

F. No.J-11011/108/2015-IA-II(I)  
Government of India  
Ministry of Environment, Forest and Climate Change  
(IA- II Section)

Indira Paryavaran Bhawan  
Jor bagh Road, New Delhi -3

Dated: 11<sup>th</sup> February, 2019

To

M/s Atul Limited  
Survey No. 274, 275, 276, Village Atul  
Taluka & District **Valsad** - 396 020 (Gujarat)

**Sub: Expansion of Chemicals manufacturing unit by M/s Atul Limited at Village Atul, Tehsil & District Valsad (Gujarat) - Environmental Clearance - reg.**

Sir,

This has reference to your proposal No.IA/GJ/IND2/57601/2015 dated 27<sup>th</sup> September, 2018 submitting the EIA/EMP report on the above subject matter.

2. The Ministry of Environment, Forest and Climate Change has examined the proposal for environmental clearance to the project for expansion of Chemicals (dyes, resins, chlor-alkali, pesticide and other chemicals) manufacturing unit from 31237.97 TPM to 38008.92 TPM by M/s Atul Limited in a total land area of 12,05,401 sqm located at Plot No.5, 6, 29, 30, 33, 34, 35, 37, 38, 80, 81, 84, 85, 91, Survey No. 274, 275, 276, Village Atul, Tehsil and District Valsad (Gujarat).

The proposed expansion project involves increase in production capacity of Synthetic organic chemicals [Dyes from 1300.80 TPM to 1884.13 (9 nos of products), Resin from 2990.90 TPM to 3432.57 TPM (7 nos of products), Other Chemicals from 20551.60 TPM to 21202.60 TPM (28 nos of products)], Chlor-Alkali unit from 3400 TPM to 7500 TPM (2 nos of products) and Pesticides Technical from 2644.07 TPM to 2905.71 TPM (24 nos of products). In addition, there shall be a new series of products namely, Flavors & Fragrances of 733.32 TPM (6 nos of products), whereas, production of bulk drugs & pharmaceuticals shall remain at 350.6 TPM (13 nos of products)].

3. The existing land area is 12,05,401 sqm, and no additional is required for the proposed expansion. Industry has developed greenbelt in an area of 409030 sqm, covering 33.93% of total area of the project. The estimated project cost is Rs.265 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.26 crores and the recurring cost (operation and maintenance) will be about Rs.2.60 crores per annum. Total employment opportunity will be for 140 directly and 300 persons indirectly after expansion.

4. The details of products are as under:

S. No.	Product	Capacity (TPM)		
		Existing	Proposed	Total
<b>Synthetic Organic Chemicals</b>				
<i>Dyes</i>				
1	Azo dyes	550	0	550
2	Sulfur Black	250	583.33	833.33
3	Sulfur Dyes Range	25	0	25
4	Napthol Range	75	0	75

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5	Fast Color Bases	40	0	40
6	Disperse Dyes (Atul-East) + Disperse Dyes (Atul-West)	118.5	0	118.5
7	Optical Brighteners	10	0	10
8	Reactive Dyes	127.3	0	127.3
9	Vat dyes	105	0.00	105
Total		1,300.80	583.33	1,884.13
<i>Bulk Drugs &amp; Pharmaceuticals</i>				
1	Mabendazole	2	0	2
2	Tolbutamide	2.5	0	2.5
3	Quiniodochlor	15	0	15
4	Bulk drugs & intermediates	9.6	0	9.6
5	Diclofenac Sodium / Potassium	2.5	0	2.5
6	Atenolol	1.7	0	1.7
7	Fresamide	1.3	0	1.3
8	Trimethoprim	0.9	0	0.9
9	Para Hydroxyacetophenone	1.7	0	1.7
10	Para Hydroxy Phenyl acetamide	3	0	3
11	Acyclovir	5.2	0	5.2
12	Bathenechol	5.2	0	5.2
13	Pharma Intermediates and chemicals	300	0	300
Total		350.6	0	350.6
<i>Resin</i>				
1	Epoxy Resin	2,500.00	100	2,600.00
2	Vinyl Ester Resins	37.5	0	37.5
3	Ketone Formaldehyde Resins & Sulphonamide, Formaldehyde Resins	20.8	0	20.8
4	UF/MF/PF/ Di Cyanadiamide Resins	270.9	0	270.9
5	Polyamide Resins	161.7	0	161.7
6	Polygrip rubber based	0	300	300
7	Polygrip TPU based	0	41.67	41.67
Total		2,990.90	441.67	3,432.57
<i>Other Chemicals</i>				
1	Anthraquinone, Naphthalene, Benzene Intermediates. (including Beta - Naphthol & BON Acid )	740	0	740
2	M Hydroxy Phenol	460	0	460
3	Anisole	0	166	166
4	1,3 Cyclohexanedione	0	80	80
5	Resoform P-18	0	85	85
6	Resoform P-19			
7	Resoform P-20			
8	Carbamite	30	0	30
9	Chlorzoxazone & other related	5	0	5

