GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-3 SECTOR)
*****

Dated: 13.09.2022

MINUTES OF THE 37th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON August 29 -30, 2022

Venue: Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110003 through **Video Conferencing (VC)**

Time: 10:30 AM onwards

(i) Opening Remarks by the Chairman

Prof. (Dr.) A.B. Pandit, Chairman welcomed the Committee members and opened the EAC meeting for further deliberations.

The EAC congratulated Shri Amit Vashishtha, MoEF&CC upon his promotion from Scientist 'D' to Scientist 'E' and also thanked him for his able contribution towards the EAC meetings. The EAC also welcomed the new Scientist 'B', Dr. Pradeep Kumar Sugumar, Scientist 'B', MoEF&CC.

(ii) Details of Agenda items by the Member Secretary

The Member Secretary appraised the EAC about the details of Agenda items to be discussed during this meeting.

(iii) Confirmation of Minutes of the 36th Meeting of the EAC (Industry-3 Sector) held during August 16-17, 2022 through VC.

The EAC noted that the final minutes were issued after incorporating the comments offered by the members and approved by the Chairman on 29.08.2022. Subsequently, based on the request of one of the Project Proponent (PP) i.e. M/s. Shivtek Industries Private Limited (Agenda No. 36.6), the EAC recommended following corrections in the minutes.

Expansion of Chlorinated Paraffin Plasticizer with production capacity from (50 TPD to 125 TPD) & Hydrochloric Acid (byproduct) (100 TPD to 250 TPD) Manufacturing Unit, located at Survey No. 62 A part, Village Gondiparla, Mandal & District Kurnool, Andhra Pradesh by M/s. Shivtek Industries Private Limited - Consideration of Environmental Clearance

Para 4: The PP reported that the proposed land area is 1.01171 Ha and no R& R is involved in the project. The details of products and by–products are as follows:

S. No.	Product	Proposed (T/M)	Proposed (T/A)	CAS No.	End Use

1	Azacyclonol	32.00	384.00	115-46-8	Treatment of Schizophrenia
2	Ethyl Iso Nipecotate	8.50	102.00	1126-09-6	API Intermediate
3	Nicotinic AcidMethyl Ester	4.20	50.40	93-60-7	Used as a Rubefacient forrelief of pains inmuscles, tendons and joints
4	1-Benzylpiperidine-4-Carboxaldehyde	0.60	7.20	22065-85-6	API Intermediate
Total (A)		**45.30**	**543.60**	**--**	**--**
By-Product					
1	Ammonium Sulfate	10.08	120.96	7783-20-2	**--**
	Total (B)	**10.08**	**120.96**	**--**	**--**

SHALL BE REPLACED BY

Para 4:

The PP reported that the proposed land area is 1.01171 Ha and no R& R is involvedin the Project. The details of products and by–products are as follows:

S. No.	Product Details	CAS No.	Existing quantity	Proposed quantity	Total quantity	Uses
1	Chlorinated Paraffin Plasticizer	106232-86-4	50 TPD	75 TPD	125 TPD	For polyvinyl chloride, as extreme-pressure additives in metal-machining fluids, as additives to paints, coatings and sealants to improve their resistance to chemicals and to water, and as flame retardants for plastics, fabrics, paints and coatings
2	Hydrochloric Acid (By-product)	7647-01-0	100 TPD	150 TPD	250 TPD	Production of batteries, photoflash bulbs and fireworks. It is also used in leather processing,

						building and construction, oil well acidizing and producing gelatin products

Para 27. (iii) Remediation plan shall be completed in 3 years whereas bank guarantee shall be for 5 years. The bank guarantee will be released after successful implementation of the remediation plan and the Natural and Community Resource Augmentation Plan, and after the recommendation by regional office of the Ministry, Expert Appraisal Committee and approval of the Regulatory Authority.

SHALL BE REPLACED BY

Para 27. (iii) Remediation plan shall be completed in 3 years. The bank guarantee will be released after successful implementation of the remediation plan and the Natural and Community Resource Augmentation Plan, and after the recommendation by regional office of the Ministry, Expert Appraisal Committee and approval of the Regulatory Authority.

Para 27. (xviii) 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 servers. 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.

SHALL BE REPLACED BY

Para 27. (xviii) Since stack for neutralization of process emission is at TGV SRAAC Ltd. plant, the data will be collected from them and submitted to SPCB/CPCB.

Para 27. (xxiii) The 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) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthingshall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

SHALL BE REPLACED BY

Para 27. (xxiii) **There is no solvent in raw material or process.** If solvents are used, the 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) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

After confirmation of minutes of the 36th EAC meeting, discussion on each of the agenda items was taken up ad-seriatim. Details of the proposals considered during this 37th

EAC meeting **conducted through Video Conferencing (VC)**, deliberations made and the recommendations of the EAC are detailed in the respective agenda items as under:

Agenda No. 37.1

Amendment in the EC for Split of Existing Environmental Clearance (EC) of M/s. Atul Ltd. working at Survey No. 5, 6, 29, 30, 33 to 38, 80, 81, 84, 85, 91, 96 to 105, 108, 112 to 117, 142, 144 to 148 of Atul village and 274, 275, 276, 315, 316 to 321 of Haria village, Taluka & Dist.: Valsad, Gujarat by M/s. Atul Products Limited – Re-consideration

[Proposal No. IA/GJ/IND3/283118/2022; File No. J-11011/108/2015-IA-II(I)]

1. The proposal is for amendment in the Environmental Clearance (Splitting of the Existing EC of M/s. Atul Ltd. between two entities i.e. M/s. Atul Ltd. and M/s. Atul Products Ltd.). Earlier EC was granted by the Ministry vide letter no. IA-J-11011/108/2015-IA-II(I), dated 03.08.2021 for the expansion of Dyes, Pesticides, Chlor-Alkali, Bulk Drugs & Pharmaceuticals, Resins, Flavors & Fragrances, Other Chemicals & Co-Products manufacturing located at Atul village and Haria village, Taluka & District- Valsad, Gujarat in favour of M/s. Atul Ltd.

2. The PP applied for **Amendment in the EC** in Form-4 on 13.7.2022, and due to shortcomings, the proposal was referred back to the PP on 18.7.2022, reply for the same has been submitted on 19.7.2022 and the proposal was placed in the 35th EAC meeting held during July 28-29, 2022, wherein the PP and an accredited consultant, San Envirotech Pvt. Ltd. [Accreditation number NABET/EIA/2023/RA 0216, valid upto 23.12.2023] made a presentation for the said proposal.

3. The PP has requested for split of existing EC of Atul Ltd. between Atul Ltd. and Atul Products Ltd., with a major change as **proposed Chlor-Alkali** plant transfer to **Atul Products Limited** with split of all EC conditions laid down in EC.

4. The PP has requested for amendment in the EC (Split of the EC) with the details as under:

Para/Sr. No. of EC issued by MoEF&CC	Details as per EC	To be revised/read as	Justification/ reasons
1.	This is reference to your proposal no. IA/GJ/IND3/211612/2018 dated 8th May 2021, submitting the EIA/EMP report on the above subject matter.	We request to split the EC between Atul Ltd and Atul Products Ltd	We have proposed 370 TPD caustic plant in the year 2018-19 and accordingly applied for the Environment Clearance (EC) in the name of Atul Ltd, which we have received on
2.	The Ministry of Environment, Forest and climate change has examined the proposal for environmental clearance to the project of Expansion of Dyes, Chlor-Alkali, Pesticide, Bulk Drug & Pharmaceutical,	The ministry of Environment, Forest and climate change has examined the proposal for environmental clearance to the project of Chlor-Alkali & Co-Products Manufacturing Unit at Survey	

	Resins, Flavors & Fragrances, Other Chemicals & Co-Products Manufacturing Unit at Survey No. 5, 6, 29, 30, 33 to 38, 80, 81, 84, 85, 91, 96 to 105, 108, 112 to 117, 142, 144 to 148 of Atul Village and 274, 275, 276, 315, 316 to 321 of Haria village, Taluka and District Valsad, Gujarat by M/s Atul Ltd	Part of S. No. 33 (new Survey no. 256)- Part B, Survey 37 (new Survey no. 262)- Part B, Survey 37 (new Survey no. 263)- Part B, 144 (new Survey no.599)- Part B, 147 (new Survey No. 602)- Part B, 148 (new Survey No. 603)- Part B of Atul Village and 317- Part B of Haria village.	August 03, 2021. When we received EC last year, the project was found economically unviable due to pandemic condition and consequent delay. Caustic Chlorine plant is high capital (Capex) and high operating (Opex) cost project. The prevailing Geo political situation between Russia and Ukraine adversely affected further the financial viability of the subject project. Central and State Government had introduced various promotional incentive schemes for new companies to attract investment, create jobs and trigger overall economic growth. As per benefit provided by Government through this scheme, our project could be made commercially

<table>
<tr><td></td><td></td><td></td><td>viable and hence we had decided to create new company named Atul Products Ltd, which is 100% subsidiary of Atul Ltd for Caustic plant by splitting the EC</td></tr>
<tr><td>3.</td><td colspan="3">The details of products and capacity are as under:
Detailed product profile
<table>
<tr><th>Sr. No.</th><th>Name of products</th><th>Category as per EIA Notification, 2006</th><th>Capacity (MTPM)</th></tr>
<tr><td></td><td>Chlor Alkali</td><td rowspan="5">4(d)</td><td></td></tr>
<tr><td>1</td><td>Caustic soda/potash & sodium sulfide</td><td>11100</td></tr>
<tr><td>2</td><td>Liquid Chlorine/HCl</td><td>9768</td></tr>
<tr><td>3</td><td>Hydrogen</td><td>265.29</td></tr>
<tr><td></td><td>Total Chlor Alkali</td><td>21133.29</td></tr>
<tr><td>4</td><td>Sodium hypo chlorite solution (10%)</td><td>--</td><td>1195.7</td></tr>
<tr><td colspan="3">Total</td><td>22328.99</td></tr>
</table></td></tr>
<tr><td>4</td><td>It is reported that the existing land area is 1126078.27 sqm, and no additional land will be required for proposed expansion.</td><td>Land area is 58960 sqm</td><td rowspan="5">We have proposed 370 TPD caustic plant in the year 2018-19 and accordingly applied for the Environment Clearance (EC) in the name of Atul Ltd., which we received on August 03, 2021. When we received EC last year, the project was found economically unviable due to pandemic condition and</td></tr>
<tr><td>Industry has developed greenbelt in an area of 409030 sqm, covering 36.32% of total project area.</td><td>Industry has developed greenbelt in an area of 409030 sqm, covering 36.32% of total project area.</td></tr>
<tr><td>The estimated project cost is Rs. 1789.03 crores excluding existing investment of Rs. 956.2 Crore.</td><td>The estimated project cost will be now Rs. 300.0 Cr.</td></tr>
<tr><td>Total capital cost earmarked towards environmental pollution control measures is Rs. 451.81 crore and the recurring cost (operation and maintenance) will be about Rs. 138.43 crore per annum.</td><td>Total capital cost earmarked towards environmental pollution control measures is Rs. 17.87 crore and the recurring cost (operation and maintenance) will be about Rs. 2.13 crore per annum.</td></tr>
<tr><td>The project will lead to additional employment for 100</td><td>The project will now lead to additional employment for 25</td></tr>
</table>

	persons directly and 200 persons indirectly after expansion.	persons directly and 25 persons indirectly after expansion.	consequent delay. Caustic Chlorine plant is a high capital (Capex) and high operating (Opex) cost project. The prevailing Geo political situation between Russia and Ukraine adversely affected further the financial viability of the subject project. In view of this, the Central and State Government had introduced various promotional incentive schemes for new companies to attract investment, create jobs and trigger overall economic growth. As per benefit provided by Government through this scheme, our project could be commercially viable and hence we had decided to create new company named Atul Products Ltd, which is a 100% subsidiary of Atul Ltd. for
	Industry proposes to allocate Rs. 8.472 crore towards Corporate Environmental Responsibility.	As per the cost break up, Atul Products Ltd will allocate Rs. 1.421 Cr towards Corporate Environmental Responsibility	
5	It is reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km of the project site. Parnera Reserve Forest is at 0.62 km, Par river is at 0.25 km (SE) and Pond of Hariya Village is at 0.07 km (W) from project site	It is reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km of the project site. Parnera Reserve Forest is at 0.62 km, Par river is at 0.25 km (SE) and Pond of Hariya Village is at 0.07 km (W) from project site	
6	It is noted that the total water requirement is 42236 m^3/day of which fresh water requirement of 18050 m^3/day will be met from Surface Water Source - Par River, 9335 m^3/day will be recycled/ treated water, 11778 m^3/day will be Treated STP water from Valsad/Pardi Nagarpalika and 3073 m^3/day will be water from Rain water harvesting. Total effluent generation will be 34866 KLD including domestic effluent (323 KLD). High TDS effluent of 443 KLD will be taken to MEE, 99 KLD of high COD w/w will be incinerated in incinerator Low COD, low TDS effluent is 27143 KLD; out of which 19379 KLD will be treated in ETP and 7764 KLD will further passed through RO after treatment followed by MEE. Utility w/w generation is 4480 KLD; out of which 2500 KLD taken to RO followed by MEE and 1980 KLD w/w is direct disposal. Total 22513 KLD of effluent [323 Domestic sewage, 433 KLD MEE Condensate, 19379 KLD process effluent, 2378	It is noted that total water requirement is **2193.5 m^3/day** of which **Fresh water requirement of APL will be 1948.5 KLD** will be met from Surface Water Source - Par River, **245 KLD** will be recycle back for process as APL will be ZLD plant. Total effluent generation will be 305.75 KLD including domestic effluent (0.5 KLD). Unit will achieve ZLD (Zero Liquid Discharge). Low COD, low TDS effluent is **305.75 KLD**; will be treated in ETP and further passed through RO. RO permeate will be recycled back and reject will be used in Ash quenching. Unit will achieve ZLD (Zero Liquid Discharge). There will be addition of 2 process stacks in the proposed project. Air pollution control measures like water, alkali, scrubbers will be provided as APCM.	

	Washing effluent] will be treated in ETP and propose to discharge 24493 KLD. The operations in the unit shall be managed further better and the total effluent shall be restricted to 20514 KLD for discharge to Estuary Zone of Par River through 4 km long pipeline from Industry Power connected load is 56000 kVA, which will be sourced from Dakshin Gujarat Vij Company Limited (DGVCL) and Captive Power Plant. No additional requirement of power. Unit has installed 2 D.G. Sets of 1010 kVA and 1500 kVA capacity for the power backup. Stack height of 11 m is provided as per CPCB norms to the proposed DG Set. The existing flue gas emission is from stack attached to Coal/Lignite fired Boilers, PNG operated Hot Oil Unit, Oil Burner and Thermic Fluid Heater (6LKcal/hr). Electrostatic Precipitators with stack of different heights are installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the existing boilers. There will be no addition of any flue gas stack in proposed expansion. The process emission generation is from 57 nos. of stacks/vents. There will be addition of 32 process stacks in the proposed expansion project. Air pollution control measures like bag filter, cyclone, water, alkali, acid, caustic scrubbers will be provided as separate or in the combination. Details of flue gas stacks, process gas stacks, solid waste/ hazardous waste		Caustic plant by splitting the EC

	disposal are as per the plan provided in the EIA/EMP report and as deliberated in the EAC		
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 at Central Level by the Expert Appraisal Committee (EAC) in the Ministry.	The project/activities are covered under Category 'A' of item 4(d) 'Chlor-Alkali Industry' of the Schedule to the Environment Impact Assessment Notification,2006, and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) in the Ministry.	
8.	The standard terms of reference (ToR) was issued by the Ministry vide letter dated 22nd January, 2019. Public hearing has been conducted by the Gujarat Pollution Control Board on 1st January, 2021 which was presided over by the Additional District Magistrate. The main point raised during the public hearing were related to employment, proper mitigation measures as well as and proper utilization of CER/CSR fund. The project proponent has informed that there is no litigation pending against the proposal.	The standard terms of reference (ToR) was issued by the Ministry vide letter dated 22nd January, 2019. Public hearing has been conducted by the Gujarat Pollution Control Board on 1st January, 2021 which was presided over by the Additional District Magistrate. The main point raised during the public hearing were related to employment, proper mitigation measures as well as and proper utilization of CER/CSR fund. The project proponent has informed that there is no litigation pending against the proposal.	
9.	The proposal was considered by the Expert Appraisal Committee (Industry-3) in its meeting held on 31st May to 1st June, 2021 in the Ministry through video conferencing, wherein the project proponent and their accredited consultant M/s San Envirotech Pvt. Ltd. presented the EIA/EMP report as per the ToR. The EAC, constituted under the provision of the EIA	The proposal was considered by the Expert Appraisal Committee (Industry-3) in its meeting held on 31st May to 1st June, 2021 in the Ministry through video conferencing, wherein the project proponent and their accredited consultant M/s San Envirotech Pvt. Ltd. presented the EIA/EMP report as per the ToR.	

	Notification, 2006 comprising Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent. The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental status and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee also deliberated on the activities/action plans and found them addressing to the issues in the public hearing. The Committee suggested that the storage of toxic/explosive raw materials shall be in bare minimum quantity and inventory. The Committee appreciated the greenbelt	The EAC, constituted under the provision of the EIA Notification, 2006 comprising Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental status and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee also deliberated on the activities/action plans and found them addressing to the issues in the public hearing.	

	development in the unit complex and suggested PP to develop greenbelt in other areas and involve forest department/villages in this regard. The Committee pointed out that the effluent quantity to be discharged shall be within the prescribed limit as per the CRZ clearance and any increase in the effluent load or changes in pipeline attracts the provisions of the CRZ Notification, 2011. The Committee also noted that Ministry had earlier vide letter dated 11th February, 2019 to the existing projects. The certified Compliance Report of existing EC forwarded by the Ministry's IRO, Bhopal vide letter dated 09.03.2020 was found to be satisfactory. The Committee noted that, in response to the Committee's observations, the project proponent vide letter dated 31st May, 2021 has submitted detailed action plan to dense and develop the greenbelt in the complex and adjoining areas. Further the PP shall take plantation activities in the Parnera hill and other areas. The Action plan submitted for controlling the particulate emissions in the factory and preventive action to control accidents were found to be satisfactory. The project proponent informed that the current permitted effluent discharge to the Par river is 20514 KLD as per earlier EC and CTO. The Committee noted that CRZ clearance was granted on 17th January, 1998 for laying a 4-km long pipeline for effluent discharge. The project proponent submitted an	The Committee suggested that the storage of toxic/explosive raw materials shall be in bare minimum quantity and inventory. The Committee appreciated the greenbelt development in the unit complex and suggested PP to develop greenbelt in other areas and involve forest department/villages in this regard. No disposal of industrial effluent hence proposal does not attracts the provisions of the CRZ Notification, 2011. The Committee noted that, in response to the Committee's observations, the project proponent vide letter dated 31st May, 2021 has submitted detailed action plan to dense and develop the greenbelt in the complex and adjoining areas. Further the PP shall take plantation activities in the Parnera hill and other areas. Low COD, low TDS effluent is 305.75 KLD; will be treated in ETP and further passed through RO. RO permeate will be recycled back and reject will be used in Ash quenching. Unit will achieve ZLD (Zero Liquid Discharge) The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and	

	undertaking that the effluent quantity mentioned in the CRZ clearance application and the NIO report was 23790 KLD, and the total discharge quantity shall not exceed 20514 KLD. The Committee found the additional information submitted by the project proponent to be satisfactory and addressing to the concerns of the Committee. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance. Subsequent to recommendations of the EAC (Industry-3), the proposal has been examined in the Ministry on requirement of fresh CRZ clearance for the pipeline. It is noted that the existing CRZ clearance dated 17th January, 1998 is operational and valid for discharge of 20514 KLD.	recommended for grant of environmental clearance.	
10	The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/ construe to approvals/ consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.	The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/ construe to approvals/ consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project.	

	The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.	The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.	
11.	Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project for Expansion of Dyes, Chlor-Alkali, Pesticide, Bulk Drug & Pharmaceutical, Resins, Flavors & Fragrances, Other Chemicals & Co-Products Manufacturing Unit by M/s. Atul Limited at Atul village and Haria Village, Taluka & District Valsad, Gujarat, under the provisions of the EIA Notification, 2006.	Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project for Chlor-Alkali & Co-Products Manufacturing Unit by M/s. Atul Product Limited at Atul village and Haria Village, Taluka & District Valsad, Gujarat, under the provisions of the EIA Notification, 2006.	
A	**Specific conditions**		
(i)	The effluent quantity to be discharged shall be within the prescribed limit as per the existing CRZ clearance and any increase in the effluent load or changes in pipeline attracts the provisions of the CRZ clearance.	No effluent quantity to be discharged in the limit of CRZ area hence proposal does not attracts the provisions of the CRZ clearance	
(ii)	No banned pesticides/chemicals shall be manufactured by the project proponent. No banned raw material shall be used in the unit. The project proponent	No banned chemicals shall be manufactured by the project proponent. No banned raw material shall be used in the unit. The project proponent shall adhere to the	

	shall adhere to the notifications/guidelines of the Government in this regard.	notifications/guidelines of the Government in this regard.	
(iii)	The company shall 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.	The company shall 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.	
(iv)	The treated effluent of 20514 KLD proposed to discharge to the estuary of Par river through pipeline, shall conform to the standards prescribed under the Environment (protection) Act, 1986. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.	Low COD, low TDS effluent is 305.75 KLD; will be treated in ETP and further passed through RO. RO permeate will be recycled back and reject will be used in Ash quenching. Unit will achieve ZLD(Zero Liquid Discharge).	
(v)	Continuous online (24x7) monitoring system for stack emission shall be installed for the measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers 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.	Continuous online (24x7) monitoring system for stack emission shall be installed for the measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers 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.	
(vi)	The storage of toxic/hazardous raw material shall be bare minimum with respect to their quantity and inventory. Quantity and day of storage shall be submitted to the Regional Office of Ministry and	The storage of toxic/hazardous raw material shall be bare minimum with respect to their quantity and inventory. Quantity and day of storage shall be submitted to the Regional Office of	

	SPCB along with the compliance report.	Ministry and SPCB along with the compliance report.	
(vii)	Occupational health center for surveillance of the workers health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.	Occupational health center for surveillance of the workers health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.	
(viii)	Training shall be imparted to all employees on safety and health aspects of chemi9cal handling. Safety and visual reality training shall also be provided to employees.	Training shall be imparted to all employees on safety and health aspects of chemi9cal handling. Safety and visual reality training shall also be provided to employees.	
(ix)	The unit shall make arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Action plan proposed shall be implemented in letter and spirit.	The unit shall make arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Action plan proposed shall be implemented in letter and spirit.	
(x)	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) Solvents shall be stored in a separate space specified with all safety measures (d) Proper earthing shall be provide in all the electrical equipment wherever solvent handling is done (e) Entire plant shall be flame proof. The solvent storage tanks shall be provide with breather valve to prevent losses.	No use of solvent or organic compound hence no requirement of solvent management.	

	(f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.		
(xi)	The action plan submitted for controlling the particulates emissions in the factory shall be satisfactorily implemented.	The action plan submitted for controlling the particulates emissions in the factory shall be satisfactorily implemented.	
(xii)	Volatile organic compound (VOCs)/ Fugitive emission shall be controlled up to 99.99% with effective chillers/ modern technology.	Volatile organic compound (VOCs)/ Fugitive emission shall be controlled up to 99.99% with effective chillers/ modern technology.	
(xiii)	Total fresh water requirement, proposed to be met from Par River shall not exceed 18050 cum/day. Prior permission in this regard shall be obtained from the concerned regulatory authority.	Total fresh water requirement, proposed to be met from Par River shall not exceed 1949 cum/day. Prior permission in this regard shall be obtained from the concerned regulatory authority.	
(xiv)	Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premise and harvested waster shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ Any waste water shall not be allowed to mix with storm water.	Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premise and harvested waster shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ Any waste water shall not be allowed to mix with storm water.	
(xv)	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 material or as raw material substitutes in other processes. (c) Us of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors.	The company shall undertake waste minimization measures as below (g) Metering and control of quantities of active ingredients to minimize waste (h) Reuse of by-products from the process as raw material or as raw material substitutes in other processes. (i) Us of automated filling to minimize spillage.	

	(e) Venting equipment through vapor recovery system (f) Use of high-pressure hoses for equipment clearing to reduce waste water generation.	(j) Use of Close Feed system into batch reactors. (k) Venting equipment through vapor recovery system (l) Use of high-pressure hoses for equipment clearing to reduce waste water generation.	
(xvi)	The greenbelt of at least 5-10 m width shall be developed/ strengthened over nearly 33% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department Records of tree canopy shall be monitored through remote sensing. Tress has to be planted with spacing of 2m x 2m and number of trees has to be increases accordingly. The Plant species can be selected that will give better carbon sequestration. The action plan proposed in this regard shall be implemented.	The greenbelt of at least 5-10 m width shall be developed/ strengthened over nearly 33% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department Records of tree canopy shall be monitored through remote sensing. Tress has to be planted with spacing of 2m x 2m and number of trees has to be increases accordingly. The Plant species can be selected that will give better carbon sequestration. The action plan proposed in this regard shall be implemented.	
(xvii)	As proposed the project proponent shall undertake plantation activities (10,000 plant) in the Parnera hill and other areas with the support of State Forest Department/ Village Administration.	As proposed the project proponent shall undertake plantation activities (10,000 plant) in the Parnera hill and other areas with the support of State Forest Department/ Village Administration.	
(xviii)	As committed, at least Rs. 5 lakhs shall be allocated for conservation of Schedule| species. The implementation report shall be submitted to the IRO, MoEFCC,	As committed, at least Rs. 5 lakhs shall be allocated for conservation of Schedule| species. The implementation report shall be submitted to the IRO, MoEFCC,	
(xix)	The activities and the action plan proposed by the project proponent to address the socioeconomic/public concern and issues raised during public hearing in the study area shall	The activities and the action plan proposed by the project proponent to address the socioeconomic/public concern and issues raised during public hearing in the	

	be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.	study area shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.	
(xx)	A separate Environmental Management Cell (having qualified persons with Environmental science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring Functions.	A separate Environmental Management Cell (having qualified persons with Environmental science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring Functions.	
	General Conditions		
(i)	No further expansion or modification in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA as applicable. 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/ SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	No further expansion or modification in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA as applicable. 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/ SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	
(ii)	The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the chemical accidents (Emergency Planing,	The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the chemical accidents (Emergency Planing,	

	Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.	Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.	
(iii)	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	
(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 the Environment (Protection) Act Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	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 the Environment (Protection) Act Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	
(v)	The company shall undertake all relevant measures for improving the socioeconomic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake Eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment	The company shall undertake all relevant measures for improving the socioeconomic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake Eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment	
(vi)	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	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	

	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.	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.	
(vii)	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.	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.	
(viii)	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 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.	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 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.	
(ix)	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	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	

	sent to the respective Regional Offices of MoEF&CC by e-mail.	conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.	
(x)	The project proponent shall inform the public 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 and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	The project proponent shall inform the public 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 and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	
(xi)	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.	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.	
(xii)	This Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	This Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	

5. The EAC observed that there was a lack of clarity in the presentation made by the PP, there were errors in the presentation, particularly in slide no. 29. The EAC was of the view that for better understanding of the proposal, the following information are required:

(i) Proper justification for splitting of the Unit needs to be submitted.

(ii) Tangible and intangible assets should not be mixed. It is easy to separate tangible assets (land, product manufacturing, etc.) but intangibles cannot be quantified for separating.

(iii) Details of the tangible aspects like land, raw materials, fuel/energy, water, machinery and equipment, pollution control measures.

(iv) The PP should submit the land document with respect to M/s Atul Products Ltd. clearly showing the survey nos. included in the proposed site and area of the site.

(v) There has to be a clear physical boundary between the two units to facilitate monitoring and assessing compliance by the SPCB/CPCB etc. This should be supported by map, layout, tabular data etc.

(vi) The layout plan needs to be submitted clearly showing the different facilities, location of plant, storage area, transportation route, entry and exit points, emergency assembly area, facilities for the workers etc., needs to be included in the layout plan for the proposed Unit.

(vii) Comparison of the layout plan for which the initial EC was granted with the proposed proposal.

(viii) Details of no. of products with category and capacity needs to be submitted for the proposed split.

(ix) Details of the green belt to be developed (no. of trees to be planted, area to be put-up under green belt, percentage area under green belt, species to be planted, green belt already developed, if any). In addition, a separate layout plan showing the green belt needs to be submitted.

(x) Environment Impact of the proposed unit needs to be submitted.

(xi) The PP needs to submit the Environmental Management Plan for the proposed unit along with budgetary provision.

(xii) Time bound action plan along with budgetary provision for occupational health and surveillance, safety, green belt, rain water harvesting, carbon sequestration etc. needs to be submitted.

(xiii) The environmental management cells will have to be different for both the Units

(xiv) Funds for the CSR and CER will have to be estimated properly and separately.

(xv) The compliance of Hon'ble NGT order discussed during the meeting needs to be submitted.

The EAC therefore, **deferred** the proposal

6. The PP submitted reply to the above sought information and the proposal was again placed before the EAC in this meeting, wherein the PP and an accredited consultant, San Envirotech Pvt. Ltd. made a presentation on the same.

7. **Deliberations by the EAC:**

At the outset, the EAC noted that the Consultant had gone ahead with the presentation of Agenda No. 37.2 instead of Agenda No. 37.1 without the permission of the EAC. The EAC took a serious note of this and warned the consultant for his casual approach, which has also reflected in the documentation and presentation of both the proposals.

After detailed deliberations, the EAC advised the PP to submit the following for better clarity:

(i) Split of EC and its conditions in 4 columns i.e., Conditions of original EC, Conditions applicable to M/s Atul Ltd. after split, Conditions applicable to M/s Atul Products Ltd. (APL) after split and last Column showing how the total is the same as the original EC.
(ii) In the same format, the detailed product list, water requirement, wastewater generation & treatment, process stacks, solid waste and EMP & CER budgets.
(iii) Land use break up of M/s Atul Products Ltd.
(iv) Land lease document for outside greenbelt of M/s Atul Products Ltd.
(v) MoU between M/s Atul Ltd. and M/s Atul Products Ltd. for water requirement of greenbelt area outside the factory premises as well as solid waste management, if any

The PP has submitted the above sought information/documents. The split of EC and its conditions, detailed product list, water requirement, wastewater generation & treatment, process stacks, solid waste and EMP & CER budgets in said 4 columns is as follows:

<table>
<tr><th>Sr. No.</th><th>Conditions as per EC</th><th>Applicable condition to Atul Ltd after split</th><th>Applicable condition to Atul Products Ltd (APL) after split</th><th>Total</th></tr>
<tr><th>C1</th><th>C2</th><th>C3</th><th>C4</th><th>C5</th></tr>
<tr><td>1.</td><td>This is reference to your proposal no. IA/GJ/IND3/211612/2018 dated 8th May 2021, submitting the EIA/EMP report on the above subject matter.</td><td>This is reference to your proposal no. Proposal No. IA/GJ/IND3/278608/2022 dated 17th June 2022.</td><td>This is reference to your proposal no. Proposal No. IA/GJ/IND3/283118/2022 dated 17th June 2022.</td><td>---</td></tr>
<tr><td>2.</td><td>The ministry of Environment, Forest and climate change has examined the proposal for environmental clearance to the project of Expansion of Dyes, Chlor-Alkali, Pesticide, Bulk Drug & Pharmaceutical, Resins, Flavors & Fragrances, Other Chemicals & Co-Products Manufacturing Unit at Survey No. 5, 6, 29, 30, 33 to 38, 80, 81, 84, 85, 91, 96 to 105, 108, 112 to 117, 142, 144 to 148 of Atul Village and 274, 275, 276, 315, 316 to 321 of Haria village, Taluka and District Valsad, Gujarat by M/s Atul Ltd</td><td>The ministry of Environment, Forest and climate change has examined the proposal for environmental clearance to the project of Expansion of Dyes, Chlor-Alkali, Pesticide, Bulk Drug & Pharmaceutical, Resins, Flavors & Fragrances, Other Chemicals & Co-Products Manufacturing Unit at Survey No. 5, 6, 29, 30, 33 (new Survey no. 256)*- Part A, 34, 35, 36, Survey 37 (new Survey no. 262)- Part A, Survey 37 (new Survey no. 263)- Part A, 38, 80, 81, 84, 85, 91, 96 to 105, 108, 112 to 117, 142, 144 (new Survey no.599)- Part A, 145, 146, 147 (new Survey No. 602)- Part A, 148 (new Survey No. 603)- Part A of Atul Village and 274, 275, 276, 315, 316,317- Part A, 318,319,320, 321 of Haria village, Taluka and District Valsad, Gujarat by M/s Atul Ltd</td><td>The ministry of Environment, Forest and climate change has examined the proposal for environmental clearance to the project of Chlor-Alkali & Co-Products Manufacturing Unit at survey no. 33 (new Survey no. 256)- Part B, Survey 37 (new Survey no. 262)- Part B, Survey 37 (new Survey no. 263)- Part B, 144 (new Survey no.599)- Part B, 147 (new Survey No. 602)- Part B, 148 (new Survey No. 603)- Part B of Atul Village and 317- Part B of Haria village Taluka and District Valsad, Gujarat by M/s Atul Products Ltd</td><td>Total of C3 and C4 is equal to C2</td></tr>
<tr><td></td><td colspan="4">*Existing Survey nos. are amalgamated by Revenue Department, Govt. of Gujarat and hence new survey nos are also written. There is no change in the basic land area.</td></tr>
<tr><td>3.</td><td>The details of products and capacity are as under:
<table>
<tr><th>S. No.</th><th>Name of Products</th><th>Category</th><th>Quantity (MT/M)</th></tr>
<tr><td>A</td><td>Dyes</td><td>5(f)</td><td>11170.13</td></tr>
<tr><td>B</td><td>Chlor-Alkali</td><td>4(d)</td><td>28633.29</td></tr>
<tr><td>C</td><td>Pesticides Tech</td><td>5(b)</td><td>14285.87</td></tr>
</table></td><td>The details of products and capacity are as under:
<table>
<tr><th>S. No.</th><th>Name of Products</th><th>Category</th><th>Quantity (MT/M)</th></tr>
<tr><td>A</td><td>Dyes</td><td>5(f)</td><td>11170.13</td></tr>
<tr><td>B</td><td>Chlor-Alkali</td><td>4(d)</td><td>7500</td></tr>
<tr><td>C</td><td>Pesticides Tech</td><td>5(b)</td><td>14285.87</td></tr>
</table></td><td>The details of products and capacity are as under:
<table>
<tr><th>SN</th><th>Name of products</th><th>Category</th><th>Capacity (MTPM)</th></tr>
<tr><td>1</td><td>Chlor Alkali</td><td>4(d)</td><td>21133.29</td></tr>
</table></td><td>Total of C3 and C4 is equal to C2</td></tr>
</table>

<table>
<tr><th>Sr. No.</th><th>Conditions as per EC</th><th>Applicable condition to Atul Ltd after split</th><th>Applicable condition to Atul Products Ltd (APL) after split</th><th>Total</th></tr>
<tr><td>C1</td><td>C2</td><td>C3</td><td>C4</td><td>C5</td></tr>
<tr>
<td></td>
<td>
<table>
<tr><td>D</td><td>Bulk Drug and Pharmaceuticals</td><td>5(f)</td><td>2329.6</td></tr>
<tr><td>E</td><td>Resins</td><td>5(f)</td><td>20432.57</td></tr>
<tr><td rowspan="3">F</td><td>Other Chemicals</td><td rowspan="2">5(f)/ Inorganic</td><td rowspan="2">62611.127</td></tr>
<tr><td>Total Production Capacity of this group Sodium Thio sulphate (dry basis)</td></tr>
<tr><td>Other Chemicals</td><td rowspan="2">5(f) / Inorganic</td><td>65411.127</td></tr>
<tr><td>Total Production Capacity of this group Sodium Thio sulphate (wet basis)</td><td></td></tr>
<tr><td>G</td><td>Flavors & Fragrances</td><td>5(f)</td><td>7233.3</td></tr>
<tr><td>H</td><td>Co Products:</td><td>-</td><td>420</td></tr>
<tr><td></td><td>Total Production Capacity with Sodium Thio sulphate (dry basis)</td><td></td><td>147115.887</td></tr>
<tr><td></td><td>Total Production Capacity with Sodium Thio sulphate (wet basis)</td><td></td><td>149915.887</td></tr>
</table>
</td>
<td>
<table>
<tr><td>D</td><td>Bulk Drug and Pharmaceuticals</td><td>5(f)</td><td>2329.6</td></tr>
<tr><td>E</td><td>Resins</td><td>5(f)</td><td>20432.57</td></tr>
<tr><td rowspan="3">F</td><td>Other Chemicals</td><td rowspan="2">5(f)/ Inorganic</td><td rowspan="2">61415.427</td></tr>
<tr><td>Total Production Capacity of this group Sodium Thio sulphate (dry basis)</td></tr>
<tr><td>Other Chemicals</td><td rowspan="2">5(f) / Inorganic</td><td>64215.427</td></tr>
<tr><td>Total Production Capacity of this group Sodium Thio sulphate (wet basis)</td><td></td></tr>
<tr><td>G</td><td>Flavors & Fragrances</td><td>5(f)</td><td>7233.3</td></tr>
<tr><td>H</td><td>Co Products:</td><td>-</td><td>420</td></tr>
<tr><td></td><td>Total Production Capacity with Sodium Thio sulphate (dry basis)</td><td></td><td>124786.897</td></tr>
<tr><td></td><td>Total Production Capacity with Sodium Thio sulphate (wet basis)</td><td></td><td>127586.897</td></tr>
</table>
</td>
<td>
<table>
<tr><td>2</td><td>Sodium hypo chlorite solution (10%)</td><td>--</td><td>1195.7</td></tr>
<tr><td colspan="3">Total</td><td>22328.99</td></tr>
</table>
</td>
<td></td>
</tr>
<tr><td></td><td colspan="4">Detailed Product list of Atul Ltd before split, Atul Ltd after split and APL after split is given subsequently</td></tr>
<tr><td>4</td><td>It is reported that the existing land area is 1126078.27 sqm, and no additional land will be required for proposed expansion.</td><td>Land area is 1067118.27 sqm</td><td>Land area is 58960 sqm</td><td>Total of C3 and C4 is equal to C2</td></tr>
<tr><td></td><td>Industry has developed greenbelt in an area of 409030 sqm, covering 36.32% of total project area.</td><td>Industry has developed greenbelt in an area of 388848 sqm [293435.8 sqm – inside plant premises + 95412.2 sqm (Survey No. 39 &</td><td>Industry has developed greenbelt in an area of 20182 sqm, [2948 sqm – inside plant premises + 17234 sqm</td><td>Total of C3 and C4 is equal to C2</td></tr>
</table>

