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



No. DGMS(S&T)/ (Approval) Circular No. 01 of 2017 /Dhanbad, Dated 10/03/2017

To
The Owner, Agent and Manager of all Coal Mines

Subject: Approval of dust suppression/prevention devices fitted in drilling and boring equipment used in coal mines under regulation 123(6)(b)(ii) of Coal Mines Regulations' 1957.

At present, dust suppression/prevention devices, other than jet of water directed on the cutting edge to wet the cuttings, fitted in drilling and boring equipment for drilling or boring in stone on surface or belowground in coal mines are required to be approved by Chief Inspector of Mines under regulation 123(6)(b)(ii) of Coal Mines Regulations' 1957. A Gazette Notification was also issued in this regard vide GSR 24, published in the Gazette of India Part II Section 3(i) on 8 February 2014.

Based on the above notification, this Directorate has been approving such devices for use in coal mines by issue of special orders on case to case basis. Now, in order to bring further simplification in its approval, it has been decided that the subject matter may be brought under the domain of general approval. In view of this, a meeting was held on 04.7.2016 at DGMS (HQ), Dhanbad, for technical deliberations on the subject, in which experts from CIMFR, ISM, CMPDI and DGMS participated. After detailed deliberations, a draft standard for manufacturing, testing and use of dust suppression/prevention devices fitted in drilling and boring equipment used in coal mines was finalized, which was further discussed in the meetings of approval Committee of DGMS. Based on the above inputs, the standards and parameters for manufacturing, testing and use of such dust suppression/prevention devices are prescribed below:

1.0 General requirements

- 1.1 The dust suppression/prevention device or any part thereof fitted with drilling and boring equipment used in belowground coal mine shall not be made of alloy and metals likely to give incendive frictional sparks as required under Circular No. DGMS Tech. Circular no. 08 of 1974 or its revised version.
- 1.2 The flame proof and intrinsically safe features of electrical items of the dust suppression/prevention device to be used in belowground coal mines shall also conform to the standards specified in Circular No. DGMS Tech. Circular (Electrical), (Approval) no. 23 dated, 21.12.2015 or its revised version.

- 1.3 (a). The device shall be capable of suppressing/preventing the liberation or release of airborne dust while drilling or boring to such extent as to keep the concentration of respirable dust in the mine atmosphere within the permissible limit prescribed under regulation 123(2) of Coal Mines Regulations' 1957 or as amended from time to time.
- (b). To ensure compliance of clause 1.3(a), amongst others, the dust survey shall be conducted with approved type of dust samplers as specified in regulation 123(2) of Coal Mines Regulations' 1957 or as amended from time to time. During such survey, the dust concentration shall be measured at the exit point of exhaust air of the dust suppression device, at the nearest point of drilling or boring where persons are required to be present and also at operator's normal working position (nose position), while the drilling or boring machine is in operation. The result of every such survey shall be recorded, signed and dated by the official carrying out the survey and the same shall be countersigned by the Manager.
- (c). When result of the dust survey is found in excess of the permissible limit of dust concentration as stipulated under clause 1.3(a), the normal operation of the drilling or boring equipment shall be ceased and it shall not be resumed until the defect therein has been rectified and the requirements of Para 1.3(a) above has been found complied by conducting a dust survey in the manner specified under para 1.3(b) above. Every such incident shall be recorded in a book kept for the purpose and signed and dated by the official carrying out the survey and the same shall be countersigned by the Manager.
- (d) Frequency of the dust survey: The dust survey shall be carried out in respect of every such drilling or boring equipment at the time of its first installation and thereafter at an interval of not exceeding one month as specified in clause 1.3.(b).

2.0 **Testing of the dust suppression/prevention devices**

Prototype Tests: At least one proto type sample of the device shall be subjected to tests by a test house prescribed under the para 6.0 of Approval policy, 2015(II Revision) of DGMS or its revised version, subject to the compliance of clause 1.3(a) of this general approval.

3.0 **Marking**

The following details shall be conspicuously marked on the body of the dust suppression / prevention device:

- Name of the manufacturer or registered trade mark;
- Date of its manufacturing and model;
- Additional marking required by the applicable industrial safety standards.

4.0 **Manufacturer's Responsibilities**

4.1 **The manufacturer shall -**

- i. furnish all the relevant information in respect of specifications and certified copy of test reports or any other information pertinent to their product(s) to the user(s), along with each consignment;
 - ii. supply the certified drawing and specifications of the dust suppression/prevention device, which shall not be at variance with the prototype sample as mentioned in Para 2.0, to the user(s); and
 - iii. arrange to provide an instruction manual on the storage, maintenance, handling, installation and use of the dust suppression/prevention device to the user(s) along with each consignment.
- 4.2 The manufacturer shall supply to the user a copy of such valid certificates and test report(s) mentioned in the aforesaid Paras and also a compliance report against conditions mentioned in para No. 1.1 and 1.2 to facilitate use of the dust suppression/prevention devices with drilling or boring machines in the mine.

