

CHHENDIPADA

No. J-11015/4/95-IA. II (M)
Government of India
Ministry of Environment & Forests



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June 30, 2000

To

Shri A. N. Sinha,
General Manger (Envt.),
Mahanadi Coalfields Ltd.,
Chhendipada Area
P.B. Chhendipada,
District Angul, Orissa-759 124

Subject: Chhendipada OCP Coal Project (0.35 MTY) of M/s Mahanadi Coalfields Ltd. village and tehsil Chhendipada, District Angool, Orissa- environmental clearance reg.

Sir,

This has reference to your company's letter No. MCL:SAMB:ENVT:C-01:95:251 dated 10.08.1995 and subsequent communications dated 03.01.1996, 08.03.1996, 27.11.1997, 16.10.1999, 13.01.1999 and 10.02.2000. The Ministry of Environment & Forests has examined the application. It has been noted that the total lease area of the mine is 76.30 ha., **which includes 24.30 ha. of forest land.** Forestry clearance has been obtained on 15th November, 1996. Targeted production capacity of the mine is 0.35 million tonnes / annum. The project does not involve displacement of people. NOC from the Orissa Pollution Control Board has been obtained. Mining plan approval is awaited from the Ministry of Coal.

2. The Ministry of Environment and Forests hereby accords environmental clearance to the above **Chhendipada OCP Coal Project (0.35 MTY) of M/s Mahanadi Coalfields Ltd.** under the provisions of the Environmental Impact Assessment Notification, 1994 as amended on 04.05.1997 and 10.04.1997 subject to the compliance of the terms and conditions mentioned below:

A. Specific conditions

- (i) OB dump(s) should be designed properly for stability keeping in view the characteristics of the OB and angle of slope. The overall slope angle of the OB dump (s) should not exceed 28°.

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OB dumps should be stacked at earmarked dump site(s) only and should not be kept active for long period. External OB area should be restricted to 11.56 ha. Monitoring and management of rehabilitated areas should continue until the vegetation becomes self-sustaining. Compliance status should be submitted to the Ministry of Environment & Forests on yearly basis.

- (ii) Garland drains of appropriate size should be constructed, to collect surface run-off from the OB and waste dump site(s) and taken to settling pond before discharge into water body.
- (iii) Dimension of the retaining wall at the toe of dumps and OB benches within the mine to check run-off and siltation should be based on the rain fall data.
- (iv) The land reclamation and concurrent back-filling should start from 5th year of the mining as per EMP. Efforts should be made to prepone the back filling schedule. A detailed mine decommissioning plan should be submitted to the Ministry of Environment & Forests 5 years in advance for approval.
- (v) A green belt of 15 m width should be raised by planting the native species around the ML area, roads, OB dump sites etc. in consultation with the local DFO / Agriculture Department. The density of the trees should be around 2500 plants per ha.
- (vi) Regular monitoring of ground water level and quality should be carried out by establishing a network of existing wells and constructing new piezometers. The monitoring should be done four times a year in pre-monsoon (April / May), monsoon (August), post-monsoon (November) and winter (January) seasons. Data thus collected should be submitted to the Ministry of Environment & Forests and Central Ground Water Board quarterly.
- (vii) Project authorities should undertake sample survey to generate data on pre-project community health status within a radius of 1 km from proposed mine.
- (viii) The project authorities should meet water requirement of nearby village(s) in case the village wells go dry due to de-watering of the mine.
- (ix) Appropriate mitigative measures should be taken to prevent pollution of Gauduni nallah in consultation with the SPCB.
- (x) The project and environmental protection measures costs should be reworked and informed to MoEF along with its break-up.
- (xi) Drills should be operated with dust extractor or wet drilling should be adopted.

- (xii) The project authorities should obtain necessary approval from the concerned State authorities for pumping water from Tikra nadi for the project and power before taking up developmental work at the mine site.
- (xiii) "Consent to operate" from the Orissa State Pollution Control Board and mining plan clearance from the Ministry of Coal should also be obtained.
- (xiv) All the outlet roads of the project to be used for transportation of material should be metalled and properly planted on both sides.

B. General conditions

- (i) No change in mining technology and scope of working should be made without prior approval of the Ministry of Environment & Forests.
- (ii) No change in the calendar plan including excavation, quantum of mineral coal and waste should be made.
- (iii) Four ambient air quality-monitoring stations should be established in the core zone as well as the buffer zone for RPM, SPM, SO₂, NO_x and CO monitoring. Location of the stations should be decided based on the meteorological data, topographical features, and environmentally and ecologically sensitive targets in consultation with the State Pollution Control Board.
- (iv) Data on ambient air quality (RPM, SPM, SO₂, NO_x & CO) should be regularly submitted to the Ministry including its Regional office at Bhubaneswar and the State Pollution Control Board / Central Pollution Control Board once in six months.
- (v) Fugitive dust emissions from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangement on haul roads, wagon loading, dump trucks (loading & unloading) should be provided and properly maintained.
- (vi) Adequate measures should be taken for control of noise levels below 85 dB in the work environment. Workers engaged in blasting and drilling operations, operations of HEMM, etc should be provided with earplugs / muffs.
- (vii) Industrial waste water (workshop and waste water from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422 (E) dated 19th May, 1993 and 31st December, 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of workshop effluents into the pond.
- (viii) Acid mine water, if any, has to be treated and disposed of after conforming to the standard prescribed by the competent authority.

- (ix) Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.
- (x) Personnel working in dusty areas should wear protective respiratory devices and they should also be provided with adequate training and information on safety and health aspects.

Occupational health surveillance program of the workers should be undertaken periodically to observe any contractions due to exposure to coal dust and take corrective measures, if needed.

- (xi) A separate Environmental Management Cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.
- (xii) The funds earmarked for environmental protection measures should be kept in separate account and should not be diverted for other purpose. Year wise expenditure should be reported to the Ministry.
- (xiii) The Regional office of this Ministry located at Bhubaneswar shall monitor compliance of the conditions. The project authorities should provide a set of filled-in questionnaire, Environmental Impact Assessment / Environmental Management Plan to them and extend full cooperation to the officer(s) of the Regional office by furnishing the requisite data/information/monitoring reports.
- (xiv) The project authorities should advertise at least in two local newspapers widely circulated around the project, one of which shall be in the vernacular language of the locality concerned informing that the project has been according environmental clearance and a copy of the clearance letter is available with the State Pollution Control Board and may also be seen at web site of the Ministry of Environment & Forests at <http://envfor.nic.in>.

3. The Ministry or any other competent authority may stipulate any further condition for environmental protection.

4. Failure to comply with any of the conditions mentioned above may result in withdrawal of this clearance.

5. The above conditions will be enforced, *inter-alia*, under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, the Air (Prevention & Control of Pollution) Act, 1981, the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.



(K. K. JAIN)

ADDITIONAL DIRECTOR