Sr. No.	Conditions as per EC	Applicable condition to Atul Ltd after split	Applicable condition to Atul Products Ltd (APL) after split	Total
C1	**C2**	**C3**	**C4**	**C5**
		40) – outside plant premises], covering **36.4%** of total project area.	(Survey No. 18/P1) – outside plant premises] covering **34.2%** of total project area.	
	The estimated **project cost is Rs. 1789.03 crores** excluding existing investment of Rs. 956.2 Crore.	The estimated **project cost will be now Rs. 1489.03 Cr**.	The estimated **project cost will be now Rs. 300.0 Cr.**	**Total of C3 and C4 is equal to C2**
	Total **capital cost** earmarked towards environmental pollution control measures is **Rs. 451.81 crore** and the **recurring cost** (operation and maintenance) will be about **Rs. 138.43 crore** per annum.	Total **capital cost** earmarked towards environmental pollution control measures is Rs. **433.94 crore** and the **recurring cost** (operation and maintenance) will be about **Rs. 136.30 crore** per annum.	Total **capital cost** earmarked towards environmental pollution control measures is **Rs. 17.87 crore** and the **recurring cost** (operation and maintenance) will be about **Rs. 2.13 crore** per annum.	**Total of C3 and C4 is equal to C2**
	The project will lead to **additional employment for 100 persons directly and 200 persons indirectly** after expansion.	The project will now lead to **additional employment for 75 persons directly and 175 persons indirectly** after expansion.	The project will now lead to **additional employment for 25 persons directly and 25 persons indirectly** after expansion.	**Total of C3 and C4 is same as C2**
	Industry proposes to allocate **Rs. 8.472 crore towards Corporate Environmental Responsibility.**	As per the cost break up, Atul Ltd will allocate **Rs. 7.051 Cr towards Corporate Environmental Responsibility**	As per the cost break up, Atul Products Ltd will allocate **Rs. 1.421 Cr towards Corporate Environmental Responsibility**	**Total of C3 and C4 is same as C2**
5	It is reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km of the project site. Parnera Reserve Forest is at 0.62 km, Par river is at 0.25 km (SE) and Pond of Hariya Village is at 0.07 km (W) from project site	It is reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km of the project site. Parnera Reserve Forest is at 0.62 km, Par river is at 0.25 km (SE) and Pond of Hariya Village is at 0.07 km (W) from project site	It is reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km of the project site. Parnera Reserve Forest is at 0.62 km, Par river is at 0.25 km (SE) and Pond of Hariya Village is at 0.07 km (W) from project site	**Same as C2**

Sr. No.	Conditions as per EC	Applicable condition to Atul Ltd after split	Applicable condition to Atul Products Ltd (APL) after split	Total
C1	C2	C3	C4	C5
6	It is noted that the **total water requirement is 42236 m^3/day** of which **fresh water requirement of 18050 m^3/day** will be met from Surface Water Source - Par River. **9335 m^3/day** will be recycled/ treated water, 11778 m^3/day will be Treated STP water from Valsad/Pardi Nagarpalika and 3073 m^3/day will be water from Rain water harvesting. Total effluent generation will be **34866 KLD** including domestic effluent (**323 KLD**). High TDS effluent of 443 KLD will be taken to MEE, 99 KLD of high COD w/w will be incinerated in incinerator Low COD, low TDS effluent is **27143 KLD**; out of which 19379 KLD will be treated in ETP and **7764 KLD** will further passed through RO after treatment followed by MEE. Utility w/w generation is 4480 KLD; out of which 2500 KLD taken to RO followed by MEE and 1980 KLD w/w is direct disposal. Total 22513 KLD of effluent [323 Domestic sewage, 433 KLD MEE Condensate, 19379 KLD process effluent, 2378 Washing effluent] will be treated in ETP and propose to discharge 24493 KLD.	It is noted that the **total water requirement is 40042.5 m^3/day of which Fresh water requirement of Atul Ltd will be 16101.5 m^3/day** will be met from Surface Water Source - Par River. **9090 m^3/day** will be recycled/treated water, 11778 m^3/day will be Treated STP water from Valsad/Pardi Nagarpalika and 3073 m3/day will be water from Rain water harvesting. Total effluent generation will be **34560.25 KLD** including domestic effluent (**322.5 KLD**). High TDS effluent of 443 KLD will be taken to MEE, 99 KLD of high COD w/w will be incinerated in incinerator Low COD, low TDS effluent is **26837.25** KLD; out of which 19379 KLD will be treated in ETP and **7458.25 KLD** will further passed through RO after treatment followed by MEE. Utility w/w generation is 4480 KLD; out of which 2500 KLD taken to RO followed by MEE and 1980 KLD w/w is direct disposal. Total 22513 KLD of effluent [323 Domestic sewage, 433 KLD MEE Condensate, 19379 KLD process effluent, 2378 Washing	It is noted that total **water requirement is 2193.5 m^3/day of which Fresh water requirement of APL will be 1948.5 m^3/day** will be met from Surface Water Source - Par River, **245 m^3/day** will be recycle back for process as APL will be ZLD plant. Total effluent generation will be **305.75 KLD** including domestic effluent (**0.5 KLD**). Low COD, low TDS effluent is **305.75** KLD; will be treated in ETP and further passed through RO. RO permeate will be recycled back and reject will be used in Ash quenching. Unit will achieve ZLD (Zero Liquid Discharge).	**Total of C3 and C4 is equal to C2**

Sr. No.	Conditions as per EC	Applicable condition to Atul Ltd after split	Applicable condition to Atul Products Ltd (APL) after split	Total
C1	C2	C3	C4	C5
	The operations in the unit shall be managed further better and the total effluent shall be restricted to 20514 KLD for discharge to Estuary Zone of Par River through 4 km long pipeline from Industry. Power connected load is 56000 kVA, which will be sourced from Dakshin Gujarat Vij Company Limited (DGVCL) and Captive Power Plant. No additional requirement of power. Unit has installed 2 D.G. Sets of 1010 kVA and 1500 kVA capacity for the power backup. Stack height of 11 m is provided as per CPCB norms to the proposed DG Set. The existing flue gas emission is from stack attached to Coal/Lignite fired Boilers, PNG operated Hot Oil Unit, Oil Burner and Thermic Fluid Heater (6LKcal/hr). Electrostatic Precipitators with stack of different heights are installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the existing boilers. There will be no addition of any flue gas stack in proposed expansion. The process emission generation is from 57 nos. of stacks/vents. There will be **addition of 32 process stacks** in the proposed expansion project. Air pollution control measures like bag filter, cyclone, water, alkali, acid, caustic scrubbers will be provided as separate or in the combination.	effluent] will be treated in ETP and propose to discharge 24493 KLD. The operations in the unit shall be managed further better and the total effluent shall be restricted to 20514 KLD for discharge to Estuary Zone of Par River through 4 km long pipeline from Industry. Power connected load is 49000 kVA, which will be sourced from Dakshin Gujarat Vij Company Limited (DGVCL) and Captive Power Plant. No additional requirement of power. Unit has installed 2 D.G. Sets of 1010 kVA and 1500 kVA capacity for the power backup. Stack height of 11 m is provided as per CPCB norms to the proposed DG Set. The existing flue gas emission is from stack attached to Coal/Lignite fired Boilers, PNG operated Hot Oil Unit, Oil Burner and Thermic Fluid Heater (6LKcal/hr). Electrostatic Precipitators with stack of different heights are installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the existing boilers. There will be no addition of any flue gas stack in proposed expansion. The process emission generation is from 57 nos. of stacks/vents. There will be **addition of 30 process stacks** in the proposed expansion project. Air pollution control measures like bag filter, cyclone, water, alkali, acid, caustic	APL will be ZLD. Power connected load is 7000 kVA, which will be sourced from Dakshin Gujarat Vij Company Limited (DGVCL) and Captive Power Plant. There will be **2 process stacks** in the proposed project. Air pollution control measures like water, alkali, scrubbers will be provided as APCM.	

Sr. No.	Conditions as per EC	Applicable condition to Atul Ltd after split	Applicable condition to Atul Products Ltd (APL) after split	Total
C1	C2	C3	C4	C5
	Details of flue gas stacks, process gas stacks, solid waste/ hazardous waste disposal are as per the plan provided in the EIA/EMP report and as deliberated in the EAC	scrubbers will be provided as separate or in the combination. Details of flue gas stacks, process gas stacks, solid waste/ hazardous waste disposal are as per the plan provided in the EIA/EMP report and as deliberated in the EAC		
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 at Central Level by the Expert Appraisal Committee (EAC) in the Ministry.	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 at Central Level by the Expert Appraisal Committee (EAC) in the Ministry.	The project/activities are covered under **Category 'A' of item 4(d) 'Chlor-Alkali Industry'** of the Schedule to the Environment Impact Assessment Notification,2006, and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) in the Ministry.	---
8.	The standard terms of reference (ToR) was issued by the Ministry vide letter dated 22nd January, 2019. Public hearing has been conducted by the Gujarat Pollution Control Board on 1st January, 2021 which was presided over by the Additional District Magistrate. The main point raised during the public hearing were related to employment, proper mitigation measures as well as and proper utilization of CER/CSR fund. The project proponent has informed that there is no litigation pending against the proposal.	**Point related to Ministry**	**Point related to Ministry**	---
9.	The proposal was considered by the Expert Appraisal Committee (Industry-3)	**Point related to Ministry**	**Point related to Ministry**	---

Sr. No.	Conditions as per EC	Applicable condition to Atul Ltd after split	Applicable condition to Atul Products Ltd (APL) after split	Total
C1	C2	C3	C4	C5
	in its meeting held on 31st May to 1st June, 2021 in the Ministry through video conferencing, wherein the project proponent and their accredited consultant M/s San Envirotech Pvt. Ltd. presented the EIA/EMP report as per the ToR. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.			
10	The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not	The **amendment in** environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It	The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its	---

Sr. No.	Conditions as per EC	Applicable condition to Atul Ltd after split	Applicable condition to Atul Products Ltd (APL) after split	Total
C1	C2	C3	C4	C5
	tantamount/ construe to approvals/ consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.	does not tantamount/ construe to approvals/ consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.	amendments. It does not tantamount/ construe to approvals/ consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.	

Sr. No.	Conditions as per EC	Applicable condition to Atul Ltd after split	Applicable condition to Atul Products Ltd (APL) after split	Total
C1	C2	C3	C4	C5
11.	Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project for **Expansion of Dyes, Chlor-Alkali, Pesticide, Bulk Drug & Pharmaceutical, Resins, Flavors & Fragrances, Other Chemicals & Co-Products Manufacturing** Unit by M/s. Atul Limited at Atul village and Haria Village, Taluka & District Valsad, Gujarat, under the provisions of the EIA Notification, 2006.	Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate change hereby accords **amendment in** environmental clearance to the project for **Expansion of Dyes, Chlor-Alkali, Pesticide, Bulk Drug & Pharmaceutical, Resins, Flavors & Fragrances, Other Chemicals & Co-Products Manufacturing** Unit by M/s. Atul Limited at Atul village and Haria Village, Taluka & District Valsad, Gujarat, under the provisions of the EIA Notification, 2006.	Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the **project for Chlor-Alkali & Co-Products Manufacturing** Unit by M/s. Atul Product Limited at Atul village and Haria Village, Taluka & District Valsad, Gujarat, under the provisions of the EIA Notification, 2006.	---
A	**Specific conditions**			
(i)	The effluent quantity to be discharged shall be within the prescribed limit as per the existing CRZ clearance and any increase in the effluent load or changes in pipeline attracts the provisions of the CRZ clearance.	The effluent quantity to be discharged shall be within the prescribed limit as per the existing CRZ clearance and any increase in the effluent load or changes in pipeline attracts the provisions of the CRZ clearance.	Not applicable as unit is ZLD and hence No effluent quantity to be discharged	---
(ii)	No banned pesticides/chemicals shall be manufactured by the project proponent. No banned raw material shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.	No banned pesticides/chemicals shall be manufactured by the project proponent. No banned raw material shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.	No banned chemicals shall be manufactured by the project proponent. No banned raw material shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.	---
(iii)	The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the	The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the	The company shall comply with all the environmental protection measures and safeguards proposed in the documents	---

Sr. No.	Conditions as per EC	Applicable condition to Atul Ltd after split	Applicable condition to Atul Products Ltd (APL) after split	Total
C1	C2	C3	C4	C5
	recommendations made in the EIA/EMP in Respect of environmental management, and risk mitigation measures relating to the project shall be implemented.	recommendations made in the EIA/EMP in Respect of environmental management, and risk mitigation measures relating to the project shall be implemented.	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.	
(iv)	The treated effluent of **20514 KLD** proposed to discharge to the estuary of Par river through pipeline, shall conform to the standards prescribed under the Environment (protection) Act, 1986. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.	The treated effluent of **20514 KLD** proposed to discharge to the estuary of Par river through pipeline, shall conform to the standards prescribed under the Environment (protection) Act, 1986. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.	Not applicable as unit is ZLD and hence **No effluent quantity** to be discharged	**Total of C3 and C4 is equal to C2**
(v)	Continuous online (24x7) monitoring system for stack emission shall be installed for the measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers 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.	Continuous online (24x7) monitoring system for stack emission shall be installed for the measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers For the 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.	Continuous online (24x7) monitoring system for stack emission shall be installed for the measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers For the 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.	---
(vi)	The storage of toxic/hazardous raw material shall be bare minimum with respect to their quantity and inventory. Quantity and day of storage shall be submitted to the Regional Office of	The storage of toxic/hazardous raw material shall be bare minimum with respect to their quantity and inventory. Quantity and day of storage shall be submitted to the Regional Office of Ministry	The storage of toxic/hazardous raw material shall be bare minimum with respect to their quantity and inventory. Quantity and day of storage shall be submitted to the	---

Sr. No.	Conditions as per EC	Applicable condition to Atul Ltd after split	Applicable condition to Atul Products Ltd (APL) after split	Total
C1	C2	C3	C4	C5
	Ministry and SPCB along with the compliance report.	and SPCB along with the compliance report.	Regional Office of Ministry and SPCB along with the compliance report.	
(vii)	Occupational health center for surveillance of the workers' health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.	Occupational health center for surveillance of the workers' health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.	Occupational health center for surveillance of the workers' health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.	---
(viii)	Training shall be imparted to all employees on safety and health aspects of chemical handling. Safety and visual reality training shall also be provided to employees.	Training shall be imparted to all employees on safety and health aspects of chemical handling. Safety and visual reality training shall also be provided to employees.	Training shall be imparted to all employees on safety and health aspects of chemical handling. Safety and visual reality training shall also be provided to employees.	---
(ix)	The unit shall make arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Action plan proposed shall be implemented in letter and spirit.	The unit shall make arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Action plan proposed shall be implemented in letter and spirit.	The unit shall make arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Action plan proposed shall be implemented in letter and spirit.	---
(x)	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.	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.	Not applicable as no use of solvent in Chlor Alkali manufacturing.	---

Sr. No.	Conditions as per EC	Applicable condition to Atul Ltd after split	Applicable condition to Atul Products Ltd (APL) after split	Total
C1	C2	C3	C4	C5
	(c) Solvents shall be stored in a separate space specified with all safety measures (d) Proper earthing shall be provide in all the electrical equipment wherever solvent handling is done (e) Entire plant shall be flame proof. The solvent storage tanks shall be provide with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.	(c) Solvents shall be stored in a separate space specified with all safety measures (d) Proper earthing shall be provide in all the electrical equipment wherever solvent handling is done (e) Entire plant shall be flame proof. The solvent storage tanks shall be provide with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.		
(xi)	The action plan submitted for controlling the particulates emissions in the factory shall be satisfactorily implemented.	The action plan submitted for controlling the particulates emissions in the factory shall be satisfactorily implemented.	The action plan submitted for controlling the particulates emissions in the factory shall be satisfactorily implemented.	---
(xii)	Volatile organic compound (VOCs)/ Fugitive emission shall be controlled up to 99.99% with effective chillers/ modern technology.	Volatile organic compound (VOCs)/ Fugitive emission shall be controlled up to 99.99% with effective chillers/ modern technology.	Volatile organic compound (VOCs)/ Fugitive emission shall be controlled up to 99.99% with effective chillers/ modern technology.	---
(xiii)	Total fresh water requirement, proposed to be met from Par River shall not exceed **18050 cum/day**. Prior permission in this regard shall be obtained from the concerned regulatory authority.	Total fresh water requirement, proposed to be met from Par River shall not exceed **16101.5 cum/day**. Prior permission in this regard shall be obtained from the concerned regulatory authority.	Total fresh water requirement, proposed to be met from Par River shall not exceed **1948.5 cum/day**. Prior permission in this regard shall be obtained from the concerned regulatory authority.	**Total of C3 and C4 is equal to C2**
(xiv)	Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premise and harvested waster shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process	Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premise and harvested waster shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process	Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premise and harvested waster shall be used for various industrial processes in the unit. No recharge	---

Sr. No .	Conditions as per EC	Applicable condition to Atul Ltd after split	Applicable condition to Atul Products Ltd (APL) after split	Total
C1	C2	C3	C4	C5
	effluent/ Any waste water shall not be allowed to mix with storm water.	effluent/ Any waste water shall not be allowed to mix with storm water.	shall be permitted within the premises. Process effluent/ Any waste water shall not be allowed to mix with storm water.	
(xv)	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 material or as raw material substitutes in other processes. (c) Us of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system (f) Use of high-pressure hoses for equipment clearing to reduce waste water generation.	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 material or as raw material substitutes in other processes. (c) Us of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system (f) Use of high-pressure hoses for equipment clearing to reduce waste water generation.	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 material or as raw material substitutes in other processes. (c) Us of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system (f) Use of high-pressure hoses for equipment clearing to reduce waste water generation.	---
(xvi)	The greenbelt of at least 5-10 m width shall be developed/ strengthened over nearly 33% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department Records of tree canopy shall be monitored through remote sensing. Tress has to be planted with spacing of 2m x 2m and number of trees has to be	The greenbelt of at least 5-10 m width shall be developed/ strengthened over nearly 33% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department Records of tree canopy shall be monitored through remote sensing. Tress has to be planted with spacing of 2m x 2m and number of trees has to be increases accordingly. The	The greenbelt of at least 5-10 m width shall be developed/ strengthened over nearly 33% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department Records of tree canopy shall be monitored through remote sensing. Tress has to be planted	---

Sr. No.	Conditions as per EC	Applicable condition to Atul Ltd after split	Applicable condition to Atul Products Ltd (APL) after split	Total
C1	C2	C3	C4	C5
	increases accordingly. The Plant species can be selected that will give better carbon sequestration. The action plan proposed in this regard shall be implemented.	Plant species can be selected that will give better carbon sequestration. The action plan proposed in this regard shall be implemented.	with spacing of 2m x 2m and number of trees has to be increases accordingly. The Plant species can be selected that will give better carbon sequestration. The action plan proposed in this regard shall be implemented.	
(xvii)	As proposed the project proponent shall undertake plantation activities (10,000 plant) in the Parnera hill and other areas with the support of State Forest Department/ Village Administration.	As proposed the project proponent shall undertake plantation activities (7,000 plant) in the Parnera hill and other areas with the support of State Forest Department/ Village Administration.	As proposed the project proponent shall undertake plantation activities (3,000 plant) in the Parnera hill and other areas with the support of State Forest Department/ Village Administration.	**Total of C3 and C4 is equal to C2**
(xviii)	As committed, at least Rs. 5 lakhs shall be allocated for conservation of Schedule| species. The implementation report shall be submitted to the IRO, MoEFCC,	As committed, at least Rs. 4 lakhs shall be allocated for conservation of Schedule| species. The implementation report shall be submitted to the IRO, MoEFCC,	As committed, at least Rs. 1 lakhs shall be allocated for conservation of Schedule| species. The implementation report shall be submitted to the IRO, MoEFCC,	**Total of C3 and C4 is equal to C2**
(xix)	The activities and the action plan proposed by the project proponent to address the socioeconomic/public concern and issues raised during public hearing in the study area shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.	The activities and the action plan proposed by the project proponent to address the socioeconomic/public concern and issues raised during public hearing in the study area shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.	The activities and the action plan proposed by the project proponent to address the socioeconomic/public concern and issues raised during public hearing in the study area shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.	---
(xx)	A separate Environmental Management Cell (having qualified persons with Environmental science/Environmental Engineering/specialization in the project area) equipped with full-fledged	A separate Environmental Management Cell (having qualified persons with Environmental science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory	A separate Environmental Management Cell (having qualified persons with Environmental science/Environmental Engineering/specialization in the	---

Sr. No.	Conditions as per EC	Applicable condition to Atul Ltd after split	Applicable condition to Atul Products Ltd (APL) after split	Total
C1	C2	C3	C4	C5
	laboratory facilities shall be set up to carry out the Environmental Management and Monitoring Functions.	facilities shall be set up to carry out the Environmental Management and Monitoring Functions.	project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring Functions.	
	General Conditions			
(i)	No further expansion or modification in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA as applicable. 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/ SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	No further expansion or modification in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA as applicable. 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/ SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	No further expansion or modification in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA as applicable. 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/ SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	---
(ii)	The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the chemical accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016	The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the chemical accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary	The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the chemical accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and	---

Sr. No.	Conditions as per EC	Applicable condition to Atul Ltd after split	Applicable condition to Atul Products Ltd (APL) after split	Total
C1	**C2**	**C3**	**C4**	**C5**
	and other rules notified under various Acts.	Movement) Rules, 2016 and other rules notified under various Acts.	Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.	
(iii)	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	---
(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 the Environment (Protection) Act Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	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 the Environment (Protection) Act Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	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 the Environment (Protection) Act Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	---
(v)	The company shall undertake all relevant measures for improving the socioeconomic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake Eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment	The company shall undertake all relevant measures for improving the socioeconomic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake Eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment	The company shall undertake all relevant measures for improving the socioeconomic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake Eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment	---

Sr. No.	Conditions as per EC	Applicable condition to Atul Ltd after split	Applicable condition to Atul Products Ltd (APL) after split	Total
C1	C2	C3	C4	C5
(vi)	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.	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.	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.	---
(vii)	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.	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.	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.	---
(viii)	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 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.	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 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.	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 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	---

Sr. No.	Conditions as per EC	Applicable condition to Atul Ltd after split	Applicable condition to Atul Products Ltd (APL) after split	Total
C1	C2	C3	C4	C5
			shall be posted on the website of the company.	
(ix)	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.	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.	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.	---
(x)	The project proponent shall inform the public 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 and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	The project proponent shall inform the public 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 and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	The project proponent shall inform the public 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 and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and copy of the same shall be forwarded to	---

Sr. No.	Conditions as per EC	Applicable condition to Atul Ltd after split	Applicable condition to Atul Products Ltd (APL) after split	Total
C1	C2	C3	C4	C5
			the concerned Regional Office of the Ministry.	
(xi)	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.	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.	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.	---
(xii)	This Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	This Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	This Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	---

Detailed Product List

S. No.	Name of Products	Category	Atul Ltd as per EC MT/M	Atul ltd after split MT/M	APL after split MT/M	Total MT/M
A	**DYES**	**5(f)**				
1	Azo dyes	5(f)	550	550	0	550
2	Sulfur Black		2500.33	2500.33	0	2500.33
3	Sulfur Dyes range		25	25	0	25
4	Naphthol range		75	75	0	75
5	Fast Color Bases		40	40	0	40
6	Disperse dyes		118.5	118.5	0	118.5
7	Optical Brighteners		10	10	0	10
8	Reactive Dyes		961.3	961.3	0	961.3
9	Vat dyes		105	105	0	105
10	Indigo		500	500	0	500
11	Manganese sulphate		1000	1000	0	1000
12	40 % Manganese sulphate solution		2500	2500	0	2500
13	Pigments		200	200	0	200
14	1-Aminoanthraquinone		417	417	0	417
15	H-acid		500	500	0	500
16	4-amino-phenyl-4-beta hydroxy ethyl sulphone sulphate ester, Para base ester		834	834	0	834
17	DNCB (Di Nitro ChloroBenzene)		834	834	0	834
	Total Production Capacity of DYES		**11170.13**	**11170.13**	0	**11170.13**
B	**CHLOR-AKLALI**	**4(d)**				
18	Caustic soda/potash & sodium sulfide	4(d)	15100	4000	11100	15100
19	Liquid Chlorine /HCl		13268	3500	9768	13268
20	Hydrogen		265.29	0	265.29	265.29
	Total Production Capacity of CHLOR-ALKALI		**28633.29**	**7500**	**21133.29**	**28633.29**
C	**PESTICIDES TECH**	**5(b)**				
21	Carbamate group of Agrochemicals (Indoxacarb Tech, Propoxur etc.)	5(b)	110	110	0	110
22	Diuron		420	420	0	420
23	Trichlo Carbon		8.3	8.3	0	8.3
24	Cartap HCl		50	50	0	50
25	Carbendazim		201	201	0	201

26	Phenoxy Herbicides (e. g. 2,4-D & related products)		5670	5670	0	5670
27	4-chloro-2-methyl phenoxy-acetic acid (MCPA)					
28	Pyridine based insecticides & Herbicides chemical e. g. Imidacloprid		125	125	0	125
29	Triazole based Fungicide		102	102	0	102
30	Pyrethroides		10	10	0	10
31	Sulphonyl Urea		70	70	0	70
32	Glyphosate		3000	3000	0	3000
33	Isoprothiolane		100	100	0	100
34	Fipronil		30	30	0	30
35	Formulations		2200	2200	0	2200
36	Buprofezin		4	4	0	4
37	Imazethapyr		1.83	1.83	0	1.83
38	Kresoxim Methyl		2.08	2.08	0	2.08
39	Fenoxaprop		0.83	0.83	0	0.83
40	Cyhalofop		0.83	0.83	0	0.83
41	Mesotrione		300	300	0	300
42	Sulcotrione		300	300	0	300
43	Glycin		1000	1000	0	1000
44	Pyrazosulfurone		30	30	0	30
45	BisPyribac Sodium		30	30	0	30
46	Azoxystrobin		150	150	0	150
47	Quizalofop		50	50	0	50
48	Thiamethoxam		100	100	0	100
49	Metribuzin		60	60	0	60
50	Diafenthiuron		30	30	0	30
51	Chlorantraniliprole		70	70	0	70
52	5-Chloro 1-Indanone		60	60	0	60
	Total Production Capacity of PESTICIDES		**14285.87**	**14285.87**	0	**14285.87**
D	**BULK DRUG AND PHARMACEUTICALS**	**5(f)**				
53	Mebendazole	5(f)	2	2	0	2
54	Tolbutamide		2.5	2.5	0	2.5
55	Quiniodochlor		15	15	0	15
D1	**Bulk Drugs & Intermediates**		194.6	194.6	0	194.6
56	Dapsone-API					
57	Valacyclovir HCL					
58	Celecoxib					
59	Desvenlafixine					

60	Mirabegron					
61	Vildagliptin					
62	Venlafaxine Hydrochloride					
63	5-Hydroxy methyl thiazole (5-HMT)					
64	Thiophene-2-carboxaldehyde (2-TC)					
65	1-Chloroacetyl-2-carbonitrile pyrrolidine (CACP)					
66	Dechlofenac sodium / potassium		2.5	2.5	0	2.5
67	Atenolol		1.7	1.7	0	1.7
68	Furosemide		1.3	1.3	0	1.3
69	Trimethoprim		0.9	0.9	0	0.9
70	Para hydroxy acetophenone		1.7	1.7	0	1.7
71	Para hydroxy phenyl acetamide		3	3	0	3
72	Acyclovir		5.2	5.2	0	5.2
73	Bathanechol		5.2	5.2	0	5.2
D2	Pharma Intermediates & Chemicals		2094	2094	0	2094
74	4,4 Diamino diphenyl sulphone					
75	4,4 Dichloro diphenyl sulphone					
76	3,3 Diamino diphenyl sulphone					
77	DHDPS & Other sulfones					
	Total Production Capacity of BULK DRUG AND PHARMACEUTICALS		**2329.6**	**2329.6**	0	**2329.6**
E	**RESINS**	**5(f)**				
78	Epoxy Resin	5(f)	17600	17600	0	17600
79	Vinyl Ester Resins		37.5	37.5	0	37.5
80	Ketone Formaldehyde Resins & Sulphonamide, Formaldehyde Resins		20.8	20.8	0	20.8
81	UF/MF/PF/DiCyandiamide Resins		270.9	270.9	0	270.9
82	Polyamide resins		161.7	161.7	0	161.7
83	Polygrip TPU based		341.67	341.67	0	341.67
84	Polygrip rubber based		2000	2000	0	2000
	Total Production Capacity of RESINS		**20432.57**	**20432.57**	0	**20432.57**
F	**OTHER CHEMICALS**					
85	Anthraquinone, Naphthalene, Benzene Intermediates. (Including Beta – Napthol & BON Acid)	5(f)	740	740	0	740

86	Resorcinol (Meta hydroxy phenol)	5(f)	1060	1060	0	1060
87	Carbamite	5(b)	30	30	0	30
88	Chlorzoxazone & other related products	5(f)	5	5	0	5
89	4 Ethyl 2,3 – Diorcopiperazino carbonyl Chloride	5(f)	3.3	3.3	0	3.3
90	Imino Dibenzyl 5 carbonyl Chloride	5(f)	0.8	0.8	0	0.8
91	Formaldehyde and base products	5(f)	15200	15200	0	15200
92	Sulfuric Acid / Oleum / Chlorosulphonic Acid & Salts	-	11550	11550	0	11550
93	Sulpha Drug Intermediate	5(f)	193.8	193.8	0	193.8
94	Acetyl Sulphanilyl Chloride and its derivatives.	5(f)	1500	1500	0	1500
95	Acetanilide	5(f)	500	500	0	500
96	Sulpha Methyl Phenazole Sodium	5(f)	1.1	1.1	0	1.1
97	Pyrazole Base	5(f)	10.5	10.5	0	10.5
98	Sulphanilic acid	5(f)	25	25	0	25
99	Bis Phenol A	5(f)	416.7	416.7	0	416.7
100	Hexamine	5(f)	150	150	0	150
101	Epoxy Intermediates	5(f)	23.8	23.8	0	23.8
102	Hardners and auxiliaries	5(f)	4000	4000	0	4000
103	Hardener Intermediates	5(f)	700	700	0	700
104	Bisphenol S & Intermediate Chemicals	5(f)	16.6	16.6	0	16.6
105	Sodium Thio sulphate (dry basis)	---	2500	2500	0	2500
106	Sodium Thio sulphate (wet basis)	---	5300	5300	0	5300
107	Phosgene	5(f)	832.827	832.827	0	832.827
108	HX-13059	5(f)	5	5	0	5
109	Alkyl ketene dimer	5(f)	500	500	0	500
110	Anisole	5(f)	306	306	0	306
111	PF Resin	5(f)	200	200	0	200
112	CMC (Carboxy methyl cellulose)	5(f)	2000	2000	0	2000
113	HMMM (Hexa Methoxy Methyl Melamine)	5(f)	40	40	0	40
114	m-Amino phenol	5(f)	250	250	0	250
115	Mono chloro benzene	5(f)	2500	2500	0	2500
116	Propionyl chloride	5(f)	200	200	0	200
117	Resorcinol derivatives	5(f)	100	100	0	100

118	RF Resin (Resoform P-18,19,20)	5(f)	405	405	0	405
119	Trichloro acetyl chloride	5(f)	200	200	0	200
120	Thio glycolic acid	5(f)	200	200	0	200
121	Thionyl chloride	--	1000	1000	0	1000
122	1,3 Cyclohexanedione	5(f)	120	120	0	120
F1	**Agro, Pharma intermediates, Isocyanats & Carbonat Esters, etc.**	**5(f)**				
123	Trans-4-MCHI	5(f)	2230	2230	0	2230
124	p-Anisyl chloroformate	5(f)				
125	Di-Tert-Butyl Dicarbonate (Boc. anhydride)	5(f)				
126	N, N- Disuccinimidyl Carbonate	5(f)				
F1.1	**Chloroformate**	5(f)				
127	1-Chloro ethyl chloroformate (1-CECF)	5(f)				
128	4-Nitrophenyl chloroformate (4-NPCF)					
129	n-Pentyl chloroformate (n-PCF)					
130	Isobutyl chloroformate (IBCF)					
131	2 Ethyl Hexyl Cholroformate (2-EHCF)					
132	Phenyl Chloroformate (PCF)					
133	Benzyl Chloroformate (BCF)					
134	Methyl chloroformate (MCF)					
135	n-Hexyl chloroformate (n-HCF)					
F1.2	**Carbonates**	5(f)				
136	Di-tert-butyl dicarbonate (DIBOC)	5(f)				
137	Bis (4-Nitrophenyl) Carbonate (Bis-NPC)					
138	Diphenyl carbonate (DPC)					
139	Dimethyl carbonate (DMC)					
140	1,1'-Carbonylldiimidazole (CDI)					
F1.3	**Isocyanates**	5(f)				
141	p-Toluene sulphonyl isocyanate (PTSI) and other Isocyanates	5(f)				
F1.4	**Acid Chlorides**	5(f)				
142	N-Methylpiperazinyl carbamoyl chloride Hydrochloride (NPCCL)	5(f)				
143	(Chlormethylene)dimethylammonium chloride (VMR)/ Phosgeniminium chloride and other Acid chlorides					

144	N,N-Dimethyl carbamoyl chloride (DMCCl)					
145	Hexaethyl guanidinium chloride (HEGCl)					
F1.5	**Urea**	5(f)				
146	Tetrabutyl Urea (TBU)	5(f)				
147	Tetramethyl Urea (TMU)					
F1.6	**Carbodiimide**	5(f)				
148	N,N'-Dicyclohexylcarbodiimide (DCC)	5(f)				
149	Sodium sulphite	--	3261	3261	0	3261
150	30% HCl	--	4622.5	4622.5	0	4622.5
151	Sodium hypo chloride solution (10%)	--	1853.7	658	1195.7	1853.7
152	Potassium chloride	--	740	740	0	740
153	Sodium Chloride	--	2418.5	2418.5	0	2418.5
	Total Production Capacity of this group Including Sodium Thio sulphate (dry basis)		**62611.127**	**61415.427**	**1195.7**	**62611.127**
	Total Production Capacity of this group Including Sodium Thio sulphate (wet basis)		**65411.127**	**64215.427**	**1195.7**	**65411.127**
G	**Flavors & Fragrances**					
G1	**Allyl Esters such as**	5(f)				
154	Allyl Caproate		250	250	0	250
155	Allyl cyclohexyl propionate		250	250	0	250
156	Allyl Heptanoate		150	150	0	150
157	Cyclogalbanate		25	25	0	25
G2	**Styrene Based derivatives such as**	5(f)				
158	Phenyl Ethyl Alcohol (PEA)		850	850	0	850
159	PE acetate		250	250	0	250
160	PEME (Phenyl ethyl methyl ether)		200	200	0	200
161	Pommerol (Phenyl ethyl isoamyl ether)		100	100	0	100
162	Styrene oxide		500	500	0	500
163	Phenyl ethyl phenyl acetate (PEPA)		100	100	0	100
164	Phenyl acetaldehyde dimethyl Acetal		250	250	0	250
165	Styrallyl acetate		500	500	0	500
G3	**Coumarin derivatives such as**	5(f)				
166	Coumarin		500	500	0	500
167	Dihydrocoumarin		100	100	0	100

