

F. No. J-11011/106/2008- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

Paryavaran Bhawan
CGO Complex, Lodhi Road
New Delhi - 110 003

E-mail : pb.rastogi@nic.in
Telefax : 011: 2436 7668
Dated 28th October, 2009

To, ✓
M/s NICOMET Industries Ltd.
Plot No.1-15,19,20, Cuncolim
Industrial Estate Cuncolim
Goa - 403703

E-mail : nicogoa@sanchaner.in Fax No. : 0832 -2764324 ;

Subject : Expansion of Cobalt, Copper, Nickel and Sodium Sulphate at Plot No. L-15, L-19 & L-20 Cuncolim Industrial Estate, Cuncolim, Goa by M/s NICOMET Industries Ltd. - Environment clearance reg.

Ref. : Your letter no. REF/NICOMET/EIA/09 dated 2nd May, 2009.

Sir,
This has reference to your letter no. REF/NICOMET/EIA/09 dated 2nd May, 2009 alongwith Application in Form I, Pre-feasibility Report, draft 'Terms of References' and EIA/EMP report as per the EIA Notification, 2006 and related project documents and subsequent clarifications furnished by you vide your letter dated 29th July, 2009 for environmental clearance on the above mentioned project.

2.0 The Ministry of Environment and Forests has examined the application. It is noted that proposal is for the expansion of Cobalt, Copper, Nickel and Sodium Sulphate at Plot No. L-15, L-19 & L-20 Cuncolim Industrial Estate, Cuncolim, Goa by M/s NICOMET Industries Ltd. Existing plant is in operation since 1997. Total project area is 34,434 m² i.e., 3.44 ha. and expansion will be carried out in the existing premises in 2.17 ha. in notified Cuncolim Industrial Estate set up for Metallurgical Industries. A copy of the allotment order issued by Goa, Daman and Diu Industrial Development Corporation, Goa vide letter dated 22nd June, 1995 is submitted. Coastal area is at 6.3 km. No National Park/Wild life sanctuary/Reserve Forest is located within 10 km radius of the project. Total cost of the project is Rs. 30.00 Crores. Following* are the details of existing and proposed production capacities:

Products	Existing (MTPA)	Proposed (MTPA)	After Expansion (MTPA)
Cobalt	600	1,020	1,620
Copper (by product)	360	3,420	3,780
Nickel	480	1,680	2,160
Sodium sulphate (by product)	7,200	2,520	9,720

3.0 Ores and concentrates containing Cobalt, Nickel and Copper (2,75,000 TPA) will be used as raw material and sourced from South African mines or imported from other countries. The process will involve leaching, solvent extraction and final product separation. R

4.0 Bag filters, scrubbers, vents to control acid mist emissions, water sprinkling method to control dust emissions will be provided. SO₂ emissions from process will be scrubbed and scrubbed solution will be recycled back to the process. Total water requirement for proposed expansion from Goa Industrial Development Corporation (GIDC) will be 148 m³/day. No ground water will be used. All the effluent will be treated (forced evaporation) and treated wastewater (condensate) will be reused/recycled in the process and 'zero' discharge will be adopted. All the cake from the filter presses/ETP sludge/solid/hazardous waste will be disposed off in captive hazardous waste secured landfill facility (SLF) / authorized TSDF. Green belt will be developed in 44%.

5.0 Public hearing/Public consultation is exempted as per Section (iii), Stage (3), Para (i)(b) of EIA Notification, 2006. 'Consent for Establishment' for the existing plant has been accorded Goa Pollution Control Board vide letter dated 27th February, 2007 and 26th March, 2007.

6.0. The Ministry of Environment and Forests hereby accords environmental clearance to the above project under the provisions of EIA Notification dated 14th September, 2006 subject to compliance of the following specific and general conditions :

