

**F. No. J-11011/304/2012- IA II (I)**  
**Government of India**  
**Ministry of Environment, Forest and Climate Change**  
**(I.A. Division)**

**Indira Paryavaran Bhawan**  
**Aliganj, Jorbagh Road,**  
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**Dated 7<sup>th</sup> January, 2015**

To,

Shri Mihir Patel, Site Director  
M/s Vertellus Speciality Materials (India) Pvt. Ltd.  
Plot Nos. 287/1 & 287/2-A, Phase-II,  
Gujarat Industrial Development corporation (GIDC),  
Vapi, Gujarat-396195

E-mail : [mipatel@vertellus.com](mailto:mipatel@vertellus.com) ; Fax No. : 0260-2461601, 2463378

**Subject: Expansion of Synthetic Organic Chemical Manufacturing Unit (from 250 TPM to 900 TPM) at Plot Nos. 287/1 & 287/2-A, Phase-II, Gujarat Industrial Development corporation (GIDC), Vapi, Gujarat by M/s Vertellus Speciality Materials (India) Pvt. Ltd.- reg. -Environmental Clearance reg.**

**Ref. : Your online proposal no. IA/GJ/IND/26428/2012 dated 22<sup>nd</sup> May, 2015.**

Sir,

This has reference to your online proposal no. IA/GJ/IND/26428/2012 dated 22<sup>nd</sup> May, 2015 alongwith project documents including Form I, Terms of References, Pre-feasibility Report and EIA/EMP Report regarding above mentioned project.

2.0 The Ministry of Environment, Forest and Climate Change has examined the application. It is noted that proposal is for expansion of Synthetic Organic Chemical Manufacturing Unit (from 250 TPM to 900 TPM) at Plot Nos. 287/1 & 287/2-A, Phase-II, Gujarat Industrial Development corporation (GIDC), Vapi, Gujarat by M/s Vertellus Speciality Materials (India) Pvt. Ltd. Total plot area is 6109.17 m<sup>2</sup> (1.50 acres). It is reported that no National Park, Wildlife Sanctuary is located within 10 km radius of the project site. Damanganga River is flowing at a distance of 2.84 km. Interstate boundary is located at a distance of 1.51 km. Cost of the proposed project is Rs. 41.86 crores. The existing and the proposed products details are as below:

Name of the Products/By-Products	Existing (TPM)	Proposed Expansion (TPM)	Total (TPM)
<b>Products</b>			
4,4 Dichloro Diphenyl Sulphone (4:4 DCDPS)(by Existing Process)	145 or 220	650	900
4,4 Dichloro Diphenyl Sulphone (4:4 DCDPS)(by New Process)	0		
4,4 Dichloro Diphenyl Sulphone (4:4 DCDPS)(by re-slurry) (Purification of crude DCDPS only)	30	00	
4-Nitro N-MethylPhthalimide (4-NPI)	75	00	00
<b>Total</b>	<b>250</b>	<b>650</b>	<b>900</b>

By-Products			
Purified 4 – Chlorobenzene Sulphonic Acid (CBSA) Ammonium Salts*	60	0	60

DCDPS can be manufactured by any of the three processes (i.e. Synthetic process-Existing process, new process & re-slurry process). The process used depends on final customer requirement due to specific end process requirement. 60 TPM 4-CBSA (98% purity) will be sold & remaining 145 TPM will be sold through proper collection, storage, transportation & disposal method at TSDF.

3.0 Stack of adequate height will be provided to additional natural gas fired boiler (10 TPH). Stack of adequate height as well as acoustic enclosure will be provided in the additional DG set (1x 750 KVA + 1x500 KVA) will be installed. Alkali scrubber will be provided to process vents to control process emissions. Fresh water requirement from GIDC water supply will be increased from 105.4 m<sup>3</sup>/day to 227.2 m<sup>3</sup>/day after expansion. Effluent generation from the existing unit is 58.75 m<sup>3</sup>/day. There will be no increase in effluent generation as excess effluent will be recycled and reused in the process for cooling tower make up. Effluent will be treated in the effluent treatment plant (ETP) and the treated effluent will be discharged through GIDC drainage to CETP, Vapi for ultimate disposal after meeting the standards prescribed by GPCB/CPCB. Spent acid will be sold to actual user. CBSA & its salt, process residue/aqueous mother liquor, used carbon, distillation residue from methanol distillation will be sent to common incineration facility. 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 Chemicals Industry located inside the notified industrial area/estate are listed at S.N. 5(f) under category 'B' and appraised at State level. However, applicability of general condition due to project location within interstate boundary and involvement of CPA, the proposal is treated as category 'A' and appraised at Central Level.

