

Kratin Mining Academy Nagpur



Kratin

Kratin Solutions Pvt. Ltd.,

47, B-2, 1st Floor, Lambent IT Park, Harihar Nagar, Besa, Nagpur-440034

Email: snkatiyar@kratinsolutions.com;

Website: <http://www.kratinsolutions.com/>

Training Programmes At Kratin Mining Academy, Nagpur & Raigarh

Mining of minerals continues to be a most arduous and hazardous profession making production of minerals in required quantity & of desired quality a big challenge to mining community. Training is of paramount importance to prepare the human resource for facing safety and operational challenges.

The Mines Vocational Training Rules have been framed in the year 1966 with the objective of imparting training about “Safety” to all mine workers. The schedules of training under the Mines Vocational Training Rules were revised in the year 1999 with a view to make these “need based & job oriented” for improvement of knowledge, skill and correct job procedure.

We believe that unless competent and dependable workmen, operators and officials are available in mines, no programme of promotion of safety can make any real headway. Realizing future growth of mining in India and to provide quality class room & on job training for preparing the employees to carry out their job in a safe & efficient manner, Kratin Solutions Pvt. Ltd., Nagpur has established “Kratin Mining Academy” at Nagpur & Raigarh.

The importance of training has been emphasized in several safety conferences at national level and guidelines have also time and again been issued by the DGMS to impart training and retraining as per recommended training modules.

For the benefit of executives from different cadres, all frontline supervisors, the aspirants wishing to join mining industry and with the objective of providing need based training to the mining industry that too at a convenient place near to the mining field, Kratin Mining Academy organizes the following programs:

I) Executives Development Courses:

A) Orientation course for safety officers/ Assistant Managers

(Course code: KMA/SO/AM/ III-D/ 1- Duration 3 days)

Course Content:

- 1) Statutory provisions related to safety & health in mines.
- 2) Hazard identification, Risk assessment and preparation of Risk Management Plan
- 3) System Study & Safety Audit (SYSSA) for eliminating the risk of accident & dangerous occurrences and preparation of Safety management plan.
- 4) How to conduct accident/ incident investigation/ enquiry?
- 5) Accident analysis and control measures to avoid re-occurrence.
- 6) Disaster management
- 7) Preparation of emergency plan
- 8) Best practices for rescue and recovery operation - case studies.
- 9) Tips for improving the quality of safety inspections
- 10) Strata management (Basics of rock mechanics, instrumentation and monitoring)
- 11) Tips for conducting safety classes and motivating workers to actively participate in company's safety, health & environmental programs.
- 12) Effective Safety campaign (Publicity and propaganda)
- 13) Safety committee meetings and organising safety week/ fortnight
- 14) Preparation of annual safety budget
- 15) National safety awards.
- 16) Workers participation in health & Safety management
 - National safety conferences
 - Bipartite and tripartite meetings
 - Recommendations of court of enquiries
 - Recent circulars
- 17) Occupational health surveillance
- 18) Safety of contractual work force
- 19) Pit & dump slope stability and monitoring
- 20) Open session for one hour on each day. (Generally at the end of the day)

B) Orientation course for Ventilation Officers/ Assistant Managers
(Course code: KMA/VO/AM/ III-D/2- Duration 3 days)

Course Content:

- 1) Statutory provisions related to ventilation
- 2) Mine ventilation planning scheduling and auditing.
- 3) Use of software in Mine Ventilation Planning
- 4) Ventilation survey; Maintenance and care of ventilation survey instruments.
- 5) Siting and installation of main mechanical ventilator, auxiliary fans and booster fans
- 6) Practical approach towards improving Ventilation Efficiency Quotient (VEQ)
- 7) Measurement, control, suppression and treatment of respirable dust.
- 8) Prevention & control of airborne dust, Stone dusting, dust sampling plans and ventilation tracings
- 9) Gas testing, Telemonitoring and use of local methane detectors, multi-gas detectors and gas chromatograph
- 10) Spontaneous heating, fires & explosions etc. Recommendations of related court of enquiries
- 11) Effect of Heat and humidity in deep underground mines
- 12) Inspection of old workings and sectionalisation of workings
- 13) Isolation of workings and Environmental monitoring from behind sealed off areas.
- 14) Role of VO in case of emergency in mines
- 15) Best practices in rescue and recovery operation - case studies.
- 16) Disaster management
- 17) Occupational health surveillance
- 18) Ventilation of deep opencast mines
- 19) Open session for one hour on each day (generally at the end of the day).

