JHARKHAND
Rai University
RANCHI

MINE VOCATIONAL TRAINING GUIDELINES

DEPARTMENT OF MINING ENGINEERING

JHARKHAND Rai University RANCHI

DEPARTMENT OF MINING ENGINEERING

MINE VOCATIONAL TRAINING GUIDELINES

❖ Do's and Don'ts in the Organization

Do's-

- ✓ Punctuality (timeliness),
- ✓ Maintaining healthy and cordial relationship with the people in organization.
- ✓ Understanding the work culture.
- ✓ Obeying direct orders from the seniors.
- ✓ Showing a sense of belonging with the organization.
- ✓ Maintaining proper Line and Staff Relationship with the seniors and subordinates (If Any).

Don'ts

- ✗ Do not take the training lightly and casually.
- ✗ Do not give an impression that you are doing the training just for the sake of it. Put your heart and soul.
- ✗ Do not involve in internal politics.
- ✗ Do not reveal you weaknesses.
- ✗ Do not lie to your seniors.
- ✗ Do not waste your time.
- ✗ Do not copy any material. Be original.
- ✗ Do not go for leave unless it is indispensable.
- ✗ Do not ask for favors.

❖ Guidelines for Vocational Training

- ✓ Each student will make three copies of project report in the recommended format. One copy is to be submitted to the Internal Guide individually after completion of training. The students will keep one copy of the project for their further reference in future and one copy to the organization where they have done their summer training (if required).
- ✓ All the students are required to follow the following instruction.
    - ❖ There should not be any deviation from requirement of reproducing the cover page of the report from the format prescribed below.
    - ❖ Preparation of the rough draft.
    - ❖ Rewriting and Polishing the rough draft.
- ✓ As a part of training, the students are required to submit a Project Report and give a presentation to the organization, if necessary. Also, they may be required to submit a project report to the organization.
- ✓ The Report, Presentation on project report and Viva on Project Report are the basis for evaluation of the Project Work at the university level.
- ✓ The project must provide sufficient indication that the student is competent in successful application of acquired management tools and skills to practical problems of industry.

❖ REPORT STRUCTURE

- ✓ Cover and Title page
- ✓ Certificate by the head of the institute that the work is unique.
- ✓ Company's Experience Certificate of Completion of Project should bear signature and the stamp of the officer concerned in the organization where the student has under gone training.
- ✓ Acknowledgement
- ✓ Table of contents (with consecutive numbering)
- ✓ List of Tables and Illustrations
- ✓ Contents
- ✓ Conclusion

VOCATIONAL TRAINING REPORT
KEDLA MINES, CCL

A Project Report Submitted

For the partial fulfillment of the requirements for the award of

BACHELOR OF TECHNOLOGY
IN
MINING ENGINEERING

Submitted By
NAME OF STUDENT
(ENROLMENT NO)

SESSION (20XX-20XX)

JHARKHAND RAI UNIVERSITY
RANCHI
DEPARTMENT OF MINING ENGINEERING

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JHARKHAND RAI UNIVERSITY
RANCHI

CERTIFICATE

This is to certify that this project report "**Vocational Training Report of Kedla Mines, CCL**" is a bonafide work of **NAME OF STUDENT (ENROLMENT NO.)** who carried out authentic project work under supervision and guidance of guide. This is to further certify to the best of my knowledge that this project has not been carried out earlier in this University.

To the best of my knowledge, the matter embodied in this project has not been submitted to any other University/Institute for the award of any Degree or Diploma.

Date:

Internal Examiner(s) **External Examiner(s)** **Head of the Department**
Jharkhand Rai University,
RANCHI

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ACKNOWLEDGEMENT

The Vocational Training in itself is an acknowledged to the inspiration, drive, technical assistance contributed to it by many individuals. This training work would have never been completed without the guidance and assistance that I received from time to time from mines during the whole training process.

It is my great pleasure to place a record of sincere thanks and gratitude to Mr. XYZ (Mines manager), Mr. XYZ (safety officer) of XYZ MINES, Dhanbad.

I express my sincere gratitude and indebtedness **to Dr. Piyush Ranjan (Registrar)** and my internal guide **Prof. D.P. PANDEY (H.O.D. Department of Mining Engineering), Jharkhand Rai University, Ranchi** for giving me an opportunity to enhance my skill in the field of Mining Technology.

Last but not the least we also thank all my friends and other people who provided us with an atmosphere conductive to optimum learning during this project.