6.0 The proposal was considered by the Expert Appraisal Committee (Industry) in its meetings held during 31<sup>st</sup> January, 2013–1<sup>st</sup> February, 2013 and 30<sup>th</sup> November to 1<sup>st</sup> December, 2015 respectively. Project Proponent and the EIA Consultant namely M/s Precitech Laboratory, 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 and Forests hereby accords environmental clearance to above project under the provisions of EIA Notification dated 14<sup>th</sup> 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 21<sup>st</sup> July, 2010 and amended time to time shall be followed by the unit.
- ii) Adequate stack height shall be provided to gas fired boiler as per CPCB/GPCB guidelines.
- iii) Alkali scrubber shall be provided to process vents to control process emission. The scrubbing media should be sent to effluent treatment plant (ETP) for treatment.

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Efficiency of scrubber should be monitored regularly and maintained properly. At no time, the emission levels should go beyond the prescribed standards.

- iv) 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. Odour management plan shall be implemented.
- v) Solvent management shall be carried out as follows :
  - i. Chilled brine circulation system shall be provided to condensate solvent vapors and reduce solvent losses. It shall be ensured that solvent recovery should not be less than 95%.
  - ii. Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
  - iii. The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery
  - iv. Solvents shall be stored in a separate space specified with all safety measures.
  - v. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
  - vi. Entire plant shall be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.
- vi) 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.
- vii) The company shall upload the status of compliance of the stipulated environmental clearance conditions, including 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 the GPCB. The levels of PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, VOC, CO and NH<sub>3</sub> in ambient air and emissions from the stacks shall be monitored and displayed at a convenient location near the main gate of the company and at important public places.
- viii) Total fresh water requirement from GIDC water supply shall not exceed 227 m<sup>3</sup>/day.
- ix) Total industrial effluent generation shall not exceed 58.75 m<sup>3</sup>/day. Effluent will be treated in ETP and treated effluent will be sent to CETP inlet through GIDC underground drainage. No process effluent shall be discharged in and around the project site. Suitable treatment to be given for removal of ammonical nitrogen in the effluent. Domestic sewage will be treated in the sewage treatment plant (STP).
- x) Treated effluent should be passed through guard pond. Automatic /online monitoring system (24 x 7 monitoring devices) for pH meter, flow meter and TOC analyzer should be installed. The data to be made available to the respective SPCB, Regional Office of MoEF&CC and in the Company's website.
- xi) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- xii) Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm. Solvent transfer shall be by pumps.



- xiii) 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. Membership of TSDF for hazardous waste disposal shall be obtained.
- xiv) The Company shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 11989 as amended in October, 1994 and January, 2000. All Transportation of Hazardous Chemicals shall be as per the Motor Vehicle Act (MVA), 1989.
- xv) 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.
- xvi) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xvii) 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.
- xviii) Provision shall be made for the housing for the construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets, mobile sewage treatment plant, safe drinking water, medical health care, crèche etc. The housing may be in the form of temporary structure to be removed after the completion of the project. All the construction wastes shall be managed so that there is no impact on the surrounding environment.

**B. GENERAL CONDITIONS:**

- i. The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board (GPCB), State Government and any other statutory authority.
- 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 Gujarat Pollution Control Board (GPCB) 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. During transfer of materials, spillages shall be avoided and garland drains be constructed to avoid mixing of accidental spillages with domestic wastewater and storm water drains.
- vii. Usage of Personnel Protection Equipments by all employees/ workers shall be ensured.
- viii. 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.
- ix. The company shall also comply with all the environmental protection measures and safeguards proposed in the project report 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.
- x. The company shall undertake CSR activities and all relevant measures for improving the socio-economic conditions of the surrounding area.
- xi. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- xii. A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- xiii. The company shall earmark sufficient funds for 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.
- xiv. 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.
- xv. 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.
- xvi. The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated shall be submitted to the Gujarat 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 Bhopal Regional Offices of MoEF by e-mail.
- xvii. 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 <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 shall be forwarded to the concerned Regional Office of the Ministry.

xviii. 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 along with their amendments and rules.

  
(Lalit Bokolia)  
Additional Director

**Copy to :-**

1. The Principal Secretary, Forests & Environment Department, Government of Gujarat, Sachivalaya, 8<sup>th</sup> Floor, Gandhi Nagar - 382 010, Gujarat.
2. The Chief Conservator of Forests (Western Zone), 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 Bhawan Aliganj, Jorbagh Road, New Delhi -110003.
6. Guard File/Monitoring File/Record File.

  
(Lalit Bokolia)  
Additional Director