G4	**Sunscreen prodcuts such as**	5(f)				
168	Avobenzone		83.3	83.3	0	83.3
169	Octacrylene		83.3	83.3	0	83.3
170	OctylMethoxy Cinnamate		200	200	0	200
G5	**Others such as**					
171	Peonile	5(f)	50	50	0	50
172	Mugetanol	5(f)	25	25	0	25
173	Salicylaldehyde	5(f)	500	500	0	500
174	Evernyl	5(f)	200	200	0	200
175	Heliotropin	5(f)	250	250	0	250
176	Helional	5(f)	500	500	0	500
177	1,2 Hexane Diol	5(f)	200	200	0	200
178	Indoflor	5(f)	50	50	0	50
179	Floral	5(f)	50	50	0	50
180	Cyclohexyl Salicylate	5(f)	100	100	0	100
181	Methyl Anthranilate	5(f)	300	300	0	300
182	Dihydroanethole	5(f)	50	50	0	50
183	Benzylideneacetone	5(f)	100	100	0	100
184	Hexenyl -3 -Cis- Benzoate	5(f)	25	25	0	25
185	Hexenyl Hexenoate, Cis-3	5(f)	25	25	0	25
186	Citronellyl Oxyacetaldehyde	5(f)	25	25	0	25
187	Karmaflor	5(f)	25	25	0	25
188	Anethole	5(f)	166.7	166.7	0	166.7
189	Raspberry Ketone	5(f)	100	100	0	100
190	P-AninylPropanal	5(f)	100	100	0	100
	Total Production Capacity of this group		**7233.3**	**7233.3**	0	**7233.3**
H	**Co Products:**					
191	Phenol	-	3	3	0	3
192	30% HCl (By product)	-	417	417	0	417
	Total Production Capacity of this group		**420**	**420**	0	**420**
	Total Production including Sodium Thio sulphate (dry basis)		**147115.887**	**124786.897**	**22328.99**	**147115.887**
	Total Production including Sodium Thio sulphate (wet basis)		**149915.887**	**127586.897**		**149915.887**

Water Consumption Details (in KLD)

S. No.	Description	Atul Ltd as per EC	Atul Ltd (after Split)	APL (After Split)	Total
A	Gardening	538	537.5	0.5	538
B	Domestic	416	412	4	416
C	Industrial				
1	Process	26917	25227.5	1689.5	26917
2	Cooling Tower	8859	8359.5	499.5	8859
3	Washing (Reactor and Floor)	2378	2378	0	2378
4	Boiler	3128	3128	0	3128
	Total	42236	40042.5	2193.5	42236
	Recycled Water	9335	9090	245	9335
	Treated STP water	11778	11778	0	11778
	Rain water harvesting	3073	3073	0	3073
	Fresh Water Requirement	18050	16101.5	1948.5	18050

Waste Water generation (KLD)					
Sr. No.	Source	Atul Ltd as per EC	Atul Ltd (after Split)	APL (After Split)	Total
I	Domestic	323	322.5	0.5	323
II	Industry				
A	Processing	27685	27518.5	166.5	27685
B	Boiler	1431	1431	0	1431
C	Cooling Tower	3049	2910.25	138.75	3049
D	Washing to ETP	2378	2378	0	2378
	Total Industrial generation (II)	34543	34237.75	305.25	34543
	Grand Total (I+II)	34866	34560.25	305.75	34866

Treatment Breakup for Wastewater (KLD)					
S. No.	**Description**	**Atul Ltd as per EC**	**Atul Ltd (after Split)**	**APL (After Split)**	**Total**
	Total wasteater generation	34866	34560.25	305.75	34866
I	To Incinerator	99	99	0	99
II	To MEE	443	443	0	443
III	To RO | MEE (Boiler and CT blow down)	2500	2500	0	2500
IV	**low TDS|Low COD wastewater to RO | MEE after treatment**	**7764**	**7458.25**	**305.75**	7764
V	Direct Disposal (Boiler and CT blow down)	1980	1980	0	1980
VI	low TDS|Low COD wastewater to ETP	19379	19379	0	19379
VII	Wshing to ETP	2378	2378	0	2378
VIII	To ETP (including Process+ MEE condensate + Washing + Domestic)	22513	22513	0	22513
IX	Treated effluent	24493	24493	0	24493
X	Reuse|recycle(approx)	4000	4000	0	4000

	Treated effluent for discharge	**20514**	**20514**	**0 (APL will be ZLD)**	**20514**

Stack summary

Description	**Atul Ltd as per EC**	**Atul Ltd (after Split)**	**APL (After Split)**	**Total**
Nos of Process stacks	89	87	2	89

List of stack given below:

Process stack list of Atul Ltd (after Split)

Sr. No	**Stack Details**	**Stack Height m**	**Parameter**	**Permissible Limits**	**APCD**
Atul East Site					
1	New Phosgene plant- Furnace	15	PM	150 mg/Nm3	Alkali & water scrubber
2	New Phosgene plant -Reactor	15	CO	--	Alkali & water scrubber
			phosgene	0.1 ppm	
Caustic Chlorine Plant					
3	Dechlorination Plant (Hypo unit)	35	CI 2	9.0 mg/Nm3	Alkali scrubber
			HCI	20.0 mg/Nm3	
4	Common stack of HCl Sigri unit 1& 2	25	CI 2	9.0 mg/Nm3	Alkali scrubber
			HCI	20.0 mg/Nm3	
Sulfuric Acid (East Side)					
5	Sulfuric Acid plant	30	SO2	2.0 kg/T	water scrubber with DCDA system
			Acid Mist	50.0 mg/Nm3	
6	ChloroSulfonic Acid plant reactor	11	CI 2	9.0 mg/Nm3	Caustic and water scrubber
			HCI	20.0 mg/Nm3	
FCB plant					
7	Foul Gas Scrubberv	26.5	SO2	40.0 mg/Nm3	Caustic scrubber
			NOx	25.0 mg/Nm3	
Incinerator					
8	Incinerator	40	PM	150.0 mg/Nm3	Alkali& water scrubber
			SO2	40.0 mg/Nm3	
			NOx	25.0 mg/Nm3	
NI Plant					
9	Foul Gas crubber	26.5	SO2	40.0 mg/Nm3	Caustic scrubber
			NOx	25.0 mg/Nm3	
NBD Plant					
10	Spray Dryer	21	PM	150.0 mg/Nm3	water scrubber
11	Scrubber S-902	25	Phosgene	0.1ppm	Caustic scrubber
12	Scrubber S-801/802	25	HCI	20.0 mg/Nm3	Caustic scrubber
			NOx	25.0 mg/Nm3	
Resorcinol Plant					
13	Spray Dryer	20	PM	150 mg/Nm3	Water scrubber

14	Scrubber Vent (Resorcinol plant)	15	SO2	40.0 mg/Nm3	Caustic scrubber
2-4-D & related Products					
15	Common Scrubber; 2,4D Plant	5	Cl2	9.0 mg/Nm3	Caustic scrubber
			HCl	20.0 mg/Nm3	
			Phenol	--	
16	Dryer-1	26.5	PM with Pesticide compound	20.0 mg/Nm3	bag filter, water scrubber
17	Dryer-2	26.5	PM with Pesticide compound	20.0 mg/Nm3	cyclone, bag filter, caustic scrubber
18	Dryer-3	26.5	PM with Pesticide compound	20.0 mg/Nm3	cyclone, bag filter, caustic scrubber
19	Dryer-4	26.5	PM with Pesticide compound	20.0 mg/Nm3	cyclone, bag filter, caustic scrubber
20	Dryer-5	26.5	PM with Pesticide compound	20.0 mg/Nm3	cyclone, bag filter, caustic scrubber
MPSL Plant					
21	Phosgene Scrubber at MPSL	7	Phosgene	0.1 ppm	Caustic scrubber
22	Central Scrubber at MPSL	7	Phosgene	0.1 ppm	Caustic scrubber
NICO Plant					
23	Central scrubber at Nico Plant	12	Acetonytryle	---	water scrubber
			IPA		
Ester Plant					
24	Scrubber at Ester plant for Glyphosate	12	Formaldehyde	10 Mg/Nm3	water scrubber
Other					
25	MCPA	19	CL2	9 mg/NM3	Alkali& water scrubber
			HCL	20 mg/NM3	
			SO2	40 mg/NM3	
26	Fipronil	19	SO2	40 mg/NM3	Alkali& water scrubber
			HCL	20 Mg/Nm3	
27	Imidacloprid	20	NH3	175 Mg/Nm3	water followed by acid scrubber
28	Pyrathroids	19	SO2	40 Mg/Nm3	Alkali& water scrubber
			HCL	20 Mg/Nm3	
29	Stack at Amine plant	5	NH3	175 Mg/Nm3	Caustic scrubber
30	Central Scrubber MCPA plant	19	HCl	20 Mg/Nm3	Caustic scrubber
31	MPP plant scrubber	21	HCl	20 Mg/Nm3	Water & Alkali Scrubber
			Phosgene	0.1 ppm	
32	Flavors &Fragrances Plant	21	HCl	20 mg/NM3	Water scrubber followed by caustic scrubber
33	Sulfer Black Plant	19	H2S	--	Alkali& water scrubber

			NH3	175 mg/NM3	
34	Sulfer Dyes plant	19	H2S	--	Alkali& water scrubber
			NH3	175 mg/NM3	
Atul West Site					
35	Shed A05/03/44	19	Cl2	9 mg/NM3	Caustic scrubber
			HCl	20 mg/NM3	
36	Shed B2/12/24 Reaction Vessel	19	Cl2	9 mg/NM3	Caustic scrubber
			HCl	20 mg/NM3	
37	Shed B18/02/24 Fan	19	SO2	40 mg/NM3	Caustic scrubber
			Cl2	9.0 mg/Nm3	
			HCl	20.0 mg/Nm3	
38	Shed C5/20/15 Chlorinator	19	Cl2	9 mg/NM3	Alkali& water scrubber
			HCl	20 mg/NM3	
39	Shed D Niro Spray dryer No.45	19	PM	150 mg/NM3	water scrubber
40	Shed D Niro Spray dryer No. 50	19	PM	150 mg/NM3	water scrubber
41	Shed E 7/12/49 Spray Dryer	19	PM	150 mg/NM3	water scrubber
42	Shed F 6/1/15 Reaction Vessel	19	Cl2	9 mg/NM3	Alkali& water scrubber
			HCl	20 mg/NM3	
43	Shed G 10/8/1 (receiver)	19	Cl2	9 mg/NM3	Alkali& water scrubber
			HCl	20 mg/NM3	
44	Shed H 11/6/17 Chlorinator	19	Cl2	9 mg/NM3	Alkali& water scrubber
			HCl	20 mg/NM3	
45	Shed K K-13/3/4 Final of Sulfuric acid plant	19	SO2	2 kg/T	Alkali& water scrubber
			Acid Mist	50 mg/NM3	
46	Shed J15/09/25	19	HBr	--	Alkali& water scrubber
			SO2	40 mg/NM3	
47	Shed J12/01/42	19	SO2	40 mg/NM3	Alkali& water scrubber
			Cl 2	9.0 mg/Nm3	
			HCl	20.0 mg/Nm3	
48	Shed J12/03/36	19	SO2	40 mg/NM3	Caustic scrubber
			HCl	20.0 mg/Nm3	
49	Shed N Scrubber Fan N20/08/24	19	Cl2	9 mg/NM3	Caustic scrubber
			HCl	20 mg/NM3	
50	Shed N Scrubber Fan N20/02/41	19	SO2	40 mg/NM3	Alkali& water scrubber
Atul North Site					
51	N-FDH Plant Catalytic Incinerator	31.5	PM	150.0 mg/Nm3	bag filter
			SO2	40.0 mg/Nm3	
			NOx	25.0 mg/Nm3	
			Formaldehyde	10.0 mg/Nm3	

52	PHIN Plant	15.5	Phosgene	0.1 ppm	water scrubber followed by two stage caustic scrubber with Ammonia/steam injection at stack
53	DDS (Pharma Plant)	20	NH3	175 Mg/Nm3	water followed by acid scrubber
54	SPIC II Plant (DCDPS)	30	SO3	---	Alkali & water scrubber
55	SPIC I Plant	30	NH3	175 Mg/Nm3	water scrubber followed by two stage caustic scrubber with Ammonia/steam injection at stack
56	SPIC IV Plant	2	NH3	175 Mg/Nm3	Alkali & water scrubber
		2	SO3	---	
57	PHIN II Plant	21	HCl	20 mg/Nm3	water scrubber followed by two stage caustic scrubber with Ammonia/steam injection at stack
			phosgene	0.1 ppm	
EC stacks					
58	Sulfer Black Plant	19	H_2S	45	Caustic Scrubber
			NH_3	175	Water Scrubber
59	Carbamite group of agrochemical, Diuron and Carbendazim	25	Phosgene	0.1 ppm	Water scrubber followed by Caustic scrubber
			HCl	20	
60	Common scrubber: Mesotrione, Sucrotrione, Triazole based fungicide	25	HCl	20	Caustic scrubber
61	Herbicides (2-4 D & related products)-SFD	25	PM	20	SFD
62	Herbicides (2-4 D & related products)-Common Caustic scrubber	25	HCl	20	Caustic scrubber
			Cl_2	9	
63	MCPA-Chlorination scrubber	25	HCl	20	Caustic scrubber
			Cl_2	9	
64	MCPA-SFD	25	PM	20	SFD
65	Glyphosate-Common Caustic scrubber	25	HCl	20	Caustic scrubber
66	Glyphosate-SFD	25	PM	20	SFD
67	Glycine	25	NH_3	175	Water scrubber followed by Caustic scrubber
			HCl	20	
68	Pyrazosulfurone, BisPyribac sodium, Quizalafop, Chlorantraniliprole: common scrubber	25	Phosgene	0.1 ppm	Water scrubber followed by Caustic scrubber
			HCl	20	
			SO_2	40	
69	Metribuzine, Diafenthiurone: Common scrubber	25	SO_2	40	Caustic scrubber
70	Azozystrobin; Thiamthoxam-Common scrubber	25	NOx	25	Caustic scrubber
71	Alkyl ketene dimer	20	HCl	20	

			SO_2	40	Water scrubber followed by caustic scrubber
72	PF Resin	20	HCl	20	Water scrubber followed by caustic scrubber
73	m-Amino phenol- Hot oil generator	20	SO_2	40	Water scrubber followed by caustic scrubber
			NOx	25	
74	m-Amino phenol-process	20	SO_2	40	Water scrubber followed by caustic scrubber
75	Mono chloro benzene	20	HCl	20	Water scrubber followed by caustic scrubber
76	Propionyl chloride	20	HCl	20	Water scrubber followed by caustic scrubber
			SO_2	40	
77	Resorcinol-Hot oil generator	20	SO_2	40	Water scrubber followed by caustic scrubber
			NOx	25	
78	Resorcinol-Process	20	SO_2	40	Water scrubber followed by caustic scrubber
79	Trichloro acetyl chloride	20	HCl	20	Water scrubber followed by caustic scrubber
			SO_2	40	
80	Thionyl chloride	20	SO_2	40	Water scrubber followed by caustic scrubber
81	Ammonia system (at Sulfone)	6	NH_3	175	Water Scrubber
82	Scrubber Blower Discharge (at PHIN III)	20	Phosgene	0.1 ppm	Water scrubber followed by caustic scrubber
83	Scrubber Blower Discharge (at PHIN IV)	20	Phosgene	0.1 ppm	Water scrubber followed by caustic scrubber
84	New Phosgene plant- Furnace	15	PM	150	Alkali and water scrubber
85	New Phosgene plant -Reactor	15	Phosgene	0.1 ppm	Alkali and water scrubber
86	Hardner Plant	12	HCl	20	Water scrubber followed by caustic scrubber
87	Epoxy plant	8	Toluene/ ECH	Caustic scrubber	Caustic scrubber

Below process stack of Atul Ltd (before split) will go to APL after split					
No.	**Stack Attached to Sources**	**Stack Height m**	**Pollutant Emitting from Stack**	**Permissible Limits, mg/Nm3**	**Air Pollution Control Equipment before final emission**
1	Caustic- Chlorination (HCl synthesis unit)	20	HCl	20	Water scrubber followed by caustic scrubber
			Cl_2	9	
2	Caustic- Hypo unit	20	HCl	20	Water scrubber followed by caustic scrubber
			Cl_2	9	

Details of Haz waste									
S. No.	**Description**	**Category**	**Atul Ltd as per EC MT/M**	**Atul Ltd after split MT/M**	**APL after split MT/M**	**Total MT/M**	**Method of disposal For Atul Ltd (as per EC)**	**Method of disposal For Atul Ltd (after Split)**	**Method of disposal For APL(after Split)**
1	Used oil, Kl/Month	5.1	2	1.75	0.25	2	Collection, Storage, Transportation, sell to registered refiners/recyclers.	No change	Collection, Storage, Transportation, sell to registered refiners/recyclers.
2	Wastes/ residues containing oil/ contaminate cotton rags or other cleaning material	5.2/ 33.3	0.01	0.01	0	0.01	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator.	No change	
3	Sludge & filters contaminated with oil	5.2	0.05	0.05	0	0.05	Collection, Storage, Transportation, Disposal by Incineration at ownIncinerator.	No change	
4	Membranes	16.2	51	6	45	51	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	Collection, Storage, Transportation, Disposal at Atul Ltd's own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
5	Waste Resin	16.2	0.05	0.05	0	0.05	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	

6	Sulfurised Carbon	16.2	0.003	0.003	0	0.003	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
7	Activated Carbon	16.2	0.0104	0.0104	0	0.0104	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
8	Brine purification sludge	16.3	647.5	242.5	405	647.5	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	Collection, storage, Transportation, disposal at Atul Ltd's OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
9	Sulphur sludge	17.1	5.83	5.83	0	5.83	Collection, Storage, Transportation, Disposal at TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
10	Hot Gas filter Ash	17.1	0.0208	0.0208	0	0.0208	Collection, Storage, Transportation, Disposal at own TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
11	Bottom Sludge after recovery of Sulphur Sludge	17.1	0.5	0.5	0	0.5	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at	No change	

							common TSDF at SEPPL OR disposal at common TSDF at BEIL		
12	Waste Catalyst	17.2	0.083	0.083	0	0.083	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
13	Spent Solvents, Kl/Month	20.2	5	5	0	5	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user.	No change	
14	Various type of Residue	20.3	10	10	0	10	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
15	OCBC / OCT distillation residue	20.3	154.042	154.042	0	154.042	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
16	waste residue Bulk Intermediate (meta hydroxy phenol) (Tar)	20.3	15	15	0	15	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-	No change	

							processing at GGEPIL OR disposal at common facility at BEIL		
17	Waste residue, (from Resorcinol Plant)	20.3	15	15	0	15	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
18	Distillation Residue (BI)	20.3	266.75	266.75	0	266.75	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
19	Gypsum	20.4	7844.75	7844.75	0	7844.75	Collection, Storage, Transportation, Disposal at own TSDF OR selling to actual user OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
20	Sodium Sulphite	20.4	550	550	0	550	Collection, Storage, Transportation, Disposal at own TSDF OR selling to actual user OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	

21	Waste/Salt Lime Dust	35.3	5	5	0	5	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
22	Waste from Urea Formaldehyde Polymer product	23.1	0.25	0.25	0	0.25	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
23	Sludge containing higher amino compound	23.1	0.417	0.417	0	0.417	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
24	Filter cake of Epoxy resins with resin contamination	23.1	408.623	408.623	0	408.623	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
25	Aluminum Hydroxide	26.1	15.417	15.417	0	15.417	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
26	Iron sludge	26.1	80	80	0	80	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at	No change	

							SEPPL OR disposal at common TSDF at BEIL		
27	Brass residue	26.1	0.667	0.667	0	0.667	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
28	Still / Other residue	26.1	8.67	8.67	0	8.67	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
29	Darco / filter aid sludge	26.1	2.083	2.083	0	2.083	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
30	Iron Residue	26.1	62.5	62.5	0	62.5	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
31	Hyflo sludge	26.1	0.5	0.5	0	0.5	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	

32	PER crystal residue	26.1	0.4	0.4	0	0.4	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
33	Filter aid sludge for Hg recovery	26.1	1	1	0	1	Collection, Storage, Transportation for recovery of mercury	No change	
34	Aluminum Ash	26.1	2.6	2.6	0	2.6	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
35	N.B.Tar / ODCB Tar	26.1	5	5	0	5	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
36	ONT Tar	26.1	15	15	0	15	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
37	Copper Hydroxide Wet cake	26.1	40	40	0	40	Collection, storage, Transportation and sale to authorized industry having permission under rule-9 of Hazardous & other wastes (Management & Transbouandry Movement) rule-2016	No change	

38	Cu sludge	26.1	38	38	0	38	Recover as Cu (OH)2	No change	
39	Process Waste	26.1	1	1	0	1	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
40	Dust from Air Filtration System	26.2	0.001	0.001	0	0.001	Collection, Storage, Transportation for reprocessing and reusing	No change	
41	Spent Acid	26.3, 29.6, C2	5804	5804	0	5804	Collection, storage, transportation and sell to authorized industry having permission under rule-9 of Hazardous & other wastes (Management & Transbouandry movement) rule-2016 Or sell to: M/s Shree Cement Ltd., located at Village Ras, Jaitaran Dist: Pali & at Bangurnagar, Beawar Dist: Ajmer, Rajasthan.	No change	
42	Spent Organic solvent	26.4, 28.6	124.75	124.75	0	124.75	Collection, storage, Transportation and sale to authorized industry having permission under rule-9 of Hazardous & other wastes (Management & Transbouandry Movement) rule-2016	No change	
43	Waste Residue (Phin)	28.1	2	2	0	2	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR OR disposal at common facility at BEIL	No change	

44	DCDPS waste	28.1	30	30	0	30	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common faci	No change	
45	Waste from Pharma intermediates	28.1	28.97	28.97	0	28.97	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
46	Process Residue Waste (Isomers & distillation residue)	28.1	132	132	0	132	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common faci	No change	
47	Spent Carbon catalyst	28.2	0.25	0.25	0	0.25	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	

48	Spent carbon	28.3	63.2475	63.2475	0	63.2475	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
49	Date expired, discarded and off-specification product	28.5	0.08	0.08	0	0.08	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
50	Spent Mother liquor, Kl/Month	28.6	19.75	19.75	0	19.75	Collection, Storage, Transportation for recovery and reusing	No change	
51	Spent solvent, Kl/Month	28.6	19.75	19.75	0	19.75	Collection, Storage, Transportation for recovery	No change	
52	Still / Other residue Pyridine based insecticides & herbicides (Darco / Filter aid Sludge) Sulfonyl Urea (Residue) Triazole based Fungicides (Residue) Pyrethroides (Residue)	29.1	289.27	289.27	0	289.27	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
53	Dust (Agro plant)	29.1	3	3	0	3	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	

54	Hyflo	29.1	153.4617	153.4617	0	153.4617	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
55	Process Waste (Filtration)	29.1	79.2275	79.2275	0	79.2275	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
56	Lime sludge	29.1	40.525	40.525	0	40.525	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
57	Dust from Air Filtration System	29.2	0.008	0.008	0	0.008	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
58	Liners /Bags, Nos	33.1	26000	25500	500	26000	Collection, Storage, Transportation and sell after decontamination OR Collection, Storage, Transportation and sell to authorized party/vendor OR Reuse after decontamination	No change	Collection, Storage, Transportation and sell after decontamination OR Collection, Storage, Transportation and sell to authorized party/vendor OR Reuse after decontamination
59	Drums /HDPE Carboys, Nos	33.1	700	680	20	700			
60	Chemical containing residue from decontamination and disposal	34.1	0.08	0.08	0	0.08	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator.	No change	

61	Flue gas cleaning residue	35.1	0.008	0.008	0	0.008	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
62	Toxic metal containing residue from used-ion exchange material; in water purification	35.2	0.001	0.001	0	0.001	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
63	Sludge from ETP, Gypsum from ETP, Chemical Gypsum, Sludge from waste water treatment	35.3	5878.66	5863.66	15	5878.66	Collection, storage, Transportation, disposal at OWN TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	Collection, storage, Transportation, disposal at Atul Ltd's OWN TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
64	MEA distillation residue	36.1	1.667	1.667	0	1.667	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility atBEIL	No change	
65	Spent Catalyst	36.2	0.002	0.002	0	0.002	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	Collection, Storage, Transportation, Disposal at Atul Ltd's own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL

66	Sludge from wet scrubber	37.1	0.02	0.02	0	0.02	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
67	Incineration ash*	37.2	4.62	4.62	0	4.62	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
68	Salt from MEE	37.3	1901.85	1901.85	0	1901.85	Collection, storage, Transportation, disposal at OWN TSDF OR selling to actual reuser OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
69	Dilute MnSO4 MT/Day	B15	50 TD	50 TD	0	50TPD	Collection, Storage, Transportation, Disposal at M/s Atul Limited, Plot No. 297, GIDC Estate, Ankleshwar, Bharuch-393002	No change	
70	2,6 Dichloro phenol	-	94.355	94.355	0	94.355	Collection, storage, Transportation, disposal by selling to actual reuser OR co- processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
71	2,4,6 Trichloro phenol	20.3	45.925	45.925	0	45.925	Collection, storage, Transportation, disposal by selling to actual reuser OR co- processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	

72	p-CBSA/Na-Salt	28.1	127	127	0	127	Collection, storage, Transportation, disposal by selling to actual reuser OR co- processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
73	High TDS/High COD effluent	-	100 KLD	100 KLD	0	100 KLD	Collection, storage, Transportation, disposal to our own MEE/ Incinerator and/or at common GPCB approved facility	No change	
74	KCl	-	500	500	0	500	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
75	Distillation Residue(Aromatic High Boiler Waste)	20.3	1246.3	1246.3	0	1246.3	Sell to Agarbatti products	No change	
76	CaCl2	-	945.4	945.4	0	945.4	Collection, Storage, Transportation, Disposal at own TSDF OR selling to actual user OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	
77	Sodium Sulphate	20.3	1385.9	1385.9	0	1385.9	Collection, Storage, Transportation, Disposal at own TSDF OR selling to actual user OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL	No change	

78	Tula resin	20.3	30	30	0	30	Collection, storage, Transportation, disposal by selling to actual reuser OR co- processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
79	Ammonium Hydroxide (5%) MT/month	--	407	407	0	407	Collection, storage, reuse in in-house production or sell to actual user	No change	
80	Ammonia Solution (25%) MT/month	--							
81	Aq. Methanol	20.2	67.3	67.3	0	67.3	Collection, Storage, Transportation for recovery Or disposal by selling to actual reuser OR co- processing at RSPL, Panoli OR co- processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
82	Spakler filter pad nos./ month	23.1	36	36	0	36	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	
83	ACP tar low boiler MT/month	23.1	93.15	93.15	0	93.15	Collection, Storage, Transportation for recovery Or disposal by selling to actual reuser OR co- processing at RSPL, Panoli OR co- processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL	No change	

Expense on Environmental Matters

		Atul Ltd (as per EC)		Atul Ltd (after Split)		APL after split		Total	
S. No.	**Head**	**Approximate recurring cost per annum**	**Approximate Capital cost**	**Approximate recurring cost per annum**	**Approximate Capital cost**	**Approximate recurring cost per annum**	**Approximate Capital cost**	**Approximate recurring cost per annum**	**Approximate Capital cost**
		(In Rs. lacs)	**(In Rs. Lacs)**	**(In Rs. lacs)**	**(In Rs. Lacs)**	**(In Rs. lacs)**	**(In Rs. Lacs)**	**(In Rs. Lacs)**	**(In Rs. Lacs)**
1	Air	1503.5	4267	1382.58	3867	120.92	400	1503.5	4267
2	Water	11492.46	40465	11414.46	39164.14	78	1300.86	11492.46	40465
3	Solid and Hazardous Waste Management	806.15	300	800.15	295	6	5	806.15	300
4	Environment Monitoring And Management	39.8	144	31.8	64	8	80	39.8	144
5	Greenbelt	2	5	1.5	4	0.5	1	2	5
Total		**13843.91**	**45181**	**13630.49**	**43394.14**	**213.42**	**1786.86**	**13843.91**	**45181**

S. No.	Activities under CER	Budget in %	Budget Amount (INR Crores)			
			Atul Ltd as per EC	Atul Ltd after Split	APL after split	Total
1	**Education**	**25%**	**2.118**	**1.763**	**0.355**	**2.118**
1.1	Up-gradation of School infrastructure (water tank, computer, compound wall, classroom, stand post for drinking water, compound wall, paver block etc. (Hariya, Anjlav, Abrama)					
1.2	Toilet block (Atar, Magod dungri, Abrama,Palsana)					
1.3	RO (Badla, Umarsadi, Palsana, Anjlav, Abrama)					
2	**Drinking water facility**	**15%**	**1.272**	**1.058**	**0.214**	**1.272**
2.1	Water Pipeline (Hariya, Abrama, Anjlav)					
2.2	Overhead water tanks (Palsana)					
3	**Health and Hygiene**	**20%**	**1.694**	**1.41**	**0.284**	**1.694**
3.1	De-addiction Centre and awareness programs					
3.2	Drainage (Anjlav, Umarsadi, Atar)					
4	**Infrastructure Facilities**	**25%**	**2.118**	**1.763**	**0.355**	**2.118**
4.1	Repairing of public buildings like community hall, Anganwadi building etc. (Anjlav, Bhagod)					
4.2	Solar Street lights (Atar, Balda, Anjlav, Umarsadi)					
5	**Skill development**	**10%**	**0.847**	**0.705**	**0.142**	**0.847**
5.1	Vocational training for skill development					
5.2	Education awareness training program					
6	**Rain water harvesting**	**5%**	**0.423**	**0.352**	**0.071**	**0.423**
6.1	Deepening and up-gradation of Pond (Anjlav)					
	Total		**8.472**	**7.051**	**1.421**	**8.472**

The Land use break up of Atul Products Ltd. is as follows:

S. No.	Description	Area (m^2)	Distribution (in %)
1	Plant area (mainly plants, lab, office, utilities)	**20936.00**	35.51
2	RM | FG storage area	**18502.00**	31.38
3	ETP	**5934.00**	10.06
4	Plant internal road area	**10640.00**	18.05
5	Greenbelt (Inside the factory premises)	**2948.00**	5.00
Total area		**58960.00**	100.00
Greenbelt (Outside the factory premises)		**17234.00**	29.23

8. The EAC noted that the project cost, CER budget and Environmental Management aspects (management plan, management body, equipment, man power, green belt, budget etc.) may not be simply additive as quantified by the PP. Since these are likely to vary when they are actually implemented by the PP after split, the EAC recommends that the PP should submit the revised/final figures, if any, to the Ministry and its IRO. Accordingly, and if required, amendment in the EC may be considered.

9. The EAC also noted that in addition to the split of EC, the proposal also requires part-transfer of EC from Atul Ltd. to Atul Products Ltd. Hence, the PP shall submit all the requisite documents as per Form-7 i.e. Application for transfer of EC to the Ministry. The PP clarified that initially the proposal was submitted to the Ministry through PARIVESH for transfer of EC, but, based on the directions of the Ministry, two applications for amendment in EC were submitted. The PP confirmed that the same will be submitted to the Ministry.

10. The EAC deliberated on the information and documents submitted by the PP and **recommended** the proposal for **split and part-transfer of EC dated 03.08.2021** granted to M/s Atul Ltd. to **M/s Atul Products Ltd.** for **Chlor-Alkali & Co-Products** Manufacturing Unit at **survey no. 33 (new Survey no. 256)- Part B, Survey 37 (new Survey no. 262)- Part B, Survey 37 (new Survey no. 263)- Part B, 144 (new Survey no.599)- Part B, 147 (new Survey No. 602)- Part B, 148 (new Survey No. 603)- Part B of Atul Village and 317- Part B of Haria village Taluka and District Valsad, Gujarat**, as detailed in above mentioned tables and subject to the compliance of the following revised/additional specific conditions:

(i). The PP should submit the revised/final figures of project cost, CER budget, Environmental Management aspects etc., if any, after the split to the Ministry and its IRO. Accordingly, and if required, the PP shall apply for amendment in the EC.

(ii). As no solvents are being used, the specific condition no. (xii) shall be revised as “Fugitive emissions shall be controlled up to 99.99% with effective chillers/modern technology”.

(iii). All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The PP shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules,

1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

(iv). The PP shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

Agenda No. 37.2

Amendment in the EC for Split of Existing Environmental Clearance (EC) of M/s. Atul Ltd. working at Survey No. 5, 6, 29, 30, 33 to 38, 80, 81, 84, 85, 91, 96 to 105, 108, 112 to 117, 142, 144 to 148 of Atul village and 274, 275, 276, 315, 316 to 321 of Haria village, Taluka & Dist.: Valsad, Gujarat by M/s. Atul Ltd. - Re-consideration

[Proposal No. IA/GJ/IND3/278608/2022; File No. J-11011/108/2015-IA-II(I)]

1. The proposal is for the amendment in the Environmental Clearance (Split of Existing EC of M/s. Atul Ltd. between two entities, M/s. Atul Ltd. and M/s. Atul Products Ltd.). EC was granted by the Ministry vide letter no. IA-J-11011/108/2015-IA-II(I), dated 03.08.2021 for the project of Dyes, Pesticide, Chlor-Alkali, Bulk Drugs & Pharmaceutical, Resins, Flavors & Fragrances, Other Chemicals & Co-Products manufacturing located at Atul village and Haria village, Tal. & Dist.: Valsad, Gujarat in favour of M/s. Atul Ltd.

2. The PP applied for **Amendment in the EC** in Form-4 on 13.7.2022, and due to shortcomings, the proposal was referred back to the PP on 18.7.2022, reply for the same has been submitted on 19.7.2022 and the proposal was placed in the 35th EAC meeting held during July 28-29, 2022, wherein the PP and an accredited consultant, San Envirotech Pvt. Ltd. [Accreditation number NABET/EIA/2023/RA 0216, valid upto 23.12.2023] made a presentation for the said proposal.

3. Atul Ltd. proposed to split its **Chlor Alkali - 4(d)** manufacturing unit into two parts; existing unit will remain with Atul Ltd. while the proposed quantity in refered EC will go with new company namely, Atul Products Ltd, which is 100% subsidiary of Atul Ltd. and located in the same complex.

