



OFFICE OF THE
STATE POLLUTION CONTROL BOARD, ODISHA

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BY REGD POST

No. 6861 /

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Date 15.05.17 /

OFFICE MEMORANDUM

In consideration of the application for obtaining Consent to Establish for **Orient UG Mine-I & II of M/s Mahanadi Coalfields Limited**, the State Pollution Control Board has been pleased to convey its Consent to Establish under section 25 of Water (Prevention & Control of Pollution) Act, 1974 and section 21 of Air (Prevention & Control of Pollution) Act, 1981 **for production of coal up to 0.87 MTPA over an area of 1857.241 ha. at – Orient Colliery, Post – Brajrajnagar** in the district of Jharsuguda with the following conditions.

GENERAL CONDITIONS:

1. This Consent to establish is valid for the product, method of mining and capacity mentioned in the application form. This order is valid for five years, which means the proponent shall commence mining activities for the proposal within a period of five years from the date of issue of this consent to establish order. If the proponent fails to commence mining activities for the proposal within five years then a renewal of this consent to establish shall be sought by the proponent.
2. The mine shall apply for grant of Consent to Operate under section 25/26 of Water(Prevention & Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981 at least 3 (three) months before the commencement of production and obtain Consent to Operate from this Board.
3. This consent to establish is subject to statutory and other clearances from Govt. of Odisha and/or Govt. of India, as and when applicable.

SPECIAL CONDITIONS:

A. General

1. The proponent shall comply to the conditions imposed in environmental clearance issued vide letter no. J-11015/197/2008-IA-II (M), dated 26.02.2013.
2. The proponent shall obtain forest clearance for the forest land involved in the mine lease area. No mining shall be undertaken in/under the forestland until prior forestry clearance has been obtained under the provisions of FC Act 1980.
3. The method of mining shall be by using Board & Pillar method with continuous miner.
4. Coal extraction shall also be optimized in areas where agricultural production is continuing. Some pillars shall be left below the agricultural land. No coal depillaring shall be undertaken below areas of habitation without stowing and with prior approval of DGMS.

- Adequate measures shall be taken for control of noise levels below 85 dBA in the work environment.

B. Water Pollution

- Oil and grease trap should be installed before discharge of effluent from workshop. Wastewater from the mine pit, check dams or any other discharge leaving lease boundary of the mine should be properly collected, treated so as to conform the following standard i.e. pH = 5.5 – 9.0, SS = 100 mg/l, COD = 250 mg/l & Oil & Grease = 10 mg/l.
- Protective bunds and garland drains shall be provided so that no water from the surface enters the subsidence area and the shaft.
- Garland drains (size, gradient and length) around the safety areas such as mine shaft and low lying areas ad sump capacity shall be designed keeping 50 % safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine sites. Sump capacity shall also provide adequate retention period to allow proper settling of silt material.
- Regular monitoring of groundwater level and quality shall be carried out by establishing a network of existing wells and construction of new piezometers. The monitoring for quantity shall be done four times a year in pre-monsoon (May), monsoon (August), post-monsoon (November) and winter (January) seasons and for quality in May. Data thus collected should be submitted to the Board quarterly.
- The domestic wastewater generated of quantity 362 KLD from the proposed township will be treated in proposed sewage treatment plant of capacity 420 KLD. The STP will be consisting of Collection cum equalization, Aeration (Biological treatment process), Settling (Clarifier), Recirculation (for activated sludge process) and Physical filtration. The treated water is reused for gardening and plantation and the surplus water will be discharged to outside Banjari Nallah during rainy season shall meet following prescribed standard.

Sl. No.	Parameters	Standards
1.	pH	6.5-9.0
2.	BOD(mg/l)	Not more than 10
3.	COD(mg/l)	Not more than 50
4.	TSS(mg/l)	Not more than 20
5.	NH4-N(mg/l)	Not more than 05
6.	N-total(mg/l)	Not more than 10
7.	Fecal Coliform (MPN/100ml)	Less than 100

Note: These standards will be applicable for discharge in water resources as well as for land disposal. The standards for Fecal Coliform may not be applied for use of treated sewage in industrial purposes.

C. Air Pollution

- High efficiency bag filters, water sprinkling system shall be provided to check fugitive emissions from crushing operations, loading operations, conveyor system, haulage roads, transfer points, etc. Major approach roads shall be black topped and properly maintained.
- Water spraying with adequate frequency shall be carried out through mobile water tanker to reduce dust pollution.

13. An afforestation plan shall be prepared and implemented for the areas acquired under surface rights and shall include areas along roads, infrastructure, township, CHP, along ML boundary, etc., by planting native species in consultation with the local DFO/Agriculture Department. The density of the trees shall be around 2500 plants per ha.
14. Four ambient air quality monitoring stations shall be established in the core zone as well as in the buffer zone for monitoring PM_{10} , $PM_{2.5}$, SO_2 and NO_x . Location of the stations shall be decided based on the meteorological data, topographical features and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board. Monitoring of heavy metals such as Hg, As, Ni, Cd, Cr, in particulates shall be carried out at least once in six months.
15. Data on Ambient Air Quality (PM_{10} , $PM_{2.5}$, SO_2 and NO_2) and other monitoring data shall be regularly submitted to the State Pollution Control Board and the Central Pollution Control Board once in six months. Random verification of samples through analysis from independent laboratories recognized under the EP Rules, 1986 shall be furnished as part of the compliance report.

D. Solid Waste

16. The solid waste amounting to 0.01 Mm^3 was generated during construction of drifts and staple pits during the initial stages of mining which was disposed off by filling the low-lying area on the surface of the mine. Further, any solid waste if so generated during the mining operation shall be utilized for filling the voids created in the mine itself as proposed.

To

The Manager,
Orient UG Mine No. I & II of
M/s Mahanadi Coalfields Ltd.,
Post - Orient Colliery, Brajrajnagar,
Dist - Jharsuguda.


MEMBER SECRETARY

Memo No. 6862 /Dt. 15.05.17

Copy forwarded to:

1. The Secretary Steels & Mines, Govt. of Odisha, Bhubaneswar
2. The District Magistrate & Collector, Jharsuguda.
3. The Director, Directorate of Mines, Govt. of Odisha, Bhubaneswar
4. The Regional Officer, SPC Board, Jharsuguda.
5. The DFO, Jharsuguda.
6. Copy to HSM Cell, SPC Board, Bhubaneswar
7. Consent to Operate section, SPC Board, Bhubaneswar.
8. Copy to Guard file.


SR. ENV. ENGINEER (N)