

To
The Owners, Agents and Managers
of all Mines.

Sub: Calibration of environmental monitoring equipment.

You may be aware that several environmental monitoring equipments like Methanometer, Toximeter, Oxygen monitor and multigas detectors are now being used in the coal mines for monitoring concentration of different gases in the mine atmosphere. Whereas these instruments are convenient in use they require careful handling and regular maintenance, which include periodic testing for accuracy and calibration. Defective and non-calibrated equipments used for monitoring the mine atmosphere will give incorrect and misleading results, which may create confusion during assessment of correct environmental condition and lead to major accidents & disasters.

Recently while inspecting a degree III gassy mine it was observed the concentration of methane in a race when measured with one instrument showed 0.4% while the other of the same make showed 4.0% in the same face. During the same inspection at another face the two instruments indicated 0.4% & 0.1% CH₄ respectively. Obviously the methanometers were not calibrated. I need not elaborate on the consequences of such faulty measurement.

Checking the accuracy of the instruments and getting them recalibrated at regular interval would bring out any defects in the instruments. As such I would once again like to draw immediate attention of all concerned regarding correct and timely calibration of all monitoring equipments and advise that the following calibration schedule be strictly adhered to :

- a) Methanometers - Every 3 months.
- b) Toximeter, Oxymeter - Every 3 months.
- c) Multigas detector - Every 3 months.
- d) All other equipments - Every 6 months.

Apart from this whenever any instrument shows maximum deflections or high readings, it shall be immediately recalibrated.

The above instruments should be maintained and calibrated by the manufacturer/suppliers of the instruments or their authorized agents or at an approved laboratory. A record of the above shall be maintained showing the date and the details of maintenance and calibration.

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