A. SPECIFIC CONDITIONS :

- i) Environment clearance is subject to the final order of the Hon'ble Supreme Court of India in the matter of Goa Foundation vs. Union of India in Writ Petition (Civil) No. 460 of 2004, as may be applicable to this project.
- ii) On-line ambient air monitoring and continuous stack monitoring facilities for all the stacks and sufficient air pollution control devices shall be provided to keep the emission levels below 100 mg/Nm³. Volatile Organic compounds (VOCs) and acid mist shall be monitored alongwith other parameters like SPM, RSPM, SO₂, NO_x. SO₂ emissions from process shall also be controlled by connecting the vents of the reactor to the common header and scrubber. The reports for ambient air, stack and fugitive emissions shall be submitted to the Ministry's Regional Office at Bangalore, Goa Pollution Control Board & CPCB.
- iii) Bag filters shall be provided to process units. In Copper cell house, all the cells shall be covered and SO₂ emissions from process shall be controlled by connecting the vents of the reactor to the common header to control acid mist emissions. The mist emissions from the vent shall be collected and passed through the scrubber. The scrubbed solution shall be properly treated and recycled to the process. Periodic monitoring of vents from condensers shall be carried out and shall be within the permissible limit as per E(P) Act, 1986.
- iv) Arrangements for the control and monitoring of the odorous chemicals shall be made.
- v) On-line ambient air monitoring and continuous stack monitoring facilities for all the stacks and sufficient air pollution control devices shall be provided to keep the emission levels below 100 mg/Nm³. The reports for ambient air, stack and fugitive emissions shall be submitted to the Ministry's Regional Office at Bangalore, Goa Pollution Control Board & CPCB.
- vi) Dust extraction system and dust suppression system like water sprinkling shall be adopted in material handling section to control fugitive emissions. Bag filters shall be provided at ore handling and storage sections. Fugitive emissions from concentrate shed, concentrate unloading area shall be controlled by water sprinklers.

INWARD
 Recd. on 09/11/09
 Time 8:30
 Mode By Post
 NICOMET INDUSTRIES LTD.

- vii) Secondary fugitive emissions from blast furnace shall be controlled within the latest permissible limits issued by the Ministry and regularly monitored. Guidelines / Code of Practice issued in this regard by the CPCB shall also be followed. Data on fugitive emissions shall be recorded and maintained.
- viii) Vehicular pollution due to transportation of raw material and finished product shall be controlled. Proper arrangements shall also be made to control dust emissions during loading and unloading of the raw material and finished product.
- ix) Total water requirement from Goa Industrial Development Corporation (GIDC) water supply shall not exceed 148 m³/day. No ground water shall be used during expansion of the project. All the effluent shall be treated (forced evaporation) and treated wastewater (condensate) shall be reused in the manufacturing process. Domestic effluent shall be treated in septic tank followed by soak pit and used for green belt development.
- x) All the wastewater including process washings, boiler blow down and DM plant regeneration etc. shall be treated in the Effluent Treatment Plant (ETP) and treated wastewater (condensate) shall be reused in the manufacturing process. All Sodium sulphate solution shall be treated in triple effect evaporation plant to separate out Sodium sulphate salt as anhydrous crystals. Condensate shall be recycled back in the process. The Cobalt residue shall be treated in Residue Treatment Facility (RTF) to extract Cobalt and Copper metal to minimum level. 'Zero' discharge shall be adopted and no wastewater shall be discharged outside the premises.
- xi) The leachate residue shall be converted into slurry and then transferred to reactors for acid washing in series of reactors to ensure complete dissolution of acid soluble as well as water-soluble metals. Re-pulped slurry shall be transferred to series of thickeners for solid-liquid separation. Overflow containing recovered metal shall be treated with lime to precipitate metals and underflow slurry shall be recycled to the existing leaching process.
- xii) Regular monitoring of influent and effluent water for all the relevant parameters including trace metals (Cu, Cd, Zn, Mn, and Ni) shall be ensured and treated wastewater shall meet the norms prescribed by the Goa State Pollution Control Board or described under the E(P) Act whichever are more stringent and reports shall be submitted six monthly to the Ministry's Regional Office at Bangalore, Goa SPCB and CPCB.
- xiii) The waste cake generated during the treatment of cobalt raw material in leaching plant shall be stockpiled in specified area and treated in residue treatment facility (RTF) to extract Cobalt and Copper metal to minimum level. The waste cake from the filter press shall be treated with lime in a mixer to stabilize the residual trace metals and after extraction of metals shall be disposed off to secured captive land fill / authorized TSDF. All other wastes shall be collected and reused or disposed off in the environment-friendly manner. Used oil shall be provided to authorized recyclers/reprocessors.
- xiv) Hazardous wastes like process sludge shall be disposed at its captive hazardous waste secured landfill facility (SLF). Proper secured land fill shall be constructed as per the CPCB guidelines or proper arrangement shall be made for the proper disposal of hazardous waste in authorized TSDF in advance before the current facilities are exhausted. All the other solid wastes shall be disposed off in the

environment-friendly manner or provided to authorized recyclers/reprocessors. Used oil shall also be provided to authorized recyclers only.