4. The PP has requested for amendment in the EC (Split of EC) with the details are as under:

Para/Sr. No. of EC issued by MoEF&CC	Details as per EC	To be revised/read as	Justification/ reasons
1.	This is reference to your proposal no. IA/GJ/IND3/211612/2018 dated 8th May 2021, submitting the EIA/EMP report on the above subject matter.	We request to split the EC between Atul Ltd and Atul Products Ltd	We have proposed 370 TPD caustic plant in the year **2018-19** and accordingly

2.	The ministry of Environment, Forest and climate change has examined the proposal for environmental clearance to the project of Expansion of Dyes, Chlor-Alkali, Pesticide, Bulk Drug & Pharmaceutical, Resins, Flavors & Fragrances, Other Chemicals & Co-Products Manufacturing Unit at Survey No. 5, 6, 29, 30, 33 to 38, 80, 81, 84, 85, 91, 96 to 105, 108, 112 to 117, 142, 144 to 148 of Atul Village and 274, 275, 276, 315, 316 to 321 of Haria village, Taluka and District Valsad, Gujarat by M/s Atul Ltd	The ministry of Environment, Forest and climate change has examined the proposal for environmental clearance to the project of Expansion of Dyes, Chlor-Alkali, Pesticide, Bulk Drug & Pharmaceutical, Resins, Flavors & Fragrances, Other Chemicals & Co-Products Manufacturing Unit at Survey No. 5, 6, 29, 30, 33 (new Survey no. 256)- Part A, 34, 35, 36, Survey 37 (new Survey no. 262)- Part A, Survey 37 (new Survey no. 263)- Part A, 38, 80, 81, 84, 85, 91, 96 to 105, 108, 112 to 117, 142, 144 (new Survey no.599)- Part A, 145, 146, 147 (new Survey No. 602)- Part A, 148 (new Survey No. 603)- Part A of Atul Village and 274, 275, 276, 315, 316,317- Part A, 318,319,320, 321 of Haria village	applied for the Environment Clearance (EC) in the name of Atul Ltd, which we have received on **August 03, 2021.** When we received EC last year, the project was found economically unviable due to pandemic condition and consequent delay. Caustic Chlorine plant is high capital (Capex) and high operating (Opex) cost project. The prevailing Geo political situation between Russia and Ukraine adversely affected further the financial viability of the subject project. Central and State Government had introduced various promotional incentive schemes for new companies to attract investment, create jobs and trigger overall economic growth. As per benefit provided

<table>
<tr><td></td><td></td><td></td><td>by Government through this scheme, our project could be made commercially viable and hence we had decided to create new company named Atul Products Ltd, which is 100% subsidiary of Atul Ltd for Caustic plant by splitting the EC.</td></tr>
<tr><td>3.</td><td colspan="3">The details of products and capacity are as under:
<u>Product Group</u>:
<table>
<tr><th>S. No.</th><th>Name of Products</th><th>Category</th><th>Production capacity remain with Atul Ltd after split of EC (MT/M)</th></tr>
<tr><td>A</td><td>Dyes</td><td>5(f)</td><td>11170.13</td></tr>
<tr><td>B</td><td>Chlor-Alkali</td><td>4(d)</td><td>7500</td></tr>
<tr><td>C</td><td>Pesticides Tech</td><td>5(b)</td><td>14285.87</td></tr>
<tr><td>D</td><td>Bulk Drug and Pharmaceuticals</td><td>5(f)</td><td>2329.6</td></tr>
<tr><td>E</td><td>Resins</td><td>5(f)</td><td>20432.57</td></tr>
<tr><td rowspan="2">F</td><td>Other Chemicals</td><td rowspan="2">5(f)</td><td rowspan="2">60757.427</td></tr>
<tr><td>Total Production Capacity of this group Sodium Thio sulphate (dry basis)</td></tr>
<tr><td rowspan="2"></td><td>Other Chemicals</td><td rowspan="2">5(f)</td><td rowspan="2">63557.427</td></tr>
<tr><td>Total Production Capacity of this group Sodium Thio sulphate (wet basis)</td></tr>
<tr><td>G</td><td>Flavors & Fragrances</td><td>5(f)</td><td>7233.3</td></tr>
<tr><td>H</td><td>Co Products</td><td>--</td><td>420</td></tr>
<tr><td></td><td>Total Production Capacity with Sodium Thio sulphate (dry basis)</td><td></td><td>124128.897</td></tr>
<tr><td></td><td>Total Production Capacity with Sodium Thio sulphate (wet basis)</td><td></td><td>126928.897</td></tr>
</table>
<u>Detailed product profile is annexed</u></td></tr>
<tr><td>4</td><td>It is reported that the existing land area is 1126078.27 sqm, and no additional land will be required for proposed expansion.</td><td>Land area is 1067118.27 sqm</td><td>We have proposed 370 TPD caustic plant in the year 2018-19 and</td></tr>
</table>

	Industry has developed greenbelt in an area of 409030 sqm, covering 36.32% of total project area.	Industry has developed greenbelt in an area of 409030 sqm, covering 36.32% of total project area.	accordingly applied for the Environment Clearance (EC) in the name of Atul Ltd, which we received on **August 03, 2021.** When we received EC last year, the project was found economically unviable due to pandemic condition and consequent delay. Caustic Chlorine plant is a high capital (Capex) and high operating (Opex) cost project. The prevailing Geo political situation between Russia and Ukraine adversely affected further the financial viability of the subject project. In view of this, the Central and State Government had introduced various promotional incentive schemes for new companies to attract investment, create jobs and trigger overall economic
	The estimated project cost is Rs. 1789.03 crores excluding existing investment of Rs. 956.2 Crore.	The estimated project cost will be now Rs. 1489.03 Cr.	
	Total capital cost earmarked towards environmental pollution control measures is Rs. 451.81 crore and the recurring cost (operation and maintenance) will be about Rs. 138.43 crore per annum.	Total capital cost earmarked towards environmental pollution control measures is Rs. 433.94 crore and the recurring cost (operation and maintenance) will be about Rs. 136.30 crore per annum.	
	The project will lead to additional employment for 100 persons directly and 200 persons indirectly after expansion.	The project will now lead to additional employment for 75 persons directly and 175 persons indirectly after expansion.	
	Industry proposes to allocate Rs. 8.472 crore towards Corporate Environmental Responsibility.	As per the cost break up, Atul Ltd will allocate Rs. 7.051 Cr towards Corporate Environmental Responsibility	
5	It is reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km of the project site. Parnera Reserve Forest is at 0.62 km, Par river is at 0.25 km (SE) and Pond of Hariya Village is at 0.07 km (W) from project site	It is reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km of the project site. Parnera Reserve Forest is at 0.62 km, Par river is at 0.25 km (SE) and Pond of Hariya Village is at 0.07 km (W) from project site	
6	It is noted that the total water requirement is 42236 m^3/day of which fresh water requirement of 18050 m^3/day will be met from Surface Water Source - Par River, 9335 m^3/day will be recycled/ treated water, 11778 m^3/day will be Treated STP water from Valsad/Pardi Nagarpalika and 3073 m^3/day will be water from Rain water harvesting. Total effluent generation will be 34866 KLD including domestic	It is noted that the total water requirement is **40042.5 m^3/day** of which Fresh water requirement of Atul Ltd will be **16101.5 KLD** will be met from Surface Water Source - Par River, 9090 m^3/day will be recycled/treated water, 11778 m^3/day will be Treated STP water from Valsad/Pardi Nagarpalika and 3073 m^3/day will be water from Rain water harvesting. Total effluent generation will be	

	effluent (323 KLD). High TDS effluent of 443 KLD will be taken to MEE, 99 KLD of high COD w/w will be incinerated in incinerator Low COD, low TDS effluent is 27143 KLD; out of which 19379 KLD will be treated in ETP and 7764 KLD will further passed through RO after treatment followed by MEE. Utility w/w generation is 4480 KLD; out of which 2500 KLD taken to RO followed by MEE and 1980 KLD w/w is direct disposal. Total 22513 KLD of effluent [323 Domestic sewage, 433 KLD MEE Condensate, 19379 KLD process effluent, 2378 Washing effluent] will be treated in ETP and propose to discharge 24493 KLD. The operations in the unit shall be managed further better and the total effluent shall be restricted to 20514 KLD for discharge to Estuary Zone of Par River through 4 km long pipeline from Industry Power connected load is 56000 kVA, which will be sourced from Dakshin Gujarat Vij Company Limited (DGVCL) and Captive Power Plant. No additional requirement of power. Unit has installed 2 D.G. Sets of 1010 kVA and 1500 kVA capacity for the power backup. Stack height of 11 m is provided as per CPCB norms to the proposed DG Set. The existing flue gas emission is from stack attached to Coal/Lignite fired Boilers, PNG operated Hot Oil Unit, Oil Burner and Thermic Fluid Heater (6LKcal/hr). Electrostatic Precipitators with stack of different heights are installed for controlling the	34560.25 KLD including domestic effluent (322.5 KLD). High TDS effluent of 443 KLD will be taken to MEE, 99 KLD of high COD w/w will be incinerated in incinerator Low COD, low TDS effluent is **26837.25 KLD**; out of which 19379 KLD will be treated in ETP and 7458.25 KLD will further passed through RO after treatment followed by MEE. Utility w/w generation is 4480 KLD; out of which 2500 KLD taken to RO followed by MEE and 1980 KLD w/w is direct disposal. Total 22513 KLD of effluent [323 Domestic sewage, 433 KLD MEE Condensate, 19379 KLD process effluent, 2378 Washing effluent] will be treated in ETP and propose to discharge 24493 KLD. The operations in the unit shall be managed further better and the total effluent shall be restricted to 20514 KLD for discharge to Estuary Zone of Par River through 4 km long pipeline from Industry Power connected load is 56000 kVA, which will be sourced from Dakshin Gujarat Vij Company Limited (DGVCL) and Captive Power Plant. No additional requirement of power. Unit has installed 2 D.G. Sets of 1010 kVA and 1500 kVA capacity for the power backup. Stack height of 11 m is provided as per CPCB norms to the proposed DG Set. The existing flue gas emission is from stack attached to Coal/Lignite fired Boilers, PNG operated Hot	growth. As per benefit provided by Government through this scheme, our project could be commercially viable and hence we had decided to create new company named Atul Products Ltd., which is a 100% subsidiary of Atul Ltd. for Caustic plant by splitting the EC.

	particulate emissions within the statutory limit of 150 mg/Nm3 for the existing boilers. There will be no addition of any flue gas stack in proposed expansion. The process emission generation is from 57 nos. of stacks/vents. There will be addition of 32 process stacks in the proposed expansion project. Air pollution control measures like bag filter, cyclone, water, alkali, acid, caustic scrubbers will be provided as separate or in the combination. Details of flue gas stacks, process gas stacks, solid waste/ hazardous waste disposal are as per the plan provided in the EIA/EMP report and as deliberated in the EAC	Oil Unit, Oil Burner and Thermic Fluid Heater (6LKcal/hr). Electrostatic Precipitators with stack of different heights are installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the existing boilers. There will be no addition of any flue gas stack in proposed expansion. The process emission generation is from 57 nos. of stacks/vents. There will be addition of 30 process stacks in the proposed expansion project. Air pollution control measures like bag filter, cyclone, water, alkali, acid, caustic scrubbers will be provided as separate or in the combination. Details of flue gas stacks, process gas stacks, solid waste/ hazardous waste disposal are as per the plan provided in the EIA/EMP report and as deliberated in the EAC	
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 at Central Level by the Expert Appraisal Committee (EAC) in the Ministry.	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 at Central Level by the Expert Appraisal Committee (EAC) in the Ministry.	
8.	The standard terms of reference (ToR) was issued by the Ministry vide letter dated 22nd January, 2019. Public hearing has been conducted	The standard terms of reference (ToR) was issued by the Ministry vide letter dated 22nd January, 2019. Public hearing has been	

	by the Gujarat Pollution Control Board on 1st January, 2021 which was presided over by the Additional District Magistrate. The main point raised during the public hearing were related to employment, proper mitigation measures as well as and proper utilization of CER/CSR fund. The project proponent has informed that there is no litigation pending against the proposal.	conducted by the Gujarat Pollution Control Board on 1st January, 2021 which was presided over by the Additional District Magistrate. The main point raised during the public hearing were related to employment, proper mitigation measures as well as and proper utilization of CER/CSR fund. The project proponent has informed that there is no litigation pending against the proposal.	
9.	The proposal was considered by the Expert Appraisal Committee (Industry-3) in its meeting held on 31st May to 1st June, 2021 in the Ministry through video conferencing, wherein the project proponent and their accredited consultant M/s San Envirotech Pvt. Ltd. presented the EIA/EMP report as per the ToR. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP report. If any part of data/information submitted is	The proposal was considered by the Expert Appraisal Committee (Industry-3) in its meeting held on 31st May to 1st June, 2021 in the Ministry through video conferencing, wherein the project proponent and their accredited consultant M/s San Envirotech Pvt. Ltd. presented the EIA/EMP report as per the ToR. The EAC, constituted under the provision of the EIA Notification, 2006 comprising Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP	

	found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent. The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental status and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee also deliberated on the activities/action plans and found them addressing to the issues in the public hearing. The Committee suggested that the storage of toxic/explosive raw materials shall be in bare minimum quantity and inventory. The Committee appreciated the greenbelt development in the unit complex and suggested PP to develop greenbelt in other areas and involve forest department/villages in this regard. The Committee pointed out that the effluent quantity to be discharged shall be within the prescribed limit as per the CRZ clearance and any increase in the effluent load or changes in pipeline attracts the provisions of the CRZ Notification, 2011. The Committee also noted that Ministry had earlier vide letter dated 11th February, 2019 to the existing projects. The certified Compliance Report of existing EC forwarded by the Ministry's IRO, Bhopal vide	report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental status and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee also deliberated on the activities/action plans and found them addressing to the issues in the public hearing. The Committee suggested that the storage of toxic/explosive raw materials shall be in bare minimum quantity and inventory. The Committee appreciated the greenbelt development in the unit complex and suggested PP to develop greenbelt in other areas and involve forest department/villages in this regard. The Committee pointed out that the effluent quantity to be discharged shall be within the prescribed limit as per the CRZ clearance and any increase in the effluent load or changes in pipeline attracts the provisions of the CRZ Notification, 2011. The Committee also noted that Ministry had earlier vide	

	letter dated 09.03.2020 was found to be satisfactory. The Committee noted that, in response to the Committee's observations, the project proponent vide letter dated 31st May, 2021 has submitted detailed action plan to dense and develop the greenbelt in the complex and adjoining areas. Further the PP shall take plantation activities in the Parnera hill and other areas. The Action plan submitted for controlling the particulate emissions in the factory and preventive action to control accidents were found to be satisfactory. The project proponent informed that the current permitted effluent discharge to the Par river is 20514 KLD as per earlier EC and CTO. The Committee noted that CRZ clearance was granted on 17th January, 1998 for laying a 4-km long pipeline for effluent discharge. The project proponent submitted an undertaking that the effluent quantity mentioned in the CRZ clearance application and the NIO report was 23790 KLD, and the total discharge quantity shall not exceed 20514 KLD. The Committee found the additional information submitted by the project proponent to be satisfactory and addressing to the concerns of the Committee. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the	letter dated 11th February, 2019 to the existing projects. The certified Compliance Report of existing EC forwarded by the Ministry's IRO, Bhopal vide letter dated 09.03.2020 was found to be satisfactory. The Committee noted that, in response to the Committee's observations, the project proponent vide letter dated 31st May, 2021 has submitted detailed action plan to dense and develop the greenbelt in the complex and adjoining areas. Further the PP shall take plantation activities in the Parnera hill and other areas. The Action plan submitted for controlling the particulate emissions in the factory and preventive action to control accidents were found to be satisfactory. The project proponent informed that the current permitted effluent discharge to the Par river is 20514 KLD as per earlier EC and CTO. The Committee noted that CRZ clearance was granted on 17th January, 1998 for laying a 4-km long pipeline for effluent discharge. The project proponent submitted an undertaking that the effluent quantity mentioned in the CRZ clearance application and the NIO report was 23790 KLD, and the total discharge quantity shall not exceed 20514 KLD. The Committee found the additional information submitted by the project proponent to be satisfactory and addressing to the concerns of the Committee.	

	proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance. Subsequent to recommendations of the EAC (Industry-3), the proposal has been examined in the Ministry on requirement of fresh CRZ clearance for the pipeline. It is noted that the existing CRZ clearance dated 17th January, 1998 is operational and valid for discharge of 20514 KLD	The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance Subsequent to recommendations of the EAC (Industry-3), the proposal has been examined in the Ministry on requirement of fresh CRZ clearance for the pipeline. It is noted that the existing CRZ clearance dated 17th January, 1998 is operational and valid for discharge of 20514 KLD	
10	The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/ construe to approvals/ consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to	The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/ construe to approvals/ consent/ permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/Rules/Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior	

	construction & operation of the project.	to construction & operation of the project.	
11.	Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project for Expansion of Dyes, Chlor-Alkali, Pesticide, Bulk Drug & Pharmaceutical, Resins, Flavors & Fragrances, Other Chemicals & Co-Products Manufacturing Unit by M/s. Atul Limited at Atul village and Haria Village, Taluka & District Valsad, Gujarat, under the provisions of the EIA Notification, 2006.	Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project for Expansion of Dyes, Chlor-Alkali, Pesticide, Bulk Drug & Pharmaceutical, Resins, Flavors & Fragrances, Other Chemicals & Co-Products Manufacturing Unit by M/s. Atul Limited at Atul village and Haria Village, Taluka & District Valsad, Gujarat, under the provisions of the EIA Notification, 2006.	
A	**Specific conditions**		
(i)	The effluent quantity to be discharged shall be within the prescribed limit as per the existing CRZ clearance and any increase in the effluent load or changes in pipeline attracts the provisions of the CRZ clearance.	The effluent quantity to be discharged shall be within the prescribed limit as per the existing CRZ clearance and any increase in the effluent load or changes in pipeline attracts the provisions of the CRZ clearance.	
(ii)	No banned pesticides/chemicals shall be manufactured by the project proponent. No banned raw material shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.	No banned pesticides/chemicals shall be manufactured by the project proponent. No banned raw material shall be used in the unit. The project proponent shall adhere to the notifications/ guidelines of the Government in this regard.	
(iii)	The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the	The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in	

	EIA/EMP in Respect of environmental management, and risk mitigation measures relating to the project shall be implemented.	the EIA/EMP in Respect of environmental management, and risk mitigation measures relating to the project shall be implemented.	
(iv)	The treated effluent of 20514 KLD proposed to discharge to the estuary of Par river through pipeline, shall conform to the standards prescribed under the Environment (protection) Act, 1986. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.	The treated effluent of 20514 KLD proposed to discharge to the estuary of Par river through pipeline, shall conform to the standards prescribed under the Environment (protection) Act, 1986. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.	
(v)	Continuous online (24x7) monitoring system for stack emission shall be installed for the measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers 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.	Continuous online (24x7) monitoring system for stack emission shall be installed for the measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers 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.	
(vi)	The storage of toxic/hazardous raw material shall be bare minimum with respect to their quantity and inventory. Quantity and day of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.	The storage of toxic/hazardous raw material shall be bare minimum with respect to their quantity and inventory. Quantity and day of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.	
(vii)	Occupational health center for surveillance of the workers health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided	Occupational health center for surveillance of the workers health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided	

	with required safety kits/mask for personal protection.	with required safety kits/mask for personal protection.	
(viii)	Training shall be imparted to all employees on safety and health aspects of chemi9cal handling. Safety and visual reality training shall also be provided to employees.	Training shall be imparted to all employees on safety and health aspects of chemi9cal handling. Safety and visual reality training shall also be provided to employees.	
(ix)	The unit shall make arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Action plan proposed shall be implemented in letter and spirit.	The unit shall make arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Action plan proposed shall be implemented in letter and spirit.	
(x)	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) Solvents shall be stored in a separate space specified with all safety measures (d) Proper earthing shall be provide in all the electrical equipment wherever solvent handling is done (e) Entire plant shall be flame proof. The solvent storage tanks shall be provide with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.	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) Solvents shall be stored in a separate space specified with all safety measures (d) Proper earthing shall be provide in all the electrical equipment wherever solvent handling is done (e) Entire plant shall be flame proof. The solvent storage tanks shall be provide with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.	
(xi)	The action plan submitted for controlling the particulates emissions in the factory shall be satisfactorily implemented.	The action plan submitted for controlling the particulates emissions in the factory shall	

		be satisfactorily implemented.	
(xii)	Volatile organic compound (VOCs)/ Fugitive emission shall be controlled up to 99.99% with effective chillers/ modern technology.	Volatile organic compound (VOCs)/ Fugitive emission shall be controlled up to 99.99% with effective chillers/ modern technology.	
(xiii)	Total fresh water requirement, proposed to be met from Par River shall not exceed 18050 cum/day. Prior permission in this regard shall be obtained from the concerned regulatory authority.	Total fresh water requirement, proposed to be met from Par River shall not exceed 16101.5 cum/day. Prior permission in this regard shall be obtained from the concerned regulatory authority.	
(xiv)	Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premise and harvested waster shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ Any waste water shall not be allowed to mix with storm water.	Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premise and harvested waster shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ Any waste water shall not be allowed to mix with storm water.	
(xv)	The company shall undertake waste minimization measures as below (m) Metering and control of quantities of active ingredients to minimize waste (n) Reuse of by-products from the process as raw material or as raw material substitutes in other processes. (o) Us of automated filling to minimize spillage. (p) Use of Close Feed system into batch reactors. (q) Venting equipment through vapor recovery system (r) Use of high-pressure hoses for equipment clearing to reduce waste water generation.	The company shall undertake waste minimization measures as below (s) Metering and control of quantities of active ingredients to minimize waste (t) Reuse of by-products from the process as raw material or as raw material substitutes in other processes. (u) Us of automated filling to minimize spillage. (v) Use of Close Feed system into batch reactors. (w) Venting equipment through vapor recovery system (x) Use of high-pressure hoses for equipment clearing	

		to reduce waste water generation.	
(xvi)	The greenbelt of at least 5-10 m width shall be developed/ strengthened over nearly 33% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department Records of tree canopy shall be monitored through remote sensing. Tress has to be planted with spacing of 2m x 2m and number of trees has to be increases accordingly. The Plant species can be selected that will give better carbon sequestration. The action plan proposed in this regard shall be implemented.	The greenbelt of at least 5-10 m width shall be developed/ strengthened over nearly 33% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department Records of tree canopy shall be monitored through remote sensing. Tress has to be planted with spacing of 2m x 2m and number of trees has to be increases accordingly. The Plant species can be selected that will give better carbon sequestration. The action plan proposed in this regard shall be implemented.	
(xvii)	As proposed the project proponent shall undertake plantation activities (10,000 plant) in the Parnera hill and other areas with the support of State Forest Department/ Village Administration.	As proposed the project proponent shall undertake plantation activities (10,000 plant) in the Parnera hill and other areas with the support of State Forest Department/ Village Administration.	
(xviii)	As committed, at least Rs. 5 lakhs shall be allocated for conservation of Schedule| species. The implementation report shall be submitted to the IRO, MoEFCC,	As committed, at least Rs. 5 lakhs shall be allocated for conservation of Schedule| species. The implementation report shall be submitted to the IRO, MoEFCC	
(xix)	The activities and the action plan proposed by the project proponent to address the socioeconomic/public concern and issues raised during public hearing in the study area shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.	The activities and the action plan proposed by the project proponent to address the socioeconomic/public concern and issues raised during public hearing in the study area shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.	

(xx)	A separate Environmental Management Cell (having qualified persons with Environmental science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring Functions.	A separate Environmental Management Cell (having qualified persons with Environmental science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring Functions.	
	General Conditions		
(i)	No further expansion or modification in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA as applicable. 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/ SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	No further expansion or modification in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA as applicable. 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/ SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.	
(ii)	The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the chemical accidents (Emergency Planing, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules,	The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the chemical accidents (Emergency Planing, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement)	

	2016 and other rules notified under various Acts.	Rules, 2016 and other rules notified under various Acts.	
(iii)	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.	
(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 the Environment (Protection) Act Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	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 the Environment (Protection) Act Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).	
(v)	The company shall undertake all relevant measures for improving the socioeconomic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake Eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment	The company shall undertake all relevant measures for improving the socioeconomic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake Eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment	
(vi)	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	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	

	earmarked for environment management/pollution control measures shall not be diverted for any other purpose.	herein. The funds so earmarked for environment management/pollution control measures shall not be diverted for any other purpose.	
(vii)	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.	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.	
(viii)	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 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.	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 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.	
(ix)	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	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.	Regional Offices of MoEF&CC by e-mail.	
(x)	The project proponent shall inform the public 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 and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	The project proponent shall inform the public 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 and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspaper that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and copy of the same shall be forwarded to the concerned Regional Office of the Ministry.	
(xi)	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.	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.	
(xii)	This Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	This Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.	

5. The EAC observed that there was a lack of clarity in the presentation made by the PP, there were errors in the presentation, particularly in slide no. 29. The Committee is of the view that for better understanding of the proposal, following information are required:

(i) Proper justification for splitting of the Unit needs to be submitted.

(ii) Tangible and intangible assets should not be mixed. It is easy to separate tangible assets (land, product manufacturing, etc.) but intangibles cannot be quantified easily for separating.

(iii) Details of tangible aspects like land, raw materials, fuel/energy, water, machinery and equipment, pollution control measures.

(iv) The PP should submit the land document with respect to M/s Atul Ltd. clearly showing the survey nos. included in the proposed site and area of the site.

(v) There has to be a clear physical boundary between the two units to facilitate monitoring and assessing compliance by the SPCB/CPCB etc. This should be supported by map, layout, tabular data etc.

(vi) The layout plan needs to be submitted clearly showing the different facilities, location of plant, storage area, transportation route, entry and exit points, emergency assembly area, facilities for the workers etc., needs to be included in the layout plan for the proposed Unit.

(vii) Comparison of the layout plan for which the initial EC was granted with the proposed proposal.

(viii) Details of no. of products with category and capacity needs to be submitted for the proposed split.

(ix) Details of the green belt to be developed (no. of trees to be planted, area to be put-up under green belt, percentage area under green belt, species to be planted, green belt already developed, if any). In addition, a separate layout plan showing the green belt needs to be submitted.

(x) Environment Impact of the proposed unit needs to be submitted.

(xi) The PP needs to submit the Environmental Management Plan for the proposed unit along with budgetary provision.

(xii) Time bound action plan along with budgetary provision for occupational health and surveillance, safety, green belt, rain water harvesting, carbon sequestration etc. needs to be submitted.

(xiii) The environmental management cells will have to be different for both the Units

(xiv) Funds for the CSR and CER will have to be estimated properly and separately.

(xv) The compliance of Hon'ble NGT order discussed during the meeting needs to be submitted.

The committee therefore, **deferred** the proposal.

6. The PP submitted reply to the above sought information and the proposal was again placed before the EAC in this meeting, wherein the PP and an accredited consultant, San Envirotech Pvt. Ltd. made a presentation on the same.

7. **Deliberations by the EAC:**

After detailed deliberations, the EAC advised the PP to submit the following for better clarity:

(i) Split of EC and its conditions in 4 columns i.e., Conditions of original EC, Conditions applicable to M/s Atul Ltd. after split, Conditions applicable to M/s Atul Products Ltd. (APL) after split and last Column showing how the total is the same as the original EC.
(ii) In the same format, the detailed product list, water requirement, wastewater generation & treatment, process stacks, solid waste and EMP & CER budgets.
(iii) Land use break up of M/s Atul Ltd. after split
(iv) Land lease document for outside greenbelt of M/s Atul Products Ltd.
(v) Undertaking stating that there will be no reduction in overall green belt mentioned in EC granted before split and after split.

The PP has submitted the above sought information/documents. The split of EC and its conditions, detailed product list, water requirement, wastewater generation & treatment, process stacks, solid waste and EMP & CER budgets in said 4 columns is the same as given under Para No. 7 of the previous proposal.

The Land use break up of Atul Ltd. after split will be as follows:

S. No.	**Description**	**Area (m^2)**	**Distribution (in %)**
1	Plant area (mainly plants, lab, office, utilities)	**346059.92**	32.43
2	RM | FG storage area	**40814.78**	3.82
3	ETP	**59377.00**	5.56
4	Open area	**91141.40**	8.54
5	Plant internal road area	**236289.37**	22.14
6	Greenbelt (Inside the factory premises)	**293435.80**	27.50
Total area		**1067118.27**	100.00
Greenbelt (Outside the factory premises)		**95412.20**	8.94

8. The EAC noted that the project cost, CER budget and Environmental Management aspects (management plan, management body, equipment, man power, green belt, budget etc.) may not be simply additive as quantified by the PP. Since these are likely to vary when they are actually implemented by the PP after split, the EAC recommends that the PP should submit the revised/final figures, if any, to the Ministry and its IRO. Accordingly, and if required, amendment in the EC may be considered.

9. The EAC deliberated on the information and documents submitted by the PP and **recommended** the proposal for **split of EC dated 03.08.2021** granted to M/s Atul Ltd. for Expansion of **Dyes, Chlor-Alkali, Pesticide, Bulk Drug & Pharmaceutical, Resins, Flavors & Fragrances, Other Chemicals & Co-Products** Manufacturing Unit at **Survey No. 5, 6, 29, 30, 33 (new Survey no. 256)*- Part A, 34, 35, 36, Survey 37 (new Survey no. 262)- Part A, Survey 37 (new Survey no. 263)- Part A, 38, 80, 81, 84, 85, 91, 96 to 105, 108, 112 to 117, 142, 144 (new Survey no.599)- Part A, 145, 146, 147 (new Survey No. 602)- Part A, 148 (new**

Survey No. 603)- Part A of Atul Village and 274, 275, 276, 315, 316,317- Part A, 318,319,320, 321 of Haria village, Taluka and District Valsad, Gujarat by M/s Atul Ltd., as detailed in the tables under Para No. 7 of the previous proposal and subject to the compliance of the following additional specific conditions:

(i). The PP should submit the revised/final figures of project cost, CER budget, Environmental Management aspects etc., if any, after the split to the Ministry and its IRO. Accordingly, and if required, the PP shall apply for amendment in the EC.

(ii). All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The PP shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

(iii). The PP shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

Agenda No. 37.3

Proposed Establishment of Active Pharmaceutical Ingredients (APIs) and API Intermediates Manufacturing Unit along with R&D facility of total production capacity of 1501.8 TPA at Plot Nos. 315, 316, Sy. Nos. 438, 439, 440, Kadechur Badiyal Industrial Area, Kadechuru, Hobli Village, Saidapur Taluk, Yadgir District, Karnataka by M/s. Astragen Laboratories Private Limited - Consideration of EC

[Proposal No. IA/KA/IND3/249394/2022; File No. IA-J-11011/3/2022-IA-II(I)]

1. The proposal is for environmental clearance to the project for Proposed Establishment of Active Pharmaceutical Ingredients (APIs) and API Intermediates Manufacturing Unit along with R&D facility at Plot Nos. 315, 316, Sy. Nos. 438, 439, 440, Kadechur Badiyal Industrial Area, Kadechuru, Hobli Village, Saidapur Taluk, Yadgir District, Karnataka by M/s. Astragen Laboratories Private Limited.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) of Schedule of Environment Impact Assessment (EIA) Notification 2006 (as amended) as the General condition is applicable due to presence of (interstate boundary within 5 km) at a distance of 3.5 km (SE) to interstate border of Karnataka and Telangana States. Therefore, the project requires appraisal at Central Level.

3. The PP applied for ToR vide the proposal number **IA/KA/IND3/249394/2022** dated 3.1.2022 and the ToR has been issued by the Ministry, vide letter No. IA-J-11011/3/2022-IA-II(I) dated 7.2.2022. The PP submitted that Public Hearing is not required for the proposed project as it is located at KIADB, Industrial area – Kadechur Industrial Area. The EC was granted by MOEFCC dated 14.10.2016. The PP applied for Environment Clearance on 1.8.2022 in Form-

2 and submitted EIA/EMP Report and other documents. The PP in the Form-2 reported that it is a **Fresh EC.** The proposal is now placed in 37th EAC Meeting held on 29-30 August, 2022, wherein the PP and an accredited Consultant, KKB Envirocare Consultants Pvt Ltd. [Accreditation number NABET/EIA/1922/SA0154Valid up to 9.2.2023], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area is 4.047 Ha and no R& R is involved in the Project. The details of products and by–products are as follows:

S. No.	Product Name	CAS NO.	Production Quantity	Therapeutic Category/ Name of API
			TPA	
1	Solifenacin Succinate	242478-38-2	12	Relaxes the bladder muscles.
2	Aprepitant	170729-80-3	12	Blocks the action of neurokinin
3	Lamotrigine	84057-84-1	12	Antiepileptic drug
4	Dexlansoprazole	138530-94-6	36	Proton pump inhibitors
5	Amlodipine Besylate	111470-99-6	240	Calcium channel blockers
6	Clopidogrel Hydrogen sulfate	120202-66-6	120	Antiplatelet Agents, Cardiovascular, Antiplatelet Agents, Hematologic
7	Olanzapine	132539-06-1	60	For the treatment of schizophrenia
8	Montelukast Sodium	151767-02-1	120	Symptoms of asthma and allergic rhinitis.
9	Valsartan	137862-53-4	60	Relaxes blood vessels
10	Biperiden Hydrochloride	1235-82-1	12	Treatment of arteriosclerotic, idiopathic, and postencephalitic parkinsonism.
11	Esomeprazole Magnesium Trihydrate	217087-09-7	120	For treating frequent heartburn
12	Capecitabine	154361-50-9	36	Chemotherapy drug.
13	Duloxetine Hydrochloride	136434-34-9	60	Selective serotonin and norepinephrine reuptake inhibitors (SNRIs)
14	Darunavir	206361-99-1	12	Ritonavir (Norvir), (HIV) infection
15	Carisoprodol	78-44-4	12	To relax certain muscles in your body
16	Erlotinib Hydrochloride	183319-69-9	6	Epidermal growth factor receptor (EGFR) inhibitor - protein-tyrosine kinase inhibitor.
17	Lansoprazole	103577-45-3	36	Proton pump inhibitors
18	Letrozole	112809-51-5	12	Nonsteroidal aromatase inhibitors
19	Pazopanib Hydrochloride	635702-64-6	6	Treatment of advanced renal cell carcinoma
20	Oseltamivir Phosphate	204255-11-8	24	Neuraminidase inhibitors

S. No.	Product Name	CAS NO.	Production Quantity	Therapeutic Category/ Name of API
			TPA	
21	Valacyclovir Hydrochloride	124832-27-5	12	Antiviral agent, therapy of herpes simplex and varicella-zoster virus infections.
22	Famciclovir	104227-87-4	12	antivirals
23	Omeprazole	73590-58-6	240	Gastroesophageal reflux disease
24	Fluconazole	86386-73-4	120	Fungal and yeast infections
25	Itraconazole	84625-61-6	180	Antifungal
26	Telmisartan	144701-48-4	120	To treat high blood pressure
27	Lopinavir	192725-17-0	24	Decreases the amount of HIV in the blood
28	Fenofibrate	49562-28-9	12	Antilipemic agents
29	Glimepiride	93479-97-1	12	Lowers blood sugar
30	Imatinib Mesylate	*220127-57-1*	24	To treat certain types of cancer
31	Ranolazine	95635-55-5	24	anti-anginals
32	Ritonavir	155213-67-5	24	Protease inhibitors
33	Vildagliptin	274901-16-5	36	Diabetes Mellitus, Type 2
34	Temozolomide	85622-93-1	12	To treat certain types of brain tumors
35	Olmesartan	144689-63-4	60	Relaxes blood vessels
36	Lacosamide	175481-36-4	24	Decreases abnormal electrical activity in the brain.
37	Nebivolol Hydrochloride	152520-56-4	12	Beta blockers
38	Moxifloxacin Hydrochloride	186826-86-8	60	Antibiotic
39	Sorafenib Tosylate	475207-59-1	24	Blocks abnormal protein
40	Rabeprazole Sodium	117976-90-6	60	Heal acid damage to the stomach and esophagus, helps prevent ulcers,
41	Tadalafil	171596-29-5	12	To treat erectile dysfunction
42	Palbociclib	571190-30-2	6	Blocks abnormal protein
43	Dasatinib	302962-49-8	6	Blocks abnormal protein
44	Fosaprepitant Dimeglumine	265121-04-8	12	Blocks the action of neurokinin
45	Voriconazole	137234-62-9	12	Slows the growth of the fungi that cause infection.
46	Irbesartan	138402-11-6	36	Angiotensin receptor blockers

S. No.	Product Name	CAS NO.	Production Quantity TPA	Therapeutic Category/ Name of API
47	Tamsulosin Hydrochloride	106463-17-6	24	Relaxes the muscles in the prostate and bladder
48	Luliconazole	187164-19-8	24	Antifungal medications
49	Axitinib	319460-85-0	12	Blocks abnormal protein
50	Osimertinib Mesylate	1421373-66-1	6	Blocks abnormal protein
51	Citicoline Sodium	33818-15-4	12	Nutritional supplement
52	Tranexamic Acid	1197-18-8	60	Improves blood clotting.
53	Levosulpiride	23672-07-3	60	Antipsychotic
54	Fosinopril Sodium	88889-14-9	12	Treating high blood pressure, heart failure
55	Amisulpride	53583-79-2	60	Second generation antipsychotic
Total production capacity from any 6 APIs on campaign basis			**1020**	
56	Ethyl-4-[2-(1,3-Dioxo-1,3-dihydro-2H-isoindol-2-yl)-ethoxy]-3-oxobutanoate	Amlodipine Intermediate	120	
57	Montelukast Dicyclohexyl amine	Montelukast Intermediate	60	
58	4-[2-(2,4-Difluoro-phenyl)oxiranylmethyl]-4H-[1,2,4]triazole	Fluconazole Intermediate	120	

S. No.	Product Name	CAS NO.	Production Quantity TPA	Therapeutic Category/ Name of API
59	1-[2-(2,4-Dichloro-phenyl)-4-ethyl-[1,3]dioxolan -2-ylmethyl]-1H-[1,2,4]triazole	Itraconazole Intermediate	180	
60	4-Amino-2-methyl-10H-thieno [2,3-b] [1,5] benzodiazepine hydrochloride	Olanzapine Intermediate	30	
61	(R)-2-amino-N-benzyl-3-methoxypropanamide	Lacosamide Intermediate	12	
62	2-[4-(3-Methoxy-propoxy)-3-methylpyridin-2-ylmethanesulfinyl]1H-benzoimidazole	Rabeprazole Intermediate	60	
63	2-[4-[[7-methyl-5-(1-methylbenzimidazol-2-yl)-2-propylbenzimidazol-1-yl]methyl]phenyl]benzoic acid	Telmisartan Intermediate	60	

S. No.	Product Name	CAS NO.	Production Quantity	Therapeutic Category/ Name of API
			TPA	
64	4-(2-(N-Methyl Carbamoyl)-4-pyrodyloxy) aniline	Sorafenib Tosylate Intermediate	12	
65	Methyl-N-Valeryl-N-[(2-Cyano biphenyl-4-yl) methyl]-L-valinate	Valsartan Intermediate	30	
Total production capacity from any 4 API Intermediates			480	
66	R&D Products		1.8	
Production Capacity (Any 6 APIs and 4 API Intermediates along with R&D products at a point of time)			**1501.8**	

List of By-Products

S. No.	Name of By-product	Quantity (kg/day)	Product from which this is generated	End use
1	Stannic Chloride	873.95	1. Olanzapine 2. 4-Amino-2-methyl-10H-thieno [2,3-b] [1,5] benzo diazepine hydrochloride	Reuse / sale
2	Alpha Pinene	412.4	1. Montelukast Sodium 2. Montelukast Dicyclohexylamine	

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that there are no national parks, Wildlife Sanctuary/ Eco-sensitive/ Reserved Forests areas within 10 km radius of study area. Water bodies viz., Ponds near Kadechur - 2.07 km E direction & 4 km ESE direction, Pond near Sowrashtrahalli – 3.53 km ENE direction, Pond near Rachanhalli – 2.23 km NNW direction, Pond near Balched – 3.6 km NNE direction, Canal (Seasonal) – 0.55 km SE direction, Canal near Rachanhalli – 1.56 km NW direction, Hindupur vagu – 7.08 km SSE direction, Bheema River – 8.44 km WSW direction. The PP reported that no Schedule-I species exist within 10 km study area of the project.

