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जिः छिन्दवाडा-४८०४४१



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# COAL TRANSPORTATION ARRANGEMENT PLAN & COAL HANDLING PLANT, Jamunia UG Mine, Pench Area

#### INTRODUCTION

A small coal handling plant has been proposed near Belt Incline No. 1 to handle the entire production of coal from the mine. The CHP will have facilities like storage, weighment of coal. The mode of despatch will be by road with the help of trucks to miscellaneous consumers.

#### **DESIGN PARAMETERS**

a) Mine Operation

3 Shifts / Day

b) CHP Operation

3 Shifts / Day

c) Life of the mine/Revenue Life

37 Years / 33 Years

d) Size of coal (ROM)

(-) 200 mm

e) Grade of coal

'C'

f) Mode of Despatch

By Road

g) Customer

State Electricity Boards and/or

other misc. consumers

# **CHP Working Schedule**

CHP will work for 300 days in a year. There will be 3 shifts in a day. It will work 5 hours per shift.

## System Capacity of CHP

System capacity of CHP is around 200 tonnes per hour.

#### Salient Features of CHP

- a) Trunk belt conveyor TB1 of 1000 mm wide for transporting coal from underground to surface through Incline no. 1
- b) Storage of coal in a 2 x 100 t capacity overhead twin hopper
- c) Despatch of coal on road by trucks
- d) Dust suppression and fire extinguisher system
- e) Power supply, illumination and control systems
- f) Civil and structural cost

g) Weighment of coal with the help of 100t capacity electronic road weighbridge

### System Description

Coal from underground will be brought to surface by trunk belt conveyor TB1 of 1000 mm wide through Incline no. 1. TB1 will discharge coal into a 2 x 100t capacity overhead twin hopper. Trucks will be loaded from below these overhead hoppers with the help of reciprocating feeders provided at the bottom openings of the hoppers.

An electronic road weighbridge of 100t capacity will be provided at a convenient location near the CHP and used for the weighment of empty and loaded trucks. The weighbridge will have printing facility for keeping records and for preparation of bills.

In case there is no off-take and the hoppers are full, coal from hoppers will be dumped by trucks at a suitable location on ground. These heaps will be liquidated at a later date, as and when possible, by using front-end loaders / pay loaders, available in the project.

#### **Plant Description**

#### **Coal Receipt Section**

Trunk belt conveyor TB1 of 1000 mm wide and 200 tph capacity will transport coal from underground to surface through Incline no. 1. Trunk Belt TB1will discharge coal into a 2 x 100t capacity overhead twin hopper.

#### Storage hopper

One 2 x 100 t capacity overhead twin hopper will be provided for storage of ROM coal.

All the coal hoppers will be 6m x 6m size. The slope of hopper faces will be 55° with horizontal. Abrasion resistant tiscral / equivalent liners of minimum 10 mm thickness will be fixed to the base plate by means of plug welding.

#### Truck Loading

Trucks will be loaded below the overhead hoppers. For this purpose, reciprocating feeders of 200t capacity each will be provided at the discharge openings of the hoppers.

The truck so loaded shall pass through the service road maintained for the coal transportation purpose which use the road presently being used for transportation of coal from Urdhan OC Mine to Railway Siding.

In case the coal is not being transported directly from the Hoppers, Coal brought from the Pit shall be stacked separately at the Coal Stock Yard so demarcated. Only tenancy land acquired is being used for transportation purpose of coal from the Underground Mine.

The coal so brought to the surface shall be transported by truck by Hiring of Tippers by contractor by a 2.4 Km service tar felted road leading to Urdhan OC mine despatch road. The rated coal production of around 2,000 Te. / day shall be transported through around 60 tippers per day on this road.

