers, etc., shall be furnished in the application. Further, the CEO/Owner/Proprietor of the manufacturing foreign firm shall submit along with the application, his written authorization in original to the Indian Agent for the purpose of various 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 firm. Based on the above authorization, a copy of various correspondence made with the manufacturer by this Directorate may be marked to the Indian Agent also.

5.2 The above documents are scrutinized and if found in order, Field Trial approval is granted with a validity ranging from three months to one year depending on the equipment. In case of explosives, field trial approval is granted for a specified number of shots, and in case of Fire Resistant Hydraulic Fluid, field trial is given for specified hours. After the equipment has been successfully field tried, performance reports duly signed by the representatives of the manufacturer and user shall be submitted not later than two months to this Directorate. A separate report may be called for on the matter from the concerned office of this Directorate. If the above reports are satisfactory, approval is granted for a specified period which differs for different equipment (Appendix – V).

5.2 APPLICATION FORMAT:

5.2.1 Interested manufacturers are required to submit applications in a prescribed format which is available from DGMS head office at Dhanbad. Sample application format is given at Appendix – II and the official web site of DGMS i.e www.dgms.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 but in no case later than one month from the date of such change.

5.3 TESTING:

5.3.1 Testing is mainly divided into two parts, type tests and routine tests. Type tests 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.

5.3.2 Prototype of any equipment, material or appliance where Indian Standards exist, need to be tested as per the relevant standard in an approved test house in India. DGMS (Tech) Circular No. 5 of 1994 dated 18.05.94 provides guidelines in respect of such test houses. A copy of the circular mentioned above is given at Appendix-III.

5.3.3 In case of equipment, material and appliance for which no Indian Standards exist, relevant standards like ISO/BS/En/ Din, etc. may be accepted at the discretion of DGMS. In certain cases a testing memorandum may have to be formulated in consultation with DGMS.

5.3.4 The testing of the relevant equipment, appliance or martial need to be done in accordance to the relevant standard/ testing memorandum or tests required by DGMS. If facilities for all the required tests are not available in one test house the required tests can be conducted at more than one approved test house. Two copies of test certificates, one original and one certified copy thereof have to be submitted along with the application.

5.3.5 In case of imported equipment, they need to be tested in accordance to relevant Indian Standards, if available. In case, no such Indian Standards are available, relevant standards like ISO/BS / En/ Din may be accepted by DGMS on its merit.

5.4 PRELIMINARY 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,
- ❖ Where all enclosures duly authenticated have been submitted.
- ❖ BIS certification and validity, if applicable,
- ❖ Examination of drawing submitted,
- ❖ Scrutiny of test repots,
- ❖ Detailed examination in respect of capability of the manufacturer to provide equipment at a later date with sustained quality assurance. This includes examination of quality control capabilities of the manufacturer, relevant licenses, testing facilities, storage facilities, marketing and after sales service, capabilities including dealing with complaints, etc. from the information submitted by the manufacturer.

  If an Indian manufacturer had submitted an application for approval for the first time, then an inspection of the manufacturing facility of the manufacturer by an officer of this Directorate is essential to ensure compliance with various technical requirements. The report of such inspection shall be submitted promptly by the officer who had inspected as per the format shown in Appendix – IV.

5.4.2 The test reports are examined with reference to relevant Indian Standards wherever applicable. Studies are made in respect of drawings and the tests reports and these are analyzed to determine whether the equipment, material or appliance has met the criteria mentioned in the prescribed standard and passed the performance and safety tests successfully. In case no Indian Standard is available, examination is made in light of other available standards like ISO/BS/En/din, etc, testing memorandums or other accepted test standards (e.g. ICIS 001/1991 for powered supports, TM 12 of British Coal for underground locomotives, BCS 730 for Steel cord belting, etc.) performance test reports evaluated by the test house with reference to any

standard literature available on the subject is also considered if found necessary.

5.4.3 There are certain listed items, which require BIS certification (see Appendix - 1). In such cases if an application is received without BIS certification, the application may be entertained and field trials permitted. However, approval is accorded only after submitting valid BIS certification excepting for the following equipments, appliances, etc.

a) Cage Suspension Gear.
b) Power brakes, steam valves used in winders.
c) Automatic contrivance.
d) Automatically recording speed indicator.
e) Fire resistant hydraulic fluids.
f) Fire resistant hydraulic hoses.
g) Pit bottom buffers.
h) Audio-visual alarm.
i) Escape device and line in drilling rigs used in oil mines.
j) Dust suppression/prevention systems.
k) Man-riding systems.
l) Conveyor belts.

5.4.4 Inspection of the manufacturing facilities of the applicant may be made by an officer of this Directorate any time to assess capability of the manufacturer in respect of quality control, testing and other facilities. A format for reporting such an inspection is given at Appendices – IV.

5.5 FIELD TRIAL APPROVAL:

5.5.1 The concerned dealing officer(s) prepare(s) a report/ note based on the preliminary examination of the application, test reports, results of factory visits, conformity to applicable standards and any other relevant information and recommends the case to the Director General for grant of approval to

conduct field trials. On approval, letters permitting field trial are issued to the manufacturer with copies to the mines/users. The period of field trials vary between 3 months to one year depending on the type of equipment, material or appliance. The periods for conducting actual field trials for different equipment and materials is given in terms of time and quantity in Appendix-V.