7. The PP reported that the ambient air quality monitoring was carried out at *8* locations during *Dec 2020 to Feb 2021* and additional one-month baseline data were taken in the month of February 2022. The National Ambient Air Quality Standards (NAAQS) parameters & VOC

were monitored at eight locations during the study period. The maximum 24 hourly PM_{10} and $PM_{2.5}$ concentrations at all locations varied from 58-68 µg/m^3 & 56-65 µg/m^3 and 23-33 µg/m^3 & 23 to 31 µg/m^3 during Dec 2020 to Feb 2021 and also in February 2022 respectively. Similarly, the maximum concentrations of SO_2 were observed in the range from 12-19 µg/m^3 & 11 to 15 µg/m^3. The maximum NO_2 concentrations were in the range from 19-23 µg/m^3 & 18 to 22 µg/m^3. AAQ modeling study for point source emissions indicate that the maximum incremental GLCs after the proposed project would be 0.28 *µg/m^3, 3.09 µg/m^{3}and 1.62 µg/m^3* with respect to PM_{10}, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise** - The noise levels at all the locations in study area during day & night are meeting the noise standards in respective of category of Area / zone prescribed by CPCB during day as well as night time. **Water -** Six samples of surface water and nine samples of groundwater were collected in the study area. All the surveyed villages like Shettihalli and few other are having piped water supply for drinking purpose provided by Panchayat from Rampur lake. Ground water through bore wells is used for their domestic needs. The source for industry water requirement will be provided by KIADB, Kadechur from its pump house located at Bheema River. All the Ground water sample villages use bore/lake water supplied through public stand posts and house connections for drinking purpose. Ground water through bore wells is used for their domestic needs. All the surveyed villages are supplied drinking water by Panchayat. The bore wells etc. are used for other purposes. It is learnt that the industries in KIADB Kadechur industrial area do not permit for bore well in industry premises. **Soil** - Eight soil samples were collected and analyzed. The predominant texture of soil in study area is loam. Potassium availability is good in neutral and alkaline soil.

8. The PP reported that the total water requirement will be about 386.5 KLD. The fresh water requirement will be met from Karnataka Industrial Area Development Board (KIADB). Supply of water to KIADB is from Sangam river (Source: EC copy of Kadechur Industrial Area). The proposed wastewater generation will be 264.4 KLD. The fresh water requirement and wastewater generation is 386.5 KLD and 264.4 KLD respectively. The sources of wastewater generation are from the process, floor & reactor washings, utilities, Q.C, R&D, scrubbers and plant domestic wastewater. Total proposed wastewater will be 264.4 KLD, which will be segregated into HTDS/HCOD & LTDS/LCOD and collected by gravity into a collection tank separately. This individual effluents will be pumped to the above ground level RCC lined tanks for storage and neutralization then sent to CETP The proposed wastewater generated from the process as well as non-process is segregated into: Stream-I (Process & Scrubber): High TDS (HTDS) effluent with TDS/COD more than 5,000 mg/l and Stream-II (Washings, Utilities, QC, R&D and Domestic): Low TDS (LTDS) effluent with TDS/COD less than 5,000 mg/l.

9. The PP reported that the proposed power requirement of the plant is 1000 KVA (CMD). Power will be met from Karnataka State Power Distribution Corporation Limited. Diesel will be procured from the distribution sources closer to the project site. DG sets are used only as standby during power failure. Industry proposed 2 *nos. DG sets of 500 & 320 KVA capacity. DG sets* are used as standby, during power failure. Stack (height 8, 9 *m*) will be provided as per CPCB norms to the proposed DG sets.

10. Proposed 3 & 5 TPH Coal & Briquettes fired Boilers. Multi-cyclone separator followed by bag filter with a stack height of 30 m for both boilers will be installed for controlling the particulate (PM) emissions within statutory limit of 50 mg/Nm^3 for the proposed boilers. In addition, 1.0 lakh K.cal/hr furnace oil fired thermic fluid heater will be installed with stack of 30 m.

11. **Details of Process Emissions Generation and their Management:**

S. No.	Process Emission	Maximum Quantity on various combinations (Kg/day)	1st Stage (mg/m^3)	2nd Stage (mg/m^3)	Treatment
1.	CO_2	1195.21	199.2 (98%)	19.9 (90%)	• Scrubbed using Caustic solution
2.	SO_2	402.42	67.1 (98%)	10.1 (85%)	• Scrubbed using Caustic solution
3.	O_2	190.1	Dispersed into atmosphere Diffused with Flame Arrestor		
4.	H_2	68.98			
5.	HCl	564.82	94.1 (98%)	14.1 (85%)	• Scrubbed using water / Caustic solution
6.	NH_3	76.23	31.8 (95%)	4.8 (85%)	• Scrubbed using Chilled water / dilute H_2SO_4 solution
7.	Dimethylamine	12.01	10 (90%)	2.5 (75%)	• Scrubbed using water
8.	Chloroethane	2.99	5 (80%)	1.5 (70%)	• Scrubbed using caustic solution
9.	Hydrogen Bromide	232.34	96.8 (95%)	9.7 (90%)	• Scrubbed using Caustic solution
10.	N_2	79.37	Dispersed into atmosphere		

12. **Details of Solid Waste Generation and its Management**:

Sl. No.	Description	Proposed* Quantity (TPD)	HW Stream	Handling Method	Disposal
1.	Organic residue from Process	8	28.1 of Schedule -I	HDPE Drums	Sent to SPCB Authorized Cement industries or to TSDF for Incineration
2.	Distillation Bottom Residue	0.2			
3.	Solvent recovered from Stripper	1.5 KLD	36.1 of Schedule -I		
4.	Spent carbon	0.35	28.3 of Schedule -I		
5.	Inorganic & Evaporation salt (Process) (10% moisture)	14.6	28.1 of Schedule -I	HDPE Bags	Sent to SPCB Authorized Cement industries or to TSDF for land fill (based on Calorific value)
6.	Evaporation salt with moisture (Non-Process & scrubber)	2.1	35.3 of Schedule -I		
7.	ETP Sludge	1.2	35.3 of Schedule -I		
8.	Boiler ash	10	--	HDPE Bags	Sent to Brick Manufacturers
Other Hazardous Waste generation from the Plant					
9.	a) Detoxified Container / Liners drums, HDPE Carboys, Fiber Drums	5000 nos./month	33.1 of Schedule-I	Designated covered area	Disposed to SPCB Authorized agencies after complete detoxification
	b) PP Bags	2 TPM	--		
10.	Spent Mixed solvents (unrecovered solvents)	40 KLD	28.6 of Schedule -I	Tanks/ Drums	Sent to SPCB Authorized agencies
11.	Spent Catalyst	0.5 TPD		Stored in Drums	Sent to suppliers on buy back basis
12.	Waste oils & Grease	2 KL/ Annum	5.1 of Schedule -I	MS Drums	Sent to SPCB Authorized agencies for reprocessing
13.	Used Lead acid Batteries	50 nos. / annum	A1160 of Schedule-III	Stored in Covered shed	Sent to suppliers on buy-back basis.
14.	Misc. Waste (spill control waste)	L.S (0.5 TPD)	--	Stored in Drums	TSDF
15.	Rejects	L.S (1 TPD)	--		
16.	E- waste	L.S (0.3 TPD)	--	Designated covered area	Authorized re-processor or TSDF
17.	Waste papers & other types of packing scrap	L.S (2 TPD)	--		Sold to scrap venders

Sl. No.	Description	Proposed* Quantity (TPD)	HW Stream	Handling Method	Disposal
18.	Canteen waste	L.S (0.1 TPD)	--	HDPE bags	Composted on site and reused for green belt
19.	Bio Medical Waste	LS (0.2 TPD)	--	Color coded containers	Sent to SPCB authorized Biomedical waste incinerator
20.	Off-spec / Shelf Life expired chemicals / Products etc.,	L.S (0.5 TPD)	28.5 of Schedule -I	HDPE Bags	Sent to SPCB Authorized Cement industries or to TSDF for Incineration (based on Calorific value)
By-products					
1	Stannic Chloride	873.95 kg/day	-	Drums	Reuse/sale
2	Alpha Pinene	412.4 kg/day	-	Drums	
	Note: *Hazardous / Solid waste quantities maximum on various combinations i.e., 6 APIs & 4 API Intermediates (10 products) on campaign products at a point of time and R&D products. L.S. - Lump sum				

13. The Committee was informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021, which inter-alia request EAC to clearly recommend the permissible pollution load i.e., quantity and quality, including composition of emissions, discharge and solid waste generation. In compliance this OM, PP has submitted the following pollution load information and the EAC deliberated on the issue. PP also requested that EC may include the name of products also otherwise PP will face difficulty in obtaining the CTE/CTO from concerned SPCB.

EFFLUENT WATER							SOLID WASTE In kg					
Water input in liter	Water in Effluent in liter	Organics in effluents in liter	TDS in Kg	COD in Kg		Total Effluent	Organic	In Organic	Spent carbon	Distillation	Process Emissio	Solvent loss
174442.9	186505 8.7	3306.33	12745.1	5733.35		200905.76	7511.24	13287.55	306.66	20274.66	2231.86	9783.11

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 560 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 500 Lakh per annum, which includes Air Pollution Control including multi-cyclone/bag filter with stacks, scrubbers [₹ 120 lakh (capital) and Monitoring, Maintenance, energy cost etc. ₹ 40 lakh/annum (Recurring)], water Pollution control including Primary Treatment Facility

consisting Collection, Equalization, Neutralization & Settling Tanks for both HTDS & LTDS and Guard Ponds [₹140 /annum (capital) and Treatment charges of Effluent includes manpower, consumables, maintenance, energy charges per annum₹ 70 lakh/annum (Recurring)], Noise Pollution Control including Silencers / acoustic enclosures [₹ 20 lakh (capital) and Monitoring and maintenance ₹ 15 lakh/annum (Recurring)], solid waste management including covered platform with leachate collection system [₹45 lakh (capital),] Disposable cost includes manpower, consumables, maintenance, energy charges per annum [₹ 200 lakh/annum (Recurring)], Greenbelt Development / Maintenance [₹ 15 lakh (capital) and ₹ 10 lakh/annum (Recurring)], Occupational Health and safety [₹ 50 lakh (capital) and ₹ 60 lakh/annum (Recurring)], Fire Management [₹ 50 lakh (capital) and ₹ 30 lakh/annum (Recurring)], Dyke walls and Storm water drains[₹ 40 lakh (capital) and ₹ 10 lakh/annum (Recurring)], Environment Laboratory [₹ 25 lakh (capital) and ₹ 20 lakh/annum (Recurring)], Miscellaneous [₹ 55 lakh (capital) and ₹ 45 lakh/annum (Recurring)]. Industry proposes to allocate Rs. 99 *lakhs* @ 2% of the Budget of Rs.49.50 Crores towards CER for Plantation and Maintenance along with the village roads, Solar LED street lights in 2 village roads, Ambulance facility with medical camps, Drinking water Facility (RO) with maintenance in nearby village, Education aids for school children.

15. Greenbelt will be developed in an area of 1.34 Ha (33%) of total area. About 3350 trees @ 2500 trees will be developed under Greenbelt development.

16. The PP proposed to set up an Environment Management Cell (EMC) to engage Managing Director- Plant Head- Senior Manager EHS- Manager Environment Documentation and compliance- Environment Executive-Manager Environment & operation OHS-Operator (4 nos) – Helper (4 Nos) for the functioning of EMC.

17. The PP reported that the proposed project is exempted from Public Hearing as it is located in a Notified Industrial Area KIADB, Industrial area – Kadechur and MoEF&CC has granted EC to Kadechur Industrial Area at Kadechur village in Yadgir district, Karnataka vide F. No. 21-8/2014-IA.II Dated: 14.10.2016.

18. The PP reported that total carbon emissions from the project during operation phase will be approximately 7364 tonnes per annum. Total Carbon emission can be reduced by planting more trees, using solar power etc. Carbon is sequestered in soil by plants through photosynthesis and can be stored as soil organic carbon (SOC). During photosynthesis, carbon from atmospheric carbon dioxide is transformed into components necessary for plants to live and grow. Total greenbelt proposed is about 1.34 Ha. Total no. of trees proposed is 3350 no. of about 29 different species of various heights and diameters. Approximately 1777.5 Tonnes of CO2 is estimated to sequester over the years i.e. it will be around 24% reduction from carbon emissions generated during operation phase. Apart from greenbelt development, industry proposes to adopt the best management practices to reduce the amount of carbon like implementing solar panels in the street.

19. The PP submitted the disaster and Onsite and Offsite Emergency Plans in the EIA report.

20. The PP also submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.*2011 ''M/s. Astragen Laboratories Private Limited located at Kadechur Industrial Area, Karnataka appointed M/s. KKB Envirocare Consultants Private Limited (KECPL), Hyderabad to conduct EIA studies and preparation of EIA report for proposed Establishment of Active Pharmaceutical Ingredients (APIs) and API intermediates manufacturing unit along*

with R&D facility (1501.8 TPA) in a land of 10 acres (4.0740 Ha). The proposed unit located at Plot Nos. 315 & 316, Sy.No(s). 438, 439 & 440 of Karnataka Industrial Area Development Board (KIADB), Kadechur & Badiyal Industrial Area, Kadechur Village, Yadgir Taluk & Yadgir District, Karnataka. EIA Report is prepared by following the guidelines of the Ministry of Environment, Forests & Climate Change (MoEFCC), Govt. of India. The proposed project specific details (information and data) are provided by M/s Astragen Laboratories Private Limited with full knowledge of the undersigned. In accordance with the MoEF Office Memorandum dated 5" October 2011, this is to confirm that the ToR points as approved by MoEFCC vide File no. IA-J-11011/3/2022-IA-II(I) dated 07-02-2022, for the proposed project is considered while conducting EIA studies. M/s Astragen Laboratories Private Limited owns the contents (information and data) given in this EIA report.".

21. The consultant submitted an undertaking, with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009", Kushal K Bodhankar, hereby, confirm that the EIA report for the proposed Establishment of Active Pharmaceutical Ingredients (APIs) and API intermediates manufacturing unit along with R&D facility located at Plot Nos. 315 & 316, Sy.No (s). 438, 439 & 440, Kadechur & Badiyal Industrial Area, Kadechuri Village, Yadgir Taluk & Yadgir District, Karnataka by M/s. Astragen Laboratories Private Limited was prepared in accordance with the ToR issued by MoEFCC vide File no. lA-J- 1101 1/3/2022-1A-II(l) dated 07.02.2022. PP also confirmed that the information provided in the EIA report is true to our knowledge and belief and no mis-leading information is provided in the report.".

22. The estimated project cost is ₹ 49.50 Crores. Total Employment will be 100 nos. 60 persons as direct and 40 persons as indirect

23. **Deliberations by the EAC**

The EAC constituted under the provisions of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The Committee deliberated on the type of pollutants, solvent, carbon sequestration, greenbelt/plantation and the EAC suggested to develop greenbelt in an area of 1.34 Ha with 3350 no. of trees @ 2500 no. of trees as prescribed in ToR over a span of 3 years. The PP submitted the same. The PP also undertaken to develop 5000 nos. of trees in an area 1.34 Ha

allocated for Greenbelt based on 80% of survival rate. 60% of plantation will be taken up during 1st year and balance 40% will be taken during 2nd year, considering the forth coming seasons.

The EAC deliberated on the briquettes and EAC suggested to proposed to utilize 50% Coal and 50% briquettes for the proposed 3 and 5 TPH boilers for steam generation. PP commit to utilize briquettes as primary fuel for the proposed boilers. Coal will be considered as an alternate fuel during non-availability of briquettes and also during rainy season.

The Committee deliberated the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The Committee is of the view that recommendation of EAC and grant of environmental clearance by regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

24. The EAC, after detailed deliberations, **recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I**:-

(i) The PP shall develop Greenbelt over an area of at least 1.34 Ha by planting 5000 number of trees 60% within a period of one year grant of EC and 40% will be taken during 2nd year, considering the forth coming seasons. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2m). In addition to this, The budget earmarked for the plantation shall be ₹ 15 Lakh and shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of the expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(ii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. The PP shall engage Senior Manager EHS- manager Environment Documentation and compliance- Environment Executive-Manager Environment & operation OHS-Operator (4 nos) – Helper (4 Nos). In addition to this, one safety & health

officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. The PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(iii) The company shall 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. The budget propose under EMP is ₹ 560 Lakh (Capital cost) and ₹ 500 Lakh Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(iv) The total water requirement will be about 386.5 KLD. The fresh water requirement will be met from Karnataka Industrial Area Development Board (KIADB). The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year

(v) As Committed, the PP shall utilize 50% Coal and 50% Briquettes for the proposed 3 and 5 TPH boilers for steam generation.

(vi) As Committed, the PP shall utilize Briquettes as primary fuel for the proposed boilers. Coal will be considered as an alternate fuel during non-availability of Briquettes and also during Rainy season.

(vii) No banned chemicals shall be manufactured by the PP. No banned raw materials shall be used in the unit. The PP shall adhere to the notifications/guidelines of the Government in this regard.

(viii) The PP shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(ix) The PP shall comply with the environment norms for Pharmaceuticals/Bulk Drugs Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 541(E), dated 06.08.2021 under the provisions of the Environment (Protection) Rules, 1986.

(x) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The PP shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

(xi) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(xii) The PP shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

(xiii) Total proposed wastewater will be 264.4 KLD, which will be segregated into HTDS/HCOD & LTDS/LCOD and collected by gravity into a collection tank separately. This individual effluent shall be pumped to the above ground level RCC lined tanks for storage and neutralization then sent to CETP.

(xiv) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge`e and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. 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.

(xv) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xvi) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xvii) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xviii) The unit shall make the arrangement for the protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.

(xix) The 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) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xx) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xxi) The PP 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 vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

Agenda No. 37.4

Proposed expansion of manufacturing of Specialty Chemical & Dye Intermediates production capacity from 160.6 to 180 MT/month at Plot No. 906, Phase-IV, GIDC Estate, Vapi, Tal: Pardi, Dist.: Valsad, Gujarat by M/s Anupam Industries - Consideration of TOR

[Proposal No. IA/GJ/IND3/285335/2022; File No. IA-J-11011/278/2022-IA-II(I)]

1. The proposal is for the expansion project for manufacturing of Specialty Chemical & Dye Intermediates at Plot No: 906, Phase-IV, GIDC Estate, Vapi, Tal: Pardi, Dist.: Valsad, Gujarat by M/s Anupam Industries

2. The project/activity is covered under Category 'A' of item 5(f), of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by Expert Appraisal Committee (EAC). **The PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the CPCB.**

3. The PP applied for the ToR vide proposal number No. **IA/GJ/IND3/285335/2022** dated 26.7.2022 The proposal was referred back to the PP on 2.8.2022 and its reply was submitted on 18.8.2022. The proposal is now placed in 37th EAC Meeting held on 29th- 30th August, 2022, wherein the PP and an accredited Consultant, M/s. Eco Chem Sales & Services. [Accreditation number NABET/EIA/2023/RA 0181 Valid up to 3.2.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported the product details are as follows-

	Product Name	**CAS No.**	**Quantity (MT/Month)**			**End Use**
			Existing	**Proposed**	**Total**	
1	Benzalkonium Chloride	8001-54-5	0.1	-0.1	0	Antimicrobial preservative
2	Laurylamino Oxide	1643-20-5	0.1	-0.1	0	Sanitizing Product
3	Surfactant (Formulated)	--	0.1	-0.1	0	Lubricant
4	Isothizolone Solution	1003-07-2	0.1	-0.1	0	Chemical additives for occupational and industrial usage
5	Oleoy Hydroxy Ethyl Imidazoline	21652-27-7	0.1	-0.1	0	Emulsifier, corrosion inhibitor, Lubricant
6	Coco mono ethanol amide	68140-00-1	0.1	-0.1	0	Widely use in several Personal & Home Care products like Shampoo's, Bodywashes, Liquid Soaps, Handwashes,

						Detergents & Industrial Cleaners.
7	Formulated Liquid & Powder Pesticide by filling & packing in required size	--	160	0	160	Fertilizer & Pesticide Industries
8	Para Anisidine 3-sulphonic acid (PAMSA)	6470-17-3	0	20	20	Dye Intermediates
9	3-4 Dichloro Aniline 6 Sulfonic acid(DCASA)/	6331-96-0	0			Dye Intermediates
10	Sulfanilic acid	121-57-3	0			Dye Intermediates
11	Naphthalenesulfonic acid(NSA)	85-47-2	0			Dye Intermediates
12	5-nitro-6-methyl benzimidazolone(NMBI)	61587-90-4	0			Dye Intermediates
13	3,4-Dimethoxynitrobenzene (NDMB)	709-09-1	0			Dye Intermediates
14	4-(methoxycarbonyl) - 3 - nitrobenzoic acid(NMMT) Purification	35092-89-8	0			Dye Intermediates
15	4-Chloro 2-Amino Phenol (4-CAP)	95-85-2	0			Dye Intermediates
16	Meta Uredo Aniline	0103-03-07	0			Dye Intermediates
17	Meta Amino Phenol	591-27-5	0			Dye Intermediates
18	Para Nitro Toluene Ortho Sulphonic Acid	121-03-09	0			Dye Intermediates
19	Hydroxy Quinoline	148-24-3	0			Dye Intermediates
20	2,4-Bis (2,4-dimethyl phenyl)-6-(2-hydroxy4-octyloxy phenyl)-1,3,5-triazine(Appolo-1164)	2725-22-6	0			Specialty chemical: Used as a stabilizer for olefin polymers intended for use in contact with food. Used as UV light absorber and high inherent UV stabilizer in other polymers. Excellent compatibility with other stabilizer chemistries. Also used in products to protect them from long-term degradation from the effects of UV exposure.

	Total		**160.6**	**19.4**	**180**	

5. The PP reported that there is no violation as per the EIA notification, 2006, no court case is pending against the proposal and no direction issued under E(P) Act/Air Act/Water Act.

6. The PP reported that Our unit was started in 2005 and since 2010 we have not manufactured any product that covered under EIA Notification 2006 and all the Existing products do not require environmental clearance hence no Violation involved.

7. The PP reported that the proposed land area is 0.1125 ha and no R&R is involved in the Project.

8. The PP reported that proposal does not involve Approval/Clearance under Forest (Conservation) Act,1980, Wildlife (Protection) Act,1972 and C.R.Z notification, 2011 as amended. There is no forest, Eco sensitive areas/National Park/Wildlife Sanctuary in 10 km radius of the site. The project doesn't fall within the CRZ boundaries. River Damanganga is flowing at a distance of 4.61 km in SW direction, Kolak River: Approx. 4.55 km & NE Darotha River: Approx. 7.61 km & SW Arabian Sea, Approx. 15.65 km in W direction.

9. The PP reported that presently, the unit is using total 1.91 KLD of fresh water sourced from GIDC Vapi. After proposed expansion, total fresh water requirement will be 11.5 KLD (Fresh: 6.0 KLD + Recycle: 5.5 KLD) sourced from GIDC Vapi. Presently, total industrial effluent generation is 0.2 KLD which is treated in primary, secondary and tertiary ETP and finally disposed through U/G drainage line to CETP Vapi for further treatment and disposal into Arabian Sea. After proposed expansion, total industrial Waste Water Generation will be 6.3 KLD, out of which 0.7 KLD boiler & 0.3 KLD cooling tower blow down water will be recycled for floor/container washing, 4.3 KLD (3.8 KLD of process effluent and 0.5 KLD scrubber effluent) having high COD & TDS will be sent to common MEE of M/s VGEL Vapi through dedicated tanker and balance 1.0 KLD normal effluent will be treated in existing primary, secondary and tertiary ETP and discharge into underground effluent drainage line to CETP Vapi. Domestic waste water 1.0 KLD will be treated through Septic tank followed by STP. STP treated water will be utilized for gardening within plant premises.

10. The PP reported that Power requirement after expansion will be 100 kVA including existing 100 kVA and will be met from Dakshin Gujarat Vij Co. Ltd. (DGVCL). Existing unit has no use of D.G Set. Unit has proposed 01 No. of DG sets capacity of 50 KVA. DG sets are used as standby during power failure. Stack (height 11.0 m) will be provided as per CPCB norms to the proposed DG sets

11. The PP reported that the project being in notified industrial area is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA.II(I) dated 27.04.2018.

12. Green belt will be provided and maintained at the tune of 47.11 % of the total land area.

13. The estimated project cost is ₹ 1.30 Crores including existing project cost of ₹ 0.30 Crore. Proposed expansion Project Cost: ₹ 1.0 Crore. The PP reported that Presently there are 4 numbers of employees. There will be additional 4 numbers of employees, thus total 8 numbers

of employees after proposed expansion. Industry proposes to allocate ₹ 2 Lakhs towards the CER.

14. **Deliberations by the EAC:**

The EAC deliberated on the various environmental aspects such as water balance, STP technology, greenbelt and suggested the PP to submit undertaking to develop greenbelt area with 1000 number of trees in Balitha village in consultation with gram panchayat office and to submit one-year greenbelt development programme for green belt area and recommended the plant species for greenbelt area development, the PP submitted the same as suggested by EAC.

The EAC deliberated on the management and action plan proposed by the PP being in a critically polluted area.

The Committee, after detailed deliberations, **recommended** the project for grant of ToR (**Standard ToR [Annexure-II]** and **additional ToR as mentioned below)**, **without public hearing** as per the provision of the EIA Notification, 2006 and as per OM 22-23/2018-IA.III dated 05.07.2022.

(i) The status of action plan, if any, prepared by the State Government/SPCB for the CPA needs to be provided.

(ii) The PP needs to submit the action plan with respect to mitigative measures for CPA mentioned in Ministry's OM dated 31.10.2019 & 24.10.2019.

(iii) Being in a Critically Polluted Area (CPA), the PP needs to submit alternative site analysis and Environmental Cost Benefit analysis in EIA report.

(iv) The PP shall submit the details of carbon foot prints and carbon sequestration study w.r.t. proposed project. Action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.

(v) The PP should submit the photographs of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this, the PP should submit the original test reports and certificates of the labs which have analyzed the samples.

(vi) Details of Onsite and Offsite emergency plans as per provisions of the MSIHC Rules needs to be submitted.

(vii) The PP need to conduct the Life Cycle Assessment including the impact on flora and fauna.

(viii) Activity-wise, a time bound action plan along with budgetary provision for occupational health & surveillance, environment management plan, and green belt development plan.

(ix) Undertaking from the PP and the consultant in pursuant to the O.M. No. J-11013/41/2006-IA. II(I) dated 04.08.2009 and J-11013/41/2006-IA. II(I) dated 5.10.2011.

(x) Undertaking to the effect that the project is not a violation proposal in pursuant to the S.O. 804(E) dated 14.03.2017 and the SoP dated 07.07.2021.

(xi) Action Plan for management of the hazardous waste and provision for its utilization in co-processing if applicable.

(xii) Provision for Reuse/recycle of treated wastewater, wherever feasible. Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. A detailed water harvesting plan needs to be submitted. Provision for Zero Liquid Discharge whenever techno-economically feasible. Provision for Continuous monitoring of effluent quality/quantity.

(xiii) The PP shall clarify whether project involved ground water utilization. In case of ground water abstraction, a copy of application made to concerned authorities for the same need to be submitted.

(xiv) As this is existing unit, the PP shall comply the Greenbelt related condition mentioned in the previous EC. In additional, the PP should develop 40% Greenbelt of the total land area, accordingly the plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Trees have to be planted with spacing of 2m x 2m and number of trees has to be calculated accordingly. In addition to this 1000 number of trees shall be planted in Balitha Village in consultation with Gram panchayat office.

(xv) Plan for development of green belt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. shall be prepared and submitted.

(xvi) Assessment of the carrying capacity of transportation load on roads inside the notified industrial premises shall be carried out and submitted.

(xvii) In addition to above, the EIA/EMP report shall also address issues such as i) Effective fugitive emission control measures for process, transportation, packing etc. ii) use of cleaner fuels and iii) best available technology for the plant.

Agenda No. 37.5

Proposed amendment in existing EC for change in type of fuel and common facility for effluent discharge for Expansion of Pesticide Manufacturing Unit at Plot Nos.8104, 8109, 8110, 8111 & 268/1, Sachin G. I. D. C. Estate, Sachin, District: Surat, Gujarat by M/s. Anupam Rasayan India Limited (Unit-1)

[Proposal No. IA/GJ/IND3/283319/2022; File No. J-11011/357/2013-IA II(I)]

The PP vide email dated 26.8.2022 requested to postpone the proposal due to medical emergency. The Committee accepted the request of the PP.

Agenda No. 37.6

Manufacturing of Active Pharmaceutical Ingredients (APIs) and Intermediates of production capacity 98 TPM at Plot No. 55, Kadechur Industrial Area, Yadagir Taluk & District, Karnataka by M/s JY FINECHEM PRIVATE LIMITED – Consideration of EC

[Proposal No. IA/KA/IND3/261771/2022; File No. IA-J-11011/105/2022-IA-II(I)]

1. The proposal is for environmental clearance to the project for Manufacturing of Active Pharmaceutical Ingredients (APIs) and Intermediates at Plot No. 55, Kadechur Industrial Area, Yadagir Taluk & District, Karnataka by M/s JY FINECHEM PRIVATE LIMITED.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) of Schedule of Environment Impact Assessment (EIA) Notification2006 (as amended) as the General condition is applicable due to presence of (interstate boundary within 5 km) since the Karnataka - Telangana interstate boundary is at 2.45 km in South direction. Therefore, the project requires appraisal at Central Level.

3. The PP applied for ToR vide the proposal number **IA/KA/IND3/261771/2022** dated 21.3.2022 and the standard ToR has been issued by the Ministry, vide letter No. IA-J-11011/105/2022-IA-II(I) dated 29.3.2022. The PP submitted that Public Hearing is not required for the proposed project as it is located at KIADB, Industrial area – Kadechur Industrial Area. EC was granted by MOEFCC dated 14.10.2016. The PP applied for Environment Clearance on 16.7.2022 in Form-2 and submitted EIA/EMP Report and other documents. Due to the shortcoming EDS was sought on 3.8.2022 and its reply was submitted on 11.8.2022. The PP in the Form-2 reported that it is a **Fresh EC.** The proposal is now placed in 37th EAC Meeting held on 29-30 August, 2022, wherein the PP and an accredited Consultant, AM Enviro Engineers. [Accreditation number NABET/EIA/2023/SA0167 Valid up to 30.6.2023], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area is 0.8094 Ha and no R& R is involved in the Project. The details of products and by–products are as follows:

S. No.	Name of Product	Qty in TPM	CAS Number	Therapeutic use
1.	Ambroxol HCl	2	23828-92-4	Treat respiratory diseases associated with excessive mucus secretion.
a)	2-amino-3,5-dibromo benzaldehyde	1	50910-55-9	Ambroxol HCl Intermediate
b)	Trans 4-amino cyclo Hexanol	1	27489-62-9	Ambroxol HCl Intermediate
2.	(S)-Amlodipine Besylate	5	103129-82-4	To treat high blood pressure.

3.	Amlodipine Besylate	4	88150-42-9	Treat high blood pressure in adults and children 6 years and older.
4.	Bilastine	0.5	202189-78-4	Used in the treatment of allergic rhino conjunctivitis and urticaria (hives).
a)	2-Ethoxyethyl-4-methylbenzenesulfonate	1	17178-11-9	Bilastine Intermediate
b)	2-Piperidin-4-yl-1H-benzoimidazole	1	38385-95-4	Bilastine Intermediate
5.	Celecoxib	2	169590-42-5	Used to relieve pain, tenderness, swelling and stiffness caused by osteoarthritis
a)	(4-Sulfamoylphenyl)-hydrazine HCl [SULFONAMIDE]	2	17852-52-7	Celecoxib Intermediate
b)	l-(4-Methylphenyl)-4,4,4-trifluorobutane-1,3-dione [DIKETONE]	2	720-94-5	Celecoxib Intermediate
6.	Dapoxetine HCl	3	129938-20-1	Used in the treatment of premature ejaculation.
7.	ES Omeprazole Magnesium Trihydrate	1	217087-09-7	To treat certain stomach and esophagus problems (such as acid reflux, ulcers
8.	Etodolac	2	41340-25-4	Used to relieve pain, tenderness, swelling, and stiffness caused by osteoarthritis and rheumatoid arthritis
a)	7-Ethyl tryptophol	5	41340-36-7	Etodolac Intermediate
9.	Etoricoxib	2.5	202409-33-4	Treatment of acute pain, acute gouty arthritis, chronic low back pain and primary dysmenorrhea
a)	N,N Di Methyl-2-chloro tri metheniumHexafluoro Phosphate (HFP)	10		Etoricoxib Intermediate
b)	4- Methyl thio Benzyl cyanide	5	38746-92-8	Etoricoxib Intermediate
c)	4-(Methyl sulfonyl) Phenyl acetic acid	8	90536-66-6	Etoricoxib Intermediate
d)	1-(6-Methyl-3-pyridinyl-2-4[4-(methyl sulfonyl)Phenyl ethanone (ketosulfone)	5	221615-75-4	Etoricoxib Intermediate
10.	Fexofenadine HCl	4	153439-40-8	Used to relieve allergy symptoms such as watery eyes, runny nose, itching eyes/nose and itching.
a)	Alpha, Alpha Di methyl Phenyl Acetic Acid	10	826-55-1	Fexofenadine HCl Intermediate
b)	Methyl 2-(4-(4-chlorobutanoyl) phenyl)-2-methylpropanoate	5	154477-54-0	Fexofenadine HCl Intermediate

c)	Methyl 4-[4-[4-hydroxydiphenylmethyl)-1-piperidinyl] oxobutyl]-2,2-dimethyl benzene acetate	3	-	Fexofenadine HCl Intermediate
d)	2-(4-(1-hydroxy-4-(4-(hydroxydiphenylmethyl) piperidin-1-yl)butyl)phenyl)-2-methylpropanoic acid (Fexofenadine Base)	4	83799-24-0	Fexofenadine HCl Intermediate
11.	Fluconazole	3	83799-24-0	Used to treat serious fungal or yeast infections, including vaginal candidiasis, oropharyngeal candidiasis, esophageal candidiasis
a)	1-(2,4-Difluorophenyl)-1-(1H-1,2,4- triazole-1yl)-ethanone (DFTA)	10	86404-63-9	Fluconazole Intermediate
b)	1-(2,4-Difluorophenyl)-1-(1H-1,2,4- triazole-1yl)2,3 Epoxy propane-Methane sulphonate (Epoxy Mesylate)	5	86386-77-8	Fluconazole Intermediate
12.	Gabapentin	1	60142-96-3	Used to Prevent and control partial seizures.
a)	1,1-Cyclohexane-Diacetic Acid (DI-Acid) (CDA)	30	4355-11-7	Gabapentin Intermediate
b)	1,1-Cyclohexane Diacetic Acid Monoamide (CDMA)	10	99189-60-3	Gabapentin Intermediate
13.	Gliclazide	3	21187-98-4	U*sed* for the treatment of non-insulin-dependent diabetes mellitus (NIDDM)
14.	Glimepiride	1	93479-97-1	Used to treat type 2 diabetes.
a)	Ethyl-2-acetyl butanoate	5		Glimepiride Intermediate
b)	4-(2-Aminoethyl)-Benzenesulfonamide [AEBS]	2	35303-76-5	Glimepiride Intermediate
15.	Ketoconazole	2	65277-42-1	Used in the treatment or prevention of fungal infections including blastomycosis, candidiasis, coccidioidomycosis, histoplasmosis and chromomycosis
16.	Ketorolac Tromethamine	0.8	74103-07-4	Used for the short-term treatment of moderate to severe pain in adults.
a)	((2R,4R)-2-(1H-imidazol-1-yl) methyl)-2-(2,4-dichlorophenyl)-1,3-dioxolan-4-yl) methyl benzoate	5	-	Ketorolac Tromethamine Intermediate

b)	((2R,4R)-2-(1H-imidazol-1-yl) methyl)-2-(2,4-dichlorophenyl)-1,3-dioxolan-4-yl) methanol	3	-	Ketorolac Tromethamine Intermediate
c)	((2R,4R)-2-(1H-imidazol-1-yl) methyl)-2-(2,4-dichlorophenyl)-1,3-dioxolan-4-yl) methyl benzene sulfonate (cis-tosylate)	3	134071-44-6	Ketorolac Tromethamine Intermediate
d)	4-(1-Acetylpiperazin-4-yl) phenol	5	67914-60-7	Ketorolac Tromethamine Intermediate
17.	Ketosulfone	2	221615-75-4	For cancer treatment
18.	Losartan Potassium	3	124750-99-8	Used to treat high blood pressure (hypertension) and to help protect the kidneys from damage due to diabetes
a)	Valero Nitrile	10	110-59-8	Losartan Potassium Intermediate
b)	2 n-butyl 4 chloro-5-Formyl imidazole (BCFI)	10	83857-96-9	Losartan Potassium Intermediate
c)	2-N-Butyl-4-chloro-1-[(2"-H tetrazol-5-yl)(1,1"-Biphenyl)-4yl)Methyl]-1H imidazole-5-methanol(Losartan Base)	3	114798-26-4	Losartan Potassium Intermediate
19.	Niclosamide	4	50-65-7	Used to treat broad or fish tapeworm, dwarf tapeworm, and beef tapeworm infections
20.	Omeprazole	1	73590-58-6	Used to treat gastric and duodenal ulcers, erosive esophagitis, and gastroesophageal reflux disease (GERD).
21.	Pantoprazole Sodium	3	138786-67-1	Used to treat certain conditions in which there is too much acid in the stomach.
22.	Rabeprazole Sodium	1	117976-90-6	To treat the symptoms of gastroesophageal reflux disease (GERD),
23.	Sertraline Hydrochloride	3	79559-97-0	Used to treat depression, panic attacks, obsessive compulsive disorder, post-traumatic stress disorder, social anxiety disorder and premenstrual dysphoric disorder.
a)	1-Tetralone	38	529-34-0	Sertraline Hydrochloride Intermediate
b)	4-(3,4-Dichlorophenyl)-1-tetralone	2	79560-19-3	Sertraline Hydrochloride Intermediate

c)	4-(3,4-Dichlorophenyl)-1,2,3,4-tetrahydro-N-methyl-1-naphthalenamine hydrochloride	3	-	Sertraline Hydrochloride Intermediate
d)	cis-(1S,4S)-N-Methyl-4-(3,4-Dichlorophenyl)-1,2,3,4-Tetrahydro-1-Naphthalenamine Mandelate	2	79617-97-3	Sertraline Hydrochloride Intermediate
24.	Sodium Lactate	3	72-17-3	Used as a source of bicarbonate for prevention or control of mild to moderate metabolic acidosis
25.	Tri Phenyl phosphine	1	603-35-0	Cephalosporin Drug Intermediate
26.	Topiramate	3	97240-79-4	Used to treat epilepsy
a)	Diacetone fructose	5	20880-92-6	Topiramate intermediate
27.	Vildagliptin	2.5	274901-16-5.	Treatment of Type 2 diabetes mellitus.
a)	1-Amino-3-adamantanol	4	702-82-9	Vildagliptin Intermediate
b)	(2S)-1-(2-Chloroacetyl)-2-pyrrolidinecarbonitrile	4	207557-35-5	Vildagliptin Intermediate
28	Voriconazole	3	137234-62-9	Used to treat serious fungal or yeast infections
29	Custom Synthesis of Organic compound from pilot plant	0.5	-	**-**
	TOTAL (5 Products at a time)	**98**		

Note: From the above list of products, any 5 products will be manufactured at a given point of time.

