

REGD. POST

OFFICE OF THE  
STATE POLLUTION CONTROL BOARD, ORISSAParivesh Bhawan, A/110, Nilakantha Nagar, Unit-VIII,  
Bhubaneswar - 751 012

No. 8670 /And-II-NOC-1042

L.K. Tiwari,  
Member Secretary

Date 13/5/03

## OFFICE MEMORANDUM

In consideration of the application for obtaining Consent to Establish for M/s Natara u/g Coal project, 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 manufacturing / production of Coal Quantity 0.64 MT/year, At, Talcher, in the district of Angul with the following conditions.

## GENERAL CONDITIONS.

1. This Consent to establish is valid for the product, quantity manufacturing process and raw materials as mentioned in the application & for a period of five years from the date of issue of this letter, provided commencement of production of the proposed project has not taken place in the meantime.
2. If the proponent fails to start operation of the project but substantial physical progress has been made then a renewal of this consent shall be sought by the proponent.
3. If the proponent fails to initiate construction of the project and no significant physical progress is made then, the proponent has to apply for consent to establish afresh after expiry of 5 years from the date of issue of this order.
4. Adequate effluent treatment facilities are to be provided such that the quality of sewage and trade effluent satisfies the standards as prescribed under EP Rule or as prescribed by the Central Pollution Control Board and/or State Pollution Control Board or otherwise stipulated in the special conditions.
5. All emission from the industry as well as the ambient air quality and noise are to conform to the standards as laid down under EP Rule/Central Pollution Control Board/State Pollution Control Board or otherwise stipulated in the special conditions.
6. Adequate method of disposal of solid waste is to be adopted to avoid environmental pollution.
7. The industry is to comply to the provisions of EP Act, 1986 and the rules made thereunder with their amendments from time to time such as the Hazardous Chemical/Manufacture, Storage and Import Rule, 1989 etc. The industry is also to comply to the provisions of Public Liability Insurance Act, 1991, if applicable.
8. The industry is to obtain permission from the local authorities as applicable.

Contd. Pg/2

The Industry is to 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 (if coming under air pollution control area) at least 3 (three) months before the commercial production and obtain Consent to Operate.

SPECIAL CONDITIONS :-

1. Top soil should be stacked properly with proper slope at earmarked site(s) with adequate measures and should be used for reclamation and rehabilitation of mined out areas.
2. OB dumps should be stacked at earmarked dump site(s) only and should not be kept active for long period. The total height of the dumps should not exceed 90 m, each stage should preferably be of 15 m, but should not exceed 20m. Overall slope of the dump should not exceed 28°. Concurrent back-filling should be started from the fourth year of operation. 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.
3. Catch drains, and siltation ponds of appropriate size should be constructed to arrest silt and sediment flows from soil, OB and mineral dumps. The drains should be regularly desilted and maintained properly.  
Garland drains (size, gradient and length) and sump capacity should be designed keeping 50% safety margin over and above the peak sudden rainfall and maximum discharge in the area adjoining the mine site. Sump capacity should also provide adequate retention period to allow proper settling of silt material.
4. 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 rainfall data.
5. A green belt of adequate width should be raised by planting the native species around to ML area, coal handling plant, roads, OB dump sites, etc., in consultation with the local DFO/Agriculture Department.
6. 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 Board quarterly.
7. Coal handling plant (CHP) should be provided with adequate number of high efficiency dust extraction system. Loading and unloading areas including all the transfer points should also have efficient dust control arrangements. These should be properly maintained and operated.
8. Drill should be wet operated or with dust extractors and controlled blasting should be practiced.
9. Project authority should undertake sample survey to generate data on pre-project community health status within a radius of 1 km. from proposed mine

