

F. No. J-11011/168/2010 - IA II (I)
Government of India
Ministry of Environment, Forests and Climate Change
(I.A. Division)

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Date: 16th May, 2015

To

Shri R. V. Dabgar,
M/s Panoli Intermediates (India) Pvt. Ltd,
Plot No. 756/11A & B, GIDC,
Jhagadia- 393110, Distt. Bharuch, Gujarat.

E-mail: rvdabgar@yahoo.co.in ; Fax: 02645- 226093

Subject: Manufacturing of Organic/Inorganic & Specialty Chemicals at Jhagadia, GIDC, District Bharuch, Gujarat by M/s Panoli Intermediates (India) Pvt. Ltd (Unit-VI)– Environmental Clearance reg.

Ref. : Your letter no. nil dated 29th July, 2011.

Sir,

This has reference to your letter dated 9th June, 2014 alongwith project documents including Form I, Terms of References, Pre-feasibility Report and EIA/EMP Report and subsequent submission of additional information vide letter dated 6th January, 2014 and 7th February, 2015 regarding above mentioned project.

2.0 The Ministry of Environment, Forests and Climate Change has examined the application. It is noted that the proposal is for setting up of manufacturing of Organic/Inorganic & Specialty Chemicals at Plot No. 756/11A & B, Jhagadia, GIDC, District Bharuch, Gujarat by M/s Panoli Intermediates (India) Pvt. Ltd (Unit-VI). Total plot area is 20,772 m². Total cost of project is Rs. 57.00 Crores. Rs. 5.00 Crores and Rs. 0.50 Crores are earmarked towards capital cost and recurring cost per annum for pollution control measures. Narmada River and Kaveri River are flowing at a distance of 4.6 km and 8.9 Km respectively. Ratanpur Reserve Forest is located at 11.29 Km. Following products will be manufactured:

S.N.	Name	Quantity (MTPM)
EC Required Products:		
1	Chlorinated Paraffin Wax	2500
2	Benzyl Sulphonyl Chloride (BSC)	1500
3	Hydrogenation –Amino Hydrocarbon (Toluidine & DCA)	1000
4	Chlorinated Derivatives (e.g. MCB, DCB, ODCA, PDCB, MDCB & TCB)	5000
Products does not fall under EIA Notification:		
1	Di Calcium Phosphate	500
2	Chlor Sulphonic Acid	5000
3	Calcium Chloride	4000
Byproducts:		
1	Hydrochloric Acid (30%)	4575
2	Dilute Sulfuric Acid	1746

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3.0 Multi-cyclone followed by bag filter will be provided to the coal fired boiler to control particulate emissions. Caustic scrubber will be provided to control process emission viz. HCl. Total fresh water requirement from ground water source will be 362 m³/day. Industrial effluent will be treated in the effluent treatment plant (ETP). Treated effluent from ETP will be discharged into GIDC conveyance system after conforming to the standards prescribed for the effluent discharge. ETP sludge will be sent to Treatment Storage & Disposal Facility (TSDF) for hazardous waste. Waste oil and used batteries will be sold to authorized recyclers/re-processors.

4.0 Public hearing was exempted as per section 7 (i), (iii) Stage (3), Para (i)(b) of EIA Notification, 2006.

5.0 All synthetic organic chemical industries located inside the notified industrial estate/area are listed at S.N. 5(f) under category 'B' and appraised at State level. Due to applicability of general condition (i.e. Critically Polluted Area within 10 Km), project proposal is treated as category 'A' project and appraised at Central Level.

6.0 The proposal was considered by the Expert Appraisal Committee (Industry) in its 10th, 29th, 4th and 34th meetings held during 17th-18th November, 2011, 17th-18th November, 2011, 8th-9th January, 2013 and 17th-19th February, 2015 respectively. Proponent and the EIA Consultant namely M/s Eco-Chem Sales & Services, have presented EIA / EMP report as per the TOR. EAC has found the EIA / EMP Report and additional information to be satisfactory and in full consonance with the presented TORs. The Committee recommended the proposal for environmental clearance.

