

## **SALIENT TECHNICAL FEATURES**

### **INTRODUCTION**

Kerendari 'A' Coal Block or, Kerandari Coal Mine has been allocated to NTPC under Captive mode. It is located in the northern part of the North Karanpura Coalfield and lies in Hazaribagh district of Jharkhand. This block is contiguous to Chatti Bariatu Block owned by NTPC in the West, Dumri Block in the North West, Kerendari 'B' in the East and Tandwa State Highway in the South.

The block is about 45 km. from Hazaribagh and is connected by an all weather metalled road going from Hazaribagh to Tandwa and the nearest rail head is Ray Station (Approximately 25 km from the block).

Kerandari 'A' Coal Block shows a flat topography and is dissected by a number of seasonal streams. The drainage is controlled by the Basaria nala in the East & Baldeori nala in the South-Central part of the block.

The Mining Plan and Mine Closure Plan of Kerendari 'A' Coal Block is already approved by Ministry of Coal for a targeted capacity of 6 MTPA. The environment clearance has been granted by MoEF. Stage-II Forest clearance has also been granted by MoEF.

### **GEOLOGY**

Total area of the allotted coal block is 654 Hectare (Ha). Geological Report procured from CMPDI covers 413 Ha on northern side with proven reserves (wherein detailed exploration is completed) and 241 Ha on southern side (dip side) with indicated reserves (wherein detailed exploration was not carried). Hence, Mining Plan was prepared and approved for proven reserves in northern part only. The block is moderately faulted with 5 faults. The strike of the strata is roughly E-W with southerly dip of 9° to 11°.

The Barakars are the main coal bearing formation in this block. There are four persistent coal seams in Barakar Formation, viz. Seam-I, II, III & IV in ascending order. In addition of these, one local coal horizon i.e. L of generally 1 to 2m thickness also occurs below Seam-I Bottom. Out of four Barakar Coal Seams Seam-I, is splitted into three Sections, whereas Seam-II, III & IV are splitted in two sections. These sections have been designated as Top, Middle and Bottom. Besides these four main Seams, four more thin Coal horizons are seen to have developed above Seam-IV and are namely Seams IVA, IVB, IVC & IVD.

The most potential coal seams of the block from thickness point of view are Seam I TMC (14 to 15m), Seam I Middle (10 to 12m), Seam II Bottom (7 to 9m), Seam IV Combined (8 to 9m) and Seam IV Top (6 to 7m). The remaining potential coal seams namely Seam I Bottom, Seam I Top, Seam II Top, Seam III Bottom, IV Bottom and Seam L (Local) are thin having generally 1m to 3m thickness.

The total Mineable reserve within the block is 139.74 Million tones and the total corresponding overburden/ interburden is estimated as 616.65 million cubic meters.

## **.MDO SCOPE OF WORK**

The MDO shall plan, design, engineer, finance, construct, develop, operate and maintain the Kerandari Coal Mine (for which Mining Plan and Mine closure Plan has been approved by MoC) to deliver coal of specified quantity and quality to NTPC which includes Mine Development activities required for project. This shall interalia involve Land Acquisition and R&R related activities such as interaction with PAPs, State Government and other agencies, physical possession of land,etc.

It also includes excavation of various rocks/earth cutting by mechanized means, loading, transportation, dumping, dozing, mining of coal, leveling at OB dumping site to ensure progressive mine closure and infrastructures facilities like equipment workshop, electrical substations, pumping arrangements, haul road maintenance ,Diversion of nala, strengthening of nala, Construction of internal roads etc., and discharge of coal to delivery point and compliance to all statutory rules, regulation and laws as applicable.

## **NTPC's SCOPE OF WORK**

NTPC's scope of work includes providing Geological Report of the block, Approved Mining Plan & Mine Closure Plan, Approved EIA/EMP report and also make payment towards land acquisition, various grants under R&R, Construction, Operation & maintenance of Permanent coal evacuation system etc.