C) Orientation course for Engineer's

(Course code: KMA/ENG/ III-D/3- Duration 3 days)

Course Content:

- 1) Statutory provisions related to installation, maintenance and operation of machineries
- 2) Safety features in HEMM and underground machineries
- 3) Optimisation of fleet, improving capacity utilisation and reducing breakdown/ idle hours for ensuring uninterrupted availability of machinery
- 4) Safety in installation and shifting of machinery
- 5) Safety features related to winding and wire rope maintenance etc.
- 6) Recent developments in material handling equipments in o/c & u/g mines
- 7) Mechanisation vis-à-vis safety
- 8) Preparation of SOP & COP
- 9) Recent DGMS circulars/ recommendations of Safety conferences related to engineering in mines
- 10) Prevention and control of air borne dust & noise in mines
- 11) Statutory provisions regarding lighting in opencast and underground mines
- 12) Ensuring safety of contractual work force & machines
- 13) Role of Engineer in emergency/ Disaster management
- 14) Risks associated with the use of electrical energy in mines and provisions of Central Electricity Authority (measures relating to safety and electricity supply) Regulations 2010
- 15) Energy Audit for conservation of energy
- 16) Recent advances in training of opencast & underground machine operators.
- 17) Fires in HEMM - Prevention & Control
- 18) Role of ergonomics in improving safety & efficiency of operators.
- 19) Open session for one hour on each day (generally at the end of the day).

D) Orientation course for V.T. Officers

(Course code: KMA/VTO/II-D/4 - Duration 2 days)

Course Content:

- 1) Statutory provisions related to training
- 2) Use of modern training aids for effective training
- 3) Identification of specific training needs and preparation of training modules
- 4) Recent advances in training of mining personnel
- 5) Preparation of Training calendar, budget
- 6) Preparation and submission of training statutory records/ reports
- 7) Safe operating procedures and safe codes of practice
- 8) Prevention of accidents/ incidents during on the job training
- 9) Conducting in house seminars and workshops etc.
- 10) Use of innovative training methods to motivate workers for:
 - Acquiring multi skills
 - Adopting new technology
 - Practicing values and raising standard of living
 - Awareness on alcoholism and related health threats
 - Proper budgeting for a secured future
- 11) Open session for one hour on each day (generally at the end of the day).

E) Orientation course for Personnel Managers

(Course code: KMA/PM/II-D/5- Duration 2 days)

Course Content:

- 1) Labour and industrial statutes applicable to mining industry
- 2) Best practices for healthy industrial relations
- 3) Selection ,training, development and retention of human resources
- 4) Structure and design of mine organisation
- 5) Innovative techniques for team building, developing sense of belongingness and grievance handling
- 6) Conduct and discipline rules in force in the organisation
- 7) Corporate social responsibility towards community
- 8) Role of human values in management

- 9) Role of personnel managers for improving:
 - Standard of living of workmen,
 - Welfare amenities for departmental as well as contractual workforce.
 - Wage negotiations
 - Public relations
 - Functioning of grievance cell
- 10) Leadership and motivation, effective communication
- 11) Role of personnel managers in case of industrial dispute and emergency at the mine
- 12) Creating awareness on alcoholism and related health threats concerning the workers
- 13) Educating workmen on investment of money and proper budgeting for a secured future
- 14) Open session for one hour on each day (generally at the end of the day).

F) Orientation course on Mining for non-mining executives

(Course code: KMA/NME/II-D/6- Duration 2 days)

Course Content:

- 1) Formation of coal
- 2) History of Indian coal mining industry
- 3) Methods of mining opencast & underground
- 4) Economics of different mining methods and mechanisation
- 5) Basics of Mine planning, Mine management, financial controls, safety aspects
- 6) Hazards associated with mining and steps being taken to control the same
- 7) Role of different disciplines in efficient operation of mines
- 8) Environmental impact of mining and remedial measures
- 9) Role of different cadre executives in case of emergency
- 10) Different types of companies & mine organisations.
- 11) Open session for one hour on each day (generally at the end of the day).

II) Supervisory Development Courses:

A) Orientation course for Supervisors (Overman & Sirdar)

(Course code: KMA/OM/MS/III-D/1- Duration 3 days)

Course Content:

