

No. J-11011/25-2003-IA II (I)
Government of India
Ministry of Environment & Forests

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Paryavaran Bhawan,
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New Delhi - 110 003
Dated the December 2, 2004

To

The Vice President (Operations)
M/s Paradeep Phosphates Limited
Pt. Jawaharlal Nehru Marg,
Bhubaneswar-751001

Sub: Retrofitting from 750 MTPD to 1400 MTPD of phosphoric acid plant and installation of additional train of 2000 MTPD sulphuric acid plant at Paradeep in Orissa by M/s Paradeep phosphates Limited

Sir,

This has reference to your letter no. PP/PROJ/SAP/03-04/547 dated 3rd December, 2003 along with project documents including EIA /EMP, questionnaire and CD containing all the documents and subsequent clarification / additional information furnished vide your letters dated 3rd March, 2004, 18th May, 2004, 2nd August, 2004, 13th September, 2004, 16th September, 2004 and 7th October, 2004 on the above mentioned subject. The Ministry of Environment & Forests has examined your application. It is noted that proposal envisages increase in the phosphoric acid production capacity from 750 to 1400 TPD and installation of additional train of sulphuric acid plant of 2000 TPD capacity to support increase in phosphoric acid manufacture. It is also noted that sulphuric acid plant will be based on the Double Conversion Double Absorption Technology. Total area of the project is 33.70 ha. The proposed expansion is within the existing plant site.

It is also noted that the project does not involve forest land and displacement of people. Water requirement of 14,600 m³/day will be met from the Taldana canal. The solid waste will be generated in the form of gypsum (7000 TPD), spent catalyst (360 TPD), sulphur muck (14-16 TPD), and ETP sludge (700 TPD). The gypsum would be sold to the cement manufacturing companies, used for soil reclamation and gypsum board. Some of the gypsum will be disposed off in the gypsum pond, which covers an area of 77 ha. An additional area of 30 ha shall be earmarked for disposal of gypsum for the proposed expansion. Spent catalyst shall be disposed off as per Hazardous Wastes (Management and Handling) Rules, 2003. The sulphur muck and ETP sludge shall be stored separately in the LDPE lined pits and recycled to DAP as filler material. The Forest and Environment Department, Govt. of Orissa vide their letter no. EE-17/2004-14579/F&E., Bhubaneswar dated 25th September, 2004 have informed that the proposed area of the project site fall beyond the CRZ area and it does not attract the provisions of Coastal Regulation Zone Notification. It is also noted that NOC from Orissa State Pollution Control Board has been obtained on 26th February, 2004. The public hearing panel has considered the project in its meeting held on 3rd November, 2003. Cost of the expansion is Rs. 160 crores.

2.0. The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 27th January, 1994 as amended subsequently subject to strict compliance of the following specific and general conditions:

A. SPECIFIC CONDITIONS

- (i) The gaseous emissions from various process units should conform to the standards prescribed by the concerned authorities from time to time. The State Pollution Control Board may specify more stringent standards for the relevant parameters keeping in view the nature of the industry and its size and location. At no time the emissions level should go beyond the prescribed standards. In the event of failure of any pollution control system adopted by the unit, the respective unit should not be restarted until the control measures are rectified to achieve the desired efficiency.
- (ii) The effluent generation shall not exceed 1860 m³/d in the proposed expansion. The Company shall totally utilize the treated effluent by undertaking recycling/reuse measures. In the existing plant, the wastewater generation shall be 1632 m³/d. The waste water after treatment after conforming to the prescribed standards shall be discharged into Ahirabanki river. The company shall construct guard pond at the outlet of treatment plant before final discharge of effluent into Ahirabanki river. The Bio-assay test should be carried out to assess the toxicity of the treated waste water. The treated sewage should be utilized for green belt development.
- (iii) The Company shall achieve SO₂ emission of 1 kg/tonne of sulphuric acid produced. The acid mist emission should conform to the prescribed standard of 50 mg/Nm³. The stack height for the sulphuric acid plant shall be provided as per the guidelines and on the basis of normal plant operations. The scrubbed gases should be let out at the same height of the plant.
- (iv) To control the total fluoride emission within the prescribed standards of 25 mg/Nm³ in the phosphoric acid plant, the company shall provide fume scrubber system to scrub the fluorides.
- (v) The company shall explore the possibility and technical feasibility of treating hydrofluorosilicic acid and intimate to this Ministry.
- (vi) The company shall continuously monitor the SO₂ emission in both the sulphuric acid plant streams at the same time. The emission from the sulphuric acid plant shall be controlled by installation of alkali scrubber. Monitoring of SO₂ and fluoride should be carried out continuously as per the Central Pollution Control Board guidelines.
- (vii) Waste heat generated during sulphur burning shall be utilized for power generation.

