



ABI17010 – MINE SAFETY OFFICER CERTIFICATE

CONTENT

Module 1 - Main type of Mining Methods (Legal regulations)

- Types of mining activity
- Key legal regulatory reg
- Primary safety issues
- Gap analysis

Module 2 – Hazards in Mining Operations

- Physical hazards
- Chemical hazards
- Biological hazards
- Ergonomic hazards
- Psychosocial hazards

Module 3 – Hierarchy of Hazard Control

- Elimination, substitution, engineering control, admin controls and PPE
- Risk profiling and assessment
- 5 steps to Risk Assessment

Module 4 – Safety Culture

- Definition of safety culture
- A strong safety culture
- How to build a strong safety culture
- Occupational management systems ISO14001
- ISO14001
- Safety leadership – transformal, transactional leadership

Module 5 – Job Safety procedures

- Permit to work / work safe permits
- Method statement
- Contractor permits
- Toolbox talks

Module 6 – Hazardous Materials

- Types of hazardous materials

- Site laboratories – gold rooms
- Workshops, water treatment plants, treatment, prevention
- Storing chemicals
- Global system to classify and label hazardous substances
- Classification of hazards
- Management systems for: cyanide and mercury

Module 7 – Basic Fire Fighting

- Types of fire
- Components of fire
- Classification of fires
- Sources of ignition
- Chemistry of extinguishment
- Removal of heat, fuel, oxygen
- Hydrocarbon products – characteristics
- Extinguishers – classification, use
- Fire and explosion prevention
- First aid

Module 8 – Groundwork Control

- Excavation, trench, shield, shoring, sloping
- Matter of gravity, angle of response, high wall, failure
- Rock falls
- High wall instability
- Planor failure, stockpile safety
- Rotational slope failure, toppling failure, circular failure
- Maintaining safe roads, ground control, surface activity in walls and high wall failure
- Tailings management
- Inspection of mines

Module 9 – Tree Felling Safety

- Seven causes of accidents in felling trees
- Five steps safety plan
- Site assessment
- Individual tree assessment
- Preparation work areas
- Felling the tree using safe felling techniques
- Retreat and observe

Module 10 – Electrical Safety in Mining Operations

- What is electricity
- Why can electricity be dangerous
- Control measures, electrical safety

Module 11 – Water Jetty Safety / Water Jetty Hazards

Module 12 – Vehicle Safety

- Hazards with vehicle operations
- Safe site, driver, vehicle, operation

Module 13 – Ergonomic Practices

- Task, load, individual workers, work environment
- Control measures
- Means of avoiding risks
- Manual handling training

Module 14 – Noise

- Physical effects of noise on hearing
- Meaning of common sound measurements
- Assessment of exposure
- Noise control measures
- Personal hearing protection
- Health surveillance

Module 15 – Vibration in Mining Operations

- Effects of vibration on the body
- Assessment of exposure
- Risk assessment
- Vibration control measures
- Suitable personal protection

Module 16 – Accident Investigation

- Legal requirements
- Heinrich and Birds causation theory
- Incident causation module
- Step by step guide to health and safety investigations
- Root cause analysis
- Fishbone root cause
- Witness and interviewing
- Report writing

The Mine Safety Certificate is a 4 day course delivered through e learning or classroom base

There will be a multi-choice assessment paper of 30 questions