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	products			
10	Agro, Pharma intermediates, Isocyanates & Carbonate esters, chloroformates etc.	100	315.00	415
	Trans-4-MCHI	----		
	p-Anisylchloroformate			
	DI-TERT-BUTYL DICARBONATE (Boc. anhydride)			
	N, N- Disuccinimidyl Carbonate			
11	HX-13059	0	5	5
12	4 Ethyl 2,3 – Diocopiperazino carbonyl chloride	3.3	0	3.3
13	IminoDibenzyl 5 Carbonyl Chloride	0.8	0	0.8
14	Other chemicals (DCP, MCA, MEA, DEA, PCI3, PAA, MAP etc.)	425	0	425
15	Formaldehyde and base products	3200	0	3200
16	Sulfuric acid / Oleum / Chlorosulphonic acid & salts	11,550.00	0	11,550.00
17	Sulpha drug intermediates	193.8	0	193.8
18	Acetyl Sulphanilyl Chloride & its derivatives	1,500.00	0	1,500.00
19	Acetanilide	500	0	500
20	Sulpha Methyl Phenazole Sodium	1.1	0	1.1
21	Pyrazole Base	10.5	0	10.5
22	Sulphanilic acid	25	0	25
23	Bisphenol A	416.7	0	416.7
24	Hexamine	150	0	150
25	Epoxy Intermediates	23.8	0	23.8
26	Hardener & Auxiliaries	500	0	500
27	Hardener & Intermediates	700	0	700
28	Bisphenol S & Intermediate Chemicals	16.6	0	16.6
	<b>Total</b>	<b>20,551.60</b>	<b>651</b>	<b>21,202.60</b>
<b>Flavors &amp; Fragrances</b>				
1	Anethole	0	166.66	166.66
2	Avobenzene	0	83.33	83.33
3	Raspberry Ketone	0	100	100
4	P-AnisylPropanal	0	100	100
5	Octacrylene	0	83.33	83.33
6	OctylMethoxyCinnamate	0	200	200
	<b>Total</b>	<b>0</b>	<b>733.32</b>	<b>733.32</b>
<b>Chlor-Alkali Industry</b>				
1	Caustic soda / Potash & Sodium Sulfide	1,800.00	2,200.00	4,000.00

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2	Liquid Chlorine / HCl	1,600.00	1,900.00	3,500.00
Total		3,400.00	4,100.00	7,500.00
<b>Pesticides Technical</b>				
1	Carbamate group of Agrochemicals	33.3	10	43.3
2	Diuron	20	200	220
3	Isoproturon	8.3	-8.3	0
4	Metoxuron	8.3	-8.3	0
5	Trichlo Carbon	8.3	0	8.3
6	Cartap. HCl	50	0	50
7	Carbendazim	20.9	0	20.9
8	Herbicides (2,4 – D & related products)	1,670.00	0	1,670.00
9	Pyridine based insecticides & Herbicides chemical Imidacloprid	25	4.16	29.16
10	Triazole based Fungicide	1.67	0	1.67
11	Pyrethroides	10	0	10
12	Sulphonyl Urea	25	10.25	35.25
13	MCPA	500	0	500
14	Glyphosate	50	15	65
15	Isoprothiolane	8.3	10	18.3
16	Fipronil	5	0	5
17	Formulation	200	0	200
18	Pyrazosulfurone	0	0.5	0.5
19	BisPyribac Sodium	0	0.83	0.83
20	Azoxystrobin	0	2.08	2.08
21	Quizalofop	0	1.25	1.25
22	Thiamethoxam	0	10	10
23	Metribuzine	0	10	10
24	Diafenthurone	0	4.17	4.17
<b>Total</b>		<b>2,644.07</b>	<b>261.64</b>	<b>2,905.71</b>
<b>Grand Total</b>		<b>31,237.97</b>	<b>6,770.95</b>	<b>38,008.92</b>
1	30% HCl (By Product)	---	417	417

