

F. No. J-11011/242/2014-IA-II (I)
Government of India
Ministry of Environment, Forest & Climate Change
(Impact Assessment Division)

Indira Paryavaran Bhawan
Aliganj, Jor Bagh Road,
New Delhi - 110 003

Telefax: 011-24695365
E-mail: yogendra78@nic.in

Dated: 31st January, 2017

To

The Director
(Mr. Vishwas Gole)
M/s Universal Ester Ltd.
Plot No. 1088 (B), Lamdapura Road
Village -Manjusr, Tal- Savli
Dist- Baroda, Gujarat - 391 775

Sub: Expansion of synthetic Organic Chemicals (16 MTPM to 215 MTPM) Unit at plot no. 1088 (B), Village Manjusr, Tehsil Savli, District Vadodara, Gujarat by M/s Universal Ester Ltd.-Environmental Clearance- reg.

Ref: Online Proposal No. IA/GJ/IND2/51305/2014 dated 08th March 2016.

Sir,

This has reference to your online proposal no. IA/GJ/IND2/51305/2014 dated 08th March 2016 along with project documents including Form I, Terms of References, Pre-feasibility Report and EIA/EMP Report along with public hearing report regarding the above mentioned project.

2. The Ministry of Environment, Forest and Climate Change has examined the application. It is noted that the proposal is for Expansion of synthetic Organic Chemicals (16 MTPM to 215 MTPM) Unit at plot no. 1088 (B), Village Manjusr, Tehsil Savli, District Vadodara, Gujarat by M/s Universal Ester Ltd. As informed and as per the documents submitted by the Project Proponent (PP), the existing plot area is 3694.48 m², of which greenbelt will be developed in 600 m² area. No additional land will be required for proposed project expansion. Total 20 personal will be employed in the proposed project. The cost of expansion project is ₹1.56 crores. It is reported that no Wildlife Sanctuary /National park/ Reserve forest is located within 10 km distance from the



project site. River Mahi is flowing at a distance of 9.37 km (NW). It is reported that the unit has obtained CTE prior to EIA, Notification 2006. The company proposed to manufacture following products in the unit:

S. No.	Name of Products	Proposed Quantity of Production MT / Month		
		Existing Quantity	After Phase-I	After Phase-II
Existing Products			NIL	NIL
1.	Methyl Anithranilate	1.5		
2.	Ethyl Salicylate	1.25		
3.	Ethyl Benzoate	1.6		
4.	Amyl Salicylate	3.0		
5.	Benzyl Salicylate	8.0		
6	Menthyle Salicylate	0.5		
7.	Amyl Acetate	2.0		
8.	Or any other type of chemicals in category of organge esters	--		
9.	Octyl Methoxycinnamate	8	125	200
10.	Octyl Salicylate	6		
11.	Octyl Hydroxystearate	2		
Proposed products				
1.	Homosalate	-		
2.	Cosmetic emmolients	-		
3.	Ethyl methoxyCinnamate	-	5	5
Proposed products (Repacking & Reselling)				
4.	Octocrylene	-	10	10
5.	Benzophenone-3	-		
6.	Benzophenone -4	-		
7.	Avobenzone	-		
TOTAL		16	140	215

3. All Synthetic Organic Chemicals Industry located outside the notified industrial area/estate are listed at S.N. 5(f) of Schedule of Environmental Impact Assessment (EIA) Notification under Category 'A' and is appraised at Central Level by Expert Appraisal Committee (EAC).

4. The project was considered by the Expert Appraisal Committee (Industry-2) in its 24th meeting held during 29th-30th September, 2014; 8th meeting held during 26th-27th May, 2016 and 13th meeting held during 26th-27th September, 2016. The project proponent and the accredited consultant M/s Precitech Laboratories Private Limited, Vapi, gave a detailed presentation on the salient features of the project and proposed environmental protection measures to be undertaken as per Terms of References (TORs) awarded during the 24th EAC meeting held during 29th -30th September, 2014 for preparation of EIA-EMP

G. J. P.

report. The TOR letter was issued by Ministry vide letter of even no. dated 09th December, 2014.

5. Public Hearing for the proposed project has been conducted by the Gujarat Pollution Control Board on 12th January, 2016. The issues were raised regarding local employment, pollution control measures, etc. The EAC has deliberated upon the issues raised during the public hearing and noted that the issues have satisfactorily been incorporated in the final EIA-EMP report.

6. It is reported that the existing unit was started before the year 2006 and hence Environmental Clearance (EC) was not applicable to the existing unit. PP has produced the copy of No objection certificate dated 08th March, 1996 and Consent order dated 31st January, 1997 issued by Gujarat Pollution Control Board. The PP has also produced the copy of valid consent order No. AWH-72352 dated 06.07.2015 issued by Gujarat Pollution Control Board for the existing unit.

