

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

Dated: 11.08.2022

**MINUTES OF THE 35th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR)
MEETING HELD ON July 28-29, 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.

(ii) Details of Agenda items by the Member Secretary

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

(iii) Confirmation of Minutes of the 34th Meeting of the EAC (Industry-3 Sector) held during July 12-13, 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 25.07.2022, the EAC confirmed the minutes of meeting:

Agenda No. 35.1

Expansion of Propylene Glycol Production Capacity by 50000 MTPA located at S.F. No. 1/6, 1/8, 23 to 29, 30/3 & 31, Sathangadu Village, Manali Industrial Area, Manali, Chennai, Ambattur Taluk, Thiruvallur District, Tamil Nadu by Manali Petrochemicals Limited - Plant-II - Reconsideration of Environmental Clearance

[Proposal No. IA/TN/IND3/264526/2022; File No. J-11011/156/2008-IA-II(I)]

1. The proposal is for the Environmental Clearance for Expansion of Propylene Glycol Production Capacity by 50000 MTPA located at S.F. No. 1/6, 1/8, 23 to 29, 30/3 & 31, Sathangadu Village, Manali Industrial Area, Manali, Chennai, Ambattur Taluk, Thiruvallur District, Tamil Nadu by Manali Petrochemicals Limited - Plant-II.
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) and requires appraisal at Central Level by Expert Appraisal Committee (EAC) as the general condition is applicable for the project.

3. The Project Proponent (PP) applied for ToR vide proposal number IA/TN/IND3/248620/2021 dated 28.2.2022, and the **Standard ToR** was granted vide letter No. J-11011/156/2008-IA-II(I) dated 9.3.2022. The PP reported that project is located inside the notified industrial area and hence, the Public Hearing is exempted in pursuant to Ministry's OM No. J-11011/321/2016-IA. II (I) dated 27.4.2018. The PP reported that project is located in a critically polluted area. The PP vide proposal number **IA/TN/IND3/264526/2022** dated 29.3.2022 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 4.4.2022. The PP replied to the shortcomings on 26.4.2022 and the proposal was placed in 31st EAC Meeting held on May11-12, 2022 wherein the Committee **deferred** the proposal for want of requisite information. Reply to the same was submitted by the PP on 7.7.2022 and the proposal is now placed in the 35th EAC Meeting held on July 28-29, 2022 wherein the PP and an accredited consultant Eco Tech Labs Pvt. Ltd. [Accreditation number NABET/EIA/2124/SA01407 Valid up to September, 15, 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 17.632 Ha and no Rehabilitation & Resettlement (R&R) issues are involved in the project. The proposed production is as follows:

S. No.	Product Details	Category of the Product	CAS No.	Existing Quantity (MTPA)	Proposed Quantity (MTPA)	Total Quantity (MTPA)	Uses
1.	Propylene Glycol	Main Product	57-55-6	12000	50000	62000	Used in Pharmaceutical and Food industries
2.	Di-Propylene Glycol	By-Product	25265-71-8	1581	6588	8169	Used in manufacturing of cosmetics and perfumes
3.	Tri-Propylene Glycol	By-Product	24800-44-0	202	842	1044	Used in manufacturing of Polyester resins
4.	Propylene Oxide	Main Product	75-56-9	18000	0	18000	Used in manufacturing of Propylene Glycol and Polyol
5.	Di-Chloro Propane	By-Product	78-87-5	3600	0	3600	Used as degreaser and dry cleaning fluid
6.	Polyol*	Main Product	9082-00-2, 52434-08-9, 52625-13-5, 67800-94-6,	22705	0	22705	Used in the manufacturing of Poly Urethane Mattresses, insulation for refrigerators,

			25791-96-2 & 9049-71-2				furniture panels.
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* Various grades are produced under the Product – Polyol. Hence CAS Nos. of different grades of Polyols are given above which are being produced.

5. The PP reported that there are two court cases, Court Case – 1, Court details: NGT (SZ), Case Reference: O.A. No. 19/2013, 224/2016 & 248/2016, Court Case – 2, Court details: NGT (SZ), Case Reference: O.A. No. 256/2020 – Suo-Moto case by NGT, and directions issued by TNPCB under Environment (Protection) Act/Air (Prevention & Control of Pollution) Act / Water (Prevention & Control of Pollution) Act.
6. 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.
7. The PP reported that Ministry had issued EC earlier vide letter no. J-11011/156/2008-IA(II) dated 07.05.2008 to the existing project “Augmentation of Propylene Oxide, Propylene Glycol and Polyol Units” in favour of M/s. Manali Petrochemicals Limited – Plant – II.
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. Buckingham Canal is flowing at a distance of 0.83 km in East direction. There is no forest land involved in the proposed project. No Schedule-I species exist within the project area.
9. The PP reported that the total water requirement is 3247 KLD for existing facility and additional requirement of 810 KLD for the proposed expansion will be met from Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB). After the proposed expansion, the Effluent of 2556 KLD will be treated through Effluent Treatment Plant and disposed to sea after meeting the prescribed standards. CRZ clearance issued vide File No. 11-20/2009-IA.III dated 03.07.2009 and its amendment 11-20/2009-IA.III dated 03.06.2011 for a discharge approval limit of 8000 KLD.
10. The PP reported that Power requirement after expansion will be 4000 KVA including existing KVA and will be met from Tamil Nadu Generation and Distribution Corporation (TANGEDCO). Existing unit has DG sets of 1500 KVA capacity (2 Nos.) which are used as standby during power failure. Stack of adequate height for DG sets have been provided as per CPCB norms. Existing unit has 1 No. 21 TPH and 2 Nos. 10 TPH Low Sulphur Fuel Oil (LSFO) fired boiler. Additionally, 30 TPH R-LNG (Re-Gasified Liquefied Natural Gas) fired boiler will be installed by replacing 1 No. of 10 TPH boiler after expansion. All the existing and the proposed boilers will be fired with R-LNG after Expansion. Hence, the pollutant load will reduce drastically due to change over of fuel from LSFO to R-LNG and the existing stack is adequate to handle the generated emissions. No additional stacks are proposed

11. Details of Process Emissions Generation and its Management:

S. No.	Point source emission	Fuel	Flue gas flow rate (Nm ³ /h)	Emission (g/s)	APC measures
1	Boiler	R-LNG	15984	PM – NIL SO ₂ – 0.00366 NO _x – 0.8556 CO – 0.5133	Stack of height 30 m already in place
2	DG set	HSD	24250	PM – 0.7669 SO ₂ – 0.06 NO _x – 1.16	Stack of height 10.5 m already in place

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

During Construction phase, 36 kg/day of solid waste is envisaged. The details are given in the Table below:

Solid Waste generation during construction phase & their management			
S. No.	Description	Proposed Quantity (Kg/day)	Method of Disposal
1	Organic	21.6	Disposed to municipal bins
2	Inorganic	14.4	Disposed to municipal bins
Total		36	

During Operation Phase, Total of 198 Kg/day of solid waste is generated, of which 118.8 kg/day of organic waste and 79.2 kg/day of inorganic waste will be disposed to municipal bins. The existing and proposed waste generated is given in the Table below.

Solid Waste generation during Operation phase & their management					
S. No	List of Items	Quantity (Kg/day)		Total after expansion (kg/Day)	Disposal Methods
		Existing	Proposed		
1	Organic waste	115.2	3.6	118.8	Disposed to municipal bins
2	Inorganic waste	76.8	2.4	79.2	Disposed to municipal bins
Total		192	6	198	-

Sewage generated from domestic needs collected in a settling tank. Then the supernatant sewage is sent to ETP for Biological Effluent Treatment process through pumping in existing case. A new STP is proposed and after expansion sewage will be treated in STP. The separated sludge is being dried and used as manure at present and will be continued as such after expansion. The details are mentioned in the Table below:

Other Solid Waste generation (STP sludge) & its management					
S. No.	List of Items	Quantity (Kg/day)		Total after expansion (kg/Day)	Disposal Methods
		Existing	Proposed		
1	STP Sludge	23.28	1.6	24.88	Dried and used as manure.

The details of Hazardous waste generation and their management are given in the Table below:

Details of Hazardous Waste	Schedule as per HWM rules	Source of Waste	Unit	Existing Qty.	Proposed Qty.	After Expansion Qty.	HWA Approval Qty.	Storage	Disposal
Waste lube oil generated from Rotary equipment – Spent Oil	5.1	Process	KL/Annum	1.38	0.5	1.88	4.0	MS drums	Disposed to TNPCB authorized recyclers
ETP Secondary Clarifier Bottom Sludge	35.3	ETP	T/Annum	110	Nil	110	110	Concrete floored covered shed	Disposed to Common TSDF Landfill facility

13. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 1411 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 677 Lakh per annum, which includes Air Pollution Control [₹1200 lakh (capital) and ₹ 40 lakh/annum (Recurring)], Water Pollution Control [₹204 lakh (capital) and ₹ 540 lakh/annum (Recurring)], solid waste management [₹ 5 lakh/annum (Recurring)], Storm Water and RWH Management [₹ 7.0 lakh (capital)], Occupational health and safety ₹ 84 lakh/annum(Recurring)], Environmental monitoring and management ₹ 8 lakh/annum (Recurring)]. The company is aware of the obligations towards the Environment and to fulfil the social obligations. As per OM No.: 22-65/2017-IA.III dated 1st May 2018, M/s MPL will Allocate 0.75% of the project cost (125 Crores) towards CER i.e. 0.75% of 125 Crores = 0.9375 Crores for Drinking water system, Health Centers, Solid waste management facilities.

14. Industry has already developed Green belt with 11490 trees in an area of 7.1981 Ha, which is 40.82 % of total area of 17.632 Ha. Additionally, 6506 trees will have to be planted Considering 90% survival rate, proposed for 8500 tree plantations within a period of one year.

15. The Proposed project is located in notified Manali Industrial Area. Public Hearing is exempted under the provisions as per para 7 III stage (3) (b) of the EIA notification, 2006.

16. The PP reported that Carbon footprint and sequestration analysis indicates that, approximately 1,02,584 Tons of GHG. Has been generated. And 79,414 Tonne of GHG will be

generated. The carbon sequestration capacity evaluated based on the current growth of the developed green belt, found to be 867.5 MT/Annum of CO₂-e. The value is expected to rise with the increased growth of the recently planted trees. Additionally, 8500 trees will be planted within one year which will contribute for the carbon sequestration, further. All the conditions stipulated in the O.M. ref. F. No. 22-23/2018-IA.III dated 31-10-2019 for the industries located in Critically/Severely Polluted Areas (CPA/SPA) have been complied, except, the usage of cleaner fuel Gas Supply Agreement signed with IOCL for supply of R-LNG. Currently, IOCL is carrying out pipeline laying job to supply R-LNG for MPL – Plant – II. The proposed mitigation measures for the reduction of CO₂ emission are provided below:

Proposed Mitigation measures	Brief Description	Reduction in CO ₂ emissions after implementation of Proposed Mitigation measures (MT/Annum)	Remarks
Replacement of Low Sulphur Furnace Oil (LSFO) in Boilers with Re-Gasified Liquefied Natural Gas (R-LNG)	Presently, LSFO is being used as fuel in boiler and the same will be replaced with R-LNG after expansion.	7,057	Implementation within a period of two years
Replacement of usage of 100% thermal power with hybrid power comprising 64% green power (Solar & Wind power) and 36% from Tamilnadu Grid.	Presently, the power is consumed from the thermal power generations. After expansion, it is proposed to consume green power i.e., 64% of power will be consumed from solar & wind power generations and 36% from Tamilnadu Grid.	16,113	Implementation within a period of three years

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

18. The PP proposed to set up an Environment Management Cell (EMC), wherein it is proposed to engage Plant Head- Head EHS- Assistant Mnager- safety and Environment, Executives for the functioning of EMC.

19. The PP also submitted that “I, M. Karthikeyan, Occupier and Whole Time Director (Opertation) of M/s. Manali Petrochemicals Limited. give the declaration/undertaking, owing the contents (information and data) of EIA report preparation, has been undertaken in compliance to the Terms of Reference for the Proposed "Expansion of Propylene Glycol Plant by 50000 MTPA" at S.F.No. 1/6, 1/8, B to 29, 30/3 & 31, Sathangadu village, Manali Industrial Area, Manali, Chcnnai - 600 068, Ambattur Taluk, Thiruvallur District, Tamil Nadu State by M/s. Manali Petrochemicals Limited-Plant II and the information and content provided in the report are factually correct”.

20. The Consultant also submitted that “ I, **Dr. A. Dhamodharan**, hereby confirm that the below mentioned experts prepared the EIA/EMP for the “**Expansion of Propylene Glycol Plant by 50000 MTPA**” at **S.F.No. 1/6, 1/8, 23 to 29, 30/3 & 31, Sathangadu Village, Manali Industrial Area, Manali, Chennai – 600 068, Ambattur Taluk, Thiruvallur District, Tamil**

Nadu State by M/s. Manali Petrochemicals Limited- Plant II and also confirms that the prescribed ToR have been complied with and that the data submitted is factually correct as per the project data provided by Proponent”

21. The PP reported the estimated project cost is ₹ 125 crores excluding existing investment of ₹ 10.2 crores. Total Employment will be 10 persons as direct after expansion & 60 persons as indirect during construction.
22. The proposal was placed in 31st EAC Meeting held on May 11-12, 2022, wherein the Committee deferred the proposal for want of requisite information. Reply to the same is submitted by PP on 7.7.2022 which is as follows:

S. No.	Queries Raised by EAC	Reply by PP	Observation of EAC								
1.	The detailed greenbelt plan along with budgetary allocation for completion of greenbelt in one year. Action plan for high carbon sequestration species trees in the greenbelt needs to be submitted.	<ul style="list-style-type: none"> ➤ Green belt developed with 11490 trees in an area of 7.1981 Ha, which is 40.82 % of total area of 17.632 Ha ➤ The no of trees were planted based on ToR, vide point No 7 (ix) (not less than 1500 trees per Ha) ➤ The trees species were selected based on CPCB and Forest department guidelines ➤ However, based on EAC direction of planting trees in 2m x 2m spacing, no of trees to be planted is 17996 for covering the 40.82 % of the total area. ➤ Additionally, 6506 trees will have to be planted. ➤ Considering 90% survival rate, proposed for 8500 tree plantations within a period of one year. ➤ Planned to develop additional green cover with trees having high carbon sequestration. <p>The budget allocation for tree plantation and maintenance till they attain finite growth has been prepared</p>	The EAC found the reply submitted by the PP satisfactory.								
2.	The surface water analysis, especially BOD and COD may be rechecked and submitted	<ul style="list-style-type: none"> ➤ The earlier reported values for BOD and COD were checked and observed to have some analytical errors. ➤ The Surface Water (SW) analysis of BOD and COD for the base line monitoring locations were rechecked and tabulated below <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>SW Sampling No.</th> <th>SW sampling location</th> <th>BOD (mg/L)</th> <th>COD (mg/L)</th> </tr> </thead> <tbody> <tr> <td>SW-1</td> <td>Kosasthalaiyar river</td> <td>BQL (LOQ:2)</td> <td>8.5</td> </tr> </tbody> </table>	SW Sampling No.	SW sampling location	BOD (mg/L)	COD (mg/L)	SW-1	Kosasthalaiyar river	BQL (LOQ:2)	8.5	The EAC found the reply submitted by the PP satisfactory.
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SW-1	Kosasthalaiyar river	BQL (LOQ:2)	8.5								

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3.	The PP needs to submit the current status of CTO.	<ul style="list-style-type: none"> ➤ CTO renewal fees was paid to TNPCB for 5 years (from 2022-23 to 2026-27). ➤ Renewal application submitted through OCMMS website on 04-02-2022 ➤ The Application No. Reference is 42946307. <p>The CTO renewal application is under scrutiny by SPCB</p>	The EAC found the reply submitted by the PP satisfactory.																												
4.	The PP needs to submit the latest certified compliance report of EC of existing units from IRO, MoEF&CC.	<ul style="list-style-type: none"> ➤ The latest certified compliance report of EC for existing units was obtained from Director (S), MoEF & CC, IRO, Chennai on 29-06-2022. ➤ All the stipulated conditions were found to be complied. ➤ Director (S), MoEF & CC, IRO, Chennai inspected the Green belt developed. <p>In the report, the Director(S) stated as follows:</p> <ul style="list-style-type: none"> ✓ Around 11490 trees were developed inside and outside the factory site in an area of 7.1981 Ha ✓ The green belt developed in an area of 4.432 Ha outside and 0.8059 Ha inside the factory site during Feb'22 ✓ The green belt already developed in an area of 1.96 Ha, inside the premises. ✓ PP has given a detailed plan for tree plantation of 8500 within one year. 	The EAC found the reply submitted by the PP satisfactory.																												
5.	The PP need to revise the CER cost addressed in the Public	<p>The CER cost distribution is revised as advised by the EAC as follows,</p> <ul style="list-style-type: none"> ➤ Towards Avenue plantation development for the 1st and 2nd year. 	The EAC found the reply submitted by the PP satisfactory.																												