LIST OF PROPOSED BY-PRODUCTS

S. No.	Name of the Product	Name of the By-product	Qty in kgs/day
APIs			
1	Ambroxol Hydrochloride	Manganese Chloride	21.0
2	Losartan Potassium	Succinimide	21.6
		Trityl alcohol	56.7
3	Pantoprazole Sodium	Potassium Sulphate	22.8
		Ammonium hydroxide	9.1
		Sodium acetate	20.5
		Ammonium chloride	27.1
4	Sertraline Hydrochloride	Aluminium Hydroxide solution	172.6

5	Topiramate	Pyridine Hydrochloride	39.2
6	Vildagliptin	Trifluoro acetic acid	62.6
Intermediates			
1	1-Tetralone	Aluminium hydroxide solution	2239.1
2	2-amino-3,5-dibromo benzaldehyde	Manganese Chloride	11.3
3	2-N-Butyl-4-chloro-1-[(2"-H tetrazol-5-yl)(1,1"- Biphenyl)-4yl)Methyl]-1H imidazole-5-methanol(Losartan Base)	Succinimide	23.8
		Trityl alcohol	62.4
4	4-(3,4-Dichlorophenyl)-1,2,3,4-tetrahydro-N-methyl-1-naphthalenamine hydrochloride	Aluminium Hydroxide solution	172.6
5	4-(3,4-Dichlorophenyl)-1-Tetralone	Aluminium Hydroxide solution	193.6
6	4-(Methyl Sulfonyl) Phenyl Acetic Acid	Sodium sulphate	190.9
7	4-(Methyl thio) benzyl cyanide	Sodium sulphate solution	224.9
		Aluminium hydroxide Solution	519.6
8	Alpha Alpha Di Methyl Phenyl Acetic Acid	Aluminium hydroxide solution	1529.7
9	cis-(1S,4S)-N-Methyl-4-(3,4-Dichlorophenyl)-1,2,3,4-Tetrahydro-1-Naphthalenamine Mandelate	Aluminium Hydroxide solution	129.5
10	Trans 4-amino cyclo Hexanol	Manganese Chloride	10.3

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that project site is not located within 10 km distance of national parks, sanctuaries, Biosphere Reserves, Migratory corridors of wild Animals. The Water bodies are viz Seasonal nala - 208 m (W), Kadechur lake - 1.45 km (NE), Bhima river - 8.7 km (SW), and Krishna river – 12.1 km (SW). The PP reported that no Schedule-I species exist within 10 km study area of the project.

7. **Air**- Ambient air quality monitoring was carried out at 8 locations during March to May 2022 and the baseline data indicates the ranges of concentrations as: PM_{10} (69.25 – 79.61 µg/m^3), $PM_{2.5}$ (28.63 – 46.91 µg/m^3), SO_2 (12.76 – 19.02 µg/m^3) and NO_2 (21.19 – 30.67 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.9 µg/m^3, 1.0 µg/m^3 and 1.0 µg/m^3 with respect to PM_{10}, SO_2 and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise** - Industrial Zone: The day time noise level at the Project site were observed to be in the range of 68.3 dB (A) to 72.4 dB(A), which is below the permissible limits of 75 dB(A). Residential Zone: The daytime noise levels in all the residential locations were observed to be in the range of 46.8 dB (A) to 53.6 dB(A). The

noise levels at all the locations were below the permissible limits of 55 dB(A). Night time Noise Levels (Lnight) Industrial Zone: The night-time noise level in the Project site were observed to be in the range of 63.5 dB (A) to 68.4 dB (A), which is well below the permissible limits of 70 dB (A). Residential Zone: The night-time noise levels in all the residential locations were observed to be in the range of 38.5 dB (A) to 43.4 dB (A). The noise levels were below the permissible limits of 45 dB (A) in night-time at all the locations. **Water** - The water quality of the study area is found to be in the standards of acceptable limits of IS-10500. **Soil -** It has been observed that the pH of the soil samples ranged from 7.14 to 7.94, which indicates that the soil is moderately alkaline and free lime exists in the soil which will have excellent filtration and percolation of water capacity at most of the villages. Electrical conductivity of the sample varied from 216 to 416 µS/cm, which indicates, no salinity ingress in the study area. Percentage of total Organic Carbon is observed in between 0.54 to 0.98 indicating that on an average sufficiency in nature. The concentration of available Nitrogen is in the range of 232.0 – 385 kg/Ha, Phosphorous is in the range of 190.0 – 294.0 kg/Ha and Potassium is in the range of 210.0 – 374.0 kg/Ha in the soil samples. These implies that the soil of the area has sufficient nutrient content and is fertile.

8. The PP reported that source of water will be KIADB and the application for the same has been submitted. The total water consumption is estimated around 126.3 KLD including domestic consumption of 1.8 KLD. Fresh water is consumed for manufacturing process, scrubbing, washing, boiler feed, domestic consumption, and gardening. The water requirement for manufacturing process is 55.7 KLD. This 55.6 KLD will be passed through Reverse osmosis (RO) which gives RO permeate of 44.5 KLD and RO reject of 11.2 KLD. The RO permeate will be used directly for reaction processes. Treated water from CETP is utilized for Cooling tower makeup, which comes around 41.4 KLD. Thus, freshwater consumption is reduced to 85.0 KLD. The proposed project generates total effluent of quantity 72.4 KLD. The industrial effluent will be segregated based on the concentration of total dissolved solids (TDS). High TDS effluent of 42.6 KLD will be collected and neutralized in Equalization and Neutralization tank of capacity 50 KLD each and later on, will be sent to CETP. Low TDS effluent of 28.2 KLD (excluding domestic sewage) will be collected and neutralized in Equalization and Neutralization tank of capacity 35 KLD each and later on, will be sent to CETP. The domestic sewage which is LTDS stream.

9. The PP reported that the Source of power supply will be GESCOM. Power requirement for the project is 395 KVA. DG set of 1 X 250 KVA capacity is proposed as power backup in case of emergency.

10. The unit is proposing for 1X2 TPH Coal/Briquette fired Boiler. Multi cyclone separator with bag filter with common stack of height of 23 m AGL will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers.

11. **Details of Process Emissions Generation and their Management:**

S. No	Name of the Gas	Quantity in Kg/Day	Treatment Method	Disposal Method
1.	Hydrogen chloride	10744.0	Scrubbed by using water media	Generated Dil. HCl will be reused within the industry
2.	Ammonia	173.4		Generated NH_4OH will be reused within the industry

3.	Sulphur dioxide	129.2	Scrubbed by using C.S. Lye solution	Scrubbed effluent will be sent to CETP along with high TDS effluent.
4.	Hydrogen Bromide	113.4		
5.	Dimethyl amine	83.6		
6.	Nitrogen	14.8	Dispersed into atmosphere	-
7.	Oxygen	3.8		
8.	Carbon dioxide	936.7		
9.	Hydrogen	149.8	Dispersed into atmosphere through flame arrester	-

12. **Details of Solid Waste Generation and its Management**:

S. No	Category of the HW	Name of the Hazardous Waste	Quantity	Disposal Method
Hazardous waste generation from plant				
1.	5.1	Waste oils & Grease/ Used Mineral oil	0.2 KL/Annum	Agencies authorized by KSPCB
2.	5.2	Oil-Soaked Cotton	2 Kgs/month	KSPCB authorized Vendor
3.	20.3	Distillation Residue	626.7 kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing
4.	28.1	Process Residues & Waste	1033.5 kg/day	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
5.	28.3	Spent Carbon	274.0 Kgs/Day	Store in secured manner and hand over to authorized cement industry for Co-processing
6.	28.4	Off Specification Products	1 TPM	Store in secured manner and hand over to authorized cement industry for Co-processing /TSDF (based on calorific value)
7.	28.5	Date expired products	500 Kgs/Month	Store in secured manner and hand over to authorized cement

				industry for Co-processing/TSDF
8.	33.1	Detoxified-Container & Container Liners of Hazardous Chemicals and Wastes	300 No's/Month	After complete detoxification, shall be disposed to the outside agencies/buyers.
9.	33.2	Contaminated cotton rags or other cleaning materials	25 Kgs/month	Store in secured manner and hand over to KSPCB Authorized Incinerators/TSDF.
10.	A1160	Used Lead Acid batteries	2 No's/Annum	Returned back to dealer/ Supplier
Other Solid Wastes				
11.	--	Coal ash	560 kgs/day	Sent to Brick Manufacturers
12.	--	Briquette ash	1560 kgs/day	Sent to fertilizer industries
13.	--	Used PPE	6 Kgs/ Month	Sent to TSDF
14.	B1110	E- Waste	150 Kgs/ Annum	Authorized recyclers
15.	--	Plastic Waste	200 Kgs/ Annum	Authorized recyclers
16.	DB1010	Metal Scrap	3 TPA	Sale to outside agencies/ recyclers
17.	3.3	Used Filters (HEPA filters, Oil Filters etc.)	25 Nos /year	Sent to TSDF
18.	--	Used / Discarded RO Membranes	0.2 TPA	Sent to TSDF

13. The Committee was informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021, which inter-alia request EAC to clearly recommend the permissible pollution loading i.e., quantity and quality, including composition of emissions, discharge and solid waste generation. In compliance this OM, PP has submitted the following pollution load information and the EAC deliberated on the issue. PP also requested that EC may include the name of products also otherwise PP will face difficulty in obtaining the CTE/CTO from concerned SPCB.

Kg per day	
EFFLUENT WATER	**SOLID WASTE**

Water in put	Water in Effluent	Organics in effluents	TDS	COD	HTDS	LTDS	Total Effluent	Organic	Inorganic	Spent carbon	Spent Catalyst	Process Emission	Distillation residue
4454.11	47086.9	447.1	4390.4	665.7	40632.8	8072.3	48705.0	450.3	583.2	274.0	0.0	2210.4	626.7

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 60.5 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 12.0 Lakh per annum, which includes Pollution Control equipment such as Scrubber, Cyclone separators, Bag filter, etc [₹ 25.0 lakh (capital) and ₹ 60 lakh/annum (Recurring)], Rainwater Harvesting system ([₹ 4.0 /annum (capital) and ₹ 2.0 lakh/annum (Recurring)], Green Belt Development [₹ 4.5 lakh (capital) and ₹ 1.0 lakh/annum (Recurring)], Occupational health and safety [₹6.0 lakh (capital) and ₹ 1.0 lakh/annum (Recurring)] Storm water drains and fire management [₹ 11.0 lakh (capital) and ₹ 1.5 lakh/annum (Recurring)], Environmental laboratory [₹ 5.0 lakh (capital) and ₹ 0.5 lakh/annum (Recurring)]. Industry proposes to allocate Rs. 5.0 *lakhs* towards CER for Providing sanitation facility and rainwater harvesting facility to Schools, Avenue plantation.

15. The total plot area is 8094 m^2(2 acres). Out of total area of the project site area, 2695 m^2 (33.3%) shall be used for greenbelt development.

16. The PP proposed to set up an Environment Management Cell (EMC) to engage Director under whom the Production Head will be reporting. The Production Head manages the Department of Occupational Health & Safety (OHS) and Operations department. The OHS Department is headed by Safety Officer who is assisted by Manager, Executive Officer and Safety Engineer. The Operations Department is headed by Plant Manager and assisted by Electrical Engineer, Mechanical Engineer and Safety Engineer for the functioning of EMC.
17. The PP reported that the proposed project is exempted from Public Hearing as it is located in a Notified Industrial Area i.e., KIADB, Industrial area, Kadechur and MoEF&CC has granted Environmental Clearance to Kadechur Industrial Area at Kadechur village in Yadgir district, Karnataka vide F. No. 21-8/2014-IA.II, dated 14.10.2016.

18. The PP reported that 2807.7 CO_2 Eq. in tonnes will be emitted. The floristic composition for the proposed green belt area in the project area would be about 12 native tree species. which will be fast growing and with capacity of high carbon sequestration.

19. The PP submitted the Onsite and Offsite disaster management plan in their EIA report.

20. The PP also submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.*2011 'M/s. JY Finechem Pvt. Ltd., has appointed, QCI-NABET accredited EIA consultant, M/s. AM Enviro Engineers, Bengaluru to prepare the EIA/EMP report to obtain Environmental Clearance from MoEF&CC. The project scoping was done and standard Terms of Reference (TOR) was issued with vide letter No. IA-J11011/105/2022-IA-II(I) dated 29th March 2022. M/s. AM Enviro Engineers, Bengaluru has taken all reasonable precautions in preparation of EIA-EMP report and confirm that the EIA-EMP report has been*

prepared as per TOR prescribed by MOEF&CC, New Delhi and based on project related factual data submitted by M/s. JY Finechem Pvt. Ltd. & baseline data collected by M/s.SLN TESTING LABORATORY (MOEF&CC recognition Laboratory) for one full season baseline environmental data monitored during pre-monsoon season, covering three months i.e., March 2022 to May 2022."

21. The consultant submitted an undertaking that with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009" *M/s. JY Finechem Pvt. Ltd., proposed for "Manufacturing of Active Pharmaceutical Ingredients (API's) and Intermediates" at Plot No. 55, Kadechur Industrial area, Yadagir Taluk & District, Karnataka-585221. In this regard, M/s. JY Finechem Pvt. Ltd., has appointed, QCI-NABET accredited EIA consultant, M/s. AM Enviro Engineers, Bengaluru to prepare the EIA/EMP report to obtain Environmental Clearance from MoEF&CC. The project scoping was done and standard Terms of Reference (TOR) was issued with vide letter No. IA-J11011/105/2022-IA-II(I) dated 29th March 2022. M/s. AM Enviro Engineers, Bengaluru has taken all reasonable precautions in preparation of EIA-EMP report and confirm that the EIA-EMP report has been prepared as per TOR prescribed by MOEF&CC, New Delhi and based on project related factual data submitted by M/s. JY Finechem Pvt. Ltd. & baseline data collected by M/s. SLN TESTING LABORATORY (MOEF&CC recognition Laboratory) for one full season baseline environmental data monitored during pre-monsoon season, covering three months i.e., March 2022 to May 2022*".

22. The estimated project cost is ₹ 5 Crores. Total Employment will be 25 persons as direct & 15 persons indirect

23. **<u>Deliberations by the EAC</u>**

The EAC constituted under the provisions of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The Committee deliberated on the stack height and EAC suggested to revise the stack height, and also suggested PP to Revise the water balance chart so as to use blow down from boiler can be used for gardening and freshwater consumption can be reduced. PP committed for the same as suggested by EAC and EAC found it to be satisfactory.

The EAC also deliberated on the greenbelt development and suggested to project proponent, to revise the plan with ensuring the 80% survival rate and also submit the revised plant species. PP submitted that proposed project will develop greenbelt in a 2695 sqm area (33 % of total site area) at the rate of 2500 trees per hectare. Accordingly, 674 number of trees are to be planted. By considering the survival rate of 80%, it is required to plant about 810 trees. EAC also observed the calculation of carbon sequestration study and suggested PP to submit the Revise the carbon sequestration study with exact height and DBH of trees, PP submitted the same as suggested by EAC and found it to be satisfactory.

The Committee also deliberated the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The Committee is of the view that recommendation of EAC and grant of environmental clearance by regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

24. The EAC, after detailed deliberations, **recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I**:-

(i) The PP shall develop Greenbelt over an area of at least 2695 m^2 by planting 810 /830 number of trees within a period of one year grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2m). In addition to this, The budget earmarked for the plantation shall be ₹ 4.5 Lakh and shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of the expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(ii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage Director under whom the Production Head will be reporting. The Production Head manages the Department of Occupational Health & Safety (OHS) and Operations department. The OHS Department is headed by Safety Officer who is

assisted by Manager, Executive Officer. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(iii) The company shall 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. The budget propose under EMP is ₹ 60.5 Lakh (Capital cost) and ₹ 12.0 Lakh Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(iv) The fresh water requirement 85.0 KLD will be met from Karnataka Industrial Area Development Board (KIADB). The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year

(v) As Committed by the PP, 2 TPH briquette/coal fired boiler will be provided with a stack of height 30 m AGL as per CPCB guidelines.

(vi) No banned chemicals shall be manufactured by the PP. No banned raw materials shall be used in the unit. The PP shall adhere to the notifications/guidelines of the Government in this regard.

(vii) The PP shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(viii) The PP shall comply with the environment norms for Pharmaceuticals/Bulk Drugs Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 541(E), dated 06.08.2021 under the provisions of the Environment (Protection) Rules, 1986.

(ix) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The PP shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

(x) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(xi) The PP shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

(xii) The industrial effluent will be segregated based on the concentration of total dissolved solids (TDS). High TDS effluent of 42.6 KLD will be collected and neutralized in Equalization and Neutralization tank of capacity 50 KLD each and later on, will be sent to CETP. Low TDS effluent of 28.2 KLD (excluding domestic sewage) will be collected and neutralized in Equalization and Neutralization tank of capacity 35 KLD each and later on, shall be sent to CETP.

(xiii) A 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 servers. 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.

(xiv) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xv) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xvi) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xvii) The unit shall make the arrangement for the protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.

(xviii) The 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) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xix) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xx) The PP 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 vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

Agenda No. 37.7

Proposal for EC amendment for merger of Plot No. C-150 with plot no. C/151, Sayakha Industrial Estate, Village: Sayakha, Taluka: Vagra, District: Bharuch, Gujarat by M/s. Finor Piplaj Chemicals Limited

[Proposal No. IA/GJ/IND3/288145/2022; File No. IA-J-11011/460/2021-IAII(I)]

1. The proposal is for amendment in the Environment Clearance (EC). The EC was granted by the ministry vide letter IA-J-11011/460/2021-IA II(I) dated 14th March, 2022 for setting up of Specialty Chemicals and Pesticides Manufacturing Unit of production capacity 3950.00 TPM along with formulations production capacity of 1725.00 TPM, located at Plot No. C/151, GIDC Sayakha, Taluka: Vagra, District: Bharuch, Gujarat in favour of M/s. Finor Piplaj Chemicals Limited.

2. The project proponent has requested for amendment in the EC with the details are as under:

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/reasons
1	Point No. 1	The Ministry of Environment, Forest and climate change had examined the proposal for Setting up of Specialty Chemicals and Pesticides Manufacturing Unit of production capacity 3950.0 TPM along with formulations production capacity of 1725.0 TPM, located at Plot No. C/151, GIDC Sayakha, Taluka: Vagra, District: Bharuch, Gujarat by M/s. Finor Piplaj Chemicals Limited	The Ministry of Environment, Forest and climate change had examined the proposal for Setting up of Specialty Chemicals and Pesticides Manufacturing Unit of production capacity 3950.0 TPM along with formulations production capacity of 1725.0 TPM, located at Plot No. C/150 & C/151, GIDC Sayakha, Taluka: Vagra,District: Bharuch, Gujarat by M/s. Finor Piplaj Chemicals Limited	As per the proposal for EC amendment we would like to add a plot no. (C/150) in our existing EC. The relevant land document for the same is submitted. Accordingly, there are changes in our plot area and green belt area. Total Plot area – 10755.47 m^2 (Area of Plot No. C/151 is 5755.472 m^2 + Area of Plot No. C /150 is 5000.00 m^2). Total Greenbelt area will become 3570.02 m^2 after merging the Plot No. C/150.
2	Point No. 6	The PP reported that land area 5755.472 m^2 will be use for proposed project. Industry will develop	The PP reported that land area 10755.47 m^2 will be use for proposed project industry will develop greenbelt in an	Land area breakup is submitted. There is no change in the production capacity

		greenbelt in an area of 33% i.e 1931.472 m^2 out of total area 5755.472 m^2 of the project. The estimated project cost is 8.0 Crores. Total Capital cost earmarked towards environmental pollution control measures is Rs. 1.55 crores Annum. Total Employment will be of 100 person. Industry proposes to allocate Rs. 16 Lakhs towards CER.	area of 33 % i.e 3570.02 m^2 out of total area 10755.47 m^2 of the project. The estimated project cost is 8.0 Crores. Total Capital cost earmarked towards environmental pollution control measures is Rs. 1.55 crores Annum. Total Employment will be of 100 person. Industry proposes to allocate Rs. 16 Lakhs towards CER.	and other technical details.

3. **Deliberations by the EAC**:

The EAC deliberated on the issue and observed that EC was granted by the Ministry on 14th March, 2022, the existing greenbelt/plantation is not adequate, in view of this, **the PP needs to submit the action plan of greenbelt/ plantation also including number of trees planted and to be planted for the existing plot and the merged plot uniformly.** The EAC advised the PP and the consultant that in future, they should ensure the compliance of existing EC including green belt before applying for amendment in EC. **The PP is also required to submit the details of carbon foot prints and carbon sequestration study w.r.t. proposed project and details of onsite and offsite emergency plans.**

The EAC also deliberated on the water balance and found inconsistencies in it. In view of this, **the PP needs to submit the revised water balance for conservation of water so that recycled water can be used for processing and for further application.**

The Committee therefore**, deferred** the proposal.

Agenda No. 37.8

Proposed Bulk Drugs & Drug Intermediates Manufacturing Unit of production capacity 105 TPM at Plot Nos.: 172 & 173, Kadechur & Badiyal Industrial Area, Kadechur Village, Yadgir Taluk & District, Karnataka by Prasanna Bio Molecules Pvt. Ltd. - Consideration of EC

[Proposal No. IA/KA/IND3/276021/2022; File No. IA-J-11011/190/2022-IAII(I)]

1. The proposal is for environmental clearance to the project for Proposed Bulk Drugs & Drug Intermediates Manufacturing Unit at Plot Nos.: 172 & 173, Kadechur & Badiyal Industrial Area, Kadechur Village, Yadgir Taluk & District, Karnataka by Prasanna Bio Molecules Pvt. Ltd.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) of Schedule of Environment Impact Assessment (EIA) Notification2006 (as amended) as the General condition is applicable due to presence of (interstate boundary within 5 km) Interstate boundary of Karnataka to Telangana State – 3.43 Km towards South direction. Therefore, the project requires appraisal at Central Level.

3. The PP applied for the ToR vide the proposal number IA/KA/IND3/235878/2021dated 24.6.2022. and the standard ToR was issued by the Ministry, vide letter No. IA-J-11011/190/2022-IA-II(I) dated 25.6.2022. The PP submitted that Public Hearing is not required for the proposed project as it is located at KIADB, Industrial area – Kadechur and MoEF&CC has granted EC to Kadechur Industrial Area at Kadechur village in Yadgir district, Karnataka vide F. No. 21-8/2014-IA.II Dated: 14.10.2016. The PP applied for Environment Clearance on 12.8.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP in the Form-2 reported that it is a **Fresh EC.** The proposal is now placed in 37th EAC Meeting held on 29-30 August, 2022, wherein the PP and an accredited Consultant Right Source Industrial Solutions Pvt. Ltd. [Accreditation number NABET/EIA/1821/SA 0128 Valid up to 10.10.2022.], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area is 0.8093 Ha and no R& R is involved in the Project. The details of products and by–products are as follows:

S. No	Product Name	Quantity in TPM	CAS. No.	Therapeutic uses
Group-A				
1	Apixaban	3.00	503612-47-3	Anticoagulant
2	Bilastine	3.00	202189-78-4	Antihistamine
3	Canagliflozin	3.00	842133-18-0	Used to treat type 2 diabetes
4	Clopidogrel Bisulfate	3.00	120202-66-6	Antiplatelet Agents
5	Dabigatran Etexilate Mesylate	3.00	872728-81-9	Used to prevent blood clots
6	Dapagliflozin Propanediol Monohydrate	3.00	960404-48-2	Used to treat Diabetes Mellitus, Type 2
7	Deferasirox	5.00	201530-41-8	Used to treat high levels of iron in the body
8	Edoxaban	3.00	480449-70-5	Used to prevent strokes or blood clots
9	Empagliflozin	3.00	864070-44-0	Used to treat type 2 diabetes
10	Gabapentin	4.00	60142-96-3	Used to treat seizures
11	Glimepiride	4.00	93479-97-1	Used to treat high blood sugar
12	Linagliptin	3.00	668270-12-0	Used to treat type 2 diabetes
13	Prasugrel Hydrochloride	3.00	389574-19-0	Anti-platelet medications
14	Rivaroxaban	3.00	366789-02-8	Anticoagulant

S. No	Product Name	Quantity in TPM	CAS. No.	Therapeutic uses
15	Vildagliptin	3.00	274901-16-5	Used to treat type 2 diabetes
Total (Any 4 products will be manufactured at any given point of time)		**16.00**		
Group-B				
1	(S)-1-(2-Chloroacetyl)Pyrrolidine-2-Carbonitrile	10.00	207557-35-5	Vildagliptin Intermediate
2	1-Hydroxy Benzotriazole [HOBT]	10.00	123333-53-9	Speciality Chemicals & Reagents
3	2, 4-Thiazolidinedione	5.00	2295-31-0	Pioglitazone & Rosiglitazone Intermediate
4	2-Chloroacetonitrile	5.00	107-14-2	Speciality Chemicals & Reagents
5	2-Ethoxyethyl 4-Methyl Benzene Sulfonate	5.00	17178-11-9	Bilastine Intermediate
6	2-Phenyl ethyl isocyanate	2.00	1943-82-4	Glimepiride Intermediate
7	2-Piperidin-4-Yl-1h-Benzoimidazole	2.00	38385-95-4	Bilastine Intermediate
8	2-Propyl-1h-Imidazole-4,5-Dicarboxylic Acid (Di-Acid)	5.00	58954-23-7	Olmesartan Intermediate
9	3-Aminoadamantan-1-ol	3.00	702-82-9	Vildagliptin Intermediate
10	4-Cloromethyl-5-Methyl-1,3-Dioxol-2-One (Dmdo-Cl)	5.00	80841-78-7	Olmesartan Intermediate
11	4-Nitrophenyl Chloroformate	8.00	7693-46-1	Ritonavir Intermediate
12	Bis(4-Nitrophenyl) Carbonate	6.00	5070-13-3	Darunavir, Ritonavir & Solifenacin Intermediate
13	Ethyl 3-(2-Pyridylamino)Propionate	3.00	103041-38-9	Dabigatran Intermediate
14	Isobutyramide	10.00	563-83-7	Ritonavir Intermediate
15	N,N diethyl-2-cyanoacetamide	3.00	26391-06-0	Entacapone Intermediate
16	N,N'-Disuccinimidyl carbonate	5.00	74124-79-1	Darunavir Intermediate
17	N,N-Carbonyl Diimidazole	10.00	530-62-1	Speciality Chemicals & Reagents
18	N-(4-Cyanophenyl) glycine	4.00	42288-26-6	Dabigatran Intermediate
19	N-Hydroxysuccinimide	4.00	98 6066-82-6	Speciality Chemicals & Reagents
20	Trityl Chloride [TTC]	10.00	97 76-83-5	Speciality Chemicals & Reagents
Total (Any 12 products will be manufactured at any given point of time)		**89.00**		

S. No	Product Name	Quantity in TPM	CAS. No.	Therapeutic uses
Total (Group-A + Group-B)		**105.00**		

LIST OF BY- PRODUCTS & THEIR QUANTITIES

S. No.	Name of the product	Name of the By-Product	Quantity in Kg/Day
1	Bilastine	Sodium p-toluene sulfonate	59.10
		Potassium p-toluene sulfonate	57.00
2	Clopidogrel Bisulfate	Triethylamine Hydrochloride	63.90
3	Apixaban	Hydrochloric acid (32%)	6171.87 Ltrs/Day
	Canagliflozin		
	Clopidogrel Bisulfate		
	Dapagliflozin Propanediol Monohydrate		
	Deferasirox		
	Empagliflozin		
	Glimepiride		
	Vildagliptin		
	1-Hydroxy Benzotriazole		
	2-Phenyl ethyl isocyanate		
	4-Cloromethyl-5-Methyl-1,3-Dioxol-2-One		
	4-Nitrophenyl Chloroformate		
	Bis(4-Nitrophenyl) Carbonate		
	Isobutyramide		
	N,N'-Disuccinimidyl carbonate		
	Apixaban	Sodium Bromide (After neutralization of HBr withCaustic Lye solution)	132.24
	Dapagliflozin Propanediol Monohydrate		
	Empagliflozin		
	Linagliptin		

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger /Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Nala within Kadechur Industrial Area – 0.18 km (NNW), Water Body Near Kadechur – 1.75 km (ENE), Water Body Near Rachanahalli – 3.22 km(NNW), Water Body Near Kadechur Down – 3.46 km(ESE), Water Body Near Sowrashtrahalli – 3.58 km(ENE), Water Body Near Balched – 4.54 km(N), Water Body Near Badal – 5.94 km(SW, Water Body Near Rampur – 5.97 km(NNW), Hindupur Vagu – 6.15 km(SSE), Water Body Near Bomraldoddi – 6.85 km(ESE), Water Body Near Baddepalli – 8.23 km(ENE) Bhima River – 8.61 km(WSW)

Water Body Near Alampalli – 8.64 Km(SE) Water Body Near Kanekal – 8.73 Km(N) Water Body Near Baddepalli Tanda – 8.84 Km(NE) Water Body Near Kunsi –9.40 Km(SSE). There is no forest land involved in the proposed project. No Schedule-I species exist within the project area.

7. The PP reported that Ambient air quality monitoring was carried out at 8 locations during (March to May, 2022 and the baseline data indicates the ranges of concentrations as: PM_{10} (46.2 µg/ m^3 & 68.2 µg/ m), $PM_{2.5}$ (17.6 µg/ m^3 & 28.1 µg/ m^3), SO_2 (7.4 µg/m^3 & 18.4 µg/ m^3) and NO_2 (9.5 µg/ m^3 & 23.4 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 68.2 µg/m^3, 28.0 µg/m^3 and 18.1µg/m^3 with respect to PM_{10}, SO_2 and NOx respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise -** Industrial Zone: The day time noise level at the Project site was 43.5 dB (A), which is well below the permissible limits of 75 dB (A). Residential Zone: The daytime noise levels in all the residential locations were observed to be in the range of 51.8 dB (A) to 54.1 dB (A). The noise levels at all the locations were below the permissible limits of 55 dB (A). **Night time** Noise Levels (L night) Industrial Zone: The night time noise level in the Project site was observed be 34.3 dB (A), which is well below the permissible limits of 70 dB (A). Residential Zone: The night time noise levels in all the residential locations were observed to be in the range of 41.9 dB (A) to 43.9 dB (A). The noise levels were below the permissible limits of 45 dB (A) in night time at all the locations.

8. **Water –** The pH of ground water samples collected ranged between 6.97 – 7.84. The total dissolved solids in the ground water samples ranged between 727 – 1942 mg/l and the total hardness was found to vary between 96 – 1030 mg/l. The chloride concentration was found to vary between 84.75 – 689.86 mg/l in the collected ground water samples. Fluoride concentration in all ground water samples varied between 31.8 – 161.2 mg/l.

9. **Soil-** The pH of the soil quality ranged from 7.62 to 8.24. The percentage of organic carbon was observed between 0.53 to 0.73 indicating that the soil is of medium to average quality.

10. The PP reported that the total water requirement of 131.13 KLD will be met from KIADB water supply. The fresh water consumption for the proposed products process is 32.63 KLD. The total generated effluent of 65.59 KLD will be sent to Common effluent treatment plant (CETP) Mother Earth, Kadechur for removal contaminants and will be returned to the plant. The recovery of water would be 52.43 KLD.

11. The PP reported that the total power requirement for the unit is 900 kVA will be met through Karnataka Power Corporation Limited [KPCL]. The industry is proposing to install 1 x 250 kVA & 1 x 500 kVA DG sets, usage during the power failures.

