

**GOVERNMENT OF INDIA
MINISTRY OF COAL**

**LOK SABHA
STARRED QUESTION NO. 56
TO BE ANSWERED ON 23.07.2025**

Modernisation of Coal Mine Safety Regulations

†*56. Dr. Prashant Yadaorao Padole:
Shri Janardan Mishra:

Will the Minister of Coal be pleased to state:

- (a) the steps taken by the Government to modernise coal mine safety regulations in the country including Chhattisgarh;
- (b) the details of measures taken to ensure safety and welfare of workers;
- (c) the details of action plan being formulated to prevent deaths of coal workers in mining accidents;
- (d) the impact of launch of National Coal Mine Safety Report Portal regarding the conduct and monitoring of safety audits of coal mines;
- (e) the manners in which Sneh Milan Mela initiative promotes community participation and cooperation in coal mining areas; and
- (f) whether any efforts have been made for the safety of workers working in the coal mines operating in Singrauli and if so, the details thereof?

ANSWER

**MINISTER OF COAL & MINES
(SHRI G. KISHAN REDDY)**

(a) to (f): A statement is laid on the Table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (a) TO (f) OF THE LOK SABHA STARRED QUESTION NO. 56 TO BE ANSWERED ON 23.07.2025 ASKED BY DR. PRASHANT YADAORAO PADOLE, HON'BLE MP AND SHRI JANARDAN MISHRA HON'BLE MP REGARDING 'MODERNISATION OF COAL MINE SAFETY REGULATIONS'.

(a): The steps taken by the Government to modernise coal mine safety regulations in the country including Chhattisgarh are as follows:

(i) The Coal Mines Regulations - 1957 framed under Section 57 of the Mines Act, 1952, were comprehensively amended to reflect progress in mining methods, mechanization, and application of emerging technologies. Taking into account the evolving nature of coal mining operations and the need for enhanced safety standards, the Coal Mines Regulations, 2017, were suitably amended and notified in the official Gazette by the concerned department of Central Government in the month of November 2017.

(ii) These updated, amended regulations, i.e. CMR 2017, have been uniformly enforced across all coal mines in India, ushering in a modernized framework that emphasizes risk-based safety management, worker protection, and the integration of contemporary advanced mining technologies.

(b): All coal mines are governed by the Mines Act, 1952, and rules, regulations framed thereunder. The Mines Act, 1952 is administered by the Directorate General of Mines Safety (DGMS) by way of the development of suitable legislations, rules, regulations, standards and guidelines, inspections, investigation of accidents, awareness activities, and formulating risk management plans.

Apart from compliance of the statutory provisions under the Mines Act, 1952, the Mines Rules- 1955, the Coal Mine Regulations- 2017 and Bye Laws & Standing Order framed there under, the following steps are being taken to reduce the occurrence of such accidents in mines. Coal companies also administer mines through the modernised safety measures viz, Preparation and implementation of Site Specific Risk Assessment, Training on Mine Safety, Mine Safety Inspection, Conducting Safety Audit of mines, Adoption of the state-of-the art mechanism for Strata Management and Monitoring of mine environment. Additionally, specific safety measures for Opencast and Underground mines are as under:

(i) **Opencast Mines** - Use of eco-friendly Surface Miners for blast-free safe mining, Mine-specific Traffic Rules, Training on Simulators to HEMM operators, Dumpers with Proximity Warning Devices, Camera, Audio-Visual Alarm (AVA), Automatic Fire Detection & Suppression system, Geo-fencing in some large OCPs, High mast towers for increasing lighting and Integrated Command and Control Centres (ICCC).

(ii). Underground mines - Elimination of basket loading by introducing semi-mechanized technology, replacing the cement capsules with resin capsules for an effective roof control system, introduction of Continuous Miner technology, and Emergency Response & Evacuation Plans (ER & EP).

The following measures are taken to ensure welfare of workers in coal mines by Coal PSUs: -

1. Statutory facilities such as Canteen, Rest shelter facility, Creche, drinking water facilities, conservancies, Pit head baths etc.
2. Voluntary facilities of providing Township & Clubs, Housing facilities, Cooperative societies etc.
3. Medical facilities through its hospitals and dispensaries.
4. Education facilities by means of financing the schools in its mining areas.

(c): The following action plans have been formulated to prevent mine accidents and to improve the safety standards in coal mines:

1. **Adoption of Self-Regulation:** Implemented a structured approach to safety through the formulation of Hazard Identification and Risk Assessment (HIRA)-based Safety Management Plans (SMPs), fostering a culture of proactive risk management.
2. **Risk-Based SOPs:** Formulated and enforced risk-based Standard Operating Procedures (SOPs) for all mining and associated activities to standardize safe work practices and reduce operational hazards.
3. **Blast-Free, Eco-Friendly Safe Mining Technologies:** Introduced advanced mass production technologies (MPT) such as **Continuous Miners** in underground mines, Surface Miners and Vero-Rippers in opencast mines, and High Wall Mining in hybrid mines to ensure safer, cleaner, and more efficient operations.
4. **Mechanized Strata Control:** Deployed mechanized drilling **and** resin capsule-based roof bolting, supplemented with **instrumentation**, to ensure robust and scientifically managed strata control.
5. **Real-Time Safety Monitoring:** Strengthened safety oversight through integration of mine surveillance systems using Integrated Command and Control Centers (**ICCCs**) for continuous monitoring and rapid response.
6. **Improved Mine Atmosphere Analysis:** Utilized gas chromatographs to enhance the precision and reliability of mine air sample analysis.
7. **Traffic Safety:** Formulated and enforced COPs for transport plying inside mines. Also implemented GPS-enabled Operator Independent Truck Dispatch Systems (OITDS) with geo-fencing, improving haulage efficiency and minimizing human error.
8. **Modernisation of Training:** Enhanced operator skill and safety awareness through simulator-based training for HEMM operators and the use of Virtual Reality (VR) for immersive, scenario-based safety training.
9. **Modern and Advanced Dust Suppression:** Deployed advanced dust control technologies, including fog cannons and mist spray systems, to minimize airborne particulate exposure and improve air quality.
10. **Use of Digitalization and AI-based Analytics:** Leveraged digital tools and data analytics to support predictive risk management, informed decision-

making, and the creation of a safer, smarter, and more sustainable mining ecosystem.

11. Integrated control and command centres have been established.

(d): The National Coal Mine Safety Report (NCMSR) Portal plays a crucial role in enhancing mine safety by serving as a centralized platform for collecting and analysing data on mine accidents and mine safety audits. The NCMSR portal enables trend analysis of reported accidents, allowing for the early identification of potential high-risk areas and unsafe practices.

The NCMSR Portal provides company authorities, an access to accident and mine safety audit data, enabling timely interventions to enhance safety standards in mines and take appropriate measures for improvement of standards of mine safety.

(e): The Bhatgaon Area of South Eastern Coalfields Limited (SECL) had arranged small localized program named “Sneh Milan Mela” under the theme “Nasha Mukti”, focussing on drug de-addiction and social awareness among the worker and families through voluntary participation of employees, their families and local public solely for entertainment purpose with awareness on a social cause building social bonding among employees through their participation by installing food stalls and entertainment stalls build on no profit-no loss system and neither any financial grant nor any fund was raised for the said program, rather the said program was organised by the voluntary involvement of employees and their families for the sole purpose of community togetherness.

(f): Efforts have been made for the safety of workers working in the coal mines of Northern Coalfields Limited (NCL), a subsidiary of Coal India Limited (CIL), spread in Singrauli Coalfields. Details of the steps taken for the safety of workers are given in the above reply of part (b).