- xv) Membership to authorized TSDF shall be obtained and a copy of valid authorization shall be submitted to the Ministry.
- xvi) As proposed, green belt shall be developed in 44 % area in and around the plant as per the CPCB guidelines in consultation with DFO.
- xvii) All the recommendations made in the Charter on Corporate Responsibility for Environment Protection (CREP) shall be strictly implemented.
- xviii) The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile STP, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structures to be removed after the completion of the project.

B. GENERAL CONDITIONS:

- i. The project authorities must strictly adhere to the stipulations made by the Goa Pollution Control Board (GPCB) and the State Government.
- ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests.
- iii. The gaseous emissions from various process units shall conform to the load/mass based standards notified by this Ministry on 19th May, 1993 and standards prescribed from time to time. The Goa 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 emission level shall go beyond the prescribed standards. Interlocking facilities shall be provided so that process can be automatically stopped in case emission level exceeds the limit.
- iv. At least four ambient air quality monitoring stations shall be established in the downward direction as well as where maximum ground level concentration of SPM, SO₂ and NO_x are anticipated in consultation with the Goa Pollution Control Board. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bangalore and Goa Pollution Control Board, CPCB once in six months.
- v. In-plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Further, specific measures like water sprinkling around the coal stockpiles and asphaltting or concreting of the roads shall be done to control fugitive emissions.
- vi. Industrial wastewater shall 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. The treated wastewater shall be utilized for plantation purpose.
- vii. The overall noise levels in and around the plant area shall 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 shall conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

- viii. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- ix. The company shall develop rain water harvesting structures to harvest the rain water for utilization in the lean season besides recharging the ground water table.
- x. The project proponent shall also comply with all the environmental protection measures and safeguards recommended in the EIA / EMP report. Further, the company must undertake socio-economic development activities in the surrounding villages like community development programmes, educational programmes, drinking water supply and health care etc. Suggestions made during the public hearing shall be implemented.
- xi. As proposed, Rs. 1.50 Crores earmarked towards the capital cost and recurring cost/annum towards the environmental pollution control measures shall be judiciously utilized to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. The funds so provided shall not be diverted for any other purpose.
- xii. A copy of clearance letter shall be sent by the proponent to concerned Panchayat, Zila Parishad / Municipal Corporation, Urban Local Body and the local NGO, if any, from whom suggestions / representations, if any, were received while processing the proposal. The clearance letter shall also be put on the web site of the company by the proponent.
- xiii. The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and shall update the same periodically. It shall simultaneously be sent to the Regional Office of the MOEF at Bangalore, the respective Zonal Office of CPCB and the Goa SPCB. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- xiv. The project proponent shall also submit six monthly reports on the status of the compliance of the stipulated environmental conditions including results of monitored data (both in hard copies as well as by e-mail) to the Regional Office of MOEF, the respective Zonal Office of CPCB and the SPCB. The Regional Office of this Ministry at Bangalore / CPCB / Goa SPCB shall monitor the stipulated conditions.
- xv. The environmental statement for each financial year ending 31st March in Form-V as is mandated to be submitted by the project proponent to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company alongwith the status of compliance of environmental conditions and shall also be sent to the Regional Office of the MOEF at Bangalore by e-mail.
- xvi. The Project Proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the Goa SPCB and may also be seen at Website of the Ministry of Environment and Forests at <http://envfor.nic.in>. This shall 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.

- xvii. Project authorities shall inform the Regional Office at Bangalore 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.

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

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

9.0 Any appeal against this environmental clearance shall lie with the National Environment Appellate Authority, if preferred within a period of 30 days as prescribed under Section 11 of the National Environment Appellate Act, 1997.

10.0 The above conditions shall 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, Hazardous Wastes (Management and Handling) Rules, 2003 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules

Mantap

(Dr. P. B. Rastogi)
Director

Copy to :

1. The Secretary, Department of Environment, Govt. of Goa - 403001, Goa.
2. Chairman, Central Pollution Control Board, Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
3. The Chairman, Goa State Pollution Control Board, Dempo Towers, 1st Floor, EDC Plaza, Patto, Panaji, Goa - 403001.
4. The Chief Conservator of Forests (Central), Ministry of Environment & Forest, Regional Office (SZ), Kendriya Sadan, IVth Floor, E & F Wing, 17th Main Road, Koramangla, Bangalore 560 034, Karnataka.
5. Adviser (IA-II), Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Monitoring Cell, Ministry of Environment and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
7. Monitoring Cell
8. Guard File.
9. Record File.

Mantap
28/1/01

(Dr. P. B. Rastogi)
Director