12. **Details of Process Emissions Generation and their Management:**

S. No.	Name of the Gas	Quantity in Kg/Day	Treatment Method
1.	Hydrogen	5.00	Diffused by using Nitrogen through Flame arrestor to avoid the formation of explosive mixture
2.	Propane	22.00	

3.	Ammonia	49.00	Scrubbed by using chilled water media
4.	Oxygen	194.00	Dispersed into the atmosphere
5.	Hydrogen Bromide	104.00	Scrubbed by using C. S. Lye solution
6.	Hydrogen chloride	1975.00	Scrubbed by using chilled water media
7.	Carbon dioxide	521.00	Dispersed into the atmosphere
8.	Hydrogen Fluoride	76.00	Scrubbed by using C. S. Lye solution
9.	Boron trifluoride	59.00	Scrubbed by using C. S. Lye solution
10.	Sulphur dioxide	546.00	Scrubbed by using C. S. Lye solution

13. **Details of Solid Waste Generation and its Management**:

S. No.	Name of the Waste	Quantity	Category (As per schedule)	Disposal Method
Hazardous waste Details				
1	Organic solid waste (Process Residue	2416 Kg/Day	28.1 of schedule-I	Will be sent to Cement Industries
2	Spent Carbon	62 Kg/Day	28.3 of Schedule-I	
3	Solvent Distillation Residue	747 Kg/Day	36.1 of Schedule-I	
4	Inorganic Solid Waste	192 Kg/Day	28.1 of schedule--I	Will be sent to TSDF - Mother Earth Kadechur.
5	ETP Sludge	90 Kg/Day	35.3 of schedule--I	
6	Used Oils	150 Ltrs/Annum	5.1 of schedule-I	Will be sent to SPCB Authorized Agencies for Reprocessing/ Recycling
7	Detoxified Containers/ Container liners	600 No's / Month	33.1 of Schedule-I	After Detoxification will be sent to authorized agencies
8	Used Lead Acid Batteries	4 No's/ Annum	9.1 of Schedule-I	Send back to suppliers for buyback of New Batteries

9	Ash from boiler (During usage of Biomass Briquette)	690 Kg/Day	-	Will be sent to Brick Manufacturers.
10	Ash from boiler (During usage of Coal)	4.375 TPD	-	

**Note: Coal will be used only at the time of non-availability of Biomass Briquette during rainy season. The ash from boiler will be generated around 4.375 TPD during usage of coal only and the remaining days, the ash from the boiler will be generated around 690 Kg/Day*

14. The Committee was informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 which inter-alia, request EAC to clearly recommend the permissible pollution load i.e., quantity and quality, including composition of emissions, discharge and solid waste generation. In compliance this OM, PP has submitted the following pollution load information and the EAC deliberated on the issue.

kg per day													
EFFLUENT WATER								**SOLID WASTE**					
Water in put	Water in Effluent	Organics in effluents	TDS	COD	HTDS	LTDS	Total Effluent	Organic	Inorganic	Spent carbon	Fugitive emission	Process Emission	Distillation residue
32633.33	32633.33	32664.25	1016.30	159.66	25504.54	14590.18	40094.72	2415.51	192.04	61.50	762.67	3164.85	7470.0

15. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 114.1 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 10.15 Lakh per annum, which includes Pollution Control Equipment (Scrubbers, Cyclone separators, Bag filters, Sampling port arrangements etc.,) [₹ 100.0 lakh (capital) and ₹ 50.0 lakh/annum (Recurring)], Rain Water collection system (Roof top rain water will be collected in the tank for reuse in the utilities and gardening) ([₹ 4.00 lakh/annum (capital) and ₹ 1.00 lakh/annum (Recurring)], Greenbelt Development (Plantation and Maintenance) [₹6.10 lakh (capital) and ₹ 1.15 lakh/annum (Recurring)], Health & Safety (PPEs, Medical Surveillances Expenses etc.,) [₹4.00 lakh (capital), ₹ 1.00 lakh/annum (Recurring)], Environmental Monitoring (Air, Water, Noise, VOCs, Boilers Stacks flue gases, TFH Stack flue gas & DG sets stacks monitoring expenses etc.,) ₹ 2.00 lakh/annum (Recurring), Industry proposes to allocate ₹ 18.8 Lakh towards CER for Drinking water supply to nearby villages, Educational help to the school students, Medical Camps, Self Help Skill Training.

16. Industry will develop greenbelt of 7.5 m to 10 m width on all sides of the industry in an area of 2734.86 m^2 (33.79 % of the total area).

17. The PP proposed to set up an Environment Management Cell (EMC) having Plant General Manager – Environment, Executive / supervisor- workmen/helpers- Assistant manager – safety - Executive/ supervisor- workmen/helpers for the functioning of EMC.

18. The PP reported that the proposed project is exempted from Public Hearing as it is located in a Notified Industrial Area KIADB, Industrial area – Kadechur and MoEF&CC has granted EC to Kadechur Industrial Area at Kadechur village in Yadgir district, Karnataka vide F. No. 21-8/2014-IA.II Dated: 14.10.2016.

19. The PP reported the CO_2 emissions from different activities from the industry – from vehicular movement – 5.74 Tons CO_2/Annum, from DG Sets & TFH- 177.73 TPA, from Boilers - 1.30 Tons of CO_2/Annum, from Power Utilization - 168.15 Tons of CO_2/Annum, from Manufacturing Process: 156.3 Tons of CO_2/Annum, from CETP Plant (Effluent Disposal) - ≈ 13.81 Tons/Annum. Industry will sequester atmospheric carbon dioxide at an average of 50 pounds (22.67 Kg) per tree per year.

20. The PP submitted the disaster and Onsite and Offsite Emergency Plans in the EIA report.

21. The PP also submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.*2011* 'This is to undertake that I own the contents (information and data) of the EIA & EMP eport prepared for the project of Prasanna Bio Molecules Pvt. Ltd. at Plot No 172& 173, kadechur & Badiyal Industrial area, Kadechur Village Yadgir Taluka Yadgir District Karntaka State. I also confirm that I shall be fully accountable for any misleading information mentioned in this report".

22. The consultant submitted an undertaking that with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009" I, Yarlagadda V. Prasad, hereby, confirm that the experts prepared the EIA report of **Prasanna Bio Molecules Pvt. Ltd.** located at Plot No's: 172 & 173, Kadechur & Badiyal Industrial Area, Kadechur Village, Yadgir Taluk, Yadgir District, Karnataka State. I also confirm that the consultant organization shall be fully accountable for any mis-leading information mentioned in this statement."

23. The proposed project cost is about Rs. 9.4 Crores. Direct employment generation potential of the project will be for about 150 persons, wherein the first preference will be given to the Qualified People from within the Study Area.

24. Deliberations by the EAC

The EAC constituted under the provisions of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information

submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC deliberated on the greenbelt, and suggested the PP to plant 850 Nos. of trees in the plant instead of 684 Nos. of trees to compensate the 20% of plants loss. The CO_2 sequestration will be increased by 4 Tons/Annum and the total CO_2 sequestered after planting the additional trees at the plant premises is 19.5 Tons/ Annum. The PP submitted the same. The EAC also deliberated on green energy and suggested to install rooftop Solar panels system in next coming three years i.e., by August, 2025.

The EAC deliberated on the generated effluent and PP committed that the generated effluent is 65.59 KLD, which will be sent to CETP- Mother Earth, Kadechur and after treatment, the recovered water from the CETP will be receivee to the tune of 52.43 KLD and the same will be used in the plant operations.

The EAC deliberated the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The Committee is of the view that recommendation of EAC and grant of environmental clearance by regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

25. The EAC, after detailed deliberations, **recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I**:-

(i) The PP shall develop Greenbelt over an area of at least 2734.86 m2 Ha by planting 850 number of trees within a period of one year grant of EC.. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2m). In addition to this, The

budget earmarked for the plantation shall be ₹ 6.10 Lakh and shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of the expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(ii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage Plant General Manager – Env ,Executive / supervisor- workmen/helpers- Assistant manager – safety - Executive/ supervisor- workmen/helpers . In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(iii) The company shall 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. The budget propose under EMP is ₹ 114.1 Lakh (Capital cost) and ₹ 10.15 Lakh Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(iv) The total water requirement of 131.13KLD will be met from KIADB Water supply. The fresh water consumption for the proposed products process is 32.63 KLD. The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year

(v) As Committed, the PP shall install rooftop Solar panels system in next coming three years i.e., by August, 2025.

(vi) No banned chemicals shall be manufactured by the PP. No banned raw materials shall be used in the unit. The PP shall adhere to the notifications/guidelines of the Government in this regard.

(vii) The PP shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(viii) The PP shall comply with the environment norms for Pharmaceuticals/Bulk Drugs Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 541(E), dated 06.08.2021 under the provisions of the Environment (Protection) Rules, 1986.

(ix) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The PP shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

(x) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(xi) The PP shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

(xii) The total generated effluent of 65.59 KLD shall be sent to Common effluent treatment plant (CETP) Mother Earth, Kadechur for removal contaminants and will be returned to the plant. The recovery of water would be 52.43 KLD.

(xiii) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge`e and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. 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.

(xiv) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xv) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xvi) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xvii) The unit shall make the arrangement for the protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.

(xviii) The 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) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xix) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xx) The PP 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 vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

Agenda No. 37.9

Proposed greenfield project of Technical Grade Pesticides and Specialty Chemicals Manufacturing Unit of production capacity 6075 MT/month at Plot No. D-3/24/4/1, Dahej-III Industrial Estate, Village: Samantpor, Taluka: Vagra, District: Bharuch, Gujarat by M/s. Shrihan Chemtech Private Limited - Consideration of EC

[Proposal No. IA/GJ/IND3/278746/2022; File No. IA-J-11011/211/2022-IAII(I)]

1. The proposal is for environmental clearance for Proposed greenfield project of Technical Grade Pesticides and Specialty Chemicals Manufacturing Unit at Plot No. D-3/24/4/1, Dahej-III Industrial Estate, Village: Samantpor, Taluka: Vagra, District: Bharuch, Gujarat by M/s. Shrihan Chemtech Private Limited.

2. The project/activity is covered under Category 'A' of item 5(b) Pesticides industry and pesticide specific intermediates (excluding formulations), 5(f) (Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) and item 5(b) Pesticide Industry and pesticide specific intermediates excluding formulations) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended).

3. The PP applied for the ToR vide proposal number IA/GJ/IND3/278746/2022 dated 27.6.2022.and the **standard ToR** has been issued by the Ministry, vide letter No. IA-J-11011/211/2022-IA-II(I) dated 5.7.2022. The PP reported that the proposed greenfield project is in Notified Industrial Area of Dahej-GIDC, which is falling in PCPIR region and hence, Public Hearing is exempted. EC of PCPIR Region File no. 21-49/2010-IA-III Dated 14th September, 2017. The PP applied for Environment Clearance on 12.8.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP reported in Form-2 that it is a **Fresh EC**. The proposal is now placed in 37th EAC Meeting held on 29-30 August, 2022, wherein the Project Proponent and an accredited Consultant, Shree Green Consultants. [Accreditation number NABET/EIA/2124/IA0072Valid up to 24.2.2024, made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area is 1.226967 Ha and no R& R is involved in the Project. The details of products are as follows:

Sr. No.	Product Name	QTY (MT/Month)	CAS NO.
A. Herbicides			
1	2,4-Dichlorophenoxy Acetic Acid (2,4-D Acid)	150	94-75-7
2	2, 4 Dichloro Phenol	600	120-83-2
3	2, 6 Dichloro Phenol	100	87-65-0
4	2,4-D Sodium Salt	600	2702-72-9
5	2,4-D Ethyl Ester	100	533-23-3
6	2,4-D Amine Salt 58 % Solution	600	25168-26-7
7	Bispyribac Sodium	50	125401-92-5
8	Pretilachlor Technical	50	51218-49-6
9	Clodinafop-Propargyl Technical	50	105512-06-09
10	Atrazine	100	1912-24-9
11	Metribuzin	50	21087-64-9
12	Metlachlor	50	51218-45-2
13	Quizalofop	25	16578-14-8
14	Sulfosulfuron	100	141776-32-1
15	Imazethapyr	50	81335-77-5
16	Metasulfuron Methyl	50	74223-64-6
17	Nico Sulfuron	25	111991-09-4
18	Chlorimuron Ethyl	25	10605-21-7
19	Glufosinate Ammonium	25	70033-13-5
20	Carfentrazone Ethyl	50	128639-02-1
21	Fluroxypyr	25	69377-81-7
22	Triclopyr Acid	25	55335-06-3
23	Triclopyr Ester	25	64700-56-7
24	Clethodim (Tech)	25	99129-21-2
	Total (A)	**2950**	
B. Fungicides/ Insecticides			
25	Thiophanate Methyl	50	23564-05-8
26	Folpet	25	133-07-3
27	Myclobutanil	25	88671-89-0
28	Difenoconazole	50	119446-68-3
29	Chlorothalonil	25	1897-45-6
30	Profenophos Technical	100	133408-50-1
31	Thiamethoxam	50	153719-23-4
	Total(B)	**325**	
C. Agro Intermediate			
32	Metaphenoxy Benzaldehyde	400	39515-51-0
33	CCMT	400	105827-91-6
	Total (C)	**800**	
D. Specialty Chemicals			
34	2,3-Dichloro Phenol	2000	576-24-9
35	2,5-Dichloro Phenol		583-78-8
36	3,4-Dichloro Phenol		95-77-2
37	3,5-Dichloro Phenol		591-35-5
38	3-Chloro Phenol		108-43-0

Sr. No.	Product Name	QTY (MT/Month)	CAS NO.
39	Anisol		100-66-3
40	2,3-Dichloro Anisol		1984-59-4
41	4-Bromo-2-Chloro Phenol		3964-56-5
42	4-Bromo-2,5-DiChloro Phenol		1940-42-7
43	O-Cyano Phenol		611-20-1
44	P-Chloro-m-Cresol		59-50-7
45	P-Chloro-meta-Xylenol		88-04-0
46	5-Chloro-2-Amino Phenol		28443-50-7
47	4-Chloro-2-Amino Phenol		95-85-2
48	3,4,5- Tri Methoxy Toluene		6443-69-2
49	4-Bromo Anisol		104-92-7
	Total (D)	2000	
	Grand Total (A+B+C+D)	**6075**	

5. The PP reported that there is no violation case as per the Notification No. S.O. 804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that there are no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from site. No forest land is involved for the proposed project. River/ water body Narmada river is flowing at a distance of 7 km in South direction. No Schedule I species, exists within 10 km study area of the project.

7. The PP reported that Ambient air quality monitoring was carried out at 8 locations during 1st March 2022 to 31st May 2022 to and the baseline data indicates the ranges of concentrations as: PM_{10} (48.3 –85.1 µg/m^3), $PM_{2.5}$ (21.7 – 46.6 µg/m^3), SO_2 (18.2 – 56.0 µg/m^3) and NOx (23.4 – 66.5 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.31 µg/m^3, 2.02 µg/m^3 and 1.45 µg/m^3 with respect to PM_{10}, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise**- Ambient noise levels were measured at 12 locations around the proposed project site and also on the project site location. Noise levels monitoring was done during the day as well as night time. Near the Industrial area the minimum and maximum noise levels recorded during the day time was 48.2 Leq dB(A) and 68.2 Leq dB(A) and during night time was 40.6 Leq dB(A) and 57.5 Leq dB(A) respectively. It was observed that the noise levels in the study area are well within the prescribed limits as prescribed by the CPCB.

8. **Water-** The pH of ground water showed a variation in the range of 7.28 – 7.88. TDS levels varied in the range of 880 – 1578 mg/L. Total hardness varied in the range of 255 – 805 mg/L. Alkalinity varied in the range of 245 – 657 mg/L. Coliform bacteria were measured as Total Coliform and E. coli, these bacteria are absent in all samples. The pH of surface water showed a variation in the range of 7.22 – 8.04. TDS levels varied in the range of 312 – 2487 mg/L. Total hardness varied in the range of 70 – 520 mg/L. Coliform bacteria were measured as Total Coliform and varied in the range 4 to 17 MPN/100 ml sample, and E. coli, these bacteria are found at a maximum value of 14 MPN/100 ml for Narmada Estuary Nr. Suva to a minimum value were observed to be less than 1.8 MPN/100 ml in the samples of ponds of Kadodara, Atali and Akhod. **Soil-** soil is the media for supplying the nutrients for plant growth. Nutrients are available to plants at certain pH and pH of soils is affected by the addition of

pollutants either by air, or by water or by solid waste or by all of these. In order to establish the baseline status of soil characteristics, soil samples were collected from 8 sampling locations. Based on the study, the soil in the study area is found to be slightly alkaline in nature. The soil quality of the area was found to be of low to medium fertility.

9. The PP reported that the total water requirement for the project would be around 780.00 KLD which will be sourced from GIDC Dahej. Approximately, 597.00 KLD (8.0 KLD Domestic waste water + 589.0 KLD Industrial Effluent) waste water will be generated from proposed project. Process waste water (330.00 KLD) will be segregated into two streams having HTDS & LTDS stream 140.00 KLD HTDS process waste water shall be sent to Stripper followed by MEE for further treatment along with RO reject 70.0. MEE condensate will be sent to ETP for further treatment. MEE salt will be send to TSDF site 617.0 KLD Low TDS effluent (Process 190.00 KLD + MEE Condensate 168.00 KLD + Washing 210.00 KLD + Cooling 4.00 KLD + Other 40.00 KLD + Boiler 5.00 KLD) will be treated in house ETP. 524.00 KLD ETP treated effluent will be send to two stage RO for further treatment. 334.0 KLD RO permeate will be reused in Utilities & scrubber. Remaining 120.0 RO permeate, meeting the norms as per GIDC drainage/GPCB shall be sent for final disposal into GIDC underground drainage-Dahej vilayet pipeline/common disposal system up to the sea. Domestic effluent (8.0 KLD) shall be treated in STP and treated water will be reused in Gardening.

10. The PP reported that Total power requirement for the project will be around 600 KVA which will be sourced from GEB Supply. Three D. G. set of 200 KVA will be installed for the purpose of emergency uses only.

11. 3 Nos. of Steam Boiler (5 TPH each) will be installed and one Thermopack (2 Lakh k Cal /Hr). Multi cyclone Separator + Bag filter + Water Scrubber with a stack of height of 30 and 35 m will be installed for controlling the particulate emissions within the statutory limit the proposed boilers and thermopack. Details of utility required are given as below.

Sr. No.	Stack Attached	Fuel	Stack Height (m)	Parameter	APCM
1	Steam Boiler-1 (5 TPH)	Briquettes/coal 35 Ton/Day / 30 Ton/Day	30 m	PM <150 mg/Nm^3 SO_2 < 100 ppm NOx < 50 ppm	Multi cyclone Separator + Bag filter + Water Scrubber
2	Steam Boiler-2 (5 TPH)	Briquettes/coal 35 Ton/Day / 30 Ton/Day	30 m		Multi cyclone Separator + Bag filter + Water Scrubber
3	Steam Boiler-3 (5 TPH)	Briquettes/coal 35 Ton/Day / 30 Ton/Day	30 m		Multi cyclone Separator + Bag filter + Water Scrubber
4	Thermopack (2 Lakh k Cal /Hr)	Briquettes/coal 35 Ton/Day / 30 Ton/Day	35 m		Multi cyclone Separator + Bag filter + Water Scrubber
5	D. G. Set (200 kVA)	Diesel 60 lit/hr	15 m		Adequate Stack Height

6	D. G. Set (200 kVA)	Diesel 60 lit/hr	15 m		Adequate Stack Height
7	D. G. Set (200 kVA)	Diesel 60 lit/hr	15 m		Adequate Stack Height

Note: D.G set will be used for only emergency purpose

12. **Details of Process Emissions Generation and their Management:**

Sr. No.	Plant	Stack Height (m)	Type of Pollutant	Permissible Limit	APCM
1.	MPP-1	15	HCl SO_2 Cl_2	20 mg/Nm^3 40 mg/Nm^3 09 mg/Nm^3	Two Stage Alkali Scrubber
2.	MPP-2	15	HCl SO_2 Cl_2	20 mg/Nm^3 40 mg/Nm^3 09 mg/Nm^3	Two Stage Alkali Scrubber
3.	MPP-3	15	HCl SO_2 Cl_2 HBr	20 mg/Nm^3 40 mg/Nm^3 09 mg/Nm^3 05 mg/Nm^3	Two Stage Alkali Scrubber
4.	MPP-4	15	HCl SO_2 Cl_2 HBr	20 mg/Nm^3 40 mg/Nm^3 09 mg/Nm^3 05 mg/Nm^3	Two Stage Alkali Scrubber
5.	MPP-5	15	H_2S NH_3	- 175 mg/Nm^3	Two Stage Alkali Scrubber

13. **Details of Solid Waste Generation and its Management:**

Sr. No.	Type of Waste	Source	Category No.	Total Quantity (MT/Month)	Mode of Disposal
1	ETP sludge	ETP Plant	I -35.3	1674	Collection, Storage, Transportation and final disposal at common TSDF site
2	MEE Salt	MEE	I -35.3	1008	Collection, Storage, Transportation and final disposal at common TSDF site
3	Discarded containers / drums / Barrels / Bags	Storage Facility	I-33.1	35000 Nos	Collection, Storage, Decontamination, Transportation, by sent to authorized vendor.
4	Spent Oil/Used Oil	Process Unit	I-5.1	0.2	Collection, Storage, Transportation, disposal by selling to GPCB authorized & registered recyclers or reuse as lubricants in Plant machinery within unit.

Sr. No.	Type of Waste	Source	Category No.	Total Quantity (MT/Month)	Mode of Disposal
5	Process residue & Distillation residue	Manufacturing process	I-29.1	500	Collection, Storage, Transportation and final disposal at common TSDF site or incineration at common incineration facility or sent for Co-Processing unit.
6	Spent catalyst	Manufacturing process	I-29.5	30	Collection, storage and send for regeneration to supplier
7	Date-expired and off-specification Pesticides / Products / RMs	Process Unit	I -29.3	60	Collection, Storage, Transportation, Disposal by incineration at common incineration facility or Co-Processing for cement industries
8	Bromate, (Hypo-Bromates) Aq. & solid Sodium Bromide sol./ HBr	Manufacturing process	II-B6	250	Aq. & solid Sodium Bromide sol. / Aq. HBr Sol. Recovery: Collection, Disposal, Recovery, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste.
9	Bromate, (Hypo-Bromates) Aq. KBr Solution	Manufacturing process	II-B6	50	Aq. KBr Solution: Collection, Disposal, Recovery, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste.
10	Inorganic Acid (Spent Acids)	Manufacturing process	B-15	2700	Spent Sulphuric Acid (inorganic acid): Collection, Disposal, Reuse, Storage, Transportation, Disposal by reused within plant.
11	Spent HCl	Manufacturing process	I-29.6	800	Collection, Disposal, Recovery, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste.
12	Spent Solvent	Manufacturing process	I 29.4	240	Collection, Disposal, Recovery, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste or sent to Common incineration facility or sent for Co-Processing.

Sr. No.	Type of Waste	Source	Category No.	Total Quantity (MT/Month)	Mode of Disposal
13	Aq. AlCl3 Solution	Manufacturing process	I-29.1	60	Collection, Disposal, Recovery, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste.
14	Process Solid waste	Manufacturing process	I-29.1	68	Collection, Storage, Transportation and final disposal at common TSDF site
15	NaCl	Manufacturing process	I-35.3	7	Collection, Storage, Transportation and final disposal at common TSDF site
16	CuCl	Manufacturing process	I-29.1	4	Collection, Disposal, Recovery, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste.
17	KCl	Manufacturing process	I-29.1	7	Collection, Disposal, Recovery, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste.
18	Fly ash	From Boiler	--	3.5	Collection, storage, transportation & disposal by send to Brick manufacturing / cement industry.

14. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 2.40 Crore (capital) and the Recurring cost (operation and maintenance) will be about ₹ 0.58 crore per annum which includes Air pollution & Noise Pollution control [₹ 0.75 Crore (capital) and ₹0.12 crore/annum (Recurring)], Water Pollution Control [₹ 0.85 crore (capital) and ₹0.25 crore /annum (Recurring)], Noise Pollution control [₹ 0.05 crore (capital) and ₹0.01 crore /annum (Recurring)],], Environment monitoring and management [₹ 0.15 crore (capital) and ₹ 0.01 crore /annum (Recurring Solid/Hazardous waste management [₹ 0.30 crore (capital), ₹ 0.15 crore/annum (Recurring)], Occupational health [₹ 0.06 crore (capital) and ₹ 0.02 core /annum, Rain water harvesting system [₹ 0.04 crore (capital), ₹ 0.01 crore/annum (Recurring)], Greenbelt development [₹ 0.20 crore (capital), ₹ 0.01 crore/annum (Recurring)]. Industry proposes to allocate ₹ 47.8 crores will be allocated toward CER which will be utilized in next five year after obtaining statutory clearance & commissioning of plant.

15. M/s. Shrihan Chemtech Pvt. Ltd. will develop 33% of the entire land area as green belt. Around 4060.12 sq. m of land will be used as a greenbelt.

16. The PP proposed to set up an Environment Management Cell (EMC), it is proposed to engage site Head- EHS head- manager safety, Manager EHS, FMO- safety executive, Executive EHS, OHC staff, Fire man - operations for the functioning of EMC.

17. The PP reported that M/s. Shrihan Chemtech Private Limited will use Hybrid power supply i.e. solar and wind energy as an alternative to GEB power. M/s. Shrihan Chemtech Private Limited will use briquette in utilities and unit will buy the steam from the third party. Phasing out traditional light bulbs with LED lights. Resulting into a reduction 3/4th of the total energy consumption. The cooling tower fans will be connected to temperature sensor, as soon as the sump temperature reaches the desired value the cooling tower switches off. The chillers and brine plants are installed with VFD's whereby there is huge savings during startup. Further, when the chilling load reduces, the power drawn for operating automatically reduces power saving devices installed in Boilers also. Use of solar energy for street lights, lifts, common area lights etc in entire complex. The selection of appropriate sustainable building materials for construction of factory buildings. A motion sensor light will be installed in Admin building, canteen wherever possible. Computers installed are with a system which will make sure to put it into hibernation mode when not in use. We will collect the canteen waste and decompose it to manure. Provision of common transport facility to employees to reduce carbon foot print. Industry will shift to electrical vehicles for senior executive's travel. Total plot area is 12269.72 m^2; out of this 4060.12 m^2 (i.e. 33% of total area) will be developed as greenbelt inside premises.

18. The PP submitted the disaster and Onsite and Offsite Emergency Plans in the EIA report.

19. The PP also submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.*2011* 'I, Mukesh M Sengar, Director of M/s. Shrihan Chemtech Pvt. Ltd willing to submit this undertaking with respect to the Terms Of References (ToR) issued by MOEF&CC vide letter no. [A-J-11011/211/2022-IA-II(1) dated 05th July, 2022.Proposed greenfield project of Technical Grade Pesticides and Specialty Chemicals Manufacturing Unit at Plot No. D-3/24/4/1, Dahej-III Industrial Estate, Village: Samantpor Taluka: Vagra, District: Bharuch, Gujarat that the data contained in this EJA report are factual and correct, with full knowledge of the undersigned.'

20. The consultant submitted an undertaking that with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009 "I, Dr. Smitha Rajesh, CEO of M/s. Shree Green Consultants located at 505 SNS Platina, Near Reliance Market, Opp. Shrenik Residency, Vesu, Surat, 395007, Gujarat, INDIA, do hereby give undertaking with references to MoEF&CC OM No J-11013/41/2006-IA.II(I) dated 04 august 2009, that we have prepared EIA & EMP report for the EIA/EMP Report for Proposed greenfield project of Technical Grade Pesticides and Specialty Chemicals Manufacturing Unit at Plot No. D-3/24/4/1, Dahej-III Industrial Estate, Village: Samantpor Taluka: Vagra, District: Bharuch, Gujarat by M/s. Shrihan Chemtech Pvt. Ltd. as per term of references (TOR) prescribed vide letter No. IA-J-11011/211/2022-IA-II(I) dated 05th July, 2022. The Prescribed TOR has been complied with and that the data submitted is factually correct".

21. The estimated project cost is Rs. 47.8 crore. Total Employment will be 25 persons as direct & 10 persons as indirect during construction phase and 45 persons as direct & 25 persons as indirect during operation phase after proposed project.

22. **Deliberations by the EAC:**

The EAC, constituted under the provisions of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The Committee deliberated on the plant layout, greenbelt with survival rate and EAC suggested PP to submit Methodology adopted and steps towards achieving required Green belt as per the MoEF & CC norms, PP submitted the same. And EAC also suggested PP to submit the revised carbon foot prints and carbon sequestration study w.r.t. proposed project, PP submitted the same.

The EAC also deliberated on the fuel consumption and suggested PP to explore the possibility of the green fuel on the availability. PP submitted the undertaking regarding the same. PP submitted the undertaking for the usage of Briquette as a fuel and consume imported coal with less ash content during unavailability of briquette as a fuel.

The Committee deliberated the Onsite and Offsite Emergency plan and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The Committee is of the view that recommendation of EAC and grant of environmental clearance by regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution)

Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

23. The EAC, after detailed deliberations, **recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I**: -

(i) The PP shall develop Greenbelt over an area at least 2652 m^2 by planting 1015 trees in within a year of grant of EC. In addition to this PP shall develop 7 locations for greenbelt 1) Area 1067.50 Sq. meter will give space to 265 nos. of trees 2) Area 437.22 Sq. meter will give space to 110 nos. of trees 3) Area 1344.18 Sq. meter will give space to 336 nos. of trees 4) Area 397.55 Sq. meter will give space to 95 nos. of trees 5) Area 414.23 Sq. meter will give space to 103 nos. of trees 6) Area 245.22 Sq. meter will give space to 61 nos. of trees 7) Area 172.22 Sq. meter will give space to 43 nos. of trees The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be ₹ 0.20 Crore and shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(ii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage site Head- EHS head- manager safety, Manager EHS, FMO- safety executive, Executive EHS, OHC staff, Fire man. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iii) The company shall 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. The budget propose under EMP is ₹ 2.40 Crore (Capital cost) and ₹ 0.58 crore per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iv) As committed, the PP shall use Briquette as a fuel and consume imported coal with less ash content during unavailability of briquette as a fuel. In addition to this, the PP shall explore the possibility of the green fuel on the availability

(v) Total water requirement for the project would be around 780.00 KLD which will be sourced from GIDC Dahej. The PP should ensure that water supply should not be above the

permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(vi) No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.

(vii) The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(viii) The project proponent shall comply with the environment norms for Pharmaceuticals/Bulk Drugs Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 541(E), dated 06.08.2021 under the provisions of the Environment (Protection) Rules, 1986.

(ix) The project proponent shall comply with the environment norms for 'Pesticide Industry' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 446 (E), dated 13th June 2011 under the provisions of the Environment (Protection) Rules, 1986.

(x) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

(xi) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(xii) The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

(xiii) 597.00 KLD (8.0 KLD Domestic waste water + 589.0 KLD Industrial Effluent) waste water will be generated from proposed project. Process waste water (330.00 KLD) will be segregated into two streams having HTDS & LTDS stream 140.00 KLD HTDS process waste water shall be sent to Stripper followed by MEE for further treatment along with RO reject 70.0. MEE condensate will be sent to ETP for further treatment. MEE salt will be send to TSDF site 617.0 KLD Low TDS effluent (Process 190.00 KLD + MEE Condensate 168.00 KLD + Washing 210.00 KLD + Cooling 4.00 KLD + Other 40.00 KLD + Boiler 5.00 KLD) will be treated in house ETP. 524.00 KLD ETP treated effluent will be send to two stage RO for further treatment. 334.0 KLD RO permeate will be reused in Utilities & scrubber. Remaining 120.0 RO permeate, meeting the norms as per GIDC drainage/GPCB shall be sent for final disposal into GIDC underground drainage-Dahej vilayet pipeline/common disposal system up to the sea. Domestic effluent (8.0 KLD) shall be treated in STP and treated water will be reused in Gardening

(xiv) 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 servers. 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.

(xv) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xvi) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xvii) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xviii) 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.

(xix) The 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) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xx) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xxi) The PP 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 vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

Agenda No. 37.10

Proposed Expansion in Existing facility by adding Synthetic Organic Chemicals at Survey No. 169, Village: Dhrab & 141/P-47, Village: Mundra, Taluka: Mundra, District: Kutch, Gujarat by M/s ADANI WILMAR LIMITED - Consideration of EC

[Proposal No. IA/GJ/IND3/283888/2021; File No. No. IA-J-11011/44/2021-IAII(I)]

1. The proposal is for the Environmental Clearance for Proposed Expansion in Existing facility by adding Synthetic Organic Chemicals at Survey No. 169, Village: Dhrab & 141/P-47, Village: Mundra, Taluka: Mundra, District: Kutch, Gujarat by M/s ADANI WILMAR LIMITED.

2. The project/activity is covered under Category 'A' of item 5(f) (Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) of Schedule of Environment Impact Assessment (EIA) Notification2006 (as amended) and requires appraisal at Central Level by Expert Appraisal Committee (EAC) as the project is located outside the notified industrial area.

3. The Project Proponent (PP) applied for ToR vide proposal number IA/GJ/IND3/195225/2021 dated 2.2.2021, and the **Standard ToR** was granted vide letter No. J-11011/44/2021-IA-II(I) dated 9.2.2021. The PP reported that project is not located inside the notified industrial area and hence, the Public Hearing was conducted on 10.05.2022 which was presided by Resident Additional Collector & Additional District Magistrate. The PP vide proposal number **IA/GJ/IND3/283888/2021** dated 20.7.2022 applied for grant of EC in Form-2 and submitted the final EIA/EMP report. The PP reported in Form-2 that it is an **Expansion case.** The proposal was referred back to the PP on 18.8.2022. The PP replied to the shortcomings on 20.8.2022 and the proposal is placed in this 37th EAC Meeting held on August 29-30, 2022 wherein the PP and an accredited consultant, Kadam Environmental Consultants [Accreditation number NABET/EIA/2023/SA 0164 Valid up to March 19, 2023] made a detailed presentation on the salient features of the project. The information submitted by the PP so far is as follows:

4. The PP reported that the project area is 44.7183 Ha and no Rehabilitation & Resettlement (R&R) issues are involved in the project. The existing and proposed production is as follows:

S. No.	**Name of the Products**	**CAS No.**	**Quantity (MT/Month)**			**Uses**
			Existing	**Proposed**	**Total**	
1	**For Solvent Plant**					Edible Oil
	(i) De-Oiled Cakes					
	(A) Soyabeans	8001-22-7	24,600	0	24,600	
	(B) Rapeseed/Mustard/Sunflower etc.	8001-21-6	18,000	0	18,000	
	(II) Solvent Extracted Oil					
	(A) Soyabeans	8001-22-7	5,400	0	5,400	
	(B) Rapeseed/Mustard/Sunflower etc.	8001-21-6	12,000	0	12,000	
2	**For Refinery**					

	(A) Refined vegetable oil such as Soyabean, Rapeseed/Mustard, Palm, Sunflower. Palm Kernel/ Cotton Seed etc.	8001-21-6	95,725	0	95,725	Raw Material for manufacturing of personal care products
	(B) Acid Oil	64741-73-7	1,750	0	1,750	
	(C) Wax Oil	64742-48-9	220	0	220	
	(D) Soya Fatty Acid (SFA)	68308-53-2	180	0	180	
3	**For Physical Refinery**					
	(A) Refined Oils	NA	57,010	0	57,010	Edible Oil
	(B) Palm Fatty Acid (PFA)	NA	5,837	0	5,837	Raw Material for manufacturing of personal care products
	(C) Palm Kernal Fatty Acid (PKFA)	NA	160	0	160	
4	**For Vanaspati Plant**					Food
	Vanaspati Ghee, Bakery Shortening; Margarine; Other Fat Derivatives	NA	12,750	0	12,750	
5	**Interesterification**					Food
	Interesterified oil and fats	NA	3,000	0	3,000	
6	**Chilling & Filtration**					
	Refined Palm Oil	8002-75-3	48,000	0	48,000	Edible Oil
7	**Soap Noodles**	61790-79-2	11,520	0	11,520	Raw Material for soap manufacturing
8	**Finished Soaps**	56-81-5 / 13463-67-7	3,750	0	3,750	Personal Care
9	**Fatty Acids**	NA	22,209	0	22,209	Raw Material for manufacturing of personal care products

10	**Hydrogenated Castor Oil**	6178 8-85-0	4,650	0	4,650	Raw Material for manufacturing of pharmaceutical, lubricants, paints & dies
11	**Refined Glycerine**	56-81-5	3,900	0	3,900	Raw material for manufacturing of Pharmaceutical , Personal Care , food additives
12	**Betains**					
	(i) Coco Amido Propyl Betain (CAPB)	6178 9-40-0	0	1274.6	1274.6	Mild amphoteric surfactants. Used as foaming agent.
	(ii) Coco Betaine (CB)	6178 9-40-0				
13	**Benzol Quats**					
	(i) Benzyl Conium Chloride 50 % (BK 50)	8001-54-5	0	383.63	383.63	Antibacterial/antimicrobial
	(ii) Benzyl Conium Chloride 80 % (BK 80)	139-08-2				Antibacterial/antimicrobial
14	**Glycol Esters**					
	(i) Ethylene Glycol Mono Stearate (EGMS)	111-60-4	0	310.8	310.8	Used as secondary emulsifier and pearlizer in creams, lotions and conditioners.
	(ii) Ethylene Glycol Di Stearate (EGDS)	627-83-8				
15	**Fatty Acid Ester**	ND				
	(i) IPM/ IPP/IPL		0	330.0	330.0	To ameliorate the skin absorption
	(ii) GMO/GMS/ GML/DMG					Used in cosmetics/ food application
	(iii) PETS (Penta erythritol tetrastearate)					Polymer additive

	(iva) 2EHP (2 ethyl hexanol palmitate) (ivb) 2EHS (2 ethyl hexanol stearate)					Used in cosmetic formulation For pharmaceutical application
	(v) Medium Chain Triglyceride (MCT)					
16	**Amino Oxide**					
	(i) Lauryl Amine Oxide (LAO)	61788-90-7	0	216.70	216.70	Used in Shampoo, Conditioners, detergents & hard surface cleaners.
	(ii) Coco Aamido Propyl Amine Oxide (CAPAO)	61788-90-7				
17	**Sorbitan Ester**	9005-64-5				
	(i) Sorbitol Mono Oleate (SMO)		0	330.0	330.0	Emulsifying, wetting agents in the preparation of emulsions, creams, and ointments for pharmaceutical, food and cosmetic use
	(ii) Sorbitol Mono Laurate (SML)					
	(iii) Sorbitol Mono Stearate (SMS)					
	(iv) Sorbitol Tri Stearate (STS)					
	(v) Sorbitol Mono Palmitate (SMP)					
18	**Fatty Amide**					Mainly used as foam & viscosity booster
	(i) Coco Mono Etanol Amide (CMEA)		0	265.10	265.10	
	(ii) Coco Di Etanol Amide (CDEA)					
19	**Fatty Acid Amides**					
	(i) EBS (NN ethylene bis steramide)		0	247.5	247.5	Mainly used as foam & viscosity booster
	(ii) EBO (NN ethylene bis oleamide)					
	(iii) Oleamide, Erucamide					
20	**Mild Surfactants**					Used as Mild surfactants baby care products
	(i) Glycinates/ Sarcosinates	56-40-6	0	198.0	198.0	

	(ii) Sulfosuccinate/ Glucosides	577-11-7				and sulfate free formulations.
21	**OMC / Preservatives**					Used as UV filter in sunscreen cream, lotions. Used as preservative in cosmetic formulation.
	(i) Octyl Methyl Cinnaminate (OMC)	5466-77-3	0	123.8	123.8	
	(ii) Phenoxy Ethanol	122-99-6				
22	**Surfactant Blend**					Personal Care applications.
	(i) Hand Wash Formulation	9004-82-4	0	123.8	123.8	
	(ii) Shampoo Formulation	8051-30-7				
23	**Soap Blend**					Personal Care applications.
	(i) Soap Flakes	8540 8-69-1	0	268.13	268.13	
	(ii) Soap Synded					
	By products					
1.	**Heavy End fatty Acids**		1762	0	1762	
2.	**Sodium sulphate salts**		500	0	500	

5. The PP reported that the proposed project does not fall under violation category as per the provision of S.O. 804 (E) dated 14.3.2017.

