Executive Summary

Of

The Proposed 2 x 300 MW
Dhanras Thermal Power Station

At Dhanras Village

Katgora Taluk, Korba District, Chhattisgarh.

Implemented By

Dheeru Powergen Private Limited.

Submitted to

CHHATTISGARH ENVIRONMENTAL CONSERVATION BOARD

By

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DHEERU POWER PROJECT 2 X 300 MW

Dhanras village, Katghora Tehsil, Korba District.
Chhattisgarh State.

EXECUTIVE SUMMARY

1.0 Introduction

Ranhill Berhad a leading infrastructure developing company in Malaysia. Ranhifl Berhad was formed in 1973 and then onwards the company is marching forward in development in the areas of water, power, oil and gas, high raise buildings as well as roads and bridges. The company owns 320 MW Gas based power plant in Sabah, Malaysia, which is being expanded to 190 MW, The company is developing a Hydro Power Project at New Bong Pakistan.

Ranhill Berhad is one of Malaysia's market leaders in the design, engineering and construction of power transmission and infrastructures, as well as being the Malaysia's largest manufacturer of medium voltage switchgearri and distribution
transformers which they export to 14 countries.

In addition, they operate and maintain power plants and power distribution networks, and undertake the retrofit and upgrading of electrical equipment.

DHEERU POWERGEN PRIVATE LIMITED (DPPL)

Dheem Powergen Private Limited (DPPL) promoted by Ranhill Berhad proposes to setup a 2 x 300 MW Coal Based Power Plant in Dhanras village in Korba District, Chhattisgarh State, DPPL has entered into a MOU with the Government of Chhattisgarh /Chhattisgarh Slate Electricity Board (CSEB) on 20lh October 2004. Ranhill Berhad is the majority equity partner of DPPL and will be financing the project.

DPPL will implement the project at an estimated total capital cost of about Rs. 2600.00 Crores.

2.0 REQUIREMENTS OF THE PROJECT.

LAND : DPPL has identified an area of 701.15 acres falling in the jurisdiction of Dhanras and Chum villages, in Katghora Tehsil, Korba District of Chhattisgarh,

FUEL: Coal is considered as the main fuel for [he proposed plant. The coal requirement of the plant is estimated to be about 93l5t/day at 100% plant load factor for 365 operational days, which will be obtained from the mines of South Eastern Coalfield Limited (SECL).

The coal consumption has been worked out based on coal calorific value of 3865kcal./kg (GradeF), sulphur content of 0.5% with ash content of 45%.

DPPL has considered power plant operation at 85%PLF for which the annual coal requirement to be about 2.88 Million Tonnes. However for estimation of impacts and design of ash pond, the coal consumption is taken at 100%,

Coal will be transported from the South Eastern Coalfield Limited (SECL) mines through railway wagons to Korba, where there is already railway station catering the needs of the nearby power plants,

Fonri Korbii, the coal transportation to the proposed plant site is by raii ihrough existing railway lines from Korba station to Surakachar and then via BALCO power plant. Also about 9.8 KM long railway siding will be laid from Surakachar-Balco Siding by tapping at L.S.2,73 km of the siding.

WATER: The total water requirement is estimated to be about 57600 Cu,M per day. This requirement will be met from Hasdeo River by laying a pipe line to plant site. The approximate distance of the pipe line from the river to the project is about 6.5 Km.DPPL has applied for permission from Water Resource Department Government of Chhattisgarh for water drawal from Hasdeo River.

MANPOWER. COLONY AND FACILITIES ETC.

DPPL proposes to recruit 160 skilled and semi - skilled workers for the project. DPPL will arrange residential accommodation near the plant site for its employees An area of 45 acres in Churri village has been identified for the colony

3.0 rapid environmental impact assessment study

DPPL had conducted Rapid Environmental Impact Assessment study (REIAJ of [he proposed 2 X 300 MW coal Based Thermal Power in an area of 10 km radius around the proposed power plant site.

3.1. BASELINE DATA

To assess the impacts on the environment due to the proposed 2 x 300 MW Power Plant, baseline data was collected for the winter season 2005 - 06. Detail of the same are given below.

A. MICRO - METEOROLOGY

The predominant wind direction during this period was from NW (31-09%) NNW (17.48%) and WNW (13.73%) direction accounting to about 68.3% of the total time with calm wind of less than 1.0 kmph for about 2.07% Wind speeds during this period were varying between 1.0-15 kmph and during some of the times the wind speed was recorded more than 15 kmph.