	hearing.	<ul style="list-style-type: none"> ➤ Towards maintenance and restoration of the Avenue plantation in the subsequent 3rd, 4th and 5th year. (Earlier, the avenue plantation development was reported as yearly activity) ➤ Scope of CER activity towards Sanitation is revised as Development of Sanitation facilities & Maintenance. 							
6.	The PP shall submit the details of carbon foot prints and carbon sequestration study w.r.t. proposed project. Proposed mitigation measures also needs to be submitted for further appraisal of the EAC as this area comes under CPA having CEPI score 84.15.	<ul style="list-style-type: none"> ➤ The carbon sequestration capacity evaluated based on the current growth of the developed green belt, found to be 867.5 MT/Annum of CO₂-e. ➤ The value is expected to rise with the increased growth of the recently planted trees. ➤ Additionally, 8500 trees will be planted within one year which will contribute for the carbon sequestration, further. ➤ All the conditions stipulated in the O.M. ref. F. No. 22-23/2018-IA.III dated 31-10-2019 for the industries located in Critically/Severely Polluted Areas (CPA/SPA) have been complied, except, the usage of cleaner fuel. ➤ Gas Supply Agreement signed with IOCL for supply of R-LNG ➤ Currently, IOCL is carrying out pipeline laying job to supply R-LNG for MPL – Plant – II ➤ The proposed mitigation measures for the reduction of CO₂ emission has been submitted. 	The EAC found the reply submitted by the PP satisfactory.						
7	The PP needs to submit the details of Onsite/Offsite emergency plan and mitigation measures to be proposed during implementation of the project.	<ul style="list-style-type: none"> ➤ Onsite emergency plan for the existing facility is already in place and the same was submitted to O/o. DISH. ➤ Onsite emergency plan with mitigation measures has been prepared. The same will be submitted to O/o. DISH after implementation of the project. ➤ The details of Offsite Emergency plan are also addressed in the Onsite Emergency plan for the proposed project. 	The EAC found the reply submitted by the PP satisfactory.						
8	The PP needs to submit details of energy conservation measures	<table border="1"> <thead> <tr> <th>S.No.</th> <th>Proposed Energy Conservation Measures</th> <th>Energy Savings expected in terms of TOE/Annum</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>	S.No.	Proposed Energy Conservation Measures	Energy Savings expected in terms of TOE/Annum				The EAC found the reply submitted by the PP satisfactory.
S.No.	Proposed Energy Conservation Measures	Energy Savings expected in terms of TOE/Annum							

proposed in the Unit.	1.	<u>Implementation of high-pressure reactor to reduce PO to Water Ratio</u> Energy will be conserved due to reduction of Steam consumption in the multiple effect evaporation system.	3273.39
	2.	<u>Replacing conventional Furnace Oil with R-LNG in the Boilers</u> Energy will be conserved due to conversion of boiler fuel from Low –Sulphur Furnace Oil (LSFO) to Re-Gasified Liquefied Natural Gas (R-LNG) due to higher efficiency in the boiler operation.	239.17
	3.	<u>Location of Cooling Tower at the Proposed Project site</u> Energy will be conserved due to reduction in power requirement of Cooling water circulation pumps by locating Cooling tower at the proposed Project site itself, instead of locating the same at the utility area which is at a distance.	74.693
	4.	<u>Installation of LED lamps</u> Energy will be conserved due to installation of less power consuming LED lamps over high power consuming conventional Mercury Vapour (HPMV) lamps	27.116
	Total Energy savings expected after implementation of the Proposed Energy		3614.369

		<p>conservation measures in terms of *TOE/Annum</p> <p>*TOE – Tons of Oil Equivalent</p>	
9	<p>The PP needs to submit the impact of the court case on the project and clarification regarding the direction issued by the GPCB</p>	<p>Court Case – 1, Court details: NGT (SZ), Case Reference: O.A. No. 19/2013, 224/2016 & 248/2016 Status: Disposed. Judgement pronounced on 22-03-2022. Impact: The Hon'ble NGT in their judgment order has directed us</p> <ol style="list-style-type: none"> 1. <i>To explore the possibilities for implementing ZLD of treated effluent through a feasibility study to be carried out by NEERI / NIOT</i> <ul style="list-style-type: none"> ➤ The major contributor of effluent is the existing Propylene Oxide plant and it does not have any impact on the proposed project. ➤ Request letter was submitted to NEERI & NIOT to carry out the ZLD feasibility study. ➤ Consequent to the outcome of the feasibility study there may be positive impact in reduction of treated effluent discharge to sea after implementation of ZLD. <i>2)To pay interim compensation</i> <ul style="list-style-type: none"> ➤ We have paid the interim Environmental compensation of ₹ 2 Crores to Tamilnadu Pollution Control Board on 10-05-2022. <i>3)To comply with Hon'ble NGT appointed Joint Committee recommendations.</i> <ul style="list-style-type: none"> ➤ All the recommendations are being complied for the Hon'ble NGT appointed Joint Committee. ➤ Conclusion ➤ There is no direct impact of the court case on the proposed project. ➤ The following measures will be implemented for the expansion project to maintain marine discharge within the existing consented quantity and to ensure no increase in pollutant load. ➤ RO plant will be installed after expansion, for treatment of Cooling tower / boiler blow down and DM water regeneration water. 	<p>The EAC found the reply submitted by the PP satisfactory.</p>

		<ul style="list-style-type: none"> ➤ Sewage will be treated in the proposed STP after expansion and the treated water will be re-used for green belt. ➤ A total of 2556 KLD (Effluent from Existing units of 2451 KLD + Effluent from proposed RO unit of 105 KLD) of treated effluent will be discharged to sea, which is within the current consented effluent discharge quantity of 2574 KLD. ➤ Will explore the possibilities for implementing ZLD of treated effluent through a feasibility study to be carried out by NEERI <p>Court Case – 2, Court details: NGT (SZ), Case Reference: O.A. No. 256/2020 – Suo-Moto case by NGT.</p> <ul style="list-style-type: none"> ➤ Status: Pending. Last heard on 01-07-2022. . ➤ Impact: ➤ The referred case is a Suo-Moto case taken up by NGT (SZ) based on the original article of Chennai Climate Action Group (CCAG) published in News Desk magazine dated 11-11-2020, Air Pollution and Industries, “These six Industries in North Chennai are polluting the air for more Than half the year, The North Chennai Thermal Power Station along Ennore Port.” ➤ The Hon’ble NGT appointed a Joint Committee and they carried out inspection & sampling during Feb 2021. ➤ In the original CCAG’s article (2020), w.r.t. Page No. 35, it can be noted that there is NO EXCEEDANCE of emissions form Manali Petrochemicals Limited. ➤ The author mentioned the no data hours of 9% as non – compliant hours. ➤ As per CEMS guidelines of 2018 Rev.01 published by CPCB, w.r.t. Clause 11(d) (Page No. 86) it is required to comply for 85% data connectivity only and exemption is allowed for 15% of non-connectivity period (no data hours) for maintenance of analyzers, network issues etc. Whereas, we have complied for more than 85% data connectivity hours. Counter affidavit was filed before the Hon’ble NGT with justifications for NO EXCEEDANCE in 	
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		<p>emissions and requested to discharge us from this case on 23-07-2021</p> <p><u>Conclusion</u></p> <ul style="list-style-type: none"> ➤ In existing plant operation, the emission norms are well within the prescribed limits and the stack emissions are online connected continuously. ➤ It is proposed to convert boiler fuel from LSFO to R-LNG after expansion which will reduce the pollutant load drastically. ➤ The pollutant load will reduce by 90% for PM, 97.06% for SO₂, 22.22% for NO_x and 25% for CO due to change over of fuel from LSFO to R-LNG. ➤ Hence this case will have no impact w.r.t. the proposed project. <p><u>Clarification regarding the direction issued by the TNPCB</u></p> <ul style="list-style-type: none"> ➤ Based on Hon'ble NGT order dated 14.11.2019 w.r.t. O.A. No. 1038/2018, TNPCB issued letter vide reference, Letter No. T4/TNPCB/F.2643/CEPI/EC/AMB/2020-10 dated 28.01.2020 regarding Levying of Environmental Compensation towards violation of Environmental standards. ➤ The letter was issued to all industries which were present in the identified Polluted Industrial Areas (PIA) as mentioned and our industry is present in Manali Industrial Area. ➤ We had replied to the TNPCB wherein we put forth our points stating that all the emission and effluent disposal standards are being complied as per the environmental standards prescribed by CPCB/MoEF&CC/NAAQ and necessary data regarding evidence of adherence to the norms were shared to TNPCB. ➤ We had requested the Board, to withdraw the environmental compensation levied. ➤ All the conditions stipulated in the O.M. ref. F. No. 22-23/2018-IA.III dated 31-10-2019 by the Ministry for the industries located in Critically/Severely Polluted Areas (CPA/SPA) have been complied, except the usage of cleaner fuel. 	
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		<ul style="list-style-type: none"> ➤ Gas Supply Agreement signed with IOCL for supply of R-LNG and IOCL is carrying out pipeline laying job to supply R-LNG for MPL – Plant – II. <p><u>Clarification regarding the direction issued by the TNPCB</u></p> <ul style="list-style-type: none"> ➤ Notification was issued by TNPCB vide reference TNPCB/DD (L)/02151/2019 dated 20-10-2021 regarding Retrofitting of Emission Control Device (RECD) ➤ There are 2 nos of emergency DG sets available in the plant. ➤ To comply the condition, purchase order for RECD was placed for 2 nos. of DG sets and was installed in one of the DG set. ➤ The other will be dispatched by end July'22 and condition will be complied. ➤ TNPCB has extended the timeline for compliance till 30-09-2022 vide notification dated 06-04-2022. 	
10	Details of court case, and its implication on the project, present status along with copy of petition and affidavits.	<p>Court Case – 1, Court details: NGT (SZ), Case Reference: O.A. No. 19/2013, 224/2016 & 248/2016</p> <p>Status: <i>Disposed.</i> Judgement pronounced on 22-03-2022.</p> <p>Implication</p> <p>The Hon'ble NGT in their judgment order has directed us</p> <ol style="list-style-type: none"> 1) <i>To explore the possibilities for implementing ZLD of treated effluent through a feasibility study to be carried out by NEERI / NIOT</i> <p>The implementation of ZLD will have the following implications:</p> <ul style="list-style-type: none"> ➤ The recycled water will be used in the Propylene Oxide process which will reduce the water sourced from CMWSSB to large extent. ➤ The quantity of treated effluent disposed to sea may get reduced based on the outcome of the ZLD study. <p>To pay interim compensation</p> <p>The fund will be utilized by the TNPCB for the following activities like.</p> <ul style="list-style-type: none"> ➤ Specific investigations and studies about environment and ecology. 	The EAC found the reply submitted by the PP satisfactory.

		<ul style="list-style-type: none"> ➤ Carrying capacity assessment for ecologically and environmentally sensitive & critical areas, including hiring of Experts/Consultants for specific purpose and period. ➤ R & D activities with regard to new technologies, clean technologies, etc. ➤ Augmenting and strengthening of laboratory network in terms of manpower and logistics. ➤ Installation of Permanent Air quality measurement stations to measure the industry specific pollutants and carry out Corrective Action & Preventive Action (CAPA). <p>3) To comply with Hon'ble NGT appointed Joint Committee recommendations.</p> <ul style="list-style-type: none"> ➤ The Marine Impact Assessment study carried out every year will help to assess the impact of effluent on the marine water quality. <p>Installation of Continuous Sea Quality Monitoring System will help to monitor the quality of marine water continuously to ensure compliance.</p> <p>Court Case – 2, Court details, NGT (SZ), Case Reference, O.A. No. 256/2020 – Suo-Moto case by NGT Status: <i>Pending</i>. Last heard on 01-07-2022.</p> <ul style="list-style-type: none"> ➤ MPL has not exceeded the norms and the issues mentioned was related to non-connectivity, which is also within the prescribed norms of CEMS. ➤ Counter affidavit was filed before the Hon'ble NGT with justifications for NO EXCEEDANCE in emissions and requested to discharge us from this case on 23-07-2021. ➤ In the existing plant operation also, the emission norms are within the prescribed limits and the stack emissions are online connected continuously. <p><u>Implication:</u></p>	
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		<p>Actions may have to be taken to reduce the pollutant load on emissions based on the outcome of the Hon'ble NGT order.</p> <ul style="list-style-type: none"> ➤ It is proposed to convert boiler fuel from LSFO to R-LNG which will reduce the pollutant load drastically. ➤ The pollutant load will reduce by 90% for PM, 97.06% for SO₂, 22.22% for NO_x and 25% for CO due to change over of fuel from LSFO to R-LNG. <p>Hence this case will have no implications w.r.t. the proposed project.</p>	
11	Point wise response to the representation with justification & supporting documents	The response to the representation with justification has been submitted.	The EAC found the reply submitted by the PP satisfactory.

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 greenbelt and plantation and greenbelt to be in accordance with 2m*2m spacing and 2500 trees per Ha, the survival rate to be taken as 70% instead of 90% and suggested to increase the greenbelt cover inside the plant, the PP has now submitted that number of trees will be planted as per 2m*2m spacing (not less than 2500 tree per Ha). Considering the 70% survival rate, the total number of trees to be planted additionally will be 14215 within a period of one year. The PP committed that Industry will explore the possibilities to improve the greenbelt cover inside the plant also. The EAC also suggested to explore the possibility of increasing the energy saving measures from the proposed 10 % to 25%. The PP assured energy saving measures to improve the savings from the proposed 10%

to 25% and the energy saving measures will be completed within one year from the date of commissioning of the proposed project.

The Committee also deliberated on the Zero Liquid Discharge (ZLD) study to be conducted by NEERI/NIOT and implement the outcome of the study. The PP committed for the same, The EAC also noted the Hon'ble NGT order and suggested to give the commitments to comply the conditions laid down in the order. The PP committed for the same, and EAC found it to be satisfactory. The EAC noted that the PP needs to give commitment for the Show Cause Notice issued by the TNPCB for the ₹ 1 crore fine levied for the industries located in CPA and for implementing the directions and recommendations by the TNPCB. The PP committed to comply with the directions laid down by TNPCB.

The EAC deliberated on the maximum and minimum values of AAQ and stack emissions (online values) and observed that they are within the prescribed limits. The EAC sought the cost details for the amount to be spent for the CEPI conditions. The PP submitted the details for implementation of greenbelt and R-LNG change over i.e. additional greenbelt development (2500 trees/Ha) within one year i.e. ₹ 1.8 Crore and implementation of R- LNG in place of furnace oil within one year ₹ 7.5 crore and also CEPI compliance statement and investment details for the conditions which are being complied. The EAC also suggested to reduce the timeline for the implementation of the green power from 3 years and the PP committed to implement it within 2 years.

The EAC noted that project is located inside the notified industrial area hence the Public Hearing is exempted in pursuant to Ministry's OM No. J-11011/321/2016-IA.II (I) dated 27.4.2018.

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 install a minimum of 3 (three) online Ambient Air Quality Monitoring Stations with 1 (one) in upwind and 2 (two) in downwind direction based on long term climatological data about wind direction such that an angle of 120° is made between the monitoring locations to monitor critical parameters, relevant for Industry operations, of air pollution viz. PM₁₀, PM_{2.5}, NO₂, CO and SO₂ etc. as per the methodology mentioned in NAAQS Notification No. B-29016/20/90/PCI/I, dated 18.11.2009 covering the aspects of process emission, transportation, use of DG Set and use of any machinery in the impact zone. The ambient air quality shall also be monitored at prominent places as per the site condition to ascertain the exposure characteristics at specific places. The above data shall be digitally displayed within 03 months in front of the main Gate of the Industry.
- (ii) The PP shall ensure that effective fugitive emission control measures should be imposed in the process, transportation, packing etc. and wherever possible, the transportation of materials is through rail/conveyor belt.
- (iii) Effective safeguard measures for prevention of dust generation and subsequent suppression (like regular water sprinkling, metalled road construction etc.) shall be carried out in areas prone to air pollution wherein high levels of PM₁₀ and PM_{2.5} are evident. such as road, loading, unloading and transfer points. The fugitive dust emissions from all sources shall be regularly controlled by installation of required equipment's/ machineries and preventive maintenance. It shall be ensured that air pollution level conform to the standards prescribed by the MoEF&CC/Central Pollution Control Board.
- (iv) The PP shall explore the possibility of use of best available technology for the plant if any and submit a report every year to IRO, MoEF&CC. In case of availability of such technology the PP shall take necessary steps for the implementation of the same including amending the EC.
- (v) The PP shall carry out assessment of the carrying capacity of transportation load on roads inside the industrial premises every year and based on the assessment report take necessary measures including widening of the roads.
- (vi) The PP shall prepare a detailed rain water harvesting plan within a period of 6 months so that unit may become water positive. The study report shall be submitted to IRO, MoEF&CC and submit the quantity of rain water harvested to before IRO, MoEF&CC before 1st July of every year for the rain water harvested during the previous year.
- (vii) The PP shall ensure that dumping of waste, if any, is strictly as per designated locations approved by SPCBs/PCCs.
- (viii) The PP shall ensure regular auditing of the compliance of the EC conditions by a Third Party annually and the audited report needs to be submitted to IRO, MoEF&CC.
- (ix) The PP shall ensure the use of cleaner fuel PNG with a stack height of 30 m for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed 1.5 TPH boiler and submit a report within a year to IRO, MoEF&CC before 1st July of every year for the activities carried out during the previous year.
- (x) The budget earmarked for the Corporate Environment Responsibility (CER) is ₹ 0.9375 Crores which will be spent on need-based approach in consultation with the District Collector of Thiruvallur District. The budget earmarked for CER shall be kept in separate

account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of activities carried out, amount spent etc. to the IRO, MoEF&CC before 1st July of every year for the activities carried out during the previous year.

