



Government of India
Ministry of Environment and Forests

F. No. J-11011/490/2011-IA-II (I)

Paryavaran Bhawan
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To

Dated: 23rd January, 2014

Shri Jacob George
Managing Director,
M/s. Gulbrandsen Chemicals Pvt. Limited
On Coastal Highways, Village Mujpur, Tehsil Padra-391440,
District Vadodara, Gujarat

Email : jgeorge@gulbrandsen.com Fax: 02662-306210.

Subject: Expansion of Chemical Unit (from 24,980.04 to 1,45,685.04 MTPA) of **M/s Gulbrandsen Chemicals Pvt. Ltd.**, located at Sy.No. 202 to 205, 265b, 266a, 266b, 285 to 294, 296 to 298, 321, 323, 326, 200, 199 Coastal Highways, Village Mujpur, Tehsil Padra, District Vadodara, Gujarat - **Environmental Clearance – reg.**

Sir,

This has reference to your letter no. GCPL/EC/2012 dated 14.9.2012 along with copies of EIA/EMP report seeking environmental clearance under the provisions of EIA Notification, 2006.

2. The Ministry of Environment and Forests has examined the application for the above project. It is noted that the existing plant had obtained an environmental clearance from this Ministry vide letter no. J-11011/257/2008-IA.II (I) on 23.11.2010. M/s. Gulbrandsen Chemicals Private Limited have proposed to expand their Chemical Unit (from 24,980.04 to 1,45,685.04 MTPA) at Sy.No. 202 to 205, 265b, 266a, 266b, 285 to 294, 296 to 298, 321, 323, 326, 200, 199 Coastal Highways, Village Mujpur, Tehsil Padra, District Vadodara, Gujarat. The proposed expansion will be carried out in an area of 2.73 ha. Total plant area after the expansion will be 7.88 ha. No Forest land is involved. No Defense Installation, Biosphere Reserve, National Park/Wild Life Sanctuary, Ecologically Sensitive Area is located within 10 km radius of the project site. Total cost of the project is Rs.50 crores. Rs. 1 crore and Rs.2 crores is earmarked towards the capital cost and recurring cost per annum towards the environmental protection measures. Rs. 23.20 lakhs is earmarked towards the CSR related activities for a period of 2013-16.

3. Following are the details of the existing and proposed product:

S.N.	Name of Product	Existing (MTPA)	Proposed (MTPA)	Total after expansion (MTPA)
1.	Organometallic compounds	21836.04	32700	54536.04
2.	Polyethylene wax	0.0	20000	20000.0

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3.	R&D Products Organometallic Compounds/Organic/inorganic chemicals	0.0	25.0	25.0
4.	Aluminum Chloride (25%) (AlCl ₃)	3144	48510	51654
5.	Ethyl Iodide (C ₂ H ₅ I)	0.0	19470	19470
	Total	24980.04	120705	145685.04

4. The raw materials required are Aluminium, Ethylene, Hydrogen, Hexane, Caustic, CO₂, HCL, AlCl₃ and ethanol etc. The power requirement for the proposed expansion is 2100 KVA, which will be met from the Madhya Gujarat Vij Company Limited.

5. It is noted that the adequate stack height will be provided for wider dispersion of emissions. The raw materials will be stored in the dedicated sheds to avoid fugitive emissions. The Ventury caustic scrubbing system will be provided to collect the un-reacted fumes of anhydrous aluminium chloride. Chlorine scrubbing system will be provided to handle the emergency situation of a leakage in chlorine cylinder.

6. The water requirement after the proposed expansion is 459.85 m³/day (Existing: 358.03 m³/day; Expansion: 101.82 m³/day) which will be sourced from existing bore well and purchased RO water. The existing industrial and domestic wastewater generation is 54.8 m³/day and 10.17 m³/day respectively. The wastewater generation from the proposed expansion is 4.5 m³/day. Out of 4.5 m³/day, the domestic effluent is 2 m³/day. This effluent will be treated in STP and reused for gardening purposes. The remaining wastewater (boiler – 0.5 m³/day and cooling – 2 m³/day) will be recycled and reused for domestic purpose. There will be no process wastewater generation due the proposed expansion.

7. It is noted that used oil will be sent to the registered recyclers. The other solid waste such as waste/residue containing oil, distillation residue, waste refractory, ETP sludge will be sent to TSDF at Nandeswari and Ankleshwar, operated by Nandeswari Environment Control Limited (NECL) and Bharuch Enviro Infrastructure Limited (BEIL) respectively. M/s. Gulbrandsen Chemicals Private Limited is a member to the said TSDFs.

8. All Synthetic Organic Chemical Industries located outside the notified industrial area/estate are listed at S.N. 5(f) under category 'A' and appraised at Central level.

