



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



DGMS(Tech.) (S&T) Circular No. 01

Dhanbad, dated 08/04/2025.

To

- All Owners, Agents and Managers of mines.
- All Manufacturers of Explosives and Detonators
- All Scientific and other Institutions related to Testing Explosives and Detonators

Subject: Quality and conditions of explosives provided for use in mines.

1.0 Reg. 183 of the Coal Mines Regulations, 2017 and Reg. 153 of Metalliferous Mines Regulations, 1961 require that the explosives provided for use by the Owner, Agent or Manager shall be of good quality and in good condition. It has come to the notice of this Directorate that suitable checks and controls have not been provided at every mine magazine to comply with the said requirement. Needless to mention that use of explosives which are not in good condition may leads to hazards which are avoidable through proper check and monitoring the established mechanism.

2.0 In a span of 5 years (2019 to 2024), there were 21 fatal accidents in mines due to the explosives resulting in 44 fatalities and serious bodily injury to 12 persons. The analysis reveals that the major causes of the accidents occurred due to Misfires/Sockets (While drilling into), accidental initiation, Deep Hole Blasting Projectiles, Secondary Blasting Projectiles, Delayed ignition, Unsafe Blasting Practices etc.

3.0 Recently after an accident of blast of explosive materials in an opencast coal mine, test of Electronic Detonators being used in the mine were conducted at CSIR-CIMFR, Dhanbad where few batches of the Electronic Detonators did not fully comply the requirements of the quality standard (prescribed BIS norms).

4.0 Some of the Standards, circulars/guidelines issued in past, on the subject matter are as follows:

BIS Standards for methods of test for commercial blasting explosives and accessories are as follows:

- i. IS 18462: 2023- regarding Electronic Detonators [For both general and permitted type]
- ii. IS 7632: 1975 (Affirmed 2021)- regarding Electric Detonators [For both general and permitted type]
- iii. IS 6609(Part II/Sec. 1): 1973- regarding Explosives- General.
- iv. IS 6609(Part II/Sec. 2): 1974- regarding Permitted explosives.

- v. IS 6609(Part II/Sec. 3): 1980- regarding Slurry Explosives.
- vi. IS 6609(Part III): 1973- regarding Detonators- General & Permitted.
- vii. IS 6609(Part 4): 1984- regarding Detonating Fuses.

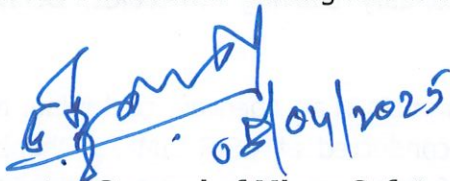
DGMS Circulars/Guidelines and Notifications:

- i. DGMS Circular(approval) No. 06, dated 17/11/2014 – regarding test standard and passing criteria of permitted explosives and detonators for use in underground mines.
- ii. DGMS (Tech.) Circular No. 14, dated 24/12/2020- regarding precautions against premature blast of Site Mixed Emulsion (SME)/ Site Mixed Slurry (SMS) explosives.
- iii. Notification vide G.S.R. 982(E) dated 01/10/2018- regarding Conditions for Transport of Explosives in Bulk.
- iv. Notification vide G.S.R. 984(E) dated 01/10/2018- regarding Conditions for use of Ammonium Nitrate Fuel Oil.
- v. Notification vide G.S.R. 985(E) dated 01/10/2018- regarding Conditions for Deep-Hole Blasting in Opencast Coal Mine.
- vi. Notification vide G.S.R. 986(E) dated 01/10/2018- regarding Conditions for conducting blasting in fire area in an Opencast Coal Mine.

5.0 All manufacturers of the explosives and detonators and concerned test houses are advised to comply with the above guidelines or their revised version.

6.0 All user(s) of the explosives and detonators may ensure through a proper mechanism established for the purpose that such products have complied with the relevant standards and guidelines before putting them into use in mines.

In this regard immediate steps shall be taken to develop & implement suitable mechanism (checks and controls) to comply with the aforesaid statutory requirement so as to prevent untoward incidences causing loss of life and property.



**Director General of Mines Safety &
Chief Inspector of Mines**