- (xi) The PP shall develop additional Greenbelt by planting 14215 number of trees considering 70% survival rate 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). In addition to this, the budget earmarked for the plantation shall be kept in separate account and should be audited annually. The 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.
- (xii) 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 Plant Head- Head EHS- Assistant Manager-safety and Environment, Executives. 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.
- (xiii) 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 ₹ 1411 Lakh (Capital cost) and ₹ 677 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.
- (xiv) The total water requirement will be 3247 KLD for existing facility and additional requirement of 810 KLD for the proposed expansion will be met from Chennai Metropolitan Water Supply and Sewerage Board (CMWSSB). 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
- (xv) 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.

- (xvi) 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.
- (xvii) 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.
- (xviii) 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.
- (xix) 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.
- (xx) The PP shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
- (xxi) As already committed by the PP, Zero Liquid Discharge shall be ensured, Effluent of 2556 KLD will be treated through Effluent Treatment Plant and disposed to sea after meeting the prescribed standards.
- (xxii) 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.
- (xxiii) 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.
- (xxiv) 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.
- (xxv) 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.
- (xxvi) 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.
- (xxvii) 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.

- (xxviii) 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.
- (xxix) 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. 35.2

Manufacturing Specialty Chemicals and Agro-Chemicals located at Plot No. C-9, C- 10 & C-11, SIPCOT Industrial Complex, Village Kudikkadu, District Cuddalore, Tamil Nadu by M/s Crimsun Organics Private Limited - Consideration of Amendment in Environmental Clearance

[Proposal No. IA/TN/IND3/280503/2022; File No. IA-J-11011/207/2018-IA-II(I)]

1. The proposal is for the amendment in the Environmental Clearance granted by the Ministry vide letter no. IA-J-11011/207/2018-IA II(I) dated 28th March 2019 for the project Manufacturing Speciality Chemicals and Agro-Chemicals located at Plot no. C-9, C-10 &C-11 , SIPCOT Industrial Complex , Village Kudikkadu , District Cuddalore , Tamil Nadu in favour of M/s Crimsun Organics Private Limited.
2. The PP has requested for amendment in the EC with the details as under:

Refere nce of EC	Description as per EC	To be revised/ read as	Justification/ reasons
Point 2	The Ministry of Environment, Forest and Climate Change has examined proposal for environmental clearance to the project for manufacturing speciality chemicals of capacity 70 TPM (3 Nos of products) and <u>Agro-chemicals of capacity 1355 TPM</u> (54 nos. of products) by M/s Crimsun Organics (P) Ltd in a total area of 18051.03 sq.m located at Plot No C-9,10& 11, SIPCOT Industrial Complex, Village Kudikkadu,	The Ministry of Environment, Forest and Climate Change has examined proposal for environmental clearance to the project for manufacturing speciality chemicals of capacity 70 TPM (3 Nos of products) and <u>Agro-chemicals of capacity 1375 TPM</u> (54 nos. of products) by M/s Crimsun Organics (P) Ltd in a total area of 18051.03 sq.m located at Plot No C-9,C-10&C-11, SIPCOT Industrial	Typographical error. As per individual capacity indicated in the EC point 3, summation for Agro chemicals (Fungicide, Herbicide and Insecticide) comes to 1375 TPM for 54

	District Cuddalore (Tamil Nadu).	Complex, Village Kudikkadu, District Cuddalore (Tamil Nadu).	nos. of products.			
Point 3	Details of products are as under		Details of products are as under			
	Sr. No.	Product	Quantity (TPM)			
	Speciality Chemical			Speciality Chemical		
	1	Para chloro benzyl cyanide	20	1	Para chloro benzyl cyanide	70
	2	Pyrazole	20	2	Pyrazole	
	3	Metaphenox y Benzaldehy de (MPB)	30	3	Metaphenox y Benzaldehy de (MPB)	
	Fungicides			Fungicides		
	4	Thiphanate methyl	50	4	Thiphanate methyl	415
	5	Hexaconazole	30	5	Hexaconazole	
	6	Propiconazole	30	6	Propiconazole	
	7	Difenoconazole	15	7	Azoxystrobin	
	8	Tricyclazole	50	8	Isoprothiolan e	
	9	Carbendazim	50	9	Carbendazim	
	10	Cyproconazole	30	10	Cyproconazole	
	11	Trifloxystrobin	20	11	Trifloxystrobin	
	12	Cymoxanil	20	12	Cymoxanil	
	13	pyraclostrobin	20	13	pyraclostrobin	
	14	Metalaxyl	20	14	Metalaxyl	
	15	Tebuconazole	20	15	Tebuconazole	
	16	Boscalid	20	16	Boscalid	
	17	Picoxystrobin	20	17	Picoxystrobin	
	18	Thifluzamide	20	18	Thifluzamide	
	Herbicides			Herbicides		
19	Pretilachlor	50	19	Pretilachlor	500	
20	Glyphosate	50	20	Metamifop		
21	Clodinafop-Propargyl	20	21	Clodinafop-Propargyl		
22	Bispyribac-Sodium	20	22	Bispyribac-Sodium		

Change of Product as per Product mix certificate from SPCB under the condition of no increase in pollution load. Representation of category wise production capacity and correction in total production capacity summation.

23	Quizalofop	20	23	Oxadiargyl	
24	Propaquizafop	20	24	Propaquizafop	
25	Mesotrione	20	25	Mesotrione	
26	Fluroxypyr	20	26	Fluroxypyr	
27	Imazamox	30	27	Imazamox	
28	Pinoxaden	30	28	Pinoxaden	
29	Ametryn	30	29	Ametryn	
30	Tembotrione	20	30	Tembotrione	
31	Topramezone	20	31	Topramezone	
32	Halosulfuron	20	32	Pyroxasulfone	
33	Penoxsulfam	20	33	Penoxsulfam	
34	flucetosulfuron	20	34	Flazasulfuron	
35	Pendimethalin	30	35	Pendimethalin	
36	Chlorimuron	20	36	Chlorimuron	
37	Nicosulfuron	20	37	Nicosulfuron	
38	Metsulfuron	20	38	Metsulfuron	
Insecticides			Insecticides		
39	Acephate	30	39	Prothiconazole	460
40	Diafenthiuron	30	40	Chlorpyrifos	
41	Imidacloprid	30	41	Imidacloprid	
42	Buprofezin	30	42	Buprofezin	
43	Thiamethoxam	30	43	Thiamethoxam	
44	Cypermethrin	30	44	Pyriproxyfen	
45	Alpha cypermethrin	20	45	Profenofos	
46	Fipronil	20	46	Fipronil	
47	Acetamiprid	30	47	Acetamiprid	
48	Propargite	30	48	Propargite	
49	Indoxacarb	20	49	Indoxacarb	
50	Dinotefuran	20	50	Dinotefuran	
51	Flonicamid	20	51	Flonicamid	
52	Etoxazold	20	52	Pymetrozine	
53	Metaflumizone	20	53	Bifenthrin	
54	Spiromesifen	20	54	Spiromesifen	
55	Spirotetramat	20	55	Lambdacyhalothrin	
56	Chlorantraniliprole	20	56	Chlorantraniliprole	
			57	Sulfoxaflor	
			Total		1445

	<table border="1"> <tr> <td>57</td> <td>Sulfoxaflor</td> <td>20</td> </tr> <tr> <td colspan="2">Total</td> <td>1425</td> </tr> </table>	57	Sulfoxaflor	20	Total		1425		
57	Sulfoxaflor	20							
Total		1425							
Point 6 para 3	Power requirement will be 2000 KVA proposed to be met from TANGEDCO. Two DG sets of 500 KVA are envisaged in the unit to be used as the standby during power failure. Stack of height 9 m shall be provided as per CPCB norms to the DG sets.	Power requirement will be 2000 KVA proposed to be met from TANGEDCO. Two DG sets of 500 KVA are envisaged in the unit to be used as the standby during power failure. <u>Additional One DG set of 105 KVA (112 hp) is envisaged for emergency back up for fire pump. Stack of height 9 m for 500 KVA and 7.5 m for 105 KVA</u> shall be provided as per CPCB norms to the DG sets.	One additional DG set for emergency (fire fighting pump) as per statutory requirement						
Point 6 para 4	<u>Unit will have one 3 TPH furnace oil fired and one 10 TPH coal fired boiler.</u> Multicyclone separator/bag filter with a stack of height 32 m will be installed for controlling the particulate emissions within the statutory limit for the proposed boilers.	<u>Unit will have one 3 TPH LDO/LSHS/Briquette fired boiler and Two 5 TPH coal/Briquette fired boiler.</u> Multicyclone separator/bag filter with a <u>stack of height 25 m for 3 TPH boiler & 32 m for two 5 TPH boiler</u> will be installed for controlling the particulate emissions within the statutory limit for the proposed boilers.	As per EC para 10 point no. (vi), EAC has recommended to replace furnace oil with LSHS/LDO/Briquette. Also, they have given approval for 10 TPH. The steam requirements vary depending on production volume as our products are seasonal. Hence, to operate the boiler with optimum efficiency, instead of 1 No. of 10 TPH boiler, we request to allow us to install 2 Nos. 5 TPH Boilers.						

Point 10	Based on the proposal submitted by the PP and recommendations of EAC (Industry-2) the Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project for Manufacturing specialty Chemicals of capacity 70 TPM (3 nos. of products) and <u>Agro-chemicals of capacity 1355 TPM</u> (54 nos. of Products) by M/s. Crimsun Organics (P) Ltd at plot no C-9,10 & 11 SIPCOT Industrial complex, village Kudikkadu, District Cuddalore (Tamil Nadu) under the provisions of the EIA notification, 2006, subject to the compliance of term and conditions as under:-	Based on the proposal submitted by the PP and recommendations of EAC (Industry-2) the Ministry of Environment, Forest and Climate change hereby accords environmental clearance to the project for Manufacturing specialty Chemicals of capacity 70 TPM (3 nos. of products) and <u>Agro-chemicals of capacity 1375 TPM</u> (54 nos. of Products) by M/s. Crimsun Organics (P) Ltd at plot no C-9,10 & 11 SIPCOT Industrial complex, village Kudikkadu, District Cuddalore (Tamil Nadu) under the provisions of the EIA notification, 2006, subject to the compliance of term and conditions as under:-	Typographical error. As per individual capacity indicated in the EC point 3, summation for Agro chemicals (Fungicide, Herbicide and Insecticide) comes to 1375 TPM for 54 nos. of products.
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Project Details (Change in Environmental Parameters due to Proposed Amendment)

S. No.	Particulars	Unit	As per EC	Additional Proposed	Total After Amendment	Remarks
1	Total Project Cost	₹ (In Crores)	30.6	-	30.6	No Change
2	AREA DETAILS					
a.	Total Plot Area	m ²	1805 1.03	-	18051.03	No Change
b.	Green Area	m ²	6063	-	6063	No Change
3	POPULATION					
a.	Workers/ Staff	No.	Directly: 175	-	Directly: 175	No Change
			Indirectly: 75	-	Indirectly: 75	
4	SERVICE DETAILS & ENVIRONMENTAL ASPECTS					
a.	Fresh Water Requirement	KLD	344.5	-	344.5	No Change

b.	Wastewater Generation (Including Domestic Sewage & Industrial Effluent)	KLD	Total: 105.57 Industrial: 87.57 Domestic: 18	-	Total: 105.57 Industrial: 87.57 Domestic: 18	No Change
c.	Wastewater Treatment Schemes/Capacity	KLD	MEE: 48 ETP: 100 RO-1: 100 KLD STP: 20	-	MEE: 48 ETP: 100 RO-1: 100 KLD STP: 20	No Change
D.	Recycled Water Reuse	KLD	193.49	-	193.49	No Change
e.	Power Requirement	KVA	2000	-	2000	No Change
f.	DG Sets (Backup)	kVA	2*500	1x105 KVA (112 hp)	2x500 KVA 1x105 KVA (112 hp)	One additional DG set for emergency (fire fighting pump) as per statutory requirement.
g.	Scrubbers	Nos.	2	-	2	No change
h.	Boiler	TPH	1x3 TPH (LDO/LSHS/Briquette) 1x10 TPH (Coal Based)	2x5 TPH (Coal/Briquette)	1x3 TPH (LDO/LSHS/Briquette) 2x5 TPH (Coal/Briquette)	EAC has given approval for 10 TPH. The steam requirements vary depending on production volume as our products are seasonal. Hence to operate the boiler with optimum efficiency, instead of 1 No. of 10 TPH boiler, we request to allow us to install 2 Nos. 5 TPH Boilers.
i.	Fuel	-	LDO-5.0 KLD Briquette	-	LDO-5.0 KLD Briquette-13 TPD Coal-32 TPD	No Change

			ette- 13TP D Coal- 32 TPD			
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3. Deliberations by the EAC:

The Committee observed that the Environmental Clearance was granted by the Ministry vide letter no. IA-J-11011/207/2018-IA II(I) dated 28th March 2019. The EAC deliberated on the greenbelt development i.e. 33%. The PP committed that plant has total 18051.03 m² of the area. To meet the 33% of the green area norms it is required to develop 5956.84 m² area as greenbelt. The PP has done plantation within the site as well as outside the site. Out of 5 acres of land, 1 acre of land has been developed as a green belt. Approx. 225 number of trees have been planted. Additionally, 4100 number of trees in remaining 4 acres' land shall be planted within next 3-4 months. As sought by the EAC, the PP submitted quantification of efficiency and emission load difference between 10 TPH and 5 TPH boilers and the pollution load of the products.

4. After detailed deliberations, the EAC accepted the request of the PP and **recommended** the proposal for Amendment in EC, as detailed in above mentioned tables. The Committee also recommended the following additional specific conditions:

- (i). 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.
- (ii). 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.
- (iii). The PP shall develop Greenbelt over an area at least 5956.84 m² by planting 4100 number of trees of 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 minimum ₹ 32,15,381 and shall be kept in separate account and should be audited annually. The 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.

Agenda No. 35.3

Expansion of APIs production capacity from 21.042 TPM to 23.6 TPM located at Gut No. 378, Plot No. 8, Aurangabad-Pune Highway, Village- Waluj, Taluka- Gangapur, District-

Aurangabad, Maharashtra by Ajanta Pharma Limited - Consideration of Environmental Clearance [Under Para 7 (ii)]

[Proposal No. IA/MH/IND3/281546/2022; File No. J-11011/359/2008-IA-II(I)]

1. The proposal is for environmental clearance for the Expansion of APIs production capacity from 21.042 TPM to 23.6 TPM located at Gut No. 378, Plot No. 8, Aurangabad-Pune Highway, Village- Waluj, Taluka- Gangapur, District- Aurangabad, Maharashtra by Ajanta Pharma 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 it is located outside the industrial area and appraised at Central Level by Expert Appraisal Committee (EAC).
3. The proposal was earlier placed in 33rd EAC Meeting held on 20-22 June, 2022, wherein the EAC returned the proposal for requisite information and the PP again applied for Environment Clearance on 4.7.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP reported in Form-2 that it is an **Expansion under para 7(ii)**. The proposal is now placed in the 35th EAC Meeting held on July 28-29, 2022, wherein the PP and an accredited Consultant, Sadekar Enviro Engineers Pvt. Ltd. [Accreditation number NABET/EIA/2124/SA 0146 Valid up to 18.4.2023] 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 0.32005 Ha and no R& R is involved in the Project. The details of products and by-products are as follows:

S. No.	As per Environment Clearance granted		After proposed Expansion (As per OM vide F. No. 22-33/2019-IA.III dated 28 th January 2021)		
	Product	Allowed Capacity (MT/month)	Particulars of Products	Production Capacity (MT/month)	Remark
1	Lumefantrine	0	API and intermediates	23.6	Addition of 9 no. of API products of total production capacity 2.558 TPM has been planned in the proposed expansion.
2	Artemether	0			
3	Nepafenac	1.6			
4	Loteprednol Etabonate				
5	Bromfenac Sodium				
6	Prednisolone Acetate				
7	Tafluprost				
8	Iguratimod				
9	Desonide 21-Phosphate				
10	Levobetaxolol Hydrochloride				
11	Apremilast				
12	Difluprednate				

13	Mesalamine				
14	Nimesulide, Pilocarpine HCl				
15	Indomethacin				
16	Meclofenamate Sodium				
17	Fenspiride Chlorhydrate				
18	Fluorometholone Acetate				
19	Roflumilast, Atogepant				
20	Mometasone Furoate Monohydrate				
21	crisaborole	0.8			
22	Polmacoxib				
23	Piclidenoson				
24	Lifitegrast				
25	Betaxolol Hydrochloride				
26	Cyclosporine				
27	Dexamethasone				
28	Propyphenazone				
29	Dimethyl fumarate				
30	Triamcinolone Hexacetonide				
31	Apabetalone				
32	Amtolmetin Guacil	0.7			
33	Naproxcinod				
34	Neramaxane Mesylate				
35	Tofacitinib Citrate				
36	Nadifloxacin				
37	Zucapsaicin				
38	Nalbuphine Sebacate	0.2			
39	Sufentanil Citrate				
40	Penicillamine	0.4			
41	Hydroxychloroquine sulphate				
42	Baricitinib				
43	Benvitimod				
44	Ilaprazole	0.6			
45	Lansoprazole sodium				
46	Lafutidine				
47	Dexlansoprazole	0.2			
48	Omeprazole Sodium				
49	Tegoprazan				