7.0 Based on the information submitted by the project proponent, the Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to above project under the provisions of EIA Notification dated 14th September 2006, subject to the compliance of the following Specific and General Conditions:

A. SPECIFIC CONDITIONS:

- i) National Emission Standards for Organic Chemicals Manufacturing Industry issued by the Ministry vide G.S.R. 608(E) dated 21st July, 2010 and amended time to time shall be followed by the unit.
- ii) Multi-cyclone followed by bag filter should be provided to the coal fired boiler to control particulate emissions within permissible limit. The gaseous emissions should be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- iii) Caustic scrubber shall be provided to process vent of CSA, MCB, PDCB, ODCB, MDCB, TCB plant and CaCl₂ plant. The scrubbing media should be sent to effluent treatment plant (ETP) for treatment. Efficiency of scrubber shall be monitored regularly and maintained properly. At no time, the emission levels shall go beyond the prescribed standards. Scrubbers vent shall be provided with on-line detection and alarm system to indicate higher than permissible value of controlled parameters.
- iv) Ambient air quality data shall be collected as per NAAQES standards notified by the Ministry vide G.S.R. No. 826(E) dated 16th September, 2009. The levels of PM₁₀, SO₂, NO_x, CO, HCl and VOC shall be monitored in the ambient air and displayed at a convenient location near the main gate of the company and at important public places. The company shall upload the results of monitored data on its website and shall update the same periodically. It shall simultaneously be sent to the Regional office of MOEF, the respective Zonal office of CPCB and GPCB. All necessary steps should be taken for monitoring of chlorine and HCl as well as VOCs in the proposed plant.
- v) In plant control measures for checking fugitive emissions from all the vulnerable sources shall be provided. Fugitive emissions shall be controlled by providing closed storage, closed handling &

conveyance of chemicals/materials, multi cyclone separator and water sprinkling system. Dust suppression system including water sprinkling system shall be provided at loading and unloading areas to control dust emissions. Fugitive emissions in the work zone environment, product, raw materials storage area etc. shall be regularly monitored.

- vi) For further control of fugitive emissions, following steps shall be followed :
 - a) Closed handling system shall be provided for chemicals.
 - b) Reflux condenser shall be provided over reactor.
 - c) System of leak detection and repair of pump/pipeline based on preventive maintenance.
 - d) The acids shall be taken from storage tanks to reactors through closed pipeline. Storage tanks shall be vented through trap receiver and condenser operated on chilled water.
 - e) Cathodic protection shall be provided to the underground solvent storage tanks.
- vii) The gaseous emissions from DG set shall be dispersed through adequate stack height as per CPCB standards. Acoustic enclosure shall be provided to the DG sets to mitigate the noise pollution.
- viii) Total fresh water requirement from ground water source shall not exceed 362 m³/day and prior permission shall be obtained from the CGWA/SGWA.
- ix) Total industrial effluent generation shall not exceed 148 m³/day. As proposed, industrial effluent should be treated in ETP. Treated effluent from ETP should be discharged into GIDC conveyance system after conforming to the standards prescribed for the effluent discharge and obtaining permission from the GPCB. Domestic sewage should be treated in STP.
- x) Treated effluent should be passed through guard pond. Continuous online (24x7) monitoring of pH, flow of effluent and TOC should be conducted. Data of online monitoring should be uploaded on company's website and provided to respective Regional Office of MEF&CC and concerned SPCB.
- xi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- xii) All the solvent storage tanks should be connected with vent condensers with chilled brine circulation.
- xiii) Alarm for chlorine leakage if any in the liquid chlorine storage area is provided alongwith automatic start of the scrubbing system. Benzene shall be monitored at the site.
- xiv) Process organic residue and spent carbon should be sent to cement industries. ETP sludge and process inorganic should be disposed off to the TSDF. The ash from boiler should be sent to brick manufacturers.
- xv) The company shall obtain Authorization for collection, storage and disposal of hazardous waste under the Hazardous Waste (Management, Handling and Trans-Boundary Movement) Rules, 2008 and amended as on date for management of Hazardous wastes and prior permission from GPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. Measures shall be taken for fire fighting facilities in case of emergency.
- xvi) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989 as amended time to time. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- xvii) Fly ash should be stored separately as per CPCB guidelines so that it should not adversely affect the air quality, becoming air borne by wind or water regime during rainy season by flowing alongwith the storm water. Direct exposure of workers to fly ash & dust should be avoided.