- 1) Statutory Provisions related to mine supervision under the Mines Act 1952, CMR 1957 and Mines Rules 1955.
- 2) Duties & responsibilities of competent persons.
- 3) Duties & responsibilities of Workmen Inspector.
- 4) Writing of statutory reports.
- 5) Safety, Productivity and Safe operating procedures.
- 6) Functions of pit safety committee.
- 7) Personal protective Equipments.
- 8) Work place safety and quality inspection
- 9) Environmental monitoring and precautionary measures.
- 10) Mine rescue and recovery.
- 11) Examining, Dressing and supporting of Roof and sides.
- 12) Accident enquiry and report and steps to prevent reoccurrence
- 13) Ensuring health & safety of work persons including contractual labour.
- 14) Recommendations of
 - Recent court of enquiry.
 - 10th Safety conference
 - Important DGMS circulars
- 15) Opencast mines:
 - Pit & waste dump slope stability and monitoring
 - Traffic rules
 - Maintenance of haul roads
 - Deep hole Blasting
 - Lighting
 - Noise, vibrations and dust monitoring
- 16) Importance of observing safety week.
- 17) Importance of First aid and speedy removal of injured.
- 18) Open session for one hour on each day (generally at the end of the day)

B) Orientation course for Supervisors (Foreman & Mate)

(Course code: KMA/FM/Mate/II-D/2- Duration 3 days)

Course Content:

- 1) Statutory Provisions related to mine supervision under the Mines Act 1952, MMR 1961 and Mines Rules 1955.
- 2) Duties & responsibilities of competent persons.
- 3) Duties & responsibilities of Workmen Inspector.
- 4) Writing of statutory reports.
- 5) Safety, Productivity and Safe operating procedures.
- 6) Functions of pit safety committee.
- 7) Personal protective Equipments.
- 8) Work place safety and quality inspection
- 9) Environmental monitoring and precautionary measures.
- 10) Mine rescue and recovery.
- 11) Examining, Dressing and supporting of Roof and sides.
- 12) Accident enquiry and report and steps to prevent reoccurrence
- 13) Ensuring health & safety of work persons including contractual labour.
- 14) Recommendations of
 - Recent court of enquiry.
 - 10th Safety conference
 - Important DGMS circulars
- 15) Opencast mines:
 - Pit & waste dump slope stability and monitoring
 - Traffic rules
 - Maintenance of haul roads
 - Deep hole Blasting
 - Lighting
 - Noise, vibrations and dust monitoring
- 16) Importance of observing safety week.
- 17) Importance of First aid and speedy removal of injured.
- 18) Open session for one hour on each day (generally at the end of the day)

C) Orientation course for Mechanics & Fitters

(Course code: KMA/Mech./III-D/3- Duration 3 days)

Course Content:

- 1) Safety in workshop while using machine tools
- 2) Selection, maintenance and correct method of lubrication
- 3) Preventive maintenance/ check lists for safe and efficient use of different types of bearings
- 4) General safety rules (do's & don'ts) during machine maintenance
- 5) Safety precautions while working on electrical equipments.
- 6) Different types of fire extinguishers and fire fighting techniques
- 7) AFDSS and fire fighting in HEMM with causes and analysis for prevention.
- 8) Safety precautions related to tyres, causes of failures, upkeep, care and maintenance.
- 9) Safety issues related to hydraulic systems, types of pumps, control valves and their adjustments.
- 10) Safety features, controls and emergency operations
- 11) Different types of accidents in opencast/ underground mines
- 12) Man-machine interface for optimum utilisation of equipments
- 13) Safety while repairing elevated heavy parts of machinery
- 14) Safety issues related to the use, storage and transmission of compressed air.
- 15) Various DGMS circulars related to maintenance and repairs of HEMM
- 16) Safe operating procedures
- 17) Writing statutory reports
- 18) Open session for one hour on each day (generally at the end of the day).

D) Training for Safety Committee members

(Course code: KMA/PSC/IV-D/4- Duration – one week/ 6 days)

Course Content:

- 1) Management's Safety policy and Internal Safety Organisation (ISO)
- 2) Workers participation in safety management to improve safety & productivity.
- 3) Role and functions of Safety committee
- 4) Common Causes of accidents- unsafe acts and unsafe conditions
- 5) Accident investigation, analysis and preventive action
- 6) Work place safety and quality inspection
- 7) Safety management plan and risk assessment and risk management
- 8) Codes of practice and Safe Operating Procedures (SOP)
- 9) Methods of working (DGMS exemptions/ permissions, Support plan and Systematic support rules)
- 10) Statutory standards of ventilation, inflammable and noxious gases, their control and monitoring
- 11) Occupational health and safety related statutory provisions
- 12) Strata monitoring and roof and side management
- 13) Monitoring equipments for Dust, Noise, Vibrations, mine environment
- 14) Leadership and communication skills
- 15) Emergency organisation in the event of Fire, Inundation, Explosion etc and disaster management
- 16) Monsoon preparatory arrangements
- 17) Open session for one hour on each day (Generally at the end of the day).