50	Diquafosol Tetrasodium				
51	Omidenepag Isopropyl	0.1			
52	Metaxalone	0.05			
53	Rebamipide	0.1			
54	Linaclotide	0.1			
55	Nitroglycerin	0.05			
56	Olopatadine Hydrochloride	0.332			
57	Bilastine				
58	Bepotastine Besilate				
59	Tacalcitol MH				
60	Palonosetron Hydrochloride				
61	Silodosin	0.1			
62	Fexapotide	0.1			
63	Mirabegron	0.1			
64	Colestipol Hydrochloride	0.1			
65	Aripiprazole	0.2			
66	Olanzapine	0.05			
67	Ropinirol HCl	0.1			
68	Latanoprost	0.12			
69	Brinzolamide				
70	Bimatoprost				
71	Ripasudil Hydrochloride Dihydrate	0.38			
72	Limaprost				
73	Netarsudil				
74	Latanoprostene Bunod				
75	Travoprost				
76	Brimonidine Tartrate				
77	Travileramide				
78	Glycerol	0.05			
79	Cortexolone 17a- Propionate	0.05			
80	Vilanterol trifenate	0.05			
81	Rolapitant	0.05			
82	Varenicline Tartrate	0.05			
83	Ulipristal Acetate	0.05			
84	Dabigatran Etxilate	0.1			
85	Rivaroxaban	0.6			
86	Edoxaban				
87	Betrixaban				

88	Pentosan Polysulfate Sodium, Imeglimine HCl				
89	Elinogrel				
90	Divalproex sodium	0.05			
91	Ursodiol	0.01			
92	Raltegravir Potassium	0.35			
93	Maraviroc				
94	Daclatasvir Dihydrochloride				
95	Valganciclovir Hydrochloride				
96	Simeprevir				
96	Gemifloxacin Mesylate	0.65			
97	Minocycline Hydrochloride				
98	Besifloxacin Hydrochloride				
99	Retapamulin				
100	Sodium Hyaluronate				
101	N-acetyl-L-carnosine				
102	Ospemifene	1			
103	Ozenoxacin				
104	Solithromycin				
105	Erythromycin Ethyl Succinate, Pemafibrate				
106	Moxifloxacin Hydrochloride				
107	Tobramycin				
108	Rifaximin				
109	Doxycycline Hyclate				
110	Doxycycline Monohydrate				
111	Levofloxacin Hemihydrate				
112	Sarecycline				
113	Nemonoxacin				
114	Flucloxacillin Sodium				
115	Amadacycline				
116	Almotriptan	1			
117	Sumatriptan				
118	Frovatriptan Succinate				
119	Lasmiditan				

120	Eletriptan Hydrobromide				
121	Zolmitriptan				
122	Rimegepant				
123	Sevelamer Carbonate				
124	Acidinium Bromide	1.41			
125	Solifenacin Succinate				
126	Azelidipine				
127	Cilnidipine				
128	Azilsartan Medoxomil Potassium				
129	Metoprolol Succinate				
130	Fimasartan Potassium Trihydrate				
131	Rosuvastatin calcium				
132	Efonidipine Hydrochloride Ethanolate				
133	Olmesartan				
134	Perindopril Arginine				
135	Phentermine Hydrochloride	0.8			
136	Sacubitril				
137	Nifedipine				
138	Chlorthalidone				
139	Diltiazem Hydrochloride				
140	Telmisartan				
141	Timolol Maleate				
142	Dalcetrapib Thiol				
143	Valsartan				
144	Ambrisentan				
145	Sacubitril- Valsartan				
146	Sacubitril- Telmisartan				
147	Polaprezinc	0.05			
148	Bempezoic acid	0.05			
149	Ivabradine Hydrochloride	0.1			
150	Delmopinol Hydrochloride	0.1			
151	Octenidine Hydrochloride				
152	Bibrocatol				

153	Lanthanum Carbonate	0.05				
154	Asenapine Maleate	0.1				
155	Clozapine					
156	Propafenone Hydrochloride	0.05				
157	Deferasirox	0.05				
158	Trientine Hydrochloride	0.05				
159	Cinacalcet Hydrochloride	0.03				
160	Tavaborole	0.4				
161	Efinaconazole					
162	Luliconazole					
163	Fenticonazole Nitrate	0.2				
164	Flucytosine					
165	Voriconazole					
166	Bremelanotide					
167	Topiroxostat					
168	L-Methylfolate Glucosamine	0.1				
169	Odanacetib	0.02				
170	Sapropterin Dihydrochloride	0.04				
171	Dendrimer	0.05				
172	Colesevelam Hydrochloride	0.9				
173	Teneligliptin Hydrobromide hydrate					
174	Sitagliptin Phosphate					
175	Alogliptin					
176	Vildagliptin					
177	Linagliptin					
178	Chiglitazar					
179	Canagliflozin Hemihydrate		1.2			
180	Dapagliflozin Propanediol Monohydrate					
181	Anagliptin					
182	Trelagliptin succinate					
183	Empagliflozin					
184	Ipragliflozin					
185	Saxagliptin					
186	Mirogabalin					
187	Sotagliflozin					

188	Canagliflozin				
189	Dapagliflozin Propanediol Monohydrate				
190	Dapagliflozin				
191	Lobeglitazone				
192	Luseogliflozin				
193	Tofogliflozin				
194	Gemigliptin				
195	Evogliptin				
196	Emixustat Hydrochloride				
197	Retagliptin Phosphate				
198	Ertugliflozin				
199	Omarigliptin				
200	Semaglutide				
201	Vardenafil HCl Trihydrate	0.7			
202	Sildenafil Citrate Mask	0.3			
203	Mirodenafil				
204	Sildenafil Citrate				
205	Tadalafil				
206	Dapoxetine Hydrochloride	0.1			
207	Ticagrelor	0.05			
208	Voclosporin				
209	Alcaftadine	0.1			
210	Azelastine Hydrochloride	0.1			
211	Cloperastine Fendizoate				
212	Acotiamide HCl Hydrate	0.3			
213	Obeticholic acid	0.05			
214	Ibrutinib	0.05			
215	Pirfenidone	0.05			
216	Vortioxetine HBr	0.05			
217	Hypochlorous Acid	0			
218	Apixaban				
219	Dienogest	0.05			
220	Carboxymethyl cellulose sodium	0.05			
221	Hydroquinone	0.05			
222	Pyridoxine Hydrochloride	0.05			
223	Ivacaftor	0.05			
224	Febuxostat	0.2			
225	Lesinurad	0.1			

226	Netupitant	0.05			
227	Indacaterol Maleate	0.05			
228	Vilazodone Hydrobromide	0.1			
229	Potassium Citrate	0.05			
230	Alosetron Hydrochloride	0.05			
231	Tizanidine Hydrochloride	0.05			
232	Isosorbide Mononitrate	0.07			
233	Entacapone	0.05			
234	Cytidine- 5' Disodium Monophosphate	0.1			
235	Uridine Diphosphate Disodium				
236	Phloroglucinol Dihydrate	0.1			
237	Triamcinolone Acetonide	0.07			
238	Sprironolactone	0.07			
239	Trimethyl Phloroglucinol	0			
240	Vadadustat	0.05			
241	Suvorexant	0.08			
242	Finerenone	0.05			
243	Vilaprisan	0.05			
244	Olumacostat Glasaretil	0.06			
245	Nolasiban	0.05			
246	Picotamide	0.4			
247	Clopidogrel bisulfate	0.3			
248	Montelukast Sodium	0.2			
249	R & D Project	0.3			
250	Elobixibat	0			
251	Flupirtine Maleate	0			
252	Cetilistat	0			
253	Cholestyramine	0			
254	Duloxetine Hydrochloride	0			
255	Omadacycline	0			
256	Finafloxacin Hydrochloride				
257	Cethromycin				
258	R & D Products	0.3			
259	Bexagliflozin	0			
TOTAL PRODUCTION CAPACITY		21.042		23.6	

5. The PP reported that earlier EC has been granted by the Ministry vide F. No. J-11011/359/2008-IA.II (I) dated 13.10.2020 (Increasing the number of API products from 85 to 259 within the total production capacity of 21.042 TPM). The project has been granted Certified Compliance by IRO, MoEF&CC vide F. No. EC-1506/RON/2022-NGP/9556 dated 11.04.2022 after site inspection on 12.3.2022.
6. 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.
7. 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. The PP reported that no forest land is involved for the proposed project. Kaum River is flowing at 1.13 km (E) from the project site. The PP reported that no Schedule-I species exist within 10 km study area of the project.
8. The PP reported that total water requirement after expansion will be 83.2 KLD of which 61 KLD will be supplied by MIDC Waluj Supply and rest will be supplied from recycled water. The total wastewater generation after expansion will be 25.2 KLD (Industrial: 21.2 KLD & Domestic: 4 KLD). Domestic sewage will be treated in STP, and rest of the wastewater will be treated in ETP with evaporator & RO. 22 KLD treated water from ETO-RO system will be completely reused within the premises while 4 KLD STP treated water will be reused in in-house gardening. The project will be maintaining the status of **“ZLD” Unit**.
9. The PP reported that the power requirement of the plant will be 450 kW which will be supplied by MSEDCL. For power backup, 400 kVA DG set (with appropriate stack height as per CPCB norms) has already been installed on the site, which is used to run ETP, STP and common lights. Also, a separate 100 KVA DG has been installed for Zero Liquid Discharge scheme 1 no. of LDO based boiler has been installed in the plant with stack height of 30 m for controlling emissions within statutory limit.

10. Details of Process Emissions Generation and their Management:

Stack No.	Source	Height of Stack	Type of Fuel	Air Pollution Control System
1	Boiler	30	LDO (30 Lit/Hr)	Stack
2	Process Reactor	20	-	Venturi Scrubber
3	DG set of 400 KVA & 100 KVA	4.5 above the roof	Diesel (45 Lit/Hr)	Stack with acoustic enclosure

11. Details of Solid Waste Generation and its Management:

S. No.	Particulars	Hazardous Waste Category	Unit	Existing (As per CTO)	Total After Expansion	Method of Disposal
HAZARDOUS WASTE						
1	Spent Oil/Used Oil	5.1	lit/month	30	30	Sale to Authorized Recycler/Reprocess or CHWTSDf
2	Spent Solvents	20.2	TPM	7.5	7.5	Sale to Authorized Recycler/Reprocess or CHWTSDf
3	Distillation Residue	20.3	TPM	1.8	1.83	Disposal of CHWTSDf
4	Spent Catalyst/Spent Carbon	28.2	TPM	0.75	0.75	Disposal of CHWTSDf
5	Empty barrels/containers /liners/contaminated with hazardous chemicals/waste	33.1	No./month	265	265	Sale to Authorized Recycler/Reprocess or CHWTSDf
6	Sludge from Wastewater Treatment	35.3	TPM	0.2	0.2	Disposal of CHWTSDf
7	Off-specification Products	28.4	TPM	1.2	1.2	Disposal of CHWTSDf
8	Spent organic Solvent	28.6	TPM	18.0	18.36	Sale to Authorized Recycler/Reprocess or CHWTSDf
NON-HAZARDOUS WASTE						
1	Wooden material	-	kg/month	400	400	Sale to Authorized Recycler
2	Glass Scrap	-	kg/month	400	400	
3	HDPE Drums	-	No./month	125	125	
4	Plastic Scrap	-	kg/month	200	200	
5	Paper Waste	-	kg/month	150	150	
6	E-Wastes	-	kg/annum	100	100	

12. The PP has submitted the following pollution load information as per Ministry's O.M. dated 28.01.2021 w.r.t permissible pollution load i.e., quantity and quality, including composition of emissions, discharge and solid waste generation.

EFFLUENT WATER (Kg/month)

Water input per kg	TDS load	COD Load	Total effluent	Organic residue	Spent Carbon (Kg/month)	Spent solvent	Spent organic solvent
13202.83	36.45	136.87	13158.17	61.00	24.91	257.35	612.16

13. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 235.93 lakhs (capital) and the Recurring cost (operation and maintenance) will be about ₹ 58.5 lakhs per annum which includes Air Pollution control [₹ 23.8 lakh (capital) and ₹ 1.5 lakh/annum (Recurring)], ETP [₹ 164.3 lakh (capital) and ₹ 34 lakh/annum (Recurring)], Noise Pollution Control [₹ 2.5 lakh (capital) and ₹ 0.5 lakh/annum (Recurring)], Environmental Monitoring & Management [₹ 4.8 lakh/annum(Recurring)], Occupational Health and others [₹ 2 lakh/annum (Recurring)], Green Belt Development [₹ 18.53 lakh (capital) and ₹ 3.7 lakh/annum (Recurring)] and Solid & Hazardous Waste Management [₹ 4.8 lakh (capital), ₹ 7.5 lakh (Recurring)], PEE'S [₹ 2.5 lakh/annum (Recurring, Online Effluent monitoring system [₹ 22 lakh (capital) ₹ 2lakh (Recurring)], Industry proposes to allocate ₹ 11.41 crore towards CER.

14. The PP has developed a green belt in 790 m² i.e., 24.7% of total plot area. Additionally, the industry has developed 1 Acres of land as greenbelt adjacent to the factory premises and has also started plantation work adjacent to the factory premises and till date, about 176 trees have been planted. Now, it is proposed to plant additional 550 no. of trees in this plot. The PP has earmarked a budget of ₹18.53 lakh for development of greenbelt inside and outside the plant area in proposed expansion.

15. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment/ occupational/health/safety, manager, Sr. Executive for the functioning of EMC.

16. The PP submitted that the Total Carbon sequestered per year by the existing plantation (inside plant and outside plant premises) will be 12159 tons per year, considering the 10-year-old Greenbelt of 145 trees inside the plant premises and 835 trees outside the plant premises (total Trees 980). Assuming the diameter and tree height at the age of 10 years as per the standards, the total Carbon sequestered per year by the proposed greenbelt at its initial age will be **105 tons per year.**

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

18. The PP submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.2011 " I hereby given undertake that the data and information given in EIA Report and the enclosures are true to the best of my knowledge and content (information and data) in the EIA Report pertains to the project and not being copied from other EIA reports. I am aware that if at any stage, it is observed or brought to notice to the Ministry of Environment, Forest and Climate Change that the contents of the EIA Report pertains to a project have been copied from other EIA reports, such projects shall be summarily rejected and proponent will have to initiate the process including conduct of Public Hearing and in case of those project where decision has already been taken and environment clearance granted based on copied EIA Report, the environment clearance granted would be withdrawn and

the procedure for obtaining environmental clearance will be initiated de-novo. Also, I own the contents of the EIA Report.”.

19. The estimated project cost is ₹ 14.90 Crore. The existing manpower of the project is 75 no. There will be no additional manpower requirement for the proposed expansion. Hence, employment generation is not envisaged.
20. The proposal was placed in 33rd EAC Meeting held on June, 20-22, 2022, wherein the Committee deferred the proposal for want of requisite information. Reply to the same was submitted by the PP on 7.7.2022 which is as follows:

S. No.	Queries Raised by EAC	Reply by PP	Observation of EAC
1.	The PP needs to submit the complete Addendum EIA/EMP report as per the EIA structure and guidelines.	Complete Addendum EIA/ EMP report as per the EIA structure and guidelines has been submitted	The EAC found the reply submitted by the PP satisfactory.
2.	As this is existing unit, Greenbelt plan inside and outside the premises needs to be revised to increase the plant density and accordingly revise the EMP cost.	Revised Greenbelt Plan along with EMP Cost has been provided in Addendum EIA/EMP Report has been submitted	The EAC found the reply submitted by the PP satisfactory.
4.	Being an expansion proposal, the PP needs to submit an undertaking that there is no violation as per the Notification No. S.O.804(E) dated 14.03.2017.	Undertaking that there is no violation as per the Notification No S O 804 (dated 14 03 2017 has been provided	The EAC found the reply submitted by the PP satisfactory.
5.	The PP shall submit the details of carbon footprint and carbon sequestration study w.r.t. proposed project. Proposed mitigation	Details of Carbon footprint and carbon sequestration study along with proposed mitigation measures have been provided	The EAC found the reply submitted by the PP satisfactory.

	measures also need to be submitted.		
6.	Details of Onsite and Offsite Emergency plans as per provisions of the MSIHC Rules needs to be submitted.	Onsite and Offsite Emergency plans as per provisions of the MSIHC Rules has been submitted	The EAC found the reply submitted by the PP satisfactory.

21. Deliberations by the EAC:

The EAC, constituted under the provision of the EIA Notification, 2006 comprising of Expert Members/domain experts in various fields, examined the proposal submitted by the PP in the desired formats along with 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 their knowledge and belief and no information has been suppressed in the 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.