- xviii) Solvent management should be as follows :
- Reactor should be connected to chilled brine condenser system
 - Reactor and solvent handling pump should have mechanical seals to prevent leakages.
 - The condensers should be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
 - Solvents should be stored in a separate space specified with all safety measures.
 - Proper earthing should be provided in all the electrical equipment wherever solvent handling is done.
 - Entire plant where solvents are used should be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.
- xix) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire fighting system shall be as per the norms.
- xx) Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees should be undertaken on regular basis. Training to all employees on handling of chemicals should be imparted. Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xxi) Green belt over 5,700 m² out of 20,772 m² land should be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xxii) At least 5% of the total cost of the project should be earmarked towards the corporate social responsibility and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.
- xxiii) All the recommendations made in the risk assessment report should be satisfactorily implemented.
- xxiv) The Company shall submit within three months their policy towards Corporate Environment Responsibility which should inter-alia address (i) Standard operating process/procedure to bring into focus any infringement/deviation/ violation of environmental or forest norms/conditions, (ii) Hierarchical system or Administrative order of the Company to deal with environmental issues and ensuring compliance to the environmental clearance conditions and (iii) System of reporting of non-compliance/violation environmental norms to the Board of Directors of the company and/or stakeholders or shareholders.

B. GENERAL CONDITIONS:

- i. The project authorities shall strictly adhere to the stipulations made by the Gujarat Pollution Control Board.
- ii. No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment and Forests. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- iii. The locations of ambient air quality monitoring stations shall be decided in consultation with the State Pollution Control Board (SPCB) and it shall be ensured that at least one station is installed in the upwind and downwind direction as well as where maximum ground level concentrations are anticipated.

- iv. The overall noise levels in and around the plant area shall be kept well within the standards 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 Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- v. The Company shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and use the same water for the process activities of the project to conserve fresh water.
- vi. Training shall be imparted to all employees on safety and health aspects of chemicals handling. Pre-employment and routine periodical medical examinations for all employees shall be undertaken on regular basis. Training to all employees on handling of chemicals shall be imparted.
- vii. Usage of Personnel Protection Equipments (PPEs) by all employees/ workers shall be ensured.
- viii. The company shall also comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, risk mitigation measures and public hearing relating to the project shall be implemented.
- ix. The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CSR activities shall be undertaken by involving local villages and administration.
- x. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- xi. A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- xii. As proposed, the company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- xiii. A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, ZilaParisad/Municipal Corporation, Urban local Body and the local NGO, if any, from who suggestions/ representations, if any, were received while processing the proposal.
- xiv. The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data (both in hard copies as well as by e-mail) to the respective Regional Office of MoEF, the respective Zonal Office of CPCB and the Gujarat Pollution Control Board. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- xv. The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted 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 along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF 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 SPCB/Committee and may also be seen at Website of the Ministry at www.moef.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 shall be forwarded to the concerned Regional Office of the Ministry.

- xvii. The project authorities shall 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 start of the project.

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

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

10.0 The above conditions will be enforced, inter-alia under the provisions of the Water (Prevention & Control of Pollution) Act, 1974, Air (Prevention & Control of Water Pollution) Act, 1981, the Environment (Protection) Act, 1986, Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 alongwith their amendments and rules.

11.0 Environment Clearance is issued to M/s Panoli Intermediates (India) Pvt. Ltd (Unit-VI) for manufacturing of organic/inorganic & specialty chemicals at Jhagadia, GIDC, District Bharuch, Gujarat.



(Lalit Bokolia)
Additional Director

Copy to:-

1. The Principal Secretary, Forests & Environment Department, Government of Gujarat, Sachivalaya, 8th Floor, Gandhi Nagar - 382 010, Gujarat.
2. The Addl. Principal Chief Conservator of Forests (Central), Ministry of Environment & Forests, Regional Office, E-5, Arera Colony, Link Road -3, Bhopal -462 016, M.P.
3. The Chairman, Central Pollution Control Board Parivesh Bhavan, CBD-cum-Office Complex, East Arjun Nagar, New Delhi - 110 032.
4. The Chairman, Gujarat State Pollution Control Board, Paryavaran Bhawan, Sector 10 A, Gandhi Nagar-382 043, Gujarat.
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhavan, Jor Bagh, New Delhi.
6. Guard File/Monitoring File/Record File/Notice Board.



(Lalit Bokolia)
Additional Director