10. Coal drills should be operated with dust extracted or should be wet operated.
11. Sewage Treatment Plant should be installed for the treatment of domestic effluent generated from the colony and mines so as to meet the prescribed standard of the Board for discharge to inland surface water.
12. Consent to operate should be obtained from SPCB before starting mining activities.
13. No change in mining technology and scope of working should be made without prior approval of the Board.
14. No change in the Calendar plan including excavation, quantum of mineral coal and waste should be made.
15. Six ambient air quality monitoring stations for 24 hours operation should be established in the core zone as well as in the buffer zone for RPM, SPM, SO<sub>2</sub>, NO<sub>x</sub>, 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.  
Data on ambient air quality (RPM, SPM, SO<sub>2</sub>, NO<sub>x</sub> and CO) should be regularly submitted to the State Pollution Control Board once in six months.
16. Fugitive dust emissions from all the sources should be controlled regularly monitored and data recorded properly. Water spraying arrangements on haul roads, wagon loading, dump trucks (loading & unloading) should be provided and properly maintained. The mine shall conform to the standards prescribed under National Ambient Air Quality as per Air (PQP) Act, 1981. During operation phase for watering of the roads minimum 02 numbers of water tankers should be provided. The frequency of the watering shall depend upon the requirement to keep the ambient air quality level to the required standard.
17. All efforts shall be taken to protect the existing water bodies in the surrounding.
18. Black top roads shall be made inside the mine as well as all designed dumps & stockyards. Lay out plan to this effect to be submitted to the Board within a month. Initially 50% of haul roads should be black topped/concrete surfaced. Initially 50% of the haul roads should be black topped/concrete surfaced.
19. Adequate measures should be taken for control of noise levels below 85 dBA in the work environment. Workers engaged in blasting and drilling operations, operations of HEMM, etc., should be provided with ear plugs/muffs.
20. Wastewater (workshop and wastewater from the mine) should be properly collected, treated so as to conform to the standards prescribed under GSR 422(E) dated 19<sup>th</sup> May 1993 and 31<sup>st</sup> December 1993 or as amended from time to time. Oil and grease trap should be installed before discharge of effluents from workshop.
21. Mine drainage water has to be treated and disposed of after conforming to the standard prescribed by the Board.

- 22. Environmental laboratory should be established with adequate number and type of pollution monitoring and analysis equipment in consultation with the State Pollution Control Board.
- 23. 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.
- 24. 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 Board.
- 25. 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, 1981m the Environment (Protection) Act, 1986 and the Public Liability Insurance Act, 1991 along with their amendments and rules.
- 26. Reclamation programme with the post closure plan is to be submitted within 06 months from the date of issue of this order.
- 27. The blasting method shall be adopted by using advanced non-elastic detonation.
- 28. Rain water harvesting practice shall be followed by utilizing the rain water collected from the roof of the buildings for recharging of ground water within the premises and other large structures as per the concept and practices prescribed by CPCB, New Delhi and details of which is available in the web-site <http://www.cpcb.gov.in>.

*(Signature)*

MEMBER SECRETARY

To,  
 The Chief General Manager,  
 M/s Natraj u/g Coal Project,  
 Talcher Area,  
 P.O. Darn Colliery,  
 Dist. Angul.

Memo No. \_\_\_\_\_ /DL.

Copy forwarded to :

- 1. Regional Officer, S.P.C.Board, Angul
- 2. Collector, Angul
- 3. District Industries Centre, Angul
- 4. Consent Section, Env. Engineer - I
- 5. Chief Inspector of Factories & Boiler, Bhubaneswar
- 6. Copy to Guard file/Consent to establish register

MEMBER SECRETARY

*Natraj*

Table-3.4 : Calendar plan for production of coal (Natraj UG project)

Year	Coal production, Mt		
	Top section	Bottom section	Total
C1	0.00	0.00	0.00
C2	0.00	0.00	0.00
C3	0.00	0.00	0.00
P1	0.10	0.10	0.20
P2	0.30	0.11	0.41
P3	0.52	0.12	0.64
P4	0.52	0.12	0.64
P5	0.52	0.12	0.64
P6	0.52	0.12	0.64
P7	0.52	0.12	0.64
P8	0.52	0.12	0.64
P9	0.52	0.12	0.64
P10	0.52	0.12	0.64
P11	0.52	0.12	0.64
P12	0.52	0.12	0.64
P13	0.52	0.12	0.64
P14	0.52	0.12	0.64
P15	0.52	0.12	0.64
P16	0.52	0.12	0.64
P17	0.52	0.12	0.64
P18	0.52	0.12	0.64
P19	0.52	0.12	0.64
P20	0.52	0.12	0.64
P21	0.52	0.12	0.64
P22	0.52	0.12	0.64
P23	0.52	0.12	0.64
P24	0.46	0.12	0.58
P25	0.00	0.12	0.12
Total	11.90	2.97	14.87

### 3.5 Economic Parameters

Total initial capital investment (Rs. crore)	: 92.11 (PR, September, 1999)
Capital cost of Environmental Management (Rs. crore)	: 3.17
Total cost of mine closure (Rs. crore)	: 4.15
OMS (I)	: 3.42
EMS (Rs.) (2003-04)	: 380.54
Wage cost (Rs./t) (2003-04)	: 111.36