B. AMBIENT AIR QUALITY

Twelve ambient air - monitoring stations were selected within the 10 km radius of study area, representing the downwind, cross wind and upwind impact scenario of the project site.

Concentrations of Total Suspended Particulate Matter (TSPM) and Reparable Particulate Matter (RPM) in the study area are contributed mainly by the local activities and unmetalled roads in the study area. The concentrations of sulphur dioxide (SO2) and Oxides of Nitrogen (NQx) are contributed by vehicular emissions. The Ambient Air Quality monitored in the study area was found to be well within the limits of NAAQ standards prescribed for Residential, Rural & Other Areas.

AIR POLLUTION CONTROL MEASURES

One single chimney of 220 M height with two parallel flues will be provided for effective dispersal of pollutants into the atmosphere. Electrostatic precipitators (EPS) will be provided to bring down the particulate emission in the exhaust of the boiler stack to less than 100mg/Nm^3.

Continuous sprinkling of water on coal stock piles lo ensure the suppression of dust.

Dust extraction / suppression system shall be provided in the crusher house and transfer points.

Adequate number of Bag filters at various coal handling areas to trap dust will he provided. Massive green belt development in an area 47.2 Hectare is proposed.

B. NOISE ENVIRONMENT

The major source of noise generation in the propose power project will be steam turbine generator, boiler, boiler led pumps and air compressors.

The ambient noise levels at plant boundary will be less than 75 dBA.

The extensive gene belt proposed to be developed in the plant premises will reduce the noise levels. Hence there will not be any adverse impact due to noise on populations in the surrounding areas.

C. WATER ENVIRONMENT

The total waste water generation from the plant estimated to be 10845 m / day. However, part of the wastewater which is about 1610m^3/ day is recycled in the cooling water system. Hence the net wastewater generation from the plant 9235 m^3/ day and domestic wastewater generated from the plant and colony is 119m^3/ day. Of the industrial wastewater of 9116m^3 / day, 75m^3 / day of wastewater generated from the clarifier blow down will be disposed to ash pond and the balance wastewater will be utilized for dust suppression, ash handling and greenbelt development.

The domestic wastewater of 119m^3 / day will be treated in full fledge sewage treatment plant and the treated wastewater will be utilized for greenbelt development.

D. LAND ENVIRONMENT

Greenbelt in an area of 47.2 ha. will be developed. This will help in reducing the dust level, noise levels and also the ambient temperature.

The fly ash generated will be utilized mid stored as per the Ministry of Environment & Forests, New Delhi Notification on fly ash utilization, DPPL has initiated discussions with Cement manufacturers for utilizing the ash fly in Portland Pozzolona Cement production. Bottom ash and utilization fly ash will be stored in the ash pond.

The ash pond in an area 91.2 ha. shall be constructed such that the dyke is formed to contain die fly ash slurry. After settlement of ash slurry, the water will filter into a collection well from where the water will be pumped in the clarifier. The recycle water from a clarifier will be pumped to the ash water sump located in the main plane area for reuse.

Suitable impervious lining for the ash pond will be provided to prevent leaching of ash from the pond based on soil investigation during detailed engineering.

E. SOCIO - ECONOMIC ENVIRONMENT

Any industrial activity will help in improving the Socio - economic condition in areas like secondary employment generation, infrastructure facilities etc.

20 Families located in the identified site are to be displaced. DPPL will follow Rehabilitation and Resettlement guidelines of Government,
Construction and operation of the proposed power Plant would result in elevation of the socio economic development of the surrounding villages.

A total of about 160 persons under direct employment will be benefited due to implementation of the project. About 2000 - 3000 (peak) people will benefit during construction activity under each phase. Apart from [his, about 300 people will be benefit under indirect employment during operation of the power plant in areas like house keeping, security, ash management, horticultural and maintenance of infrastructure.

The management of DPPL will give preference to the locals under indirect employment.

DPPL will take up various social welfare measures for development of the area in the vicinity of the power plant. The focus areas include.

Education

Health

Youth welfare

4.0 BUDGET FOR IMPLEMENTATION OF ENVIRONMENTAL MANAGEMENT PLAN, DPPL will incur a capital expenditure of about Rs.240 Crores towards implementing the Environment Management Plan.

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