9. The proposal was considered by the Reconstituted Expert Appraisal Committee (Industry) in its 6th meeting held during 5-7th March 2013. The Committee recommended the proposal for environmental clearance subject to stipulation of specific conditions along with other environmental conditions. Public Hearing / Public Consultation meeting was conducted by the Gujarat Pollution Control Board on 16.8.2012.

10. Based on the information submitted by you, presentation made by you and your consultant, M/s. EQMS India Private Limited, 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 strict compliance of the following Specific and General conditions:

A. SPECIFIC CONDITIONS

- Ambient air quality data should be collected as per NAAQS standards notified by the Ministry on 18th November, 2009.
- Regular monitoring of Volatile Organic Compounds (VOCs) should be carried out.

- iii. Stack of adequate height should be installed to oil fired boiler to disperse waste gases into atmosphere.
- iv. Fugitive emissions in the work zone environment, product, raw materials storage area etc. should be regularly monitored. The emissions should conform to the limits imposed by SPCB.
- v. Ventury Caustic scrubber should be provided to control process emissions.
- vi. Total water requirement after the proposed expansion should not exceed 459.85 m³/day (Existing: 358.03 m³/day; Expansion: 101.82 m³/day) and prior permission should be obtained from the concerned Authority.
- vii. No process wastewater will be generated. The boiler and cooling tower blow down water will be recycled and reused for domestic purpose. Water quality of treated effluent shall meet the norms prescribed by CPCB/SPCB.
- viii. The company should 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 SPCB should be obtained for disposal of solid / hazardous waste in the TSDF. Measures should be taken for firefighting facilities in case of emergency.
- ix. 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 Heat Transfer Area (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 equipments 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.
- x. As proposed, green belt should be developed in at least 33 % of the project area. Selection of plant species shall be as per the CPCB guidelines in consultation with the DFO.
- xi. Occupational health surveillance of the workers should be done on a regular basis and records maintained as per the Factories Act.
- xii. All the commitments made to the public during the Public Hearing/Public Consultation meeting held on 16.8.2012 shall be satisfactorily implemented and a separate budget for implementing the same shall be allocated and information submitted to the Ministry's Regional Office at Bhopal.
- xiii. At least 5 % of the total cost of the project shall be earmarked towards the Enterprise Social Commitment based on Public Hearing Issues and item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program shall be ensured accordingly in a time bound manner.

- xiv. The company shall provide housing for construction labour within the site with all necessary infrastructure and facilities such as fuel for cooking, mobile toilets 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 Gujarat Pollution Control Board 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. At least four ambient air quality monitoring stations should be established in the downward direction as well as where maximum ground level concentration of PM₁₀, PM_{2.5}, SO₂ and NO_x are anticipated in consultation with the SPCB. Data on ambient air quality and stack emission shall be regularly submitted to this Ministry including its Regional Office at Bhopal and the SPCB/CPCB once in six months.
- iv. 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.
- v. 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 should conform to the standards prescribed under EPA Rules, 1989 viz. 75 dBA (daytime) and 70 dBA (nighttime).
- vi. Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- vii. 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.
- viii. 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.
- ix. Requisite funds shall be earmarked towards capital cost and recurring cost/annum for environmental pollution control measures to implement the conditions stipulated by the Ministry of Environment and Forests as well as the State Government. An implementation schedule for implementing all the conditions stipulated herein shall be submitted to the Regional Office of the Ministry at Bhopal. The funds so provided shall not be diverted for any other purpose.
- x. 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.

- xi. The project proponent shall upload the status of compliance of the stipulated environmental 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 Bhopal. The respective Zonal Office of CPCB and the SPCB. The criteria pollutant levels namely; PM₁₀, PM_{2.5}, 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.
 - xii. 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 Bhopal / CPCB / SPCB shall monitor the stipulated conditions.
 - xiii. 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 along with the status of compliance of environmental conditions and shall also be sent to the respective Regional Office of the MOEF at Bhopal by e-mail.
 - xiv. 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 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 at Bhopal.
 - xv. 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 commencing the land development work.
11. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
12. The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
13. 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, Handling and Transboundary Movement) Rules, 2008 and the Public (Insurance) Liability Act, 1991 along with their amendments and rules.

Copy to:

1. The Principal Secretary, Forests & Environment Department, Government of Gujarat, Sachivalaya, 8th Floor, Gandhi Nagar - 382 010, Gujarat.

Attested

(Signature)
DR. T. CHANDINI
DIRECTOR
Ministry of Env. & Forests
New Delhi

(Signature)
(Dr.T.Chandini)
Director

2. The Additional Principal Chief Conservator of Forests (Western Zone), Ministry of Environment & Forests, Regional Office, E-5, Arera Colony, Link Road -3, Bhopal -462 016, Madhya Pradesh.
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 and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Guard File/Monitoring File/Record File.