5.0 **Responsibilities of Owner, Agent and Manager (User)**

- 5.1 Before using the dust suppression/prevention device in drilling or boring machines in the mines, the user shall ensure that the device conforms to the above mentioned standards.
- 5.2 The user shall ensure that the manufacturer possesses adequate facilities for manufacturing and testing of the dust suppression/prevention devices.
- 5.3 The users shall obtain copies of all valid certificate(s) and test report(s) from the manufacturer while purchasing and before using the dust suppression/prevention device in drilling or boring machines in the mine.
- 5.4 The performance tests required under clause (a), (b), (c) and (d) of para 1.3 shall be the responsibility of the user.
- 5.5 The user shall ensure that the storage, maintenance, handling, installation and use of the dust suppression / prevention device are done as per the Manual / Operating instructions of the device.

6.0 **Miscellaneous**

- 6.1 The Chief Inspector of Mines or an Inspector of Mines may inspect, check and examine the manufacturing facilities of the dust suppression/prevention devices at any time and get samples tested during the course of inspection or send such samples for testing at any prescribed test houses/laboratories at the cost of the manufacturer.

- 6.2 The Chief Inspector of Mines or an Inspector of Mines may inspect, check and examine the dust suppression/prevention devices fitted in drilling or boring machines at any time in the mine and get samples tested during the course of inspection or send such samples for testing at any prescribed test houses/laboratories at the cost of Owner, Agent or Manager of the mine.
- 6.3 All users and the manufacturers shall be required to comply with this standard and any deviation or defects found in the product supplied or used in the mine, shall be brought to the notice of this Directorate.
- 6.4 The manufacturers, and the test houses, who are engaged for testing of such dust suppression/prevention devices, and the users shall adhere to the above mentioned standards and parameters while testing, before supplying and using the dust suppression/prevention devices fitted in drilling or boring machines in the mine.
- 7.0 The dust suppression/prevention devices fitted in drilling and boring equipment, with the standards, parameters and testing as mentioned above in this circular, shall be considered as approved by the Chief Inspector of Mines under regulation 123(6) (b) (ii) of the Coal Mines Regulations, 1957.

The dust suppression/prevention device having valid special approval by DGMS shall also be considered at par with those devices approved under this general approval for use in coal mines.


10/03/17
Chief Inspector of Mines





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Directorate General of Mines Safety



No. DGMS(S&T)/ (Approval) Circular No. 02 of 2017 Dhanbad, Dated 10/03/2017

To
The Owner, Agent and Manager of all Metalliferous Mines

Subject: Approval of dust suppression/prevention devices fitted in drilling and boring equipment used in metalliferous mines under regulation 124(6)(b)(ii) of Metalliferous Mines Regulations' 1961.

At present, the dust suppression/prevention devices, other than a jet of water directed on the cutting edge to wet the cuttings, fitted in drilling and boring equipment for drilling or boring on surface or belowground in metalliferous mines are required to be approved by Chief Inspector of Mines under regulation 124(6)(b)(ii) of Metalliferous Mines Regulations' 1961. A Gazette Notification was also issued in this regard vide GSR 25, published in the Gazette of India Part II Section 3(i) on 8 February 2014.

Based on the above notification, this Directorate has been approving such devices for use in metalliferous mines by issue of special orders on case to case basis. Now, in order to bring further simplification in its approval, it has been decided that the subject matter may be brought under the domain of general approval. In view of this, a meeting was held on 04.7.2016 at DGMS (HQ), Dhanbad, for technical deliberations on the subject, in which experts from CIMFR, ISM, CMPDI and DGMS participated. After detailed deliberations, a draft standard for manufacturing, testing and use of dust suppression/prevention devices fitted in drilling and boring equipment used in metalliferous mines was finalized, which was further discussed in the meetings of approval Committee of DGMS. Based on the above inputs, the standards and parameters for manufacturing, testing and use of such dust suppression/prevention devices are prescribed below:

1.0 General requirements

- 1.1 (a) The device shall be capable of suppressing/preventing the liberation or release of airborne dust while drilling or boring to such extent as to keep the concentration of respirable dust in the mine atmosphere within the permissible limit prescribed under regulation 124(2) of Metalliferous Mines Regulations' 1961 or as amended from time to time.
- (b) To ensure compliance of clause 1.1(a), amongst others, the dust survey shall be conducted with approved type of dust samplers as specified in regulation 124(2) of Metalliferous Mines Regulations' 1961 or as amended from time to time. During such survey, the dust concentration shall be measured at the exit point of exhaust air of the dust suppression device, at the nearest point of drilling or boring where persons are required to be present and also at operator's normal working position (nose position), while the drilling or boring machine is in operation. The result of every such survey shall be recorded, signed and dated by the official carrying out the survey and the same shall be countersigned by the Manager.

