

F. No. J-11011/84/2009- IA II (I)
Government of India
Ministry of Environment and Forests
(I.A. Division)

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Dated: April 9, 2009

To,
 ✓ The General Manager-SHE Dept
M/s Atul Bioscience Limited
 AT& Post: Atul -396020
 Dist. Valsad, Gujarat

E-mail : bn_mohanana@atul.co.in

Sub: Change in product mix of organic chemicals at Post: Atul Dist. Valsad, Gujarat by M/s Atul Bioscience Limited- reg environmental clearance

Sir,
 This has reference to your letter no. nil dated 9.2.2009 along with Form-1 and pre-feasibility report on the above mentioned subject seeking environmental clearance under the Environmental Impact Assessment Notification, 2006.

2. The Ministry of Environment and Forests has examined your application. It is noted that M/s Atul Bioscience Limited have proposed for change of product mix for synthetic organic chemicals manufacturing unit in District Valsad in Gujarat. The unit is located in industrial complex of Atul in District Valsad, Gujarat. No eco-sensitive areas are located within 10 km radius of the plant. The proposed expansion will be carried within the existing unit having land area of 38953 m², of which green belt will be developed in 7820 m². Total cost of the project will be Rs. 5115.80 lacs. An amount of Rs. 405.00 lacs will be utilized on Environmental protection measures.

3. Details of products along with their production capacity are given below:

Sr. No.	Product	Existing Capacity (MTPM)	Proposed Capacity (MTPM)	Total Capacity (MTPM)	Remarks
01	Melathion (Cythion) tech.	31.66	-31.66	0	All of these products will be discontinued
02	Temephos (Abate) tech.	13.33	-13.33	0	
03	Phorate (thimet) tech.	138.79	-138.79	0	
04	Thimet 10G (Formulation of Phorate tech)	879.42	-879.42	0	
05	Cythion 50% EC (Formulation of Malathion)	30.12	-30.12	0	
	Abate 50% EC (formulated Temephos)	9.16	-9.16	0	
06	Sodium Hydrogen Sulphide 32% (by product)	49.43	-49.43	0	
07	4MAP 4 methoxy aceto	0	100	100	

	phenone				
08	4-(2,3-Epoxypropoxy)-9H-carbazole	0	20	20	
9	1-Chloroethyl Isopropyl Carbonate	0	150	150	Production of these group will not exceed 150 MTPM
	Chloroethyl cyclohexyl Carbonate				
	Chloroethyl ethyl Carbonate				
10	DBED Diacetate	0	110	110	
11	2-cyano 4- methylbiphenyl (OTBN)	0	70	70	Production of these group will not exceed 70 MTPM
	Z-Valine				
12	Vanlafaxine	0	20	20	Bulk drug
	Total	1151.9	-681.91	470	
Surplus Products					
01	30% HCl		153		

4. The total water requirement after the proposed change in product mix will be 651.5 m³/day, which will be sourced from River Par. Total process effluent generation will be 588.64 m³/d. The effluent will be segregated into high COD and normal stream. About 24m³/d of high COD effluent will be incinerated in incinerator of M/s Atul Ltd. The normal effluent stream (302.8 m³/day) after mixing with other effluent like boiler cooling tower and other effluent 111.8 m³/day will be treated in the effluent treated plant of M/s Atul Limited Total 414.6 kl/day of normal effluent will be treated in effluent treatment plant of M/s Atul Limited for primary and secondary treatment and treated effluent will be discharged into pipeline of 4 km length, constructed by Atul Ltd into the estuary of River Par meeting Arabian Sea further 4km downstream. Process emissions in the form of HCl will be scrubbed with the water and caustic scrubber. Power requirement of 1000 KVA will be met from the Atul's Power Plant. Fuel requirement for 50KVA DG set will be 12 lt/hr HSD. EDC, Methanol, IPA, Toluene, n-Heptane is being used as solvents in the process. Solvents will be recovered & reused.

5. The solid waste will be generated in the form of process waste (1.72 MT/month) which will be incinerated at Incineration system of Atul Ltd., Contaminated discarded packing material (0.7 MT/month) and discarded drums (1.5 MT/month) will be decontaminated & sold to registered recyclers. Each category of waste will be stored in segregated area in covered storage shed with chemical proof flooring and R.C.C. bound wall to prevent leaching due to rain during monsoon. Leachate collection system will be provided and leachate will be treated in ETP. Spent nickel catalyst will be sent back to the manufacturer for reactivation.

6. All the Organic chemicals manufacturing units are listed at serial no. 5(f) of schedule of EIA Notification, 2006 and categorized under A or B category depending upon the location of the plant outside or inside the notified industrial area. This is 'A' category project as the unit is located outside the industrial area.

7. The proposal was considered by the Expert Appraisal Committee in its 92nd meeting held on 18-20th March, 2009. The Committee recommended the proposal for grant of environmental clearance. Public hearing of the project has been exempted as per para 7(ii) of Environmental Impact Assessment Notification, 2006.