- (viii) The gypsum pond shall be provided with proper lining at the bottom as well as side of the dykes. Accumulated gypsum shall be properly capped. The low-lying areas in the south of gypsum pond should be rehabilitated. The sulphur muck should be disposed off in the impervious lined pit. The project authorities should take immediate measures to remove the gypsum from the channels in the existing pond so that adequate space in the channel is available for leachate collection especially during monsoon. The leachate should be sent to ETP for further treatment. Further, a new gypsum storage pond properly lined with HDPE along with drainage channel should be constructed for gypsum disposal. The ground water quality around the gypsum disposal area should be monitored and data submitted to the Ministry.
- (ix) Green belt of adequate width and density in 25% of the plant area should be provided to mitigate the effects of fugitive emission all around the plant. The development of green belt should be in consultation with the DFO as per the CPCB guidelines.
- (x) The company should take measures for harvesting the rainwater to recharge the ground water.
- (xi) Recommendations made in the Risk Assessment Report for risk mitigation should be strictly complied with.

B. GENERAL CONDITIONS

- (i) The project authorities must strictly adhere to the stipulations made by the Orissa State Pollution Control Board.
- (ii) No further expansion or modifications in the plant should be carried out without prior approval of the Ministry of Environment & Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference should be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- (iii) The project authorities must strictly comply with the rules and regulations under Manufacture, Storage and Import of Hazardous chemicals Rules, 1989 as amended in October, 1994 and January, 2000. Prior approvals from Chief Inspectorate of Factories, Chief Controller of Explosives, Fire Safety Inspectorate etc. must be obtained.
- (iv) The project authorities must strictly comply with the rules and regulations with regard to handling and disposal of hazardous wastes in accordance with the Hazardous Wastes (Management and Handling) Rules, 2003. Authorization from the State Pollution Control Board must be obtained for collections/treatment/storage/disposal of hazardous wastes.

- (v) The overall noise levels in and around the plant area should be kept well within the standards (85 dBA) by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- (vi) Occupational health surveillance programme should be undertaken as regular exercise for all the employees, specifically for those engaged in handling hazardous substances. The first aid facilities in the occupational health centre should be strengthened and the medical records of each employees should be maintained separately.
- (vii) The project proponent should have a scheme for social upliftment in the surrounding villages with reference to contribution in road construction, education of Children, festivals, health centres, sanitation facilities, drinking water supply, community awareness and employment to local people whenever and wherever possible both for technical and non-technical jobs.
- (viii) The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA and Risk analysis. Report.
- (ix) A separate Environmental Management Cell equipped with full fledged laboratory facilities must be set up to carry out the Environmental Management and monitoring functions.
- (x) The project authorities will provide adequate funds both recurring and non-recurring to implement the conditions stipulated by the Ministry of Environment & Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so provided should not be diverted for any other purpose.
- (xi) The implementation of the project vis-à-vis environmental action plans will be monitored by Ministry's regional office at Bhubaneswar / State Pollution Control Board / Central Pollution Control Board. A six monthly compliance status report should be submitted to monitoring agencies.
- (xii) The Project Proponent should inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the State Pollution Control Board/ Committee and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. This should be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same should be forwarded to the Regional office.
- (xiii) The Project Authorities should inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of commencing the land development work, if any

3.0 The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.

4.0 The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner will implement these conditions

5.0 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, the Hazardous Wastes (Management and Handling) Rules, 2003 and the Public Liability Insurance Act, 1991 along with their amendments and rules.

(Dr. P. L. Ahujara)
Additional Director

Copy to:

1. Secretary, State Department of Environment, Govt. of Orissa, Bhubaneswar.
2. Chairman, Central Pollution Control Board, Paribesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, Delhi-110032.
3. Chairman, Orissa Pollution Control Board, Paribesh Bhawan, A/118, Neelkanthanagar, Unit-8, Bhubaneswar-751012.
4. The Chief Conservator of Forests (Eastern), Regional Office (EZ), A/3, Chandrasekharpur, Bhubaneswar -- 751 023
5. JS(COI-I), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Monitoring Cell, Ministry of Environment & Forests, New Delhi.
7. Guard file.
8. Monitoring file
9. Record file.

P. Ahujara
(Dr. P. L. Ahujara)
Additional Director