- (c) When result of the dust survey is found in excess of the permissible limit of dust concentration as stipulated under clause 1.1(a), the normal operation of the drilling or boring equipment shall be ceased and it shall not be resumed until the defect therein has been rectified and the requirements of Para 1.1(a) above has been found complied by conducting a dust survey in the manner specified under para 1.1(b) above. Every such incident shall be recorded in a book kept for the purpose and signed and dated by the official carrying out the survey and the same shall be countersigned by the Manager.
- (d) Frequency of the dust survey: The dust survey shall be carried out in respect of every such drilling or boring equipment at the time of its first installation and thereafter at an interval of not exceeding one month as specified in clause 1.1(b).

2.0 **Testing of the dust suppression/prevention devices**

Prototype Tests: At least one proto type sample of the device shall be subjected to tests by a test house prescribed under para 6.0 of Approval policy, 2015 (II Revision) of DGMS or its revised version, subject to the compliance of clause 1.1(a) of this general approval.

3.0 **Marking**

The following details shall be conspicuously marked on the body of the dust suppression / prevention device:

- Name of the manufacturer or registered trade mark;
- Date of its manufacturing and model
- Additional marking required by the applicable industrial safety standards.

4.0 **Manufacturer's Responsibilities**

4.1 **The manufacturer shall -**

- i. furnish all the relevant information in respect of specifications and certified copy of test reports or any other information pertinent to their product(s) to the user(s), along with each consignment;
 - ii. supply the certified drawing and specifications of the dust suppression/prevention device, which shall not be at variance with the prototype sample as mentioned in Para 2.0, to the user(s); and
 - iii. arrange to provide an instruction manual on the storage, maintenance, handling, installation and use of the dust suppression/prevention device to the user(s) along with each consignment.
- 4.2 The manufacturer shall supply to the user a copy of such valid certificates and test report(s) mentioned in the aforesaid Paras to facilitate use of the dust suppression/prevention devices with drilling or boring machines in the mine.

5.0 **Responsibilities of Owner, Agent and Manager (User)**

- 5.1 Before using the dust suppression/prevention device in drilling or boring machines in the mines, the user shall ensure that the device conforms to the above mentioned standards.

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- 5.2 The user shall ensure that the manufacturer possesses adequate facilities for manufacturing and testing of the dust suppression/prevention devices.
- 5.3 The users shall obtain copies of all valid certificate(s) and test report(s) from the manufacturer while purchasing and before using the dust suppression/prevention device in drilling or boring machines in the mine.
- 5.4 The performance tests required under clause (a), (b), (c) and (d) of para 1.1 shall be the responsibility of the user.
- 5.5 The user shall ensure that the storage, maintenance, handling, installation and use of the dust suppression / prevention device are done as per the Manual / Operating instructions of the device.
- 6.0 **Miscellaneous**
- 6.1 The Chief Inspector of Mines or an Inspector of Mines may inspect, check and examine the manufacturing facilities of the dust suppression/prevention devices at any time and get samples tested during the course of inspection or send such samples for testing at any prescribed test houses/laboratories at the cost of the manufacturer.
- 6.2 The Chief Inspector of Mines or an Inspector of Mines may inspect, check and examine the dust suppression/prevention devices fitted in drilling or boring machines at any time in the mine and get samples tested during the course of inspection or send such samples for testing at any prescribed test houses/laboratories at the cost of Owner, Agent or Manager of the mine.
- 6.3 All users and the manufacturers shall be required to comply with this standard and any deviation or defects found in the product supplied or used in the mine, shall be brought to the notice of this Directorate.
- 6.4 The manufacturers, and the test houses, who are engaged for testing of such dust suppression/prevention devices, and the users shall adhere to the above mentioned standards and parameters while testing, before supplying and using the dust suppression/prevention devices fitted in drilling or boring machines in the mine.
- 7.0 The dust suppression/prevention devices fitted in drilling and boring equipment, with the standards, parameters and testing as mentioned above in this circular, shall be considered as approved by the Chief Inspector of Mines under regulation 124(6) (b) (ii) of the Metalliferous Mines Regulations, 1961.

The dust suppression/prevention device having valid special approval by DGMS shall also be considered at par with those devices approved under this general approval for use in metalliferous mines.


10/03/17
Chief Inspector of Mines

Handwritten notes:
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P. Raju