

LOGO



Title of Training Programme: GAS TESTING IN UNDERGROUND MINES

Duration of training: 03 days (15 Hrs)

Eligibility for course:

Student of Diploma / Degree student of Mining Engineering and completed 20 years of age at the time of application.

Objectives of Training Programme:

All diploma and Degree students of Mining Engineering has to pass Gas Testing Examination conducted by DGMS .

This training programme is designed to prepare the Mining Engineering students for GAS TESTING examination

Course Content:

- **General idea about:**
 - Coal formation
 - Geological disturbances (fold, fault, dykes, etc.)
 - Different galleries (level, dip, rise, cross cut, drift)
 - Development & Depillaring
 - Old working & Goaf
- **Mine Ventilation:**
 - Air & its constituents
 - Requirement of air for breathing
 - Main mechanical ventilator, booster & auxiliary fans, ducting & coursing
 - Mine air
 - Intake & return airways
- **Mine gases – Fire damp & Black damp:**
 - Occurrence, physical properties, physiological effects, permissible limits & detecting equipment
 - Oxidation, combustion, explosion & detonation
 - Explosion limit
 - Coward's diagram
- **White damp & Stink damp:**

- Occurrence, physical properties, physiological effects, permissible limits & detecting equipment
- Explosion limit
- Spontaneous heating & incubation period
- Water – gas explosion
- **Nitrous fumes, Gob stink, After damp, Sulphurdioxide& Hydrogen:**
 - Occurrence, physical properties, physiological effects, permissible limits & detecting equipment
 - Explosion limit
- **Relative Humidity:**
 - Hygrometer, Gas-Air Sampling
 - Graham's ratio
 - Ventilation / Fire / Explosion proof stoppings
 - Water seal & sampling pipe
- **Gas detectors:**
 - Methanometer
 - CO detector
 - Multy-gas detector
 - Miniwarm
 - Microclip
 - Flame Safety Lamp
- **Mine Legislation for Gas testing:**
 - Regulation 116 to 158, 175, 176, 200 of CMR 1957
- **Flame Safety Lamp:**
 - Types & names of lamps
 - Parts & safety features
 - Working principle and uses
 - Assembling % Disassembling
 - Practical demonstration
- **Testing of Fire Damp using flame safety lamp in Gas testing Chamber:**
 - Accumulation test and Percentage Test

After completion of this training programme student will be issued with LAMP HANDLING CERTIFICATE , necessary for applying GAS TESTING EXAMINATION. This training programme will be conducted by Retired officers of Western Coal Fields Limited who have experience in working at VTC centers .

For more details Please Contact :

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