It was informed to the EAC that the para 7(ii) of the EIA Notification, 2006, inter-alia, mentions that *all applications seeking prior environmental clearance for expansion with increase in the production capacity beyond the capacity for which prior environmental clearance has been granted under this notification or with increase in either lease area or production capacity in the case of mining projects or **for the modernisation of an existing unit** with increase in the total production capacity beyond the threshold limit prescribed in the Schedule to this notification through change in process and or technology or involving a change in the product –mix shall be made in Form I and they shall be considered by the concerned Expert Appraisal Committee or State Level Expert Appraisal Committee within sixty days, who will decide on the due diligence necessary including preparation of Environment Impact Assessment and public consultations and the application shall be appraised accordingly for grant of environmental clearance.*

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 water agreement made between the PP and the MIDC for water withdrawal and suggested to submit the Agreement and the PP submitted the same, EAC also suggested to submit the undertaking for no violation, and for Owning of Data. The PP submitted the same.

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 Expert 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.

22. 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 Unit shall comply with all the Specific and General EC conditions, as mentioned in the existing ECs. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (ii) As committed, the PP shall develop Greenbelt by planting 145 nos. of additional plants inside the existing plant in same area by increasing the plant density and additional 835 number of trees adjacent to the factory premises. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2m). The budget earmarked for the plantation i.e. ₹ 18.53 Lakh 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.
- (iii) 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 Environment/ occupational/health/safety, manager, Sr. Executive. 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.
- (iv) 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 ₹ 235.93 Lakhs (Capital cost) and ₹ 58.5 Lakhs (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.

- (v) The total water requirement after expansion will be 83.2 KLD of which 61 KLD will be supplied by MIDC Waluj Supply and rest will be supplied from recycled water. The PP should ensure that Ground water utilization should not be above the permissible limit and only after obtaining valid NOC from CGWA/ Concerned Authority. The PP should submit the details of GW abstraction and utilization to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year. In addition to this the PP shall submit the target for reduction of GW utilization to Regional Office of MoEF&CC within a period of one year
- (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) As already committed by the PP, Zero Liquid Discharge shall be ensured, the total wastewater generation after expansion will be 25.2 KLD (Industrial: 21.2 KLD & Domestic: 4 KLD). Domestic sewage will be treated in STP, and rest of the wastewater will be treated in ETP with evaporator & RO. 22 KLD treated water from ETO-RO system will be completely reused within the premises while 4 KLD STP treated water will be reused in in-house gardening.
- (xiii) 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.
- (xxi) The activities and the action plan proposed by the PP to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

Agenda No. 35.4

Setting up of Active Pharmaceutical Ingredients (APIs), manufacturing industry by M/s Shilpa Albumin Private Limited, located at Plot No 286, 287, 288 Kadechur Industrial Area, Village Kadechur, Taluk and District Yadgir, Karnataka by M/s. Shilpa Biocare Private Limited – Amendment in Environmental Clearance

[Proposal No. IA/KA/IND3/241033/2021; File No. IA-J-11011/302/2020-IA-II(I)]

1. The proposal is for the amendment in the Environmental Clearance granted by the Ministry vide letter No. IA-J-11011/302/2020-IA-II(I) dated 25th January 2021 and EC transfer dated 9th November 2021 For the project Active Pharmaceutical Ingredients (APIs), manufacturing industry located at Plot No. 286, 287 & 288 Kadechur KIADB Industrial area, Kadechur village, Yadgir Taluk and District, Karnataka in favour of M/s. Shilpa Albumin Private Limited and transfer of EC from “M/s. Shilpa Albumin Private Limited” to “M/s. Shilpa Biocare Private Limited” granted by the Ministry vide letter No. IA-J-11011/302/2020-IA-II(I) dated 9th November, 2021.
2. The PP has requested for the amendment in the EC with the details as under:

S. No	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification / reasons
1.	F. No. IA-J-11011/302/2020-IA-II(I) dated 25.01.2021; Pg 3; Sl. No. 7	“.....Effluent of 608.512 KLD quantity out of which 30 KLD is domestic sewage, this will be treated in Sewage treatment plant and Industrial effluents will be segregated into HTDS and LTDS. HTDS effluent is treated in solvent stripper, MEE..... RO permeate will be further treated in Biological treatment plant unit I. RO reject will be treated in RO unit II. Treated water of 269.298 KLD will be used in cooling tower makeup. The plant will be based on Zero Liquid Discharge system.” Effluent of 608.512 KLD quantity out of which 30 KLD is domestic sewage, this will be treated in Sewage Treatment Plant and industrial effluents will be segregated into HTDS and LTDS. The effluent will be treated within the factory premises with an option of sending industrial effluent to Common Effluent Treatment Plant for treatment. The plant will be based on Zero Liquid Discharge system with an option of sending industrial effluent to Common Effluent Treatment Plant for treatment.	Disposal of effluent to the Common Effluent Treatment Plant (CETP) is sought as the CETP is located adjacent to the proposed industry.
2.	F.No. IA-J-11011/302/2020-IA-II(I) dated 25.01.2021; pg 5, Part A: Specific condition iii	“As already committed by the PP, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial	“As already committed by the PP, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not	Disposal of effluent to the Common Effluent Treatment Plant (CETP) is sought as the CETP is located adjacent to

	effluent shall not be used for gardening/greenbelt development/horticulture .”	be used for gardening/greenbelt development/horticulture Or with an option to send the industrial effluent to Common Effluent Treatment Plant of M/s. Mother Earth Environ Tech Private Limited (MEETPL), Kadechur Industrial Area for treatment”.	the proposed industry.
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3. Deliberations by the EAC:

The EAC deliberated on the proposal and noted that PP required the said amendment in EC, as CETP is located adjacent to their project. The Committee also deliberated on the green belt development plan and asked the PP to revise the plan considering density of the plantation as 2500 trees per hectare. The PP submitted the revised green belt plan as per which the area reserved for green belt within the Industry premises will be 4.007 Ha i.e., 33% of the total area and the number of trees to be planted will be 11000 trees out of which, during the construction phase, the PP had already planted 721 trees. In addition to this, the PP informed that as a part of CER activity, 51987 trees were planted outside the premises by Shilpa Foundation in collaboration with Green Raichur during April 2019-March 2022 with a total expenditure of ₹ 50,10,845.

The Committee observed that PP also provided the following quantification of the waste water and cost comparison with in-house ETP system vis-a-vis CETP.

a) Quantification of wastewater

Sl. No.	Wastewater	Quantity, KLD	Treatment / Disposal
1	Domestic	30	In-house treatment in STP
2	Rejects from pre-treatment of fresh water	284.364	Recycled within industry premises of M/s. Shilpa Biocare Private Limited into freshwater reservoir
3	a) HTDS effluent from API & Albumin manufacturing process, washing, scrubber	265.148	To CETP
	b) LTDS from cooling tower	29	To CETP
	Total	294.148	To CETP

Treated wastewater received from the CETP for secondary use in cooling tower make-up, will be 269.298 KLD thereby reducing fresh water consumption. Treatment of high TDS and low TDS effluent in the CETP is opted as the CETP facility is established very adjacent to M/s. Shilpa Biocare Private Limited and the CETP established is having 500 KLD capacity (250

KLD each for HTDS & LTDS effluent). The other industries discharging effluent to the CETP is 282 KLD. This will enable cost saving in establishment and O&M of in-house ETP system. The treated effluent from the CETP to an extent of 270 KLD will be taken back for use in cooling tower water make-up and floor wash. These effluents to and from the CETP will be through pipeline.

b) Cost details comparing with in house ETP system vis-à-vis CETP

CAPITAL COST			
Sl. No.	Aspect	Cost saving by opting to CETP, ₹	Remarks
1	Capital investment on ETP / ZLD in house proposed is ₹ 1000 lakhs	8,60,00,000/-	₹ 140 Lakhs will be invested for <ul style="list-style-type: none"> • construction of separate reservoir for treated wastewater from CETP • pipelines for transfer of raw and treated wastewater from and to M/s. Shilpa Biocare Private Limited and CETP. • flow meters and online camera with night vision.
RECURRING COST			
Sl. No.	Aspect	Cost saving, ₹/annum	Remarks
1	Effluent treatment recycle and reuse – in-house ₹ lakhs/annum	285768000	Savings
2	Effluent transfer to CETP for treatment and recycling & reuse of treated effluent from CETP at M/s. Shilpa Biocare Private Limited @ ₹ 3.0/L	317525000	Cost to M/s. Shilpa Biocare Private Limited
3	Net expenses to Shilpa Biocare	31757000	To be paid extra to CETP when compared to inhouse treatment , within 3 Years the investment on ZLD will be done incase of investment in ETP
4	Savings is the cost of the funds in terms of interest		
a)	Funds cost till repayment for 6 year less Depreciated value after 6 years = Net savings	₹ 25119180- 20640000(Depreciation benefit for 6 Years) = ₹ 4479182.00 (Net savings) over & above the depreciation on the investment after 6 years and next 19 Years the equipment ETP will work for the company giving the savings of ₹ 0.3 per liter of ₹ 3.17 Crores per annum if the ETP is established	
b)	Cost of effluent treatment = CETP Cost (₹ 2.7 per liters) – inhouse treatment cost	=(294000LitrsX ₹ 3.0*30*12)- (294000*2.7*30*12)= ₹ 3.17 Crores /annum to be spent additionally	

	(3.0 /- per Litrs) for 269 KL	
	Net Benefit /loss & conclusion	Based on the above there is actually no Financial benefit on sending the effluent to CETP , The company will spend more year on year , The company is planning to send the effluent to overcome the Burden of initial Investment , as the initial investment of funds & mobilization is very difficult , Hence the request for Amendment

Based on the discussion held and information submitted by the PP, the EAC **recommended** the amendment (as mentioned in para 2 above) in EC dated 25.01.2021 subject to the following:

If ZLD is not being implemented, as committed by the PP, the treated effluent from CETP to an extent of 270 KLD shall be taken back for use in cooling tower water make-up, floor wash etc.

Agenda No. 35.5

Expansion of Chemical and Agro-Chemical Intermediates of production capacity from 5,825 TPA to 33,966 TPA located at Plot No. 21/2, Roha MIDC, Taluka Roha, District Raigad, Maharashtra by M/s Anshul Innovative Chemistry Private Limited - Consideration of Environmental Clearance

[Proposal No IA/MH/IND3/253119/2017; File No. J-11011/353/2016-IA.II (I)]

1. The proposal is for the environmental clearance to the project for Proposed Expansion of Chemical and Agro-Chemical Intermediates of production capacity from 5,825 TPA to 33,966 TPA located at Plot No. 21/2 Roha MIDC, Taluka Roha, District Raigad, Maharashtra by M/s Anshul Innovative Chemistry Private Limited - Consideration of Environmental Clearance.
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) as the .
3. The PP applied for ToR vide proposal number IA/MH/IND3/226147/2021 1dated 14.1.2022 and the standard ToR has been issued by the Ministry, vide letter No J-11011/353/2016-IA II (I)dated **20.1.2022**. The PP reported that PH is exempted as it is located inside the notified industrial area i.e., MIDC Dhatav, Roha. The PP applied for Environment Clearance on 30.4.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP reported in Form-2 that it is an **Expansion EC**. Due to some shortcomings, the Project was referred back to the PP on 20.5.2022 and 5.6.2022 and reply to the same was submitted on 16.5.2022 and 5.7.2022. The proposal is now placed in 35th EAC Meeting held on 28-29 June, 2022, wherein the PP and an accredited Consultant M/s. Perfect Enviro Solutions Pvt. Ltd [Accreditation number NABET/EIA/1922/SA0143 Valid up to 22.11.2022 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 1.5703 Ha and no additional land will be used for proposed expansion and no R& R is involved in the Project. The details of products and by-products are as follows:

S.No.	Name of the products	CAS No.	Quantity as per EC (TPA)	Proposed Quantity (TPA)	Total Quantity (TPA)	End use of Product
Category 5(b) product						
1	2- Cyanoaniline	1885-29-6	-	60	60	Agrochemical
Category 5(f) product						
2	Isatoic Anhydride	118-48-9	3,005	0	3,005	Flavours, Fragrance, Pharmaceutical Intermediates, Chemical intermediates , Bird Repellent
3	Anthranilic Acid	118-92-3	400	0	400	Mainly in Fragrance
4	Methyl Anthranilate	134-20-3	2,000	0	2,000	Flavour & Fragrances
5	Dimethyl Anthranilate	85-91-6	200	0	200	Flavour & Fragrances
6	Butyl Anthranilate	7756-96-9	100	0	100	Paints and dyes
7	Anthranilamide	88-68-6	80	160	240	Dyes, Chemical intermediates
8	Dibromoester	105-36-2	40	40	80	Fragrances
9	Oxalyl chloride	79-37-8	-	2,400	2,400	Pharma Intermediates
10	Chloromethyl isopropyl carbonate	35180-01-09	-	1,200	1,200	Pharma Intermediates
11	Methyl Oxalyl Chloride (MOC)	5781-53-3	-	300	300	Pharma Intermediates
12	2- Chloroacetamide (2CAA)	79-07-2	-	300	300	Pharma Intermediates
13	2-[N-(2-Aminobenzoyl)]-amino benzoic acid	1147-43-9	-	72	72	Pharma Intermediates
14	Trichloroacetamide (TCA)	594-65-0	-	72	72	Pharma Intermediates
15	Hexabromobenzene	87-82-1	-	120	120	Pharma Intermediates
16	2[2-(Hydroxy	58574-	-	60	60	Pharma

	benzoyl) amino] benzoic acid (HBAB)	03-01				Intermediates
17	Naphthalene 2-sulfonyl chloride	93-11-8	-	72	72	Pharma Intermediates
18	3,5- Xylenol	108-68-9	-	1,200	1,200	Pharma Intermediates
19	p- Chloro Meta Xylenol	88-04-0	-	600	600	Pharma Intermediates
20	Tetramethyl bisphenol-F (TMBP-F)	5384-21-4	-	600	600	Pharma Intermediates
21	HCl (min 30%)	7647-01-0	-	20486	20486	Industrial chemicals
22	Dimethyl Oxalate	553-90-2	-	45	45	Industrial chemicals
23	Hypochlorite	7681-52-9	-	354	354	Industrial chemicals
	Total Production Capacity		5,825	28141	33,966	

- The PP reported that the Ministry had issued the EC earlier vide letter no. J-11011/353/2016-IA II(I); dated 1st September 2017 to project Synthetic Organic Chemical Manufacturing Unit in favour of M/s Ambernath Organics Pvt. Ltd under 5(f) and the case was appraised in MoEF&CC in absence of SEIAA Maharashtra. The transfer of EC in the name of M/s Anshul Innovative Chemistry Pvt. Limited from M/s Ambernath Organics Pvt. Ltd. was granted by SEIAA, Maharashtra vide letter no. SIA/MH/IND2/174853/2020 on 09.12.2021
- The PP reported that Certified Compliance was obtained letter vide no. EC- 572/RON/2017-NGP/8858 dated 11 November 2021. A Closure report has been submitted to Member Secretary, SEIAA, Maharashtra by IRO, Nagpur vide letter no. F.No. EC-572/RON/2017-NGP/9837 dated 14.06.2022 in lieu of an action taken report submitted by PP for the non-complied point of the certified compliance report.
- 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.
- 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. PP reported that no forest land is involved for the proposed project. River Kundalika is flowing at a distance of 0.98 km in NE direction. The project is at a distance of 2.23 km SW from Western Ghats Village Dhatav CT (As per draft ESA notification of western ghats dated 06th July 2022. PP reported that two Schedule I species i.e. Pavo cristatus, Buceros bicornis, exist within 10 km study area of the project conservation plan has been submitted to Divisional Forest officer on 24.2.2022 with budgetary provision of ₹ 12 Lakh The PP committed to implement the plan in 5 year.
- The PP reported that Ambient air quality monitoring was carried out at 8 locations between October 2021 to December 2021 and the baseline data indicates the ranges of concentrations as: PM₁₀ (59.48- 106.91 µg/m³), PM_{2.5} (27.59- 51.63 µg/m³), SO₂ (5.33- 11.72 µg/m³) and NO₂ (18.29- 37.12 µg/m³). AAQ modelling study for point source emissions indicates that the maximum GLCs after the proposed project would be 88.78 µg/m³, 42.34 µg/m³, 9.19 µg/m³,

29.36 µg/m³ and 1.522 mg/m³ with respect to PM₁₀, PM_{2.5}, SO_x, NO_x and CO, hence the resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). The ambient noise level during day time at the proposed project site varies from 58.5 dB (A) to 58.9 dB (A), during the night the noise level at the project site ranges from 54.0 dB (A) to 54.2 dB (A) which are within the standard limit of Industrial area ~75 dB(A) & 70 dB (A). In the Buffer Zone, noise levels at the day time ranges from 53.7 dB(A)- 76.8 dB(A) and at night time it ranges from 47.1 dB (A) to 65.9 dB (A). The increased noise level is due to vehicular activity at Roha Kolad Road. The surface water quality of the collected sampling locations at Dhatav Village Pond, Nandawali canal & Kund river were in compliance with the Class "D" i.e. Propagation of Wildlife and Fisheries as per CPCB surface water quality- Designated Best Use Water Quality Criteria. While the water quality of Kundalika River (upstream) was in compliance with the Class "B" i.e. Outdoor Bathing (Organised) as per CPCB surface water quality- Designated Best Use Water Quality Criteria & Kundalika River (downstream) was in compliance with Class "A" i.e. Drinking water source without conventional treatment- Designated Best Use Water Quality Criteria respectively. The Ground water quality of the buffer zone is well within the drinking water standard (IS:10500). Thus, the water quality of the study area is fit for the consumption. The texture in the core zone is clayey. Colour is reddish brown Ph IS 7.24, amount of primary nutrient like organic matter is 0.63% thr available nitrogen 68.6% mg/kg is low and available. Potassium 33.6 mg/kg is low while the available phosphorus 20.8 mg/kg is in higher range. This it can be concluded that soil is average in fertile in the core zone.

