## भारत सरकार/Government of India खान मंत्रालय/Ministry of Mines भारतीय खान ब्यूरो/Indian Bureau of Mines मुख्य खान नियंत्रक का कार्यालय/Office of the Chief Controller of Mines

No. O-11011(6.0)/1/2022-CCOM-MDR-IBM HQ Nagpur, dated:11.01.2024

## Circular No. 1/2024

Subject: Advisory to the Owners and Managers all the Underground Metalliferous Mines for Safety of Mine Workers from Roof and Side Wall failures.

One prominent hazard in underground mining operations is roof and side wall falls, a leading cause of fatal, serious, and minor injuries. It is well-established that the presence of discontinuity planes in underground openings significantly impacts the stability of roofs and sides in these mines. These planes can weaken competent roof rock and serve as zones where deformations are initiated. Faults with increased joint frequency, along with slips and slickensides, play an important role in mine roof stability. Additionally, joints and cleats parallel to roadways and thinly bedded strata in the immediate roof area contribute to strata instability issues. Thorough identification of these discontinuity planes is crucial to assessing their potential impact on roof stability.

In view of the above, the following measures are mandatorily recommended for all the underground metalliferous mines:

- 1. Deploy advanced technology preferably light-weight and handheld equipment at each mine to serve as an effective tool for detecting hidden slips, faults, joints, and cracks in real-time basis, thereby reducing the consequences of roof and side wall falls.
- 2. Deploy and train dedicated, skilled manpower to operate and analyze the data from such advanced technology and equipment to fulfill its intended purpose.

To,

- All the Owners and Managers of the Underground Metalliferous for necessary compliance.
- All Controller of Mines / Regional Controller of Mines / Deputy Controller of Mines (I/c) / Inspecting officers to ensure implementation of aforesaid safety measures during field inspections.
- Directorate General of Mine Safety, Dhanbad for kind information.

(P. N. Sharma)
Chief Controller of Mines (I/c)