

GOVERNMENT OF INDIA
MINISTRY OF COAL
RAJYA SABHA
UNSTARRED QUESTION NO. 1151
ANSWERED ON 10.03.2025

Audit of coal mines

1151 Shri M. Mohamed Abdulla:

Will the Minister of *Coal* be pleased to state:

- (a) the current status of implementing safety audits in coal mines, and frequency at which they are conducted;
- (b) the steps taken to modernize and mechanize coal mining to reduce exposure of workers to hazardous conditions;
- (c) whether Government has conducted any studies on the environmental impact of coal mining in areas with frequent accidents; and
- (d) the initiatives being undertaken to improve the welfare and skill development of workers in the coal mining sector?

ANSWER
MINISTER OF COAL AND MINES
(SHRI G. KISHAN REDDY)

(a): As per Guidelines issued by Ministry of Coal, in December, 2023, on "Safety Health Management System Audit" safety audit is conducted annually. On 17.12.2024, Ministry of Coal has launched "National Coal Mine Safety Report Portal" incorporating safety audit module for submission of audit report.

(b): Directorate General of Mines Safety (DGMS) has revamped/amended, the old Coal Mines Regulation 1957 as "The Coal Mines Regulations 2017" keeping in view of modernization, mechanization, emergency response and evacuation plan. In addition to above, major steps taken by the coal companies to modernize and mechanize coal mining to reduce exposure of workers to hazardous conditions, are as under:

- 1) Introduction of Blast-free mining technologies, such as Continuous Miner, Powered Support Longwall (PSLW) in UG mines, Surface Miner, Eccentric/Vertical Ripper in Opencast (OC) mines and Hybrid High Wall mining to extract coal seams that are not techno-economically viable through traditional opencast mining method.
- 2) Real-time monitoring of UG mine environment by Environmental Telemonitoring System (ETMS) and Gas Chromatographs are used for quick and accurate mine air sampling.
- 3) Mechanised roof bolting arrangement i.e. Universal Drilling Machine (UDM), QUAD and Twin Bolter systems, along with resin capsules and advanced instrumentation for strata monitoring.
- 4) Dust suppression systems like truck-mounted Fog Canons and Sprinkler cum-mist sprays to reduce dust.
- 5) Simulator-based training for Heavy Earth Moving Machinery (HEMM) operators and Virtual Reality (VR) training programs.
- 6) Modern technologies like Total Stations, 3D Terrestrial Laser Scanning (TLS), and Slope Stability Radars for monitoring slope and overburden (OB) dump stability.

7) GPS-based Operator Independent Truck Dispatch System (OITDS), Geo-fencing in large OC to track HEMM movements.

(c): For new/expansion coal mining projects Environment Impact Assessment (EIA) studies are taken up and suitable measures are incorporated in the EIA/Environment Management Plan (EMP) reports prior to seeking Environment Clearance from MoEF&CC. During operational phase, environmental monitoring to assess the impact of coal mining operations on surrounding environment is done.

All coal mines are scientifically planned and designed, taking cognizance of geo-technical and geo-mining studies to ensure a safe and healthy working environment as detailed in approved Environment Impact Assessment (EIA) studies.

(d): The Mines Rules, 1955 framed under the Mines Act, 1952 provides for the welfare amenities to the mine workers at the work places. Provisions for regular health check, first aid, adequate shelters, canteens, appointment of welfare officers in mines and creche facilities etc. are stipulated under the said rules. Adequate provisions for training and refresher training have been made under the Mines Act, 1952 and Mine Vocational Training Rules, 1966 framed thereunder.

The major initiatives undertaken by coal companies to improve the welfare of workers in the coal mining sector are, providing adequate housing facilities, clean drinking water, scholarships, cash awards, financial assistance, especially for children pursuing studies in institutions like IITs and NITs, adequate educational facilities, healthcare facilities, provision of compassionate employment to married, divorced and deserted daughters of employees in case of death in service and providing statutory welfare facilities such as canteens, creches, pit head baths and rest shelters to ensure basic amenities.

Further, major initiatives, undertaken to improve the skill development of workers in the coal mining sector are: providing Structured Vocational Training, advanced Simulator-Based Training, training for Workmen Inspectors (WI) & Safety Committee Members, workshops on key areas of mining operations i.e. safety, Specialized Job-Based Training on drilling, blasting, roof supporting, firefighting, to ensure competency and safety in high- risk operations.