10. The PP reported that the total water requirement after expansion will be 700 KLD out of which fresh water requirement will be 404 KLD (during lean season) which will be sourced from the MIDC supply, however during rainy season fresh water required will be only 210 KLD while 194 KLD requirement will be met from collected rain water & rest 296 KLD will be in-house treated water. After expansion total wastewater generation will be 334 KLD out of which low concentration stream will be 260 KLD comprising of domestic wastewater cooling tower wastewater, boiler blowdown, scrubbing wastewater, washing wastewater and Low COD-TDS process wastewater which will be treated in ETP of Capacity 310 KLD followed by RO Plant of capacity 290 KLD. The high concentration stream of 184 KLD consisting of High COD-TDS process wastewater, waste water from ejector (utility) along with RO reject will be treated in MEE of capacity 250 KLD. Total treated water of 296 KLD (condensate 160 KLD & RO permeate 136 KLD) will be reused in cooling, boiler, scrubbing, washing and ejector (utility). It will be a ZLD unit.
11. The PP reported that Power requirement after expansion will be 1607 KW including existing 520 KW and will be met from Maharashtra State Electricity distribution corporation limited (MSEDCL). Existing unit has no DG sets, additionally, 2 DG sets of 500 kVA will be used as standby during power failure. Stack height (7 m) will be provided as per CPCB norms to the proposed DG sets.
12. The PP reported that as per Earlier EC 3 x 0.8 TPH & 1 x 2 TPH boilers were proposed. However, the same will not be installed. Instead 1 x 5 TPH & 2 x 3 TPH boilers will be installed. Multi cyclone dust collector with a stack of height of 26 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers. A Thermal fluid heater of 2 Lac Kcal/hr, and a Multi cyclone dust collector with stack of height 19 m will also be installed in the unit after expansion.
13. **Details of Process Emissions Generation and their Management:**

Name of Stack/Location	S-01 IA Plant Sigma	S --02 OC Plant	S-03 MPP-1 /MOC PLANT (Caustic Scrubber)	S-04 Emergency Scrubber	S-05 Chlorine EME System
Pollution Control Measure	Packed column, Venturi scrubber with blower Scrubbing media- Caustic water	Falling film Scrubber Scrubbing media- caustic water	Falling film Scrubber Scrubbing media- Caustic water	Venturi scrubber with blower	Venturi scrubber with blower
Height (m)	13	9	3	25	20
Stack dia (m)	300mm	80mm	80mm	600mm	600mm
Parameter	CO ₂ , HCl, Cl ₂ , NH ₃ , NO ₂	HCl, Cl ₂ , NH ₃ , NO ₂	HCl, Cl ₂ , NH ₃ , NO ₂	CO ₂ , HCl, Cl ₂ , NH ₃ , NO ₂	CO ₂ , HCl, Cl ₂ , NH ₃ , NO ₂

14. Details of Solid Waste Generation and its Management:

Category	Type of Waste	After Expansion (kg/day)	Treatment Method
Biodegradable	Organic Waste	66	Existing: Given to vendor Proposed: OWC (converted to compost)
Non-Biodegradable	Recyclable Waste (Plastic, paper, wood, glass, etc)	99	Sold to Authorised Recycler
Total		165 kg/day	

NON-HAZARDOUS WASTE MANAGEMENT (PROCESS)

Process Waste	Unit	Total after expansion	Treatment/Disposal
Boiler Ash	TPA	766.5	Sold to the approved vendor (M/s Boiler Service) and agreement has been done for lifting of the ash and end use of ash for making ash based products like cement, ash bricks, blocks, tiles etc.and to provide end use certificate for the use of ash after every consignment.
Plastic waste	TPA	1.2	Sale to authorised party for recycle
Wooden pallets	Nos/Annum	50.0	Sale to authorised party for recycle
Scrap M/S	TPA	500	Sale to authorised party for recycle

15. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 9.79 crore (capital) and the Recurring cost (operation and maintenance) will be about ₹ 5.82crore , which

includes Air pollution control [₹80 lakh (capital) and ₹ 5 lakh/annum (Recurring)], water Pollution Control [₹ 500 lakh/annum (Capital), ₹200 lakh/annum (Recurring)], Noise Pollution control [₹ 5.0 lakh (capital) and ₹ 1 lakh/annum (Recurring)], Landscaping / Greenbelt [₹ 5.0 lakh (capital), ₹ 2.0 lakh/annum (Recurring)], Rain water Harvesting [₹10 lakh (capital) and ₹ 1.0 lakh/annum (Recurring)], solid waste management [₹ 30 lakh (capital), ₹ 300 lakh/annum (Recurring)], social activities [₹ 6.0 lakh (capital)}, environment Monitoring [₹ 3.0 lakh (Recurring)], work zone monitoring [₹10 lakh (recurring)], Occupational Health & safety [₹25 lakh (recurring)], Industry proposes to allocate Rs 120 lakhs towards CER for Educational aids such as computers, E-learning materials, Solar street Lamps etc. for the Zilla Parishad schools the study area of the project site, Drinking water facilities, Sanitation and Health facilities within the study area of the project site.

16. Industry will develop greenbelt in an area of 11,866.23 m² with provision of 5555 number of trees.
17. The PP proposed to set up an Environment Management Cell (EMC), it is proposed to engage Executive director- Site incharge- HOD-EDS, executive EHS, EHS supervisor- ETP operator for the functioning of EMC.
18. The Sequestration by the trees was calculated on a per species basis and the Others is calculated on the basis of Literature and found to be a total of 1641.7 tonnes of CO₂ Per annum. During the peak operations, the total CO₂ emissions will be 16750 MT/annum which is equivalent to 0.49 tonne CO₂ eq./tonne Production. Through development of a green belt having total area of 5189.5 sq.m having 1176 trees, there will be natural sequestration of CO₂ emissions. Due to which, company will sequester 1641.7 MT/annum eq. CO₂ (10%) through new green belt development within plant premises within every operational year. Therefore, at peak production the Residual Gate to Gate CO₂ emissions from the proposed plant will be 15109 Tonne eq. CO₂/annum which is about 0.44 tonne CO₂ eq. / tonne production
19. The PP submitted that Public Hearing is exempted as it is located inside the notified industrial area i.e., MIDC Dhatav, Roha as per clause 7 (i) (iii) of EIA notification 2006 (as per OM J-11011/321/2016-IA. II(I) dated 27th April 2018)
20. The PP submitted the disaster and Onsite and Offsite Emergency Plans in the EIA report.
21. The PP submitted that as per the Office Memorandum of Government of India Ministry of Environment and Forest No. J-11013/41/2006-IA-(I) dated 05.10.2011 " I, Shirish R Satpute 5/o Shri Ramchandra N. Satpute, Executive Director of M/s Anshul Innovative Chemistry Pvt. Ltd., for the proposed project "Expansion of Chemical and Agra Chemical Intermediates Manufacturing Plant" located at Plot no. 21/2, Dhatav MIDC, Roha, Raigad, Maharashtra hereby commit the implementation of Environmental Management Program including Environmental Monitoring Program and recommendations of the additional studies, if any, in the specified time-frame and allocation of the required funds included. I hereby give undertaking that I owned the contents (Information & Data) of the EIA Report,".
22. The consultant submitted that *experts prepared the EIA for*" I, Rachna Bhargava, Director & CEO of M/s Perfect Enviro Solutions Pvt. Ltd., 5th floor, NN Mall, Sector 3, Rohini, New Delhi, 110085 authorise Dr. Darshan Deshpande (EIA Coordinator- 5(b)) & Mr. Nipun Bhargava (EIA Coordinator- 5(f)) for the preparation and conducting the Environment Impact Assessment for project "**Expansion of Chemical and Agro-Chemical Intermediates**

Manufacturing Plant” developed by M/s Anshul Innovative Chemistry Private Limited located at Plot no. 21/2, Dhatav MIDC, Taluka-Roha, District-Raigad, State- Maharashtra”.

23. The estimated project cost is Rs 47 crores including existing investment of Rs 11 crores. Total Employment will be 155 persons (direct & indirect) after expansion.

24. **Deliberations by the EAC:**

The Committee deliberated on the issue of Ground water and suggested that no ground water will be used, STP will be installed for treating domestic wastewater, Bio Briquette will be used as a fuel along with the coal in boiler/ Thermic fluid heater. Pulse jet bag filter will be installed along with the multicyclone dust collector for boilers and thermic fluid heater, green area to be increased, CO₂ sequestration to be increased, and suggested to install solar panel and EMP capital and Recurring cost to be increased as per the revised measures adopted, blowers and compressors to be provided with acoustic enclosures. PP has submitted the undertaking for the same, The EAC also noted about the additional measure to reduce air pollution, Pulse jet bag filter to be added with multicyclone dust collector for boiler, thermic fluid heater and accordingly revised incremental GLC for ambient air quality. PP committed for the same and EAC found it to be satisfactory.

The EAC also deliberated on the greenbelt development, carbon sequestration and suggested PP for the action plan to increase the greenbelt development in the area to increase carbon sequestration and thereby improving the air quality, PP submitted that Industry will develop a total green area of 11,866.23 m² with a provision of 5555 number of trees, the development of green area within the project site. The EAC noted about the Life cycle assessment (LCA) and suggest to submit the action plan to increase CO₂ sequestration upto 60%. PP submitted the information regarding the same. The EAC noted that for the domestic wastewater, STP should be installed and accordingly, updated water balance to be submitted. Also, water agreement with MIDC for the existing consumption and applied copy for the proposed expansion has to be submitted by the PP. The same were submitted by the PP vide letter dated 29.7.2022.

The EAC observed that the proposed project may fall under Western Ghat Eco-Sensitive Area. The PP in this regard inter-alia, submitted that the boundary of Western Ghat Eco-Sensitive Area is same in all draft notifications issued till date and HLWL Report. Based on the same, the PP submitted a map as per which, the site is located at a distance of 2.3 km. The Committee is of the view that this issue needs more clarity in pursuant to directions issued by MoEF&CC in 2013 and Hon'ble NGT Order dated 24.08.2018 in the matter of Goa Foundation Vs. Union of India. The Member Secretary may first confirm from the ESZ Division whether EC can be granted to this proposal or not in pursuant to the said Hon'ble NGT Order and then place the proposal before EAC. The Committee therefore, **deferred** the proposal.

Agenda No. 35.6

Setting up of Active Pharmaceutical Ingredients (APIs) and Intermediates of production capacity of 170 TPM of any 4 products out of 29 products (18 APIs & 11 Intermediates) located at Plot No. 92, Kadachur Industrial Area, Yadgir Dist., Karnataka by M/s. Venus Chemicals and Drugs Pvt. Ltd. - Consideration of Environmental Clearance.

[Proposal No. IA/KA/IND3/235878/2021; File No. IA-J-11011/452/2021-IA-II(I)]

1. The proposal is for environmental clearance to the project for Setting up of Active Pharmaceutical Ingredients (APIs) and Intermediates of production capacity of 170 TPM of any 4 products out of 29 products (18 APIs & 11 Intermediates) located at Plot No. 92, Kadechur Industrial Area, Yadgir District Karnataka by M/s. Venus Chemicals and Drugs 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) Notification 2006 (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 2.4 km in south direction. Therefore, the project requires appraisal at Central Level.
3. The PP applied for ToR vide the proposal number IA/KA/IND3/235878/2021 dated 30.10.2021 and the standard ToR has been issued by the Ministry, vide letter No. IA-J-11011/452/2021-IA-II(I) dated 4.11.2021. 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 19.06.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP in the Form-2 reported that it is a **Fresh EC**. Due to some shortcomings, the Project was referred back to PP on 5.7.2022 and reply to the same was submitted on 6.7.2022. The proposal is now placed in 35th EAC Meeting held on 28-29 July, 2022, wherein the PP and an accredited Consultant, M/S. 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 No.	Therapeutic use
1.	1-Benzyl-4-chloropiperidine	2	67848-71-9	Intermediate
2.	1-Benzylpiperidin-4-ol	3	4727-72-4	Intermediate
3.	2-amino-3,5-dibromo benzaldehyde	2	50910-55-9	Ambroxol Intermediate
4.	2-chloromethyl-3,5-dimethyl-4-methoxypyridine hydrochloride	25	86604-75-3	Omeprazole Intermediate
5.	2-Cyano-4'-bromomethylbiphenyl (Bromo-OTBN)	2	114772-54-2	Intermediate
6.	2-hydroxy methyl -3,5-dimethyl-4-methoxy pyridine	20	86604-78-6	Omeprazole Intermediate
7.	3,5-dimethyl-4-nitropyridine-N-oxide	70	14248-66-9	Omeprazole Intermediate

8.	5-methoxy-2-[(4-methoxy-3,5-dimethylmethylpyridinyl)-1H] thio benzimidazole	25	73590-85-9	Omeprazole Intermediate
9.	5-methoxy-2-[(4-methoxy-3,5-dimethylpyridin-2-yl) methyl] sulfinyl)-1H-benzimidazole	25	73590-85-9	Omeprazole Intermediate
10.	Amlodipine Besylate	2	88150-42-9	To treat high blood pressure
11.	Aripiprazole	2	129722-12-9	To treat schizophrenia
12.	Atorvastatin Calcium Trihydrate	3	134523-03-8	To treat cholesterol
13.	Cis Bromobenzoate	30	61397-56-6	Itraconazole Intermediate
14.	Domperidone	3	57808-66-9	Anti-sickness
15.	Donepezil HCl	3	120011-70-3	To treat dementia
	a. 1-benzyl-4-piperidone	1	3612-20-2	Donepezil HCl Intermediate
16.	Esomeprazole	3	217087-09-7	To treat the symptoms of gastroesophageal reflux disease (GERD)
17.	Etoricoxib	4	202409-33-4	Anti-inflammatory
18.	Fexofenadine HCl	3	153439-40-8	Antihistamine
19.	Itraconazole	4	84625-61-6	Anti-fungus
20.	Lansoprazole	2	103577-45-3	To treat the symptoms of gastroesophageal reflux disease (GERD)
21.	Luliconazole	3	187164-19-8	To treat tinea pedis
22.	Olmesartan Medoximil	4	144689-63-4	To treat high blood pressure
23.	Omeprazole	45	73590-58-6	Indigestion and heartburn
24.	Posaconazole	2	171228-49-2	To prevent certain fungal infections
25.	Pregabalin	3	148553-50-8	To treat epilepsy and anxiety
26.	Rabeprazole Sodium	4	117976-90-6	To treat gastritis
27.	Telmisartan	4	144701-48-4	Anti-hypertensive
28.	Valsartan	2	137862-53-4	Angiotensin Receptor Blockers (ARBS)
	R&D Products	0.2	-	-
	Total (4 products)	170 TPM		

Note: From the above list of products, any 4 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	Quantity in Kgs/Day
1.	Omeprazole	Ammonium sulphate	8512.2
		Sodium nitrite	475.3
		Sodium sulphite	792.9
2.	Donepezil HCl	Aluminium Hydroxide	18.2
3.	2-Chloromethyl-4-methoxy-3,5-dimethylpyridine Hydrochloride	Ammonium sulphate	1321.2
4.	3,5-Dimethyl-4-nitro-pyridine N-Oxide	Ammonium sulphate	2235.3
5.	5-methoxy-2-[[[4-methoxy-3,5-dimethylpyridin-2-yl) methyl] sulfinyl]-1H-benzimidazole	Ammonium sulphate	345.0
6.	2-hydroxy methyl -3,5-dimethyl-4-methoxy pyridine	Ammonium sulphate	1236.8

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. Kadechur lake is at 1.8 km in Northeast direction and Bhima River is at 8.3 km in Southwest direction. 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 December 2021 to February 2022 and the baseline data indicates the ranges of concentrations as: PM₁₀ (65.2 – 68.8 µg/m³), PM_{2.5} (27.5 – 35.8 µg/m³), SO₂ (13.1 - 17.1 µg/m³) and NO₂ (23.5 – 31.4 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 10.0 µg/m³, 0.2 µg/m³ and 0.8 µg/m³ with respect to PM₁₀, SO₂ and NO_x respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Industrial Zone: The day time noise level at the Project site were observed to be in the range of 50.1 dB (A) to 51.9 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 49.0 dB (A) to 54.2 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 were observed to be in the range of 40.9 dB (A) to 42.5 dB (A), which is well below the permissible limit of 70 dB (A). Residential Zone: The night-time noise levels in all the residential locations were observed to be in the range of 38.1 dB (A) to 44.7 dB (A). The noise levels were below the permissible limits of 45 dB (A) in night-time at all the location. The water quality of the study area is found to be in the standards of acceptable limits of IS-10500. It has been observed that the pH of the soil samples ranged from 7.14 to 7.57, which indicates 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 168 to 352 µS/cm, which indicates, no salinity ingress in the study area. Percentage of total Organic Carbon is observed in between 0.34 to 0.80 indicating that on an average sufficient in nature. The concentration of available Nitrogen is

in the range of 272 – 681 kg/Ha, Phosphorous is in the range of 76.8 – 284.0 kg/Ha and Potassium is in the range of 138.4 – 310.0 kg/Ha in the soil samples. These implies that the soil of the area have sufficient nutrient content and is fertile.