NAME OF STUDENT

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CONTENTS
(For Underground Coal / Metalliferous mines)

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CONTENTS

(For Opencast Coal / Metalliferous Project)

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DESCRIPTION OF CONTENTS

1. **General Introduction.**
   - Name of company
   - General Manager
   - Owner
   - Agent
   - Safety officer
   - Manager
   - Engineer
   - Surveyor
   - Details of company
   - Name of the mine Area
   - Project Officer
   - Colliery Engineer.
   - Survey Officer

2. **General information about mine.**
   - Details of mines,
   - Depth
   - Ore reserves
   - Minerals, access to mineral deposit,
   - Name of the mine
   - Mining lease area
   - Name of seam presently worked
   - Nature of the roof
   - Degree of gassiness
   - Main surface feature
   - Manpower
   - Mine boundary

3. **Location of Mine.**
   - Location of mines from all four directions
   - Nearest city, railway station
   - Distance from city
   - Accessibility

4. **Geology of Mine.**

Geology of the rock, Geological disturbances such as fault, joints, dykes etc.

5. **Layout of Colliery.**
   Layout of mines area- diagram

6. **Mine opening**
   Entrance/ access to the deposit
   Dimension of shaft, incline, and adit
   Length of incline, adit
   Depth of Shaft

7. **Status of working seam.**
   Details of seam in which mining is done
   Thickness
   Degree of gassiness
   Height of seam
   Method of working
   Inclination
8. **Status of seams present.**
   Details of all seams available
   Seams under development or depillaring
   Seams which are worked out
9. **Drilling & Blasting**
   Drilling method
   Blasting pattern
   Diameter of hole
   Diameter of drill rod
   Type of Drill bit
   Drilling machines
   Number of drilling machine
   Specification of drilling machine
   Blasting techniques
   Number of holes
   Power of machine

10.Explosive & Accessories.

Types of explosive
Weight of each cartridge
Diameter of each cartridge
Length of each cartridge
Explosives used per hole
Exploder
Explosive accessories
Detonator
Connection of explosives
Company of explosive
Stemming material

11.Magazine.

Capacity of magazine
Location of magazine

12.Haulage Details.

Types of haulage
Rope diameter
Safety devices
Length of haulage
Capacity
Power and make of haulage
Number of haulage system

13.Method of working

(a) Development
(b) Depillaring

14.Time Study.

Time taken in drilling one hole
Time taken on priming one cartridge
Time taken in charging hole
Time taken in stemming the hole
Time taken in operating the exploder

Time taken in disconnecting the cable
Time taken in loading one tub of coal
Cycle time of SDL
Capacity of tub

15.Pumping System.

Type of pump
Capacity
Power required
Number of pumps
Location of pump
Voltage required
Make of pump

16.Supports System.

Type of support system used
Details of each support
Location of support
Roof bolt – Diameter of rod, length of rod, diameter of hole.
Wooden cogs
Steel prop
Chock support

17.Lamp house details.

Lamp capacity
Safety lamp
Charge capacity
No. of self rescuer
Charging voltage required
Life of cap lamp
Check time internal of self rescue
Input voltage of the charger
Output voltage
Time taken to full charging
Discharging time

18.Underground Machinery.

Type of machinery
Name of machinery used in underground mine
Capacity
Quantity of machinery
Make and power of machinery
Specification of machinery

19.Cycle of operation.

Drilling
Charging and Steaming
Blasting
Dressing
Supporting
Loading by LHD on belt conveyor/Haulage system
Transporting by conveyor
Unloading

20.DGMS Violations.

Any violation of rules as stated by DGMS

21.Ventilation.

Type of fan
Number of main mechanical fan
Location of each fan
Capacity of each fan
Power and other specification of fan
Booster fan
Auxiliary fan

22.Production & Man power.

Production per month
Production per day
Production per shift
Manpower per shift
Manpower per day
Output per man shift (OMS)

23.History of Accident (Fire, Inundation etc.)

If any accident occurs due to fire, roof fall, inundation, explosion

24.Safety arrangements.

Safety apparatus used in mines
Quantity of safety apparatus
Safety training conducted in mines

25.Power Supply system.

Power supplied to mines
Location/ grid from which power is supplied
Transformer

26.Ore/Coal handling arrangement.

Method of handling ore/coal

27.Surface & U/G Transportation system.

Details of transport system used in surface and underground

28.Conclusion.

The learning and outcomes of this training for the students