5.5.2 If a manufacturer is unable to complete the field trials within the period accorded to him for the purpose, a maximum of three extensions each of one year duration, may be accorded based on a written application from the manufacturer for each extension. Any further extension shall be at the discretion of this Directorate based on the merits of the case.

5.5.3 It is necessary to ensure that trials are conducted in mines suitable for the purpose and will offer adequate scope for monitoring of the performance by DGMS. For optimum results it may be necessary to conduct field trial at more than one mine, as may be decided by DGMS. In case of Rescue apparatus, field trial is conducted at one or more of the rescue stations before grant of approval.

5.5.4 For an application complete in all respects, the time period between receipt of application in DGMS and grant of field trial approval should not normally exceed 90(ninety) days.

5.6 MONITORING THE FIELD TRIAL:

5.6.1 Copies of the field trial approval letters are endorsed to concerned Dy. Director General Incharge of a zonal office of DGMS. The concerned Director of Mines Safety in charge of the regional office under which the mine where field trials are conducted falls, Director/Dy. Director of Mines Safety (Electrical) in respect of electrical equipments/apparatuses, and the Director/Dy. Director of Mines Safety (Mechanical) in respect of certain

equipments/apparatuses has to be kept informed about the trials by the manufacturers.

5.6.2 During field trials, the performance of the equipment, martial, etc. under trial is monitored by DGMS. In some cases the trials are witnessed by the officers of DGMS. In some cases, if practicable, the equipment may be tested at the S&T division of DGMS head office.

5.7 REPORTING OF RESULTS OF FIELD TRIAL:

5.7.1 Field trial reporting formats for different types of equipment, material, appliances, etc. are given in Appendix – VI and VIA. The field trial reporting formats for Gas detectors/Dust samplers/Dust masks/Flame Safety lamps/Cap Lamps/Cap Lamp Bulbs etc are given at Appendix VIB. The reporting format for field trial for permitted explosives is given in Appendix VI C. The format for field trial report for Miners Shoe and Helmet etc is given in Appendix VI D. The format for field trial report/performance report for Hydraulic Props/Friction Props, Legs for Powered Support and Powered Support are at Appendix VI E, VI F and VI G respectively.

6.0 GRANT OF APPROVAL

6.1.1 After successful completion of field trial and receipt of satisfactory field trial reports, the case is examined and recommendations made for grant of regular approval. 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.

6.1.2 The Director General of Mines Safety grants the approval with suitable conditions on receiving recommendations from the concerned dealing departments.

6.1.3 Unless and otherwise specified, normally the approval shall be for a period of 2 (two) years during which, an actual field performance report will have to be generated and submitted to this Directorate. Subsequently, based on an application by the manufacturer and a satisfactory performance report, the said approval may be extended for a period of 3 (three) years. However, if any manufacturer is not successful in marketing his product during the approval period, a maximum of 2 consecutive extensions each of 2 (two) years may be accorded after which, the said approval may be treated as null and void. Any subsequent considerations for the approval will be at the discretion of this Directorate based on the merits of the case.

6.2 DGMS APPROVAL MARK/ NO:

6.2.1 On grant of approval all manufacturers are given a unique number (like DGMS SA-9/2002) for the particular equipment, etc. The manufacturers are required to display the mark prominently on every product.

6.3 VALIDITY OF APPROVAL:

6.3.1 All approvals are valid for a particular period ranging from two (2) to three (3) years. Appendix-V gives periods of validity of approval for different equipment material and appliances.

6.4 RENEWAL OF APPROVAL:

6.4.1 In the past, approvals granted were either renewable type or type with permanent approval status. In some cases approvals were given permanent status after few renewals. However, there could be cases where manufacturing of the particular product had been stopped, the standards

have undergone complete change or the conditions of usage have changed. This could create serious consequences jeopardizing safety. As such this necessitates a review of the approvals at regular intervals. Hence, it is necessary that the approvals have a period of validity and even those products which had received permanent approval in the past need to be converted into approvals on renewable basis. However, the cage suspension gear used in mechanical winders with statutory life of 6 years or less is exempted from the renewal process to the extent that the renewal shall be deemed to have been accorded unless and until there are adverse reports from any user.

6.5 RENEWAL PROCESS:

6.5.1 Initial approval is granted for a period of two years after completion of field trials. Application for renewal of such 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 repots from atleast one user. For those items in which BIS license was made mandatory the approval and renewal will be granted based on validity of the BIS license.

6.5.2 The criteria for grant of renewal would be, (i) satisfactory performance reports from users, (ii) no complaints about the product from the users or others and (iii) valid BIS license where applicable.

6.5.3 Like in the case of regular approvals, in case of NIL supply on part of an approved item by a manufacturer, the renewal period shall be TWO years only. On items of regular NIL supply by a manufacturer even after two consecutive periods of TWO years each, further renewal shall be at the discretion of this Directorate based on the merits of the case.

7.0 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 amended incorporating the changes. Manufacturers need to make immediate application for amendment of the approval, failing which the approval shall be treated as revoked.