8. The PP reported that overall water consumption for the proposed project is 114.9 KLD which includes freshwater requirement of 44 KLD. The total water required is sourced from KIADB Supply. The freshwater required for manufacturing process is passed through Reverse Osmosis (RO) before it is given to the process. Thus, after passing 25.6 KLD of water through RO, 20.5 KLD of RO Permeate and 5.1 KLD of RO Reject is obtained. The 20.5 KLD of RO permeate is given to the manufacturing process and RO reject is sent to the effluent stream. For the industrial activities such as manufacturing process washing, scrubbing, boiler and cooling tower make-up, 100.5 KLD of water is required. For domestic usage and gardening, 3.8 KLD and 10.6 KLD of water is required respectively. For cooling tower make-up, CETP treated water of quantity 70.9 KLD will be utilized, and thus freshwater consumption is 44 KLD. The proposed project generates total effluent of quantity 45.6 KLD. The industrial effluent will be segregated based on the concentration of total dissolved solids (TDS). High TDS effluent of 26.9 KLD will be collected and neutralized in Equalization and Neutralization tank of capacity 30 KLD each and later on, will be sent to CETP. Low TDS effluent of 15.5 KLD (excluding domestic sewage) will be collected and neutralized in Equalization and Neutralization tank of capacity 20 KLD each and later on, will be sent to CETP. The industry has obtained CETP Agreement for treatment and disposal of industrial effluent with M/s. Mother Earth Environ Tech Pvt Ltd on 3rd Aug 2021. The domestic sewage which is LTDS stream of 3.2 KLD, will be sent to septic tank (As per IS:2470 Part-I) followed by soak pit.
9. The PP reported that Source of power supply is from GESCOM. Power requirement for the project is 500 KVA. DG set of 1 X 250 KVA capacity is proposed as power backup in case of emergency. Common stack of height 6 m AGL will be provided as per CPCB norms to the proposed DG sets. The unit is proposing for 1X2 TPH and 1X3 TPH Coal/Briquette fired Boilers. Multi cyclone separator with bag filter with common stack of height of 30 m AGL will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers.

10. Details of Process Emissions Generation and their Management:

S. No.	Name of the Gas	Quantity in Kg/Day	Treatment Method	Disposal Method after treatment
1	Hydrogen chloride	639.2	Scrubbed by using water media	Generated Dil. HCl will be reused within the industry
2	Ammonia	6.4		Generated NH ₄ OH will be reused within the industry
3	Sulphur dioxide	763.0	Scrubbed by using C.S. Lye solution	Scrubbed water will be sent to CETP along with high TDS effluent.
4	Hydrogen Bromide	467.7		
5	Carbon dioxide	116.3	Dispersed into atmosphere	-
6	Oxygen	119.7		
7	Hydrogen	83.9	Dispersed into atmosphere through flame	-

			arrester with nitrogen gas	
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11. **Details of Solid Waste Generation and its Management:**

Sl. 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	397 kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing
4	28.1	Process Residues & Waste	1958.7 kg/day	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDf
5	28.2	Spent Catalyst	31.3 kg/day	Store in secured manner and hand over to re-processor and reused
6	28.3	Spent Carbon	47.3 Kgs/Day	Store in secured manner and hand over to authorized cement industry for Co-processing
7	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)
8	28.5	Date expired products	500 Kgs/Month	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDf
9	28.6	Spent Solvent	10 kg/day	Store in secured manner and hand over to authorized recyclers/cement industries
10	33.1	Detoxified- Container & Container Liners of Hazardous Chemicals and Wastes	250 No's/Month	After complete detoxification, shall be disposed to the outside agencies/buyers.
11	33.2	Contaminated cotton rags or other cleaning materials	25 Kgs/month	Store in secured manner and hand over to KSPCB Authorized Incinerators/TSDf.
12	A1160	Used Lead Acid batteries	2 No's/Annum	Returned back to dealer/ Supplier
Other & Miscellaneous Solid Wastes				
12	--	Coal ash	1400 kgs/day	Sent to Brick Manufacturers

13	--	Briquette ash	3640 kgs/day	Sent to fertilizer industries
14	--	Used PPE	5 Kgs/ Month	Sent to TSDF
15	--	E- Waste	150 Kgs/ Annum	Authorized recyclers
16	--	Plastic Waste	200 Kgs/ Annum	Authorized recyclers
17	--	Metal Scrap	3 TPA	Sale to outside agencies/ recyclers
18	--	Used Filters (HEPA filters, Oil Filters etc.)	25 Nos /year	Sent to TSDF
19	--	Used / Discarded RO Membranes	0.2 TPA	Sent to TSDF

12. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 80 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 15 Lakh per annum, which includes Pollution Control equipment such as Scrubber, Multi Cyclone separators, Bag filter, etc.) [₹ 35 lakh (capital) and ₹ 9 lakh/annum (Recurring)], Rain Water Harvesting system (₹5lakh/annum (capital) and ₹ 2lakh/annum (Recurring)], Greenbelt Development [₹6 lakh (capital) and ₹ 1 lakh/annum (Recurring)], Occupational Health & Safety [₹7 lakh (capital), ₹ 1.0 lakh/annum (Recurring)], Storm water drains and fire management [₹15 lakh/annum (Capital)], ₹ 1.5 lakh/annum (Recurring), Environment Laboratory [₹5 lakh (capital), ₹ 0.5 lakh/annum (Recurring)], Industry proposes to allocate ₹ 7 Lakh towards CER for Providing sanitation facility and equipment to Government Primary Health Centre, Kadechur, providing rain water harvesting facility to Primary upper Primary school Kadechur, Avenue plantation in Rachanhalli village. 600 saplings will be provided (cost of one sapling is ₹ 500).
13. Industry will develop greenbelt in an area of 36.7 % i.e., 2964.5 m² out of total area of the project.
14. The PP proposed to set up an Environment Management Cell (EMC) to engage Director-senior plant manager, Department of OHS- department of operations- safety officer- for the functioning of EMC.
15. 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.
16. The PP reported that The floristic composition for the proposed green belt area in the project are would be 13 native tree species which are fast growing and with high carbon sequestration capacity.
17. The PP submitted the disaster and Onsite and Offsite Emergency Plans in the EIA report.
18. 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. Venus Chemicals and Drugs Pvt. Ltd., hereby declare that we have hired QCI-NABET accredited Environmental Consultant M/s. AM Enviro Engineers,

Bengaluru to conduct the Environment Impact Assessment (EIA) studies for the proposed "Manufacturing of Active Pharmaceutical Ingredients (API's) and Intermediates" at Plot No. 92, Kadachur Industrial area, Yadagir Taluk & District, Karnataka based on the prescribed TOR (File No. IA-J-11011/452/2021-IA-11(I) dated 4th November 2021) with respect to EIA-EMP studies. Information has been compiled while conducting the EIA studies. The content (Information and data) as given by us and mentioned by the consultant in the EIA-EMP report are factually correct with full knowledge of the undersigned".

19. 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. 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. Venus Chemicals and Drugs Pvt. Ltd. & baseline data collected by M/s. SLN TESTING LABORATORY (MOEF&CC recognition Laboratory) for one full season baseline environmental data monitored during winter season, covering three months i.e., December 2021 to February 2022".
20. The estimated project cost is ₹ 9 Crores. Total Employment will be 60 persons as direct & 25 persons indirect.

21. **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 QC/ 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 utilisation of briquettes as primary fuel for Boilers. The PP submitted an undertaking regarding the utilisation of briquettes as primary fuel for Boilers. The EAC sought the Ambient Air Quality Modelling carried out for all sources of emissions with air pollution control equipment, the PP confirmed that the Ambient Air Quality Modelling was carried out for emission sources such as Boiler, DG Sets and Thermic Fluid heater, and the predicted emissions for PM, SO₂ and NO_x from these sources with proposed Air Pollution Control equipment have been submitted vide letter dated 28.7.2022. The EAC also sought the Membership Certificate of the Common Effluent Treatment Plant (CETP) and the Treatment, Storage & Disposal Facility (TSDP) and the traffic study considering the additional traffic growth in the industrial area. The PP submitted the same.

The EAC also deliberated on greenbelt plantation and suggested that the plan should be developed for 2,500 number of plantations per hectare of area, excluding shrubs and the species, Australian Wattle should be omitted. The PP submitted the revised greenbelt development plan by considering 2,500 number of species per hectare. The proposed greenbelt area is 2964.5 sqm (0.29645 ha). Thus, 742 number (0.29645 x 2500) of plantations will be developed as part of greenbelt. The EAC noted the water balance diagram and suggested the PP to revise it to include treated water from the CETP for boiler and cooling tower. The EAC also suggested that the structure of Environment Management Cell should be revised so as to include an official under the Director with the qualification of Environmental Engineering to monitor all the activities. The EAC also noted about the KIADB water supply and suggested to submit the application submitted to KIADB to obtain water supply. The PP has submitted all of these.

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.

22. 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 0.29645 Ha by planting 742 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 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- senior plant manager, Department of OHS-

department of operations. 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 ₹ 80 Lakh (Capital cost) and ₹ 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 water consumption for the proposed project is 114.9 KLD which includes freshwater requirement of 44 KLD. The total water required is sourced from KIADB Supply 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.
- (vii) 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.
- (viii) 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.
- (ix) 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.
- (x) The PP shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

- (xi) The proposed project generates total effluent of quantity 45.6 KLD. The industrial effluent will be segregated based on the concentration of total dissolved solids (TDS). High TDS effluent of 26.9 KLD will be collected and neutralized in Equalization and Neutralization tank of capacity 30 KLD each and later on, will be sent to CETP. Low TDS effluent of 15.5 KLD (excluding domestic sewage) will be collected and neutralized in Equalization and Neutralization tank of capacity 20 KLD each and later on, will be sent to CETP. The industry has obtained CETP Agreement for treatment and disposal of industrial effluent with M/s. Mother Earth Environ Tech Pvt Ltd on 3rd Aug 2021. The domestic sewage which is LTDS stream of 3.2 KLD, will be sent to septic tank (As per IS:2470 Part-I) followed by soak pit
- (xii) 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.
- (xiii) 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.
- (xiv) 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.
- (xv) 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.
- (xvi) 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.
- (xvii) 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.
- (xviii) 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.
- (xix) 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. 35.7

Proposed Expansion of Pesticide Technical, Pesticide Intermediates and R&D products Unit by 200 TPM located at Plot No. 1409, Phase-III, GIDC Notified Industrial Area, Vapi, Dist. Valsad (Gujarat) by M/s Heranba Industries Limited (UNIT: IV) - Consideration of ToR

[Proposal No. IA/GJ/IND3/278007/2022; File No. IA-J-11011/188/2022-IA-II(I)]

1. The proposal is for the Expansion of Pesticide Technical, Pesticide Intermediates and R&D products Unit by 200 TPM located at Plot No. 1409, Phase-III, GIDC Notified Industrial Area, Vapi, Dist. Valsad (Gujarat) by M/s Heranba Industries Limited (UNIT: IV).
2. The project/activity is covered under Category 'A' of item 5(b), 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/IND3/278007/2022** dated 14.05.2022. The proposal was referred back to the PP on 23.6.2022 and 5.7.2022 as there were some shortcomings in the proposal and the PP provided its reply on 29.6.2022 and 6.7.2022. The proposal is now placed in 35th EAC Meeting held on 28th-29th July, 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 informed that Environment Clearance is not applicable to existing unit as from 2016 unit is involved in manufacturing of formulation pesticide powders. For which the unit has already obtained the CTE and CTO of the board. The CTO is valid up to 31/12/2023. In the year of 2020, unit has obtained the CTE amendment vide order No: 111568 for the manufacture of inorganic and organic products by utilization of 100% hazardous waste by evaporation and distillation process only and discontinue of existing formulation products. Now unit has applied for the Consent to Operate (CTO) on dated: 4/4/2022 and the same is awaited.
5. The PP reported that the existing unit is involved in manufacturing of formulation pesticide powders, so the product details are as follows-

S. No.	Product	Capacity TPM				
		CAS Number	Existing	Proposed	Total	End Use of Product
1	Liquid Bromine	7726-95-6	450.0	0	450.0	3 phenoxybenzaldehyde, Bromobenzene, 2,4,6-tribromophenol, Propiconazole, Difenoconazole, etc

2	Pure Phenol	108-95-2	59.4	0	59.4	3phenoxybenzaldehyde, 2,4,6-tribromophenol, 2,4,6-trichlorophenol, polymerization, plastics, picric acid, etc.
3	Potassium Chloride (KCl) Crystal	7447-40-7	442.8	0	442.8	Potassium hydroxide, potassium metal, fertilizer, soaps, inorganic chemical industries, etc.
4	Sodium sulphite crystal	7757-83-7	300.0	0	300.0	Oxidizing agent, bleaching agent, surface active agent, corrosion inhibitor, photographic industry, steam boilers, etc.
5	Ammonium chloride Powder	12125-02-9	300.0	0	300.0	Fertilizers, electrolyte industries, metal industries, etc.
6	Poly Aluminium chloride soln	39290-78-3	2000	0	2000	Industrial effluents, sewage, clarification of drinking water, pulp & paper industries, cosmetics & personal care industries, oil & gas industries, etc
7	Poly Aluminium chloride Powder	39290-78-3	500	0	500	Industrial effluents, sewage, clarification of drinking water, pulp & paper industries, cosmetics & personal care industries, oil & gas industries, etc.
8	Copper hydroxide	1344-69-0	20.0	0	20.0	Copper sulfate, copper oxychloride, copper oxide, paint industries, ceramic industries, dyeing industries, paper industries, etc.
9	Pure bromo benzene	108-86-1	250.0	0	250.0	Bifenthrin, motor oil industries, phenyl magnesium bromide, organic chemical industries, pharmaceutical industries, etc.
10	Pure Benzene	71-43-2	42.5	0	42.5	Bromobenzene, plastics, resins, nylons, synthetic fibre industries, benzene derivatives, pharmaceutical

						industries, agrochemical industries, etc.
	Group: I					
1	N-Propyl Bromide	106-94-5	0	90	90	Use as Intermediate
2	4 - 4' Thio Di Phenol	2664-63-3				Use as Intermediate
3	2,4 Dichloro Valerophenone	61023-66-3				Use as Intermediate
	Group: II					
4	Quinalphose Technical	13593-03-8	0	100	100	Use in agriculture for control of pests over crops.
5	Thiophenate Methyl Technical	23564-05-8				Is a systemic fungicide used on a variety of tree, vine, and root crops, as well as on Canola and wheat
6	Cloquintocet Mexyl Technical	99607-70-2				Used to prevent damage to target crops due to phytotoxic effects
7	Bifenthrin Technical	82657-04-3				Used against malaria and filarial vector mosquitoes
8	Ethion Technical	563-12-2				Used to control insects on citrus trees, but also on cotton, fruit and nut trees, and some vegetables
9	Phenthoate Technical	2597-03-7				Used as insecticide and acaricide for rice, vegetables, fruits, and tea.
	Group: III					
10	Research & Development based Products	-	0	10	10	--
	Total		4364.7	200	4564.7	

6. 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.
7. The PP reported that the unit was started in the year of 2016 after obtaining the CTE and CTO of the SPCB for the manufacture of formulation of various pesticide powders. As per EIA Notification 2006, for the formulation of pesticides powder, Environmental Clearance is not applicable. In the year of 2021, the CTE was amended for the manufacture of inorganic and organic products by utilization of 100% hazardous waste by evaporation and distillation

process only and discontinue of existing formulation products. Since 2016, any product covered under the EIA Notification, 2006 was not manufactured and all the Existing products do not require environmental clearance. Hence, there is no violation involved.

8. The PP reported that the proposed land area is 0.1631 ha and no R&R is involved in the Project.
9. 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 6.66 km in W direction.
10. The PP reported that at present, the fresh water consumption is 53.7 KLD sourced from GIDC Vapi. After expansion, the fresh water requirement will be 211.8 KLD and it will be obtained from the GIDC water supply department. The GIDC water permission has been obtained vide letter No/DEE/WS/NA/VPI/216 dated 3.6.2022. At present, total industrial effluent generation is 16.7 KLD, which is collected, neutralized, filtered and sent to common multi effect evaporation system of M/S Vapi green Enviro limited, GIDC Vapi through authorized tanker. Thus, there is no discharge of any industrial effluent discharge on land. After expansion, the industrial effluent generation will be 72.8 KLD, which will be collected, neutralized, filtered and sent to common multi effect evaporation system of M/S Vapi green Enviro limited, GIDC Vapi through authorized tanker. Thus, there will be no discharge of any industrial effluent discharge on land. The domestic wastewater (8 KLD) will be treated in the STP and treated water will be utilized for gardening/toilet flushing.
11. The PP reported that Power requirement after expansion will be 1100 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. The Unit has proposed 01 No. of DG sets capacity of 500 KVA. DG sets are used as standby during power failure. Stack (height 11.0 m) will be provided as per the CPCB norms to the proposed DG sets.
12. 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.
13. The unit has developed greenbelt in an area of 550 m². Overall greenbelt area is around 33 % of the total area of the project. No further greenbelt will be developed for expansion activities.
14. The estimated project cost is ₹ 25.24 Crores including existing project cost of ₹ 10.32 Crore. Proposed expansion Project Cost: ₹ 14.92 Crore. The PP reported that total Employment will be 60 persons as direct & 5 persons indirect after expansion. Industry proposes to allocate ₹ 29.84 Lakhs @ of 2 % towards the CER.