III) Coaching for Competency Certificate Examinations:

To ensure availability of required qualified technical manpower, Kratin Mining Academy (A division of Kratin Solutions Pvt. Ltd. Nagpur) is offering quality guidance and imparting value added coaching to the candidates appearing for following statutory examinations (**Coal & Metal**) being conducted by Board of Mining Examinations/DGMS:

A) For statutory examinations:

- 1st Class Manager's Certificate of Competency (Coal/Metal)
- 2nd Class Manager's Certificate of Competency (Coal/Metal)
- Surveyor's Certificate of Competency (Coal/Metal)
- Overman's Certificate of Competency
- Foreman's Certificate of Competency
- Mining Sirdar's Certificate of Competency
- Mining Mate's Certificate of Competency
- Gas testing Certificate of Competency

B) Mining Sirdar course with practical training:

- To meet the shortage of statutory manpower and to increase the employability of project affected persons, Kratin is providing coaching for “Mining Sirdar Examination with 3 years practical training in mines” for ambitious and meritorious students who wish to join mining industry (Qualification 10+2 & age between 18 to 25 years).

C) Executive/ Staff development programmes:

Kratin also conducts short term courses on following topics at Nagpur, Raigarh or at Clients’ site on special request, for updating & skill development of employees of coal & metal mining industry.

Topics for 1 day duration:

➤ Safety:

- System Study & Safety Audit (SYSSA) (Course code: KMA/Safety/I-D/1)
- Recent Developments in Mine Safety. (Course code: KMA/Safety/I-D/2)
- Accident Prevention & Disaster Management in Mines
(Course code: KMA/Safety/I-D/3)

- Environmental Management in mines (Course code: KMA/Safety/I-D/4)
- Safety conferences and road map for implementation of recommendations (Course code: KMA/Safety/I-D/5)
- Training related to deployment & safety of contractor workers (Course code: KMA/Safety/ I-D/6)
- Improving Quality of inspection for improving production as well as safety standards of the mine (Course code: KMA/Safety/ I-D/7)
- Work place safety and housekeeping for efficient and safe operation. (Course code: KMA/Safety/ I-D/8)
- Statutory amendments in Mines Act 1952, (Course code: KMA/Safety/ I-D/9)
- Statutory amendments in CMR 1957 & (Course code: KMA/Safety/ I-D/10)
- Statutory amendments in MMR 1961(Course code: KMA/Safety/ I-D/11)

➤ **Production:**

- Improving Production & productivity in mines (Course code: KMA/Prod./ I-D/1)
- Emerging technologies in O/C coal mining (Surface Miner, Drag line, Slope stability) (Course code: KMA/ Prod./ I-D/2)
- Emerging technologies in U/G coal mining (Long wall, Continuous Miner, High Wall Mining, Road header (Course code: KMA/ Prod. / I-D/3)
- Optimizing capacity utilisation of HEMM (Course code: KMA/ Prod./ I-D/4)
- Application of IT in Mining (Course code: KMA/ Prod./ I-D/5)

➤ **Ventilation:**

- Ventilation audit, pressure & Quantity survey, analysis of the same and corrective actions. (Course code: KMA/ Venti./ I-D/1)
- Improving efficiency of ventilation in U/G mines (Course code: KMA/ Venti./I-D/2)
- Mine gases, their physiological effects, precautions and remedial measures. (Course code: KMA/ Venti./ I-D/3)

➤ **Human Resource Development:**

- Worker's participation in Safety & Production and motivating the employees for the same. (Course code: KMA/ HR/ I-D/1)
- Sharing best practices of the industry - case studies (Course code: KMA/ HR/ I-D/2)
- Optimization of Human resources in mines. (Course code: KMA/ HR/ I-D/3)

Topics for 2 day duration:

- Hazard Identification, Risk Assessment & preparation of Safety Management Plan (Course code: KMA/Safety/II-D/1)
- Basics of rock mechanics and strata management in U/G mines (Course code: KMA/Safety/ II-D/2)
- Safety Managements in Mines (Course code: KMA/Safety/ II-D /3)
- Recommendations of various courts of enquiries related to mine disaster. (Course code: KMA/Safety/II-D/4)

The above listed courses are being conducted at Kratin Solutions Pvt. Ltd., 47-B2, 1st floor Lambent IT Park, Harihar Nagar Besa, Nagpur - 34.

All these courses can also be conducted at client's site subject to a minimum of 20 candidates. Topics can be tailor made suiting to the needs of the client.

Contact Persons:

Nagpur
Sri. Umashankar Singh, Manager (Admin) 47-B-2, 1 st floor, Lambent IT Park, Harihar Nagar, Beltarodi Road, Besa Nagpur – 34 (MS) Landline: - 07103-281291, Mobile – 9011058530 Email: umashankar@kratinsolutions.com