6. The PP reported that for the existing products, environmental clearance was not applicable since the manufacturing of present products commenced site operations prior to 2006 (in 1999) and has obtained CCA which has been renewed from time to time.

7. The PP reported that compliance report of CCA Adani Wilmar Ltd. PCB ID: 17742 has been certified by the Gujarat Pollution Control Board on 19.2.2022 in which all conditions are complied.

8. The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. A small stream of Bhukhi river passes between the existing site boundary and proposed plot (outside the compound wall). One Schedule-I species exist within the project area i.e. Pea fowl (Pavo cristatus) for which conservation plan has been prepared and submitted to CWLW on 29.7.2022 with budgetary provision of Rs. 5 lakhs.

9. The PP reported that Ambient Air Quality monitoring was carried out at 8 Locations during 05th January, 2021 to 04th April,2021 and base line data indicates the ranges of concentrations as: PM_{10} (57-87 µg/m^3), $PM_{2.5}$ (16-26 µg/m^3), SO_2 (7.8 – 9.0 µg/m^3) and NO_2 (14.1-18.3 µg/m^3). AAQ modelling study for point source emissions indicates that

maximum incremental GLCs after the proposed project would be 87.003 µg/m^3, 8.73 µg/m^3, **16.95** µg/m^3 with respect to PM_{10}, SO_x and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise -** The project site is an industrial area, where the CPCB limits defined for Noise Levels are 75 dB during the day and 70 dB during the night. However, sound pressure levels are considered on higher side for more critical analysis. The maximum predicted cumulative noise levels due to plant operations at the boundary of the project site was observed to be 67.9 dB(A). The noise levels further reduce with distance and the resultant noise levels at the nearby habitations are below 55 dB(A). **Water-** Overall TDS levels in the study area are high due to proximity to sea. The nitrogen levels in the ground water are above limits due to possibility of agricultural discharges percolating to the ground water. **Soil-** Soils in the area are alkaline in nature. Although it is unlikely to have adverse impact on plant structure; however still it need to be ensured that foundations to be designed considering the soil quality.

10. The PP reported that The existing source of APSEZL will be continued for total fresh water requirement (existing (6862 KLD) + proposed additional (428 KLD)) of 7290 KLD after proposed expansion; as it is a self-sustained source of water supply through our group company APSEZL. Total is 2882 KLD - 1155 KLD (Boiler Blowdown, DM Blowdown and CT Blowdown is recycled back to raw water treatment (WTP)), Reycle Water from ETP - 1, 3 and 4 is 1563 KLD utilised in CT Make up & Treated Water of ETP - 2 of 164 KLD is used in gardening. ZLD concept is followed for waste waters generated and hence no discharge of water outside the plant premises.

11. The PP reported that total power requirement will increase from 17.75 MW to 19.75 MW (additional ~ 2 MW), which will be sourced from PGVCL. here are existing 4 DG Sets (two of 1250 KVA and two of 1500 KVA). Additional 1 DG set of 1,500 Kva will be provided for the proposed project. All the DG sets will be operated during emergency of power failure.

12. Details of Process Emissions Generation and its Management: There is 1 process vent in existing plant & 2 process vents in proposed plant. All process vents have adequate stack height with Alkali Scrubber & Water Scrubber as APCM to control pollutants like HCl & SO_2 etc.

S. No.	Stack/Vent attached to	Area/Section	Nos. of Stacks / Vents	Stack Details				Air Pollution Control Measures	Expected Pollutants
				Height, m	Exit Dia., m	Exit Temp, °C	Exit Velocity, m/s		
Existing Stacks									
1	Acid oil plant scrubber	Acid oil plant	1	15	0.3	50	5.0	Water Scrubber	Acid Mist < 50 mg/Nm^3
Proposed Stacks									
1	Alkali Scrubber –1	Mild Surfactants group	1	24 (Building Ht. 18m +	0.25	55	5.5	Alkali Scrubber	SO2 <40 mg/Nm^3

S. No.	Stack/Vent attached to	Area/Section	Nos. of Stacks / Vents	Stack Details				Air Pollution Control Measures	Expected Pollutants
				Height, m	Exit Dia., m	Exit Temp, °C	Exit Velocity, m/s		
				Additional 6m)					
2	Water Scrubber	Benzol quats	1	24 (Building Ht. 18m + Additional 6m)	0.25	45	5.5	Water scrubber	HCl < 20 mg/Nm^3

13. Details of Solid Waste/Hazardous Waste Generation and their Management:

S. No	Type of Waste	Hazardous Waste Category	Source	Quantity in MT/Month			Method of Collection	Storage at	Treatment / Disposal
				Existing	Proposed	Total			
1	Spent Nickel Catalyst	4.2	Process area	45.75	0	45.75	HDPE bags	Closed Storage Area	Sent to authorized recycler
2	Spent Bleaching Earth/Spent Fuller Earth	4.5	Process area	1,857	0	1,857	Solid waste	Hazardous waste storage area	Sent to authorized recycler
3	Used/Spent Oil	5.1	DG Set/Turbine/ Engg Workshop	1,560 liter/ year	0	1560 liter/year	Barrels	Hazardous waste storage area	Used as lubricants or sell to registered recyclers
4	ETP Sludge (including MEE Salts)	35.3	ETP	253	58 x 500 x 1.6 + 14 x 30 x	803	HDPE bags	Sludge Storage Area	Sent to TSDF Site for secured land filling at

					1.2 = 550				of Eco Care Infrastructure Pvt Ltd
5	Distillation Residue	36.1	Entire site	390	0.83 MT per day x 30 days = 24.9 MT	414.9	HDPE bags/ Barrel	Hazardous waste storage area	Sent to SEPPL /Detox group, Bhachau for Incineration or for co processing to Cement Plant
6	Spent Solvent	20.2	Process area	0	0.08 MT per day x 30 days = 2.4 MT	2.4	Barrel	Hazardous waste storage area	Sent to SEPPL /Detox group, Bhachau for Incineration or for co processing to Cement Plant
7	Waste residue containing oil	5.2	Process area	0	175 liter/ month	175 liter/ month	Barrel	Hazardous waste storage area	Sent to SEPPL , Bhachau for Incineration or further co processing to Cement Plant
8	Discarded containers/barrels/liners/contaminated with haz. Wastes/chemicals	33.1	Process area	0	1.0	1.0	Solid waste	Scrap storage area	Sent to Authorised recycler

9	Filter and filter cleaning material	36.2	Process area	0	50 kg/month	50 kg/month	HDPE bags	Dedicated area	Sent to SEPPL/Detox group, Bhachau for Incineration or for co processing to Cement Plant
10	Spent Carbon	36.2	Process area	0	175 kg/month	175 kg/month	HDPE bags	Sludge Storage Area	Sent to SEPPL/Detox group, Bhachau for Incineration or for co processing to Cement Plant

Details of Non-Hazardous Waste Generation:

S. No.	Source (Plant)	Waste Name	Waste Category	Quantity (MTPA)			Means of Storage	Treatment / Disposal
				Existing	Proposed	Total		
1	Boilers	Fly Ash	Non-Hazardous	730 MT per day x 6% x 365 = 15,987 MT	40 MT per day x 6% x 365 = 876 MT	16863 MT	Silos	Is being sold and will be continued to be sold to Fly Ash Brick/Cement manufacturers as per provisions & guidelines of Fly Ash Notification, 2016 as amended by time.

14. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 385.5 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 282.19 Lakh per annum, which includes Air Pollution Control [₹ 195 lakh (capital) and ₹ 19.5 lakh/annum (Recurring)], Water Pollution Control [₹ 0.0 lakh (capital) and ₹ 58.94 lakh/annum (Recurring)],Noise pollution monitoring [₹ 0.9 lakh/annum (Recurring)], Soild and Hazaradous waste Management [₹ 36 lakh (capital) , ₹ 170 lakh/annum (Recurring)],soil [₹ 0.2 lakh/annum (Recurring)], Ground Water Monitoring [₹ 18 lakh (capital) and ₹ 3.6 lakh/annum (Recurring)], Greenbelt [₹ 135 lakh (capital) and ₹ 10.35 lakh/annum (Recurring)] Occupational health and safety ₹ 6.0 lakh/annum(Recurring)], Conservation plan for Schedule I species[₹ 1.5 lakh (capital) and ₹ 3.5 lakh/annum (Recurring)]. Industry propose to allocate Rs. 1.515 Crore for Infrastructure facility (Shed for Mid-day meal, furniture, music instruments, renovation of building etc.), Health and Hygiene, Water recharge/ harvesting, Skill Development, Community tree plantation, Infrastructure facility development.

15. In the Adani Wilmar limited project the existing green belt area is 56,302 sq.m. (= ~19.9% of total plot area). additional greenbelt has been suggested to be developed in the new adjacent plot of land of 92,500 sq.m totaling to **1,48,802 sq.m (~ 33.3 % of total plot area of 4,47,183 sq.m**). So, **total 33.3% greenbelt area** will be developed as green belt after proposed expansion.

16. The PP reported that the advertisement for Public Hearing was published in newspaper one in English The Times of India and the other one in Divya Bhaskar on 7.4.2022, and the Public Hearing for the project was conducted by the Gujarat Pollution Control Board on 10.5.2022, which was presided by Resident Additional Collector & Additional District Magistrate, The main issues raised during the public hearing were Employment, CSR, Cumulative Impact, green belt, surface water and Land Related.

17. The PP reported that considering green belt of ~ 1,48,800 sq.m within the site (33.3%), it is proposed to plant 25,000 additional tree species; which will attract total CO_2 sequestration of 500 – 520 Tonnes of CO_2 per annum.

18. The PP submitted the onsite and offsite emergency plans in the EIA.

19. The PP proposed to set up an Environment Management Cell (EMC), wherein it is proposed to engage Head - Environment, Health & Safety), manager Environment, Senior Executive/ Executive officers- staff and workmen for the functioning of EMC.

20. The PP also submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.*2011* ' *We, M/s. Adani Wilmar Limited, are proposing for expansion in existing facility by adding synthetic organic chemical products, requiring Environmental clearance, at Survey No. 169, Village: Dhrub & Survey No. 141/P47, Vilage: Mundra, Taluk: Mundra, District: Kutch, Gujarat The proposed project is classified as Category 'A' project and falls under Projector Activity 5(f): Synthetic organic chemicals industry (dyes & dye intermediates, bulk) in the Projector Activities as per the schedule of the EIA notification dated September 14, 2006, amended till date. We have appointed Kadam Environmental Consultants, an EIA Consultancy Organisation, duly accredited for the Sector(s) 21 (Synthetic organic chemicals industry (dyes & dye intermediates; bulk) Category A by NABET, for conducting the EIA study We hereby give an undertaking that the data and the information given the EA Report and its relevant enclosures, prepared by Kadam Environmental Consultants, are actually correct to the best of our knowledge and belief.*'

21. The consultant submitted an undertaking that with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009 " *We, kadam Environmental Consultants, have been engaged by M/s Adani Wilmar Limited for conducting an EIA Study for Proposed Expansion of Synthetic Organic Chemicals in existing facility at Survey No. 169 Village: Dhrab & 141/P-47, Village: Mundra, Taluka: Mundra, District: Kutch, Gujarat State in compliance with the EIA Notification dated September 14, 2006, as amended till date, and the prescribed Tor granted by MoEF&CC, in their File No. IA-J-11011/44/2021-1A-11(1), Proposal number 1A/GJ/IND3/19522S/2021 dated 09.02.2021 We hereby give an undertaking that the data and the information given in the EIA Report and its relevant enclosures, are factually correct to the best of our knowledge and belief and that the prescribed ToR issued by SEIAA, Gujarat, in their Letter No. SIA/GJ/24503/2020 dated 7th March 2020 & TOR Amendment Letter has been issued by SEIAA, Gujarat vide Letter No, SELAA/GUJ/TOR/5(1)/5/2020 dated 7 January 2021*"

22. The PP reported the estimated project cost is ~**Rs. 202 Crores**. Total Employment will be **100 persons** as direct (during operation phase out of which ~75 Persons will be Contractual & ~25 Persons will be Permanent & 200 Persons during construction phase) & 10 persons indirect after expansion

23. Deliberations by the EAC:

The EAC, constituted under the provisions of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the PP in desired format along with the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.

The EAC noted that the PP has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The Committee observed that Industry have not mentioned for planting around 45000 plantations for green belt development inside the project area along the boundary of the project. and EAC suggested to PP to develop green belt in 33.3% of land area and plant in totality 45000 Trees that will be done at the boundary of the plot and internal roads sideway. PP submitted that Industry have already revised the proposed budget (capital cost) for the same from 30 lacs to 135 Lakhs.

The Committee also deliberated on the carbon sequestration and observed that measures suggested by Industry is merely less than 2 percent. The committee suggested PP to sequestrate up to at least 10 percent of their total carbon or equivalent emissions along with budgetary resources allocations for achieving them in period of two years and target for 30 percent sequestration of their emissions within 5 years in order to move towards carbon neutral

project over time. The PP submitted a report that the industry we will achieve CO_2 sequestration of 14.32% in future through installing renewable energy (roof top solar plant) @ 0.5 MW, transportation of 50% raw materials through dedicated pipeline instead of truck, movement as well as green belt development of 45,000 Nos. trees within 2 years' time period. suggested measures and Budget for the same has also been considered as 715 Lacs. AWL is also committed to achieve 30% carbon sequestration within 5 years' time period by enhancing the above green initiatives as well as introducing other green initiatives to achieve Carbon Neutral Mission.

The Committee deliberated the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The Committee is of the view that recommendation of EAC and grant of environmental clearance by regulatory authority to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The PP shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

24. The EAC, after detailed deliberations, **recommended the project for the grant of environmental clearance, subject to the compliance of the terms and conditions as under, and general terms and conditions in Annexure-I**:

(i) The PP shall develop additional Greenbelt by planting 45000 number of trees at the boundary of the plot area and internal road sideways within a period of one year from the grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2 m). The budget earmarked for the plantation shall be ₹ 135 Lakhs and shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(ii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. The PP shall engage Head - Environment, Health & Safety), manager Environment, Senior Executive/ Executive officers- staff and workmen. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be

engaged within a month of grant of EC. The PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(iii) The company shall 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. The budget proposed under EMP is ₹ 385.5 Lakh (Capital cost) and ₹ 282.19 Lakh Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(iv) The existing source of APSEZL will be continued for total fresh water requirement (existing (6862 KLD) + proposed additional (428 KLD)) of 7290 KLD after proposed expansion; as it is a self-sustained source of water supply through our group company APSEZL). The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year

(v) No banned chemicals shall be manufactured by the PP. No banned raw materials shall be used in the unit. The PP shall adhere to the notifications/guidelines of the Government in this regard.

(vi) The PP shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(i). The project proponent shall comply with the environment norms for 'Dye and Dye Intermediate Industry' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 325(E), dated 07.05.2014 under the provisions of the Environment (Protection) Rules, 1986.

(ii). The species specific conservation plan of Schedule-I species shall be implemented within time limit and as per the approval of the Chief Wildlife Warden of the State Government.

(vii) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The PP shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

(viii) The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(ix) The PP shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

(x) As already committed by the PP, Zero Liquid Discharge shall be ensured, Recycled Water from ETP - 1, 3 and 4 is 1563 KLD utilised in CT Make up & Treated Water of ETP - 2 of 164 KLD is used in gardening.

(xi) 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 servers. 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.

(xii) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.

(xiii) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(xiv) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xv) The unit shall make the arrangement for the protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.

(xvi) The 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) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xvii) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xviii) The PP 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 vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

Agenda No. 37.11

Expansion in Dyes Manufacturing, Blending of Dyes & Repacking of SO Dyes Plant at Plot No. 195,195/3, Phase II, GIDC Vapi, Tal.-Pardi, District Valsad by M/s Nitin Dye Chem Pvt. Ltd. - Consideration of Amendment in EC

[Proposal No. IA/GJ/IND3/286824/2022; File No. IA-J-11011/335/2022-IAII(I)

1. The proposal is for amendment in the Environmental Clearance granted by the SEIAA Gujarat vide letter No. SEIAA/GUJ/EC/5(f)/712/2019 dated 04th May 2019 for the project of Synthetic Organic Chemicals manufacturing plant located at Plot No: 195, 195/3 Phase II, Notified Industrial Area, GIDC Vapi – 396195, Taluka-– Pardi, Dist.: – Valsad, Gujarat. in favour of M/s Nitin Dye Chem Pvt. Ltd.

2. The project proponent has requested for amendment in the EC with the details are as under:

Sr. no.	Condition no. in which changes proposed.	Details as per the EC	To be revised/read as	Justification/ reasons
1.	A2 (9)	Total water requirement for the project shall not exceed 352.5 KLD, Unit shall reuse 278.5 KLD (Condensate from MEE- 168.5 KLD & RO Permeate- 110 KLD for process within premises. Hence, fresh water requirement shall not exceed 74 KLD and it shall be met through GIDC water supply only. Prior permission from the concerned authority shall be obtained for withdrawal of water.	After Proposed EC Amendment, Total Water requirement will be 352.5 KLD, Unit shall reuse 276 KLD (Condensate from MEE & ATFD – 267.5 KLD and STP treated water 5 KLD and 3.5 KLD from blowdown and cooling tower) Hence, fresh water requirement will not exceed 76.5 KLD and it shall be met through GIDC Water supply department.	Due to change in the waste water treatment technology, minor reduction will be done in quantity of recycled water. Remark: Due to proposed amendment, there will be no change in overall water requirement it will remain same as 352.5 KLD. Only 2.5 KLD recycle water will decrease and 2.5 KLD fresh water will Increase. Unit has also obtained water permission from GIDC.

2.	A2 (10)	The industrial effluent generation from the project shall not exceed 327 KLD.	After Proposed EC Amendment, The industrial effluent generation from the project will be 320.5 KLD	After proposed EC amendment, there will be no change in CETP discharge quantity. It will remain same as 7.0 KLD
3.	A2 (13)	200 KLD Effluent generated from Boiler Blow Down, Cooling Tower Blow Down generated shall be treated in RO, RO permeate 110 KLD shall be reused while RO - Reject 90 KLD shall in treated in in-house MEE	After Proposed EC Amendment, Industrial Effluent will be treated in in house MEE I and II followed by ATFD & Spray Dryer and MEE & ATFD Condensate i.e. 267.5 KLD will be reused in plant.	Due to change in effluent treatment scheme from RO to MEE-II.
4.	A2 (14)	Process effluent 120 KLD shall be subjected to MEE along with RO-Reject 90 KLD, MEE Condensate 168.5 KLD shall be reused back in process while Reject Salt shall be disposed at approved TSDF.	After Proposed EC Amendment, Process effluent 120 KLD will be treated in MEE followed by ATFD & Spray Dryer and MEE & ATFD condensate will be reused and ATFD/Spray dryer Salt will be disposed at approved TSDF.	--
5.	A2 (15)	Unit shall provide adequate effluent treatment plant (ETP), RO & MEE system for treatment of industrial effluent and it shall be operated regularly and efficiently so as to achieve the GPCB/ CPCB/MoEF&CC norms at the inlet to the CETP.	After Proposed EC Amendment, Unit will provide adequate effluent treatment plant (ETP), MEE: I and II system followed by ATFD & Spray Dryer for treatment of industrial effluent and it shall be operated regularly and efficiently so as to achieve the GPCB/ CPCB/MoEF&CC norms at the inlet to the CETP.	Unit will provide MEE-II followed by ATFD & Spray dryer and ETP for treatment of Industrial Effluent.
6.	A2 (16)	Domestic wastewater generation shall not exceed 5.0 KL/day and it	After Proposed EC Amendment,	Unit will provide package STP Plant for

		shall be treated in soak pit/septic tank.	Domestic wastewater generation will be 5.0 KLD and it will be treated in STP and treated water will be reused for gardening and floor washing purpose.	treatment of domestic effluent and treated sewage will be reuse.
7.	A2 (18)	Proper logbooks of ETP, Chemical consumption, quantities and qualities of effluent discharge to RO, MEE, CETP power Consumption etc. shall be maintained and shall be furnished to the GPCB from time to time.	After Proposed EC Amendment, Proper logbooks of ETP, Chemical consumption, quantities and qualities of effluent discharge to MEE followed by ATFD & Spray dryer, CETP power Consumption etc. shall be maintained and shall be furnished to the GPCB from time to time.	--
8.	A3 (19)	**In Existing Scenario,** Unit has installed NG fired 600 Kg/h capacity of Steam boiler, 70000 K Cal capacity of Thermopack and 3 Nos. of white coal fired 1 Lakhs K Cal capacity of Hot Air Generator: I,II,III. Dust collector has installed to Hot Air Generator. 11 m stack height has provided to Steam Boiler, Thermopack and Hot Air Generator. **In Proposed Scenario,** NG fired 2000 Kg/h capacity of Steam boiler and 2 Lakhs K Cal capacity of Thermopack will be installed along with 11 m stack height. 3 Nos. of White coal fired 1 Lakhs k cal capacity of Hot air generator: IV, V, VI will be installed. Bag filer and 11 m stack height will be provided. NG fired spray dryer will be installed. Cyclone	After Proposed EC Amendment, Additional, Imported coal fired 10 Lakhs K Cal/hr capacity of Hot Air generator will be installed. MDC & Wet Scrubber along with 30 m stack height will be provided. 2400 kg/h capacity of spray dryer will be provided. Cyclone separator & water scrubber along with 30 m stack height will be provided. 2 Nos. of Imported coal fired 2000 kg/h capacity of steam boiler will be provided. MDC, Bag filter & Wet Scrubber along with 30 m stack height will be provided. Other utilities will remain same as per granted EC and only change in fuel in Hot Air Generator-III, IV. Wood is also used as a	Due to change in treatment scheme, unit will install additional one number of hot air generator of 10 lakhs k cal/hr capacity and two numbers of boilers with 2000 kg/hr capacity of steam boilers and spray dryer of 2400 kg/hr capacity. Remark: Other Utilities will remain same

		separator & water scrubber along with 15 m stack height will be provided. HSD fired DG Set will be installed along with 11 m of stack height.	fuel and/or of white coal in hot air generators.	
9.	A4 (28)	Waste containing metals from the process – 353.40 TPA- Disposed off into TSDF Vapi. Used Oil – 0.024 TPA – Sell to registered recycler. Discarded Containers – 20 TPA – Sell to Authorized recycler. Waste from ETP – 300 TPA – Disposed off into TSDF Vapi. Salt from MEE – 5110 TPA – Disposed off into TSDF Vapi.	After Proposed EC Amendment, Waste containing metals from the process – 353.40 TPA- Disposed off into TSDF Vapi. Used Oil – 0.024 TPA – Sell to registered re-refiner. Discarded Containers – 20 TPA – Sell to Authorized recycler. Waste from ETP – 300 TPA – Disposed off into TSDF Vapi. Salt from ATFD/Spray Dryer – 8190 TPA – Disposed off into TSDF Vapi.	Due to change in the treatment technologies, there will be increased in quantity of Salt generated from MEE, ATFD and Spray dryer. Remark: Only change in quantity of Salt from ATFD/Spray Dryer from 5110 to 8190 TPA
10.	A5 (32)	The project-proponent shall allocate the separate fund of Rs. 2.51 Lakhs i.e. 1 % of the capital investment for activities under Corporate Environment Responsibility (CER) in accordance to the MoEFCC's Office Memorandum No. F. No. 22-65/2017-IA.III dated 01/05/2018. The entire activities proposed under CER shall be monitored and the monitoring report shall be submitted to the regional office of MoEF&CC as a part of half-yearly compliance report and to district collector. The monitoring report shall be posted on	After Proposed EC Amendment, Unit will be spent Rs. 7.21 Lakhs i.e. 1 % of the additional capital investment for activities under Corporate Environment Responsibility (CER) in accordance to the MoEFCC's Office Memorandum No. F. No. 22-65/2017-IA.III dated 01/05/2018.	Due to increase in the project cost, there will be increased cost of CER.

		the website of the project proponent.		

3. Deliberations by the EAC:

The EAC deliberated on the issue and observed that EC was granted by SEIAA Gujarat vide letter No. SEIAA/GUJ/EC/5(f)/712/2019 dated 04th May 2019. The existing greenbelt/plantation is not adequately planted and as the unit is located in a Critically Polluted Area, where 40% of the greenbelt is required, the PP needs to submit an action plan for greenbelt and to increase the number of trees, accordingly and mitigative measures for CPA mentioned in Ministry's OM dated 31.10.2019 & 24.10.2019. The EAC advised the PP and the consultant that in future, they should ensure the compliance of existing EC including green belt before applying for amendment in EC. The EAC also deliberated on the fuel, what is the percentage of fuel cost weightage in the cost structure. In view of this, the PP need to submit the detail calculation of fuel cost weightage in the cost structure. The PP also needs to submit the environmental impact from the proposed amendment.

The PP is also required to submit the details of carbon foot prints and carbon sequestration study w.r.t. proposed project and details of onsite and offsite emergency plans.

The Committee therefore**, deferred** the proposal.

Any other item with permission of the Chair

Agenda No. 37.12

Clarification regarding HCl as product of Monochloroacetic manufacturing.

1. The PP submitted that Anaven LLP, a joint venture company of Atul and Nouryon, is the largest manufacturer of Monochloroacetic acid (MCA) in India. It manufactures MCA using Nouryon's state-of-the-art proprietary technology involving the reaction of acetic acid with chlorine. The plant is located at the Atul complex in Gujarat and was built by embedding circular economy principles into its design. It produces two products, MCA and Hydrogen chloride (HCl). Both are purified to meet the desired quality specifications. The HCl produced is of a quality suitable to manufacture value-added products like Chlorosulfonic acid and n-Butyl chloride. Environmental clearance from MoEF&CC is available for both products.

2. The GPCB, however, in its consent, categorized HCl as a hazardous waste product compelling to dispose it under Form-9. Therefore, it cannot be used to manufacture the value-added products mentioned above. The PP requested that GPCB may be clarified to not categorize HCl as hazardous waste.

3. **Deliberations by the EAC**:

   The EAC deliberated on the subject matter and suggested the PP to submit the complete details of the manufacturing process.

Agenda No. 37.13

Clarification for prior EC requirement for two inorganic chemicals, Calcium and Potassium thiosulphate, classified as liquid fertilizers

1. The PP submitted that the query pertains to requirement of EC for setting up a manufacturing facility for two inorganic chemicals – Calcium and Potassium thiosulphate. It is understood that the manufacture of inorganic chemicals do not require prior EC and inorganic chemicals are not covered by the EIA Notification, 2006. MoEF&CC has submitted several written responses as well as affidavits (w.r.t chemicals under the cases before the NGT) stating manufacture of inorganic chemicals do not require prior EC.

2. *In September 2021, the GoI issued the Fertilizer (Inorganic, Organic, or Mixed) (Control) Sixth Amendment Order 2021.* ***Amended Part A of Schedule I of the FCO now includes Calcium and Potassium thiosulphate as liquid fertilizers – serial no. 5(a) of the EIA notification 2006 covers chemical fertilizers***. The inclusion of these products under the FCO does not alter their composition or manufacturing process; the products shall continue to be inorganic chemicals with different end uses. The above-mentioned Serial No. 5(a) of the Schedule to the EIA Notification, 2006, manufacturing of the Products should not fall within the ambit of EIA Notification, 2006. Inclusion of the Products in the FCO would essentially mean that the Products will have to be registered as liquid fertilizer under the FCO if they are sold as fertilizers, and otherwise the Products can be sold for any other end-use without touching upon the FCO or EIA Notification, 2006.

3. **Deliberations by the EAC**:

The EAC noted that all Chemical Fertilizers, irrespective of organic or inorganic, attract the provision of Schedule 5 (a) of EIA Notification, 2006 (as amended). Hence, the above two inorganic fertilizers, Calcium and Potassium thiosulphate also require EC.

Further, the manufacturing of these chemicals will also result in similar types of emissions of gases, particulate matter etc. (except the VOCs) as that of synthetic organic chemicals.

ANNEXURE-I

GENERAL EC CONDITIONS

- No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. 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/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- The PP shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
- The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- 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 the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- 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.
- A copy of the clearance letter shall be sent by the PP to concerned Panchayat, ZillaParishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- The PP shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated 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.
- 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 Integrated Regional Office of MoEF&CC by e-mail.
- The PP 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 and at **https://parivesh.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.

- 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.
- This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

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ANNEXURE-II

STANDARD TERMS OF REFERENCE CONDITIONS

A. STANDARD TERMS OF REFERENCE

1) Executive Summary

2) Introduction

i. Details of the EIA Consultant including NABET accreditation
ii. Information about the PP
iii. Importance and benefits of the project

3) Project Description

i. Cost of project and time of completion.
ii. Products with capacities for the proposed project.
iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
iv. Details of existing products and production, if any, along with present product/production details in tabular format, to verify the compliance of the EIA Notifications.
v. Details of existing products and production, if any, along with present product/production details in tabular format, to verify the compliance of the EIA Notifications.
vi. List of raw materials required and their source along with mode of transportation.
vii. Other chemicals and materials required with quantities and storage capacities
viii. Details of Emission, effluents, hazardous waste generation and their management.
ix. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
x. Details of boiler/gensets (including stacks/exhausts) and fuels to be use
xi. Details of boiler/gensets (including stacks/exhausts) and fuels to be used
xii. Process description along with major equipment's and machineries, process flow sheet (quantitative) from raw materials to products to be provided
xiii. Hazard identification and details of proposed safety systems.
xiv. Expansion/modernization proposals:

a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, copy of the latest CTO and status of compliance of Consent to Operate for the ongoing/existing operation of the project from SPCB shall be attached with the EIA-EMP report.
b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4) Site Details

i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
ii. A topo-sheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
iii. Details w.r.t. option analysis for selection of site
iv. Co-ordinates (lat-long) of all four corners of the site.
v. Google map-Earth download of the project site.
vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
viii. Land-use break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
x. Geological features and Geo-hydrological status of the study area shall be included.
xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land. Documents related to conversion of land for Industrial purpose.
xiii. R&R details in respect of land in line with state Government policy

5) <u>Forest, wildlife and CRZ related issues (if applicable):</u>

i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
ii. Land-use map based on High resolution satellite imagery of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha)*
iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the PP shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon
v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife
vii. Recommendations and NOC from the concerned State/UT Coastal Zone

Management Authority on CRZ angle

6) Environmental Status

i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
   - AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Study should indicate minimum, maximum value of different parameters for the period (3 months) collected. Collected data should be supported by the reference data of either CPCB or SPCB. AAQ data & GLC of pollutants from stack emissions should suggest technology/ measures- Best Practiced Technology (BPT) indicating best achieved results.

ii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

iii. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.

iv. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.

v. Ground water monitoring at minimum at 8 locations shall be included.

vi. Noise levels monitoring at 8 locations within the study area.

vii. Soil Characteristic as per CPCB guidelines.

viii. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.

ix. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.

x. Socio-economic status of the study area.

7) Environment Impact and Environment Management Plan

i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.

ii. Water Quality Modelling – in case of discharge in water body

iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum

road transport or conveyor-cum-rail transport shall be examined.

iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules 1986.
v. Details of stack emission and action plan for control of emissions to meet standards.
vi. Measures for fugitive emission control
vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
xii. Action plan for post-project environmental monitoring shall be submitted.
xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8) Occupational health

i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers
ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre-placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

9) Corporate Environment Policy

i. Does the company have a well laid down Environment Policy approved by its Board

of Directors? If so, it may be detailed in the EIA report.

ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.

iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.

iv. Does the company have system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

v. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

10) Corporate Environmental Responsibility (CER)

i. Adequate funds, as per the Ministry's OM/Guidelines, shall be earmarked towards the Corporate Environmental Responsibility based on Public Hearing issues/socio-economic issues and item-wise details along with time bound action plan shall be included (CER activities shall be related to environment). Socio-economic development activities need to be elaborated upon. For the projects where public hearing is not conducted, CER plan shall be provided based on socio-economic study of the area.

11) Additional studies/Measures to be considered

(i). Provide latest and ecofriendly technology for product manufacturing.
(ii). Emphasize on Green chemistry/Clean Manufacturing
(iii). Provide CAS No. of products along with product list.
(iv). Provide details of amount of carbon sequestered in their unit through greenbelt/other modes, in case of expansion project.
(v). Life structure and sustainability for carbon and water foot print.
(vi). Detailed pollution Load estimation.
(vii). Transportation of Hazardous substance, effluents etc shall be carriedout through authorized and GPS enable vehicles/Trucks only.
(viii). Category of Hazardous Wastes shall be mentioned in the EIA/EMP report and in presentation.
(ix). Details of greenhouse gases and emissions shall be provided.
(x). Greenbelt shall be developed in the first year of the project and wind breaks shall be erected.
(xi). Study area map shall be overlapped with all the associated features.
(xii). Emphasize on green fuels.
(xiii). The project from NCR shall not use Coal as fuel. Further, PP shall avoid use of Coal in the CPAs and elsewhere also if alternatives are available.
(xiv). Provide the Cost-Benefit analysis with respect to the environment due to the project.

12) Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s)

and present status of the case.

13) A tabular chart with index for point wise compliance of above TORs and its details needs to be submitted in the EIA/EMP Report.

B. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR 5(f) CATOGORY SYNTHETIC ORGANIC CHEMICALS INDUSTRY (DYES & DYE INTERMEDIATES; BULK DRUGS AND INTERMEDIATES EXCLUDING DRUG FORMULATIONS; SYNTHETIC RUBBERS; BASIC ORGANIC CHEMICALS, OTHER SYNTHETIC ORGANIC CHEMICALS AND CHEMICAL INTERMEDIATES)

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like NH_3*,chlorine*,HCl*,HBr*,H_2S*,HF*,*etc*.,(*-as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9. Action plan for utilization of MEE/dryers salts.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

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Annexure-III

List of the Expert Appraisal Committee (Industry-3) members participated during Video Conferencing (VC) meeting

S. No.	Name of Member	Designation
1.	**Prof. (Dr.) A.B. Pandit** Vice Chancellor, Institute of Chemical Technology, Mumbai, Sir JC Bose Fellow, Government of India Email: ab.pandit@ictmumbai.edu.in	Chairman
2.	**Prof. (Dr.) S. N. Upadhyay** Research Professor (Hon.), Department of Chemical Engineering & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi E-mail: snupadhyay.che@iitbhu.ac.in	Member
3.	**Dr. Ashok Kumar Saxena, IFS** Bungalow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
4.	**Prof. (Dr.) Suneet Dwivedi,** Professor in K Banerjee Centre of Atmospheric and Ocean Studies, University of Allahabad, Allahabad - 02 Uttar Pradesh E-mail:dwivedisuneet@rediffmail.com /suneetdwivedi@gmail.com	Member
5.	**Shri Santosh Gondhalkar** 'Shree' Apartment, Flat 401, Plot No. 22, Tukaram Society, Santnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
6.	**Dr. Suresh Panwar** House No.4, Gayatri Green Society, NH 58 Bypass, Kankerkhera, Meerut, Uttar Pradesh Email: spcppri@gmail.com	Member
7.	**Shri Tukaram M Karne** "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2, PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	Member

8.	**Shri Dinabandhu Gouda** Additional Director, DH IPC-I, Room No. 309A, Third Floor, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 110032 E-mail: dinabandhu.cpcb@nic.in	Member
9.	**Dr. M. Ramesh** Scientist 'E' Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Room No. A-233, Agni Wing, Jor Bagh Road, New Delhi-110003 Tel. 011-20819249 E-mail: ramesh.motipalli@nic.in	Member Secretary

MOM approved by

(Prof. Aniruddha B. Pandit)
Chairman

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