8. Based on the information submitted by the project authorities, the Ministry of Environment and Forests 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. The industrial effluent generation shall not exceed 326.8 m³/d. The effluent shall be segregated based on the pollution load. Out of 326.8m³/d, 24m³/d of high COD effluent shall be incinerated in the incinerator and remaining 302.8m³/d of normal effluent stream after mixing with other effluent like cooling tower(111.8m³/d)shall be treated in ETP for primary and secondary treatment. The treated effluent after conforming to the prescribed standards shall be discharged into estuary of river Par through a 4km long pipeline.
- ii. Process emissions in the form of HCl shall be scrubbed with water and caustic scrubber and HCl recovered as by product. The emissions shall be dispersed through stack of adequate height as per CPCB standards. The gaseous emissions from the DG sets shall be dispersed through stack of adequate height as per CPCB standards. Acoustic enclosures shall be provided to the DG set to control the noise pollution.
- iii. 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 State Pollution Control Board. The criteria pollutant levels namely; SPM, RSPM, SO₂, NO_x (ambient levels as well as stack emissions) or critical sectoral parameters like VOC, indicated for the project shall be monitored and displayed at a convenient location near the main gate of the company in the public domain.
- iv. The company shall adopt cleaner production technology to minimize the quantity of fresh water requirement and process effluent generation.
- v. 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 for management of hazardous wastes and prior permission from GPCB shall be obtained for disposal of solid / hazardous waste in the TSDF. The concerned company shall undertake measures for fire fighting facilities in case of emergency.
- vi. The project authorities shall strictly comply with the rules and guidelines under Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989 as amended in October, 1994 and January, 2000. All Transportation of Hazardous Chemicals shall be as per the MVA, 1989.

vii. The company shall undertake following Waste Minimization measures :-

- > Metering and control of quantities of active ingredients to minimize waste.
- > Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
- > Use of automated filling to minimize spillage.
- > Use of "Close Feed" system into batch reactors.
- > Venting equipment through vapour recovery system.
- > Use of high pressure hoses for equipment clearing to reduce wastewater generation.

viii. Fugitive emissions in the work zone environment, product, raw material storage area shall be regularly monitored. The emissions shall conform to the limits imposed by SPCB.

ix. The project authorities shall provide the chilled brine solution in secondary condenser for condensation of the VOCs. The project authority shall ensure that the solvent recovery shall not be less than 95%. The VOC monitoring shall be carried in the solvent storage area and data submitted to the Ministry.

x. Solvent management shall be as follows :

- A. Reactor shall be connected to chilled brine condenser system
- 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 shall be provided with breather valve to prevent losses.

xi. Hazardous chemicals shall be stored in tanks in tank farms, drums, carboys etc. An area of 33% shall be developed as green belt. Selection of plants species shall be as per the Guidelines of CPCB.

xii. The Company shall harvest surface as well as rainwater from the rooftops of the buildings and storm water drains to recharge the ground water and use the same water for the various activities of the project to conserve fresh water.

xiii. Occupational health surveillance of the workers shall be carried out on a regular basis and records shall be maintained as per the Factories Act.

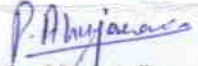
B. GENERAL CONDITIONS:

i. The project authorities shall strictly adhere to the stipulations made by the State 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. At no time, the emissions shall exceed the prescribed limits. In the event of failure of any pollution control system adopted by the unit, the unit shall be immediately put out of operation and shall not be restarted until the desired efficiency has been achieved.
- iv. The gaseous emissions (NO_x, HCl, SO₂ and SPM) and Particulate matter along with RSPM levels from various process units shall conform to the standards prescribed by the concerned authorities from time to time. At no time, the emission levels shall go beyond the stipulated standards. In the event of failure of pollution control system(s) adopted by the unit, the respective unit shall not be restarted until the control measures are rectified to achieve the desired efficiency. Stack monitoring for SO₂, NO_x and SPM shall be carried.
- v. 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 stations is installed in the up wind and downwind direction as well as where maximum ground level concentrations are anticipated.
- vi. Dedicated scrubbers and stacks of appropriate height as per the Central Pollution Control Board guidelines shall be provided to control the emissions from various vents. The scrubbed water shall be sent to ETP for further treatment or sell to actual end users
- vii. 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).
- 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.
- ix. Usage of PPEs by all employees/ workers shall be ensured.
- x. The project proponent 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 respect of environmental management and risk mitigation measures relating to the project shall be implemented.


- xi. The company will undertake all relevant measures for improving the Socio-economic conditions of the surrounding area. CSR activities will be undertaken by involving local villages and administration
 - xii. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
 - xiii. A separate Environmental Management Cell equipped with full fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
 - xiv. The project authorities shall earmark adequate funds 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 provided shall not be diverted for any other purpose.
 - xv. A copy of the 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 who suggestions/ representations, if any, were received while processing the proposal. The clearance letter shall also be put on the website of the company by the proponent.
 - xvi. The implementation of the project vis-à-vis environmental action plans will be monitored by Ministry's Regional Office at Bhopal /State Pollution Control Board/Central Pollution Control Board.
 - 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.
9. The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
10. The Ministry reserves the right to stipulate additional conditions, if found necessary. The company in a time bound manner will implement these conditions.
11. Any appeal against this environmental clearance shall lie with the National Appellate Authority, if preferred, within a period of 30 days as prescribed under section 11 of the National Environment Appellate Authority Act, 1997.

12. 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 Wastes (Management, Handling and Transboundary Movement) Rules, 2008 and the Public Liability Insurance Act, 1991 along with their amendments and rules.


(Dr.P.L. Ahujarai)
Director

Copy to:

1. The Secretary, Forests & Environment Department, Government of Gujarat, Sachivalaya, 8th 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 and Forests, Paryavaran Bhavan, CGO Complex, New Delhi.
6. Guard File/Monitoring File/Record File.


(Dr.P.L. Ahujarai)
Director