5. There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant reserves, Wildlife corridors etc. within 10 km from the project site. Par river is flowing at a distance of 0.7 km (SE) from the project site.

6. Total water requirement is estimated to be 28358 cum/day, of which fresh water requirement of 21950 cum/day will be met from Par river. Permission for withdrawal for 18184 KLD has been obtained from the Damanganga Canal Distributory, Government of Gujarat vide letter dated 14<sup>th</sup> September, 2017. To meet the additional requirement of water, proposal has been submitted to the concerned regulatory authority.

Total effluent generated from different industrial operations is estimated to be 24096 cum/day, which will be treated in the Effluent Treatment Plant of capacity 32 MLD. Treated effluent of 3335 cum/day will be recycled/reused to meet different process requirements and 205.14 cum/day will be discharged to estuary of Par River through existing 4 km long pipeline.

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Power requirement after expansion will be 56 MW, which will be met from existing captive Power plant. Existing unit have 263 TPH coal fired boiler and 2 DG sets of 3100 KVA and 1500 KVA capacity. Stack height are provided as per CPCB norms to the boiler/DG sets. No additional boiler/DG set are required for the proposed expansion.


7. The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates'; 5(f) 'Synthetic organic chemicals industry' and 4(d) 'Chlor-alkali industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal/ approval at central level in the Ministry.

8. The terms of reference (ToR) for the project was granted on 3<sup>rd</sup> July, 2015. Public hearing was conducted by the State Pollution Control Board on 21<sup>st</sup> June, 2016.

9. The proposal for environmental clearance was placed before the EAC (Industry-2) in its meetings held on 26-29 December, 2016, 23-25 January, 2017, 14-16 June, 2017, 25-27 July, 2018 and 29-31 October, 2018 in the Ministry. The project proponent and their consultant's M/s Eco Chem Sales & Services and M/s Kadam Environmental Consultants presented the EIA/EMP report as per the ToR. The Committee found the EIA/EMP report satisfactory and in consonance with the ToR, and recommended the proposal for environmental clearance with certain conditions.

10. Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-2), the Ministry of Environment, Forest and Climate Change hereby accords environmental clearance to the project for **Expansion of Chemicals Manufacturing Unit from 31237.97 TPM to 38008.92 TPM by M/s Atul Limited** at Plot No.5, 6, 29, 30, 33, 34, 35, 37, 38, 80, 81, 84, 85, 91, Survey No. 274, 275, 276, Village Atul, Tehsil & District Valsad (Gujarat), under the provisions of the EIA Notification, 2006, read with subsequent amendments therein, subject to compliance of the terms and conditions as environmental safeguards, as per **Annexure**.


11. The Ministry reserves the right to stipulate additional conditions, if found necessary at subsequent stages and the project proponent shall implement all the said conditions in a time bound manner. The Ministry may revoke or suspend the environmental clearance, if implementation of any of the above conditions is not found satisfactory.

  
11/2/2019

(S. K. Srivastava)  
Scientist E

**Copy to:-**

1. The Additional PCCF(C), MoEF&CC Regional Office (WZ), E-5, Kendriya Paryavaran Bhawan, E-5 Arera Colony, Link Road-3, Ravishankar Nagar, **Bhopal** -16 (MP)
2. The Secretary, Forests and Environment Department, Government of Gujarat, Block 14, 8th Floor, Sachivalaya, **Gandhinagar** - 10 (Gujarat)
3. The Member Secretary, Central Pollution Control Board, Parivesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, **Delhi** - 32
4. The Member Secretary, Gujarat Pollution Control Board, Paryavaran Bhawan, Sector-10A, **Gandhinagar** - 10 (Gujarat)
5. Guard File/Monitoring File/Website/Record File

  
11/2/2019

(S. K. Srivastava)  
Scientist E

**Environmental clearance to the project for expansion of Chemical Manufacturing Unit from 31,237.97 TPM to 38,008.92 TPM by M/s Atul Limited at Plot No.5, 6, 29, 30, 33, 34, 35, 37, 38, 80, 81, 84, 85, 91, Survey No. 274, 275, 276, Tehsil and District Valsad (Gujarat)**

[F. No. IA-J-11011/108/2015-IA-II(I); Proposal No. IA/GJ/IND2/57601/2015 dated 27<sup>th</sup> September, 2018]

Terms and Conditions

- (i) Consent to Establish/Operate for the project shall be obtained from the State Pollution Control Board as required under the Air (Prevention and Control of Pollution) Act, 1981 and the Water (Prevention and Control of Pollution) Act, 1974.
- (ii) The treated effluent of 3335 cum/day shall be recycled/reused to meet the requirement of different industrial operations, and the remaining treated effluent of 20514 cum/day shall be discharged to estuary of Par river through the existing pipeline.
- (iii) Necessary authorization required under the Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016, Solid Waste Management Rules, 2016 shall be obtained and the provisions contained in the Rules shall be strictly adhered to.
- (iv) 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 from time to time shall be followed.
- (v) To control source and the fugitive emissions, suitable pollution control devices shall be installed to meet the prescribed norms and/or the NAAQS. The gaseous emissions shall be dispersed through stack of adequate height as per CPCB/SPCB guidelines.
- (vi) Solvent management shall be carried out 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.
  - (g) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (vii) Total fresh water requirement shall not exceed 21950 cum/day, proposed to be met from Par River. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (viii) Industrial/trade effluent shall be segregated into High COD/TDS and Low COD/TDS effluent streams. High TDS/COD shall be passed through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.
- (ix) Process effluent/any wastewater shall not be allowed to mix with storm water. The storm water from the premises shall be collected and discharged through a separate conveyance system



- (x) Hazardous chemicals shall be stored in tanks, tank farms, drums, carboys etc. Flame arresters shall be provided on tank farm, and solvent transfer through pumps.
- (xi) Process organic residue and spent carbon, if any, shall be sent to cement industries. ETP sludge, process inorganic & evaporation salt shall be disposed off to the TSDF.
- (xii) 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, 1989.
- (xiii) 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 along with the storm water. Direct exposure of workers to fly ash & dust should be avoided.
- (xiv) The company shall undertake waste minimization measures as below:-
  - (a) Metering and control of quantities of active ingredients to minimize waste.
  - (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.
  - (c) Use of automated filling to minimize spillage.
  - (d) Use of Close Feed system into batch reactors.
  - (e) Venting equipment through vapour recovery system.
  - (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xv) The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery, in downward wind direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.
- (xvi) All the commitments made regarding issues raised during the public hearing/consultation meeting shall be satisfactorily implemented.
- (xvii) As committed, funds allocation for the Corporate Environment Responsibility (CER) shall be 2% of the total project cost. Item-wise details along with time bound action plan shall be prepared and submitted to the Ministry's Regional Office.
- (xviii) For the DG sets, emission limits and the stack height shall be in conformity with the extant regulations and the CPCB guidelines. Acoustic enclosure shall be provided to DG set for controlling the noise pollution.
- (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) Occupational health surveillance of the workers shall be done on a regular basis and records maintained as per the Factories Act.
- (xxi) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

#### General Conditions

- (i) The project authorities shall adhere to the stipulations made by the State Pollution Control Board, Central 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

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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 each 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 16<sup>th</sup> 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 to utilize the same for process requirements.
- (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. CER 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

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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.

A handwritten signature in black ink, consisting of stylized initials, is written above a horizontal line.