7. The PP has informed the EAC that the ambient air quality (AAQ) monitoring was carried out at 8 locations during December, 2014 to February, 2015. The baseline data indicates the ranges of concentrations as:- PM₁₀ (54 µg/m³ to 94 µg/m³), PM_{2.5} (19 µg/m³ to 40 µg/m³), SO₂ (9 µg/m³ to 29 µg/m³) and NO_x (12 µg/m³ to 35 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental ground level concentrations (GLCs) after the proposed project would be 0.56 µg/m³, 0.03 µg/m³ and 0.12 µg/m³ with respect to PM₁₀, SO₂ and NO_x respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

8. It is informed that the existing boiler (0.6 TPH) will be replaced by two Biomass briquettes fired Thermic fluid heaters of capacity 6 Lakh.Kcal/hr & 10 Lakh.Kcal/hr respectively. Cyclone separator will be provided to thermic fluid heaters as APCD to for control of Particulate matter. Power requirement will increase from 125 KVA to 250 KVA after expansion and sourced from Madhya Gujarat Vij Company Ltd (MGVCL). One DG set of capacity 125 will be installed for standby use. Fresh water requirement will be increased from 4.6 m³/day to 37 m³/day after expansion and sourced from ground water. Effluent generation will enhance from 1.8 m³/day to 12.2 m³/day. The industrial effluent will be treated in the effluent ETP and finally disposed to CETP of EICL or will be evaporated in evaporation unit. ETP waste will be sent to TSDF site. Distillation residue will be disposed by incineration at NECL/GEPIL. Spent Carbon will be disposed by incineration. Spent catalyst will be sent to TSDF. Used oil and Discarded containers/ bags will be sold to registered refiners. Spent solvent will be sold to actual users. Fly ash will be sent to brick manufacturers.

9. Additionally, the PP has informed the EAC that the characteristics of the generated wastewater is in the range of pH 6.5-8.5; SS 300-500 mg/l; COD - 500-600mg/l; BOD 150-250 mg/l and Oil & Grease-<10 mg/l respectively.



Effluent will be treated in the ETP and treated effluent will be evaporated to achieve zero liquid discharge. Condensate will be used as cooling tower make up. PP confirmed that they will not discharge effluent to the CETP. Due to evaporation, fresh water requirement will be reduced from 37.2 m³/day to 29.5 m³/day. Bagfilter will be provided to bagasse fired boiler to control particulate emissions.

10. The EAC, in its 13th meeting held during 26th-27th September, 2016, has found that the final EIA/EMP report submitted by the PP is adequate. The EAC after detailed deliberations, on the basis of the information and presentation made by the PP, has recommended the project for environmental clearance with certain conditions.

11. Based on the proposal and information submitted by the Project Proponent, and considering the recommendation of the Expert Appraisal Committee (Industry-2), the Ministry of Environment, Forest and Climate Change hereby accords Environmental Clearance to the 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) Bagfilter alongwith adequate stack height shall be provided to bagasse fired Thermic Fluid Heater to control particulate matter.
- iii) 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.
- iv) Solvent management shall be carried out as follows :
 - (a). 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%.
 - (b). Reactor and solvent handling pump shall have mechanical seals to prevent leakages.
 - (c). The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 95% recovery



- (d). Solvents shall be stored in a separate space specified with all safety measures.
- (e). Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.
- (f). Entire plant shall be flame proof. The solvent storage tanks should be provided with breather valve to prevent losses.
- v) 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.
- vi) Total fresh water requirement from ground water source shall not exceed 29.5 m³/day.
- vii) Total effluent generation shall not exceed 12.2 m³/day and treated in the ETP. Treated effluent will be evaporated. Condensate shall be recycled/reused. No process effluent shall be discharged in and around the project site.
- viii) No effluent will be discharged outside the plant premises.
- ix) Process effluent/any wastewater shall not be allowed to mix with storm water. Storm water drain shall be passed through guard pond.
- x) 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.
- xi) 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.
- xii) 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.
- xiii) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- xiv) 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.
- xv) Zero Liquid Discharge (ZLD) shall be ensured.
- xvi) Continuous online (24 x7) monitoring to be installed for flow measurement and measurement of pollutants within the treatment unit. Data to be



uploaded on company's website and provided to the respective RO of MEF&CC, CPCB and SPCB.

B. General Conditions:

- i. The project authorities must strictly adhere to the stipulations made by the Gujarat Pollution Control Board, 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, Forest and Climate Change. 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 National Ambient Air Quality Emission Standards issued by the Ministry vide G.S.R. No. 826(E) dated 16th November, 2009 shall be followed.
- v. 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).
- vi. 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.
- vii. 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.
- 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 and risk mitigation measures 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. The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change 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, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom 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&CC, the respective Zonal Office of CPCB and SPCB. 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&CC 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 <http://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.



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


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

14. 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.


31.1.2017
(Yogendra Pal Singh)
Scientist 'D'

Copy to:-

1. The Secretary, Forests and Environment Department, Government of Gujarat, Block 14, 8th floor, Sachivalaya, Gandhinagar - 382 010, Gujarat.
2. Additional Principal Chief Conservator of Forests (C), Ministry of Environment, Forest and Climate Change, Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, E-5 Arera Colony, Link Road-3, Ravishankar Nagar, Bhopal - 462016
3. The Chairman, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex East Arjun Nagar, Delhi - 110 032.
4. The Chairman, Gujarat Pollution Control Board, Paryavaran Bhavan, Sector-10A, Gandhinagar-382 010, Gujarat.
5. Monitoring Cell, Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhavan, Jor Bagh, New Delhi- 110 003.
6. Guard File/Monitoring File/Website/Record File.


31.1.2017
(Yogendra Pal Singh)
Scientist 'D'