15. **Deliberations by the EAC:**

The committee deliberated on the various environmental aspects such as air emission and its mitigation measures, gaseous & fugitive emission control measures, water requirement, wastewater generation, wastewater treatment system, solid & hazardous waste management and action plan proposed by the PP being in a critically polluted area. The Committee observed that the PP needs to revise the green belt plan, the Environmental Management Cell with

qualification and the ETP flow diagram. The PP submitted the information regarding the same vide letter dated 29.7.2022.

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.
- (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. 35.8

Proposed establishment of Bulk Drugs, Intermediates & Chemical Manufacturing Unit of production capacity 5957 MTPA located at Plot No. 81-E, Jigani I Phase Industrial Area, Jigani village, Jigani Hobli, Anekal Taluka, Karnataka by M/s Roshel Omkar Laboratories Private Limited - Consideration of ToR

[Proposal No. IA/KA/IND3/278534/2022; File No. IA-J-11011/227/2022-IA-II(I)]

1. The proposal is for the Proposed establishment of Bulk Drugs, Intermediates & Chemical Manufacturing Unit of production capacity 5957 MTPA located at Plot No. 81-E, Jigani I Phase Industrial Area, Jigani village, Jigani Hobli, Anekal Taluka, Karnataka by M/s Roshel Omkar 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) and requires appraisal at Central Level by Expert Appraisal Committee (EAC) as the General Condition is applicable for the projects falling in critically polluted areas as notified by the Central Pollution Control Board (CPCB).
3. The PP applied for the ToR vide proposal number No. **IA/KA/IND3/278534/2022** dated 27.06.2022. The proposal was referred back to the PP on 4.7.2022 as there were some shortcomings in the proposal. The PP provided its reply on 14.07.2022. The proposal is now placed in 35th EAC Meeting held on 28th-29th July, 2022, wherein the PP and an accredited Consultant, Eco green Enviro services with Accreditation number NABET/EIA/2023/IA0070 valid

till 22.12.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that it's a new project and there is no violation of the EIA notification, 2006.
5. The PP reported that the total land area is 985 m² and no R&R is involved in the Project. Details of product are as follows:

S. No.	Product Name	Quantity In MT/PA	CAS No.	Therapeutic Use
01	Pregabalin	90.0	148553-50-8	Anticonvulsants. Analgesics and Fibromyalgia agents
02	Tamsulosin	6.0	106133-20-4	Alpha blockers
03	Gabapentin HCL	60.0	60142-96-3	Antiepileptic, To prevent and control Seizures.
04	Lysergol intermediates	100.0	602-85-7	Bioenhancer for the drugs and nutrients and has antibacterial activity.
05	Paracetamol	300.0	103-90-2	Analgesics and antipyretics
06	Salbutamol	45.0	8559-94-9	Bronchodilators
07	TERT-BUTYL 3-(3-METHYLPYRIDIN-2-YL)BENZOATE	45.0	1083057-12-8	KSM FOR LUMCAFTER It may help to improve breathing, reduce the risk of lung infections, and improve weight gain
08	TERT-BUTYL(2S) -2-(PYRIDINE-3-YL) PIPERIDINE-1-CARBOXYLATE	50.0	745807-07-2	KSM FOR (S)-ANABASIN industrial use is as an insecticide
09	2,4-Diamino pyrimidine-3-oxide and its intermediates	50.0	74638-76-9	Used in cosmetic products

10	2,4,-Diamine-6-Chloropyrimidine	60	156-81-0	Used in cosmetic products
11	1,3 Cyclohexane dione	60.0	504-02-9	as a building block
12	Ambraxol Hydrochloride	60.0	23828-92-4	mucolytics
13	4-aminocyclohexanol	60.0	27489-62-9	Ambraxol raw material
14	Isoxsuprine Hydrochloride	15	579-56-6	symptomatic treatment of cerebrovascular insufficiency
15	R & D products	6.0	-	-

LIST OF BY-PRODUCTS AND ITS QUANTITIES

S. No.	Name of the product	Name of the By-Product	Quantity in Kg/Day
1.	Paracetamol	Spent catalyst	30 Kg
2.	Salbutamol	Spent catalyst	5 Kg
3.	Isoxsuprine Hydrochloride	Spent catalyst	35 Kg
4.	1,3 Cyclohexane dione	Spent catalyst	30 kg
5.	Pregabalin	Spent catalyst	15 Kg
6.	Tamsulosin	Spent catalyst	40 Kg
7.	2,4,Diamine-6 Chloropyrimidine	Spent catalyst	5 Kg

6 The PP reported that proposal does not involve Approval/Clearance under the Forest (Conservation) Act,1980, Wildlife (Protection) Act,1972 and C.R.Z notification, 2011 as

amended. The PP reported that there is no forest and protected area notified under the Wildlife (Protection) Act (1972) & Eco-sensitive area notified under Section 3 of the Environment (Protection) Act 1986 within 10 km radius areas from the Plant Site.

- 7 The PP reported that there are no Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. The Bannerghatta National Park is about 7.61 km from the project site (NW direction)
- 8 The PP reported that the total water requirement of the plant is 58 KLD, which will be met from KIADB water supply. The total Domestic & Industrial effluent generation is estimated to be 34 KLD which will be treated up to primary treatment. The partially treated effluent will be disposed to the CETP line. The plant will be based on the CETP discharge system.
- 9 The power requirement of the project is 2500 KW from KPTCL. DG sets (500 x 2 KVA) will act as the backup facilities in the case of power failure.
- 10 The PP reported that no court case is pending against the proposal and no direction issued under the E (P) Act/Air Act/Water Act.
- 11 The proposed project site is located in a Notified Industrial Area i.e., Jigani I phase industrial area established by KIADB, Karnataka and hence, Public Hearing is exempted pursuant to Ministry's O.M. No. J-11011/321/2016-IA.II (I) dated 27.04.2018
- 12 The Industry has developed 33% of the total site area as greenbelt area which amounts to about 666.27 sqm. of total site area.
- 13 The estimated approx. capital cost of the project shall be ₹ 5.0 Crores. Total number of workers require during operational phase is 30.

14 **Deliberations by the EAC:**

The committee deliberated on the various environmental aspects such as air emission and its mitigation measures, gaseous & fugitive emission control measures, water requirement, wastewater generation, wastewater treatment System, solid & hazardous waste management and action plan proposed by the PP being in a critically polluted area. The Committee observed that the PP needs to revise the green belt plan as the number of trees mentioned is not correct. The committee is of the view that PP may revise the air quality control measures as the multicyclone separator may not be effective. The Committee is also of the view that a proper justification for expansion of the project in a Critically Polluted Area (CPA) is required by carrying out alternative site analysis and Environmental Cost Benefit analysis.

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 need 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 from the PP to the effect that the project is not a violation proposal in pursuant to S.O. 804(E) dated 14.03.2017 and SoP dated 07.07.2021.
- (xi) Action Plan for management of 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.

- (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. 35.9

Proposed Expansion in Pesticide Technical and Pesticide Specific Intermediates Manufacturing Unit of production capacity from Product: 26572 MTPA to 30790 MTPA and Byproduct: 13639 MTPA to 17852 MTPA located at Plot No. 306/3, Phase II, GIDC Estate, Vapi, Valsad, Gujarat by Bayer Vapi Pvt. Ltd. - Consideration of ToR

[Proposal No. IA/GJ/IND3/281831/2022 ; File No. J-11011/300/2015-IA.II(I)]

1. The proposal is for Expansion in Pesticide Technical and Pesticide Specific Intermediates Manufacturing Unit of production capacity from Product: 26572 MTPA to 30790 MTPA and Byproduct: 13639 MTPA to 17852 MTPA located at Plot No. 306/3, Phase II, GIDC Estate, Vapi, Valsad, Gujarat by Bayer Vapi Pvt. Ltd.
2. The project/activity is covered under Category 'A' of item 5(b), 'Pesticides industry and pesticide specific intermediates' of Schedule of Environment Impact Assessment (EIA) Notification 2006 (as amended) and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) as the General Condition is applicable for the projects falling in critically polluted areas as notified by the Central Pollution Control Board (CPCB).
3. The PP applied for ToR vide proposal number No. **IA/GJ/IND3/281831/2022** dated 05.07.2022. The proposal was referred back to PP on 12.07.2022 as there were some shortcomings in the proposal. The PP provided its reply on 15.07.2022. The proposal is now placed in 35th EAC Meeting held on 28th-29th July, 2022, wherein the PP and an accredited Consultant, M/s. EQMS India Pvt. Ltd. with Accreditation number NABET/EIA/1922/RA 0197 valid till 23.11.2022] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:
4. The PP reported that it's a new project and there is no violation of the EIA notification, 2006.
5. The PP reported that the total land area is 34.8 Ha and no R&R is involved in the Project. Details of products are as follows:

S. No	Name of Products	Category	Subcategory	As per EC (MTPA) (I)	As per CCA (MTPA) (II)	Additional to EC (Proposed) (MTPA) (III)	Total after Expansion (MTPA) (IV= I + III)
.							

Products							
1	Cypermethrin	Insecticides	Synthetic Pyrethroids	2496	3050	1024	4000
2	Alphamethrin	Insecticides	Synthetic Pyrethroids	480	660		
3	Deltamethrin	Insecticides	Synthetic Pyrethroids	504	600	216	900
4	Becisthemic Acid	Intermediate	-	180	180		
5	Permethrin	Insecticides	Synthetic Pyrethroids	1374	1600	226	1600
6	Transfluthrin	Insecticides	Synthetic Pyrethroids	(Either individual or total production of 2 products)			
7	Acrinathrin	Insecticides	Synthetic Pyrethroids	45	45	-45	0
8	Imidacloprid	Insecticides	Synthetic Pyrethroids	720	720	-720	0
9	Beta Cyfluthrin	Insecticides	Synthetic Pyrethroids	982.32	982	267.68	1250
10	Cyfluthrin	Insecticides	Synthetic Pyrethroids	(Either individual or total production of 2 products)			
11	Ethofumesate	Herbicide	-	3300	4500	1200	4500

12	NC 9770	Intermediate	-	(Either individual or total production of 3 products)			Removing NC 9770 from the group
13	Aclonifen	Herbicide	-				(Either individual or total production of 2 products)
14	Triafamone	Herbicide	-	180	180	-180	0
15	Sulphonyl Indole	Intermediate	-	(Either individual or total production of 2 products)			
16	Triazoindolinon	Intermediate	-				
17	Metaphenoxy Benzaldehyde	Intermediate	-	3000	1800	-1200	1800
18	Pyma Acetate	Intermediate	-	0	0		(Either individual or total production of 2 products)
19	NaCMTS	Intermediate	-	1200	1000	0	1200
20	CPDM	Intermediate	-	0	175		(Either individual or total production of 2 products)

21	Cypermethric Acid Chloride (CMAC)/ Cypermethric Acid (CMA)	Intermediate	-	2400	3000	1100	3500
22	Cypermethric Acid Chloride from DV Ester	Intermediate	-	600	600	0	600
23	Acid Chloride Preparation (RTPAC)	Intermediate	-	(Either individual or total production of 2 products)			
24	Metaphenoxy Benzyl Alcohol	Intermediate	-	1200	1200	0	1200
25	Chrysanthemic Acid	Intermediate	-	180	180	-180	0
26	Allethrolones	Intermediate	-	(Either individual or total production of 2 products)			(Either individual or total production of 2 products)
27	TCA	Intermediate	-	540	720	260	800
28	RTCMA	Intermediate	-	(Either individual or total production of 2 products)			
29	DM Base	Intermediate	-	50.4	0	-50.4	0
30	Fipronil	Insecticides	Pyrazoles	540	540	-540	0
31	Ethiprole	Insecticides	Pyrazoles	1020	1500	3480	4500
32	Pyrazole	Intermediate	Pyrazoles	0			(Either individual or total production of 2 products)

							product s)
33	Fluopyram	Fungicide	Carbamate	3000	1200	-1800	1200
34	PYACN	Intermediate	-	(Either individual or total production of 2 products)			(Either individual or total production of 2 products)
35	Tembotrione	Herbicide	Others	1020	300	-1020	0
36	Pyrasulfotle	Herbicide	Others	300	300	-300	0
37	Amid Chloride	Intermediate	Intermediate	1020	1020	-1020	0
38	Flumethrin	Insecticides	Synthetic Pyrethroids	60	60	0	60
39	BDCB	Intermediate	-	0	0	3500	3500
40	R & D Products	Not Specified	-	180	180	0	180
Total Product				26572	26292	4218	30790
By-products							
1	Recovered Methanol	-	-	811	-	-811	0
2	Potassium Chloride	-	-	540	-	1866	2406
3	Sodium Bisulphite/Sodium Bisulphite Solution	-	-	4051	-	1857	5908
4	Sodium Sulphite Solution	-	-	1575	-	-337	1238
5	Monobromo Toluene/Mix Isomer PBrODCB	-	-	2095	-	3525	5620
6	Ammonia Solution	-	-	0	-	0	0
7	Ammonium Chloride Crystal	-	-	1614	-	742	2356
8	Potassium Chloride Solution	-	-	2953	-	-2953	0
9	Sodium Fluoride	-	-	0	-	324	324
Total By-products				13639	-	4213	17852

6. The PP reported that proposal does not involves Approval/ Clearance under Forest (Conservation) Act,1980, wildlife (Protection) Act,1972 and C.R.Z notification, 2011 as amended. The PP reported that there is no forest and protected area notified under the

Wildlife (Protection) Act (1972) & Eco-sensitive area notified under Section 3 of the Environment (Protection) Act 1986 within 10 km radius areas from the Plant Site.

7. The PP reported that there are no Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance.
8. The PP reported that total water requirement is 2890 KLD of which freshwater requirement of 2530 KLD will be met from GIDC Supply. Effluent of **1250 KLD** (Industrial Effluent- 1150 KLD; Domestic Sewage- 100 KLD). Industrial quantity will be treated in **Evaporator (capacity- 380 KLD), Fenton Oxidation Plant (120 KLD), Stripper (25 KLD), ETP (capacity 1500 KLD) & RO (500 KLD)** treatment. Domestic wastewater will be disposed into soak pit/septic tank and overflow of it shall be treated in ETP
9. The power requirement after expansion will be **12000 kVA** which will be met Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has DG set of **3x1500 KVA & 2x750 KVA** capacity, additionally DG Sets of capacity **2 x1500 KVA** are proposed as power backup. Existing 3x325 KVA capacity are used for fire hydrant pumps.
10. The PP reported that no court case is pending against the proposal and no direction issued under the E (P) Act/Air Act/Water Act.
11. The proposed project site is located in a Notified Industrial Area and Public Hearing is exempted pursuant to the Ministry's O.M. No. J-11011/321/2016-IA.II (I) dated 27.04.2018
12. Industry will develop greenbelt in an area of 39.17 % i.e., 1,15,062 m² out of total area of the project.
13. The estimated project cost is ₹ **707.46 crores including existing investment of ₹ 582.46 crores**. Total Employment will be **1230** persons during operation phase.

14. Deliberations by the EAC:

The committee deliberated on the various environmental aspects such as air emission and its mitigation measures, gaseous & fugitive emission control measures, water requirement, wastewater generation, wastewater treatment System, solid & hazardous waste management and action plan proposed by the PP being in a critically polluted area. The Committee observed that the PP needs to revise the green belt plan as the area developed under lawn/garden is included in the green belt area. The Committee is also of the view that a proper justification for expansion of the project in a Critically Polluted Area (CPA) is required by carrying out alternative site analysis and Environmental Cost Benefit analysis.

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 the Ministry's OMs dated 31.10.2019 & 24.10.2019.

- (iii) Being in a Critically Polluted Area (CPA), PP need 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. the 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 SoP dated 07.07.2021.
- (xi) Action Plan for the management of 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 the 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.

- (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. 35.10

Proposed Project for Manufacturing of Synthetic Organic Chemicals (Formaldehyde & Resins) of production capacity 12,200 TPM located at Plot No. 1, Sr. No. 87/P1, Hadamtala Industrial Zone, Gondal highway b/h Santosh Petrol pump at Hadamtala, Taluka: Kotda Sangani, Rajkot, Gujarat by M/s. Maruti Formalin - Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/272913/2021; File No. IA-J-11011/196/2021-IA-II(I)]

1. The proposal is for the environmental clearance to the Proposed Project for Manufacturing of Synthetic Organic Chemicals (Formaldehyde & Resins) of production capacity 12,200 TPM located at Plot No. 1, Sr.No.87/P1, Hadamtala Industrial Zone, Gondal highway b/h Santosh Petrol pump at Hadamtala, Taluka: Kotda Sangani, Rajkot, Gujarat by M/s. Maruti Formalin.
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 industry is located outside the notified industrial area.
3. The PP applied for the ToR vide proposal number IA/GJ/IND3/210464/2021 dated 10.5.2021 and the standard ToR has been issued by the Ministry, vide letter No. IA-J-11011/196/2021-IA-II(I) dated 11.5.2021. The PP submitted that Public hearing was conducted by Gujarat Pollution Control Board on 19.2.2022. The PP applied for Environment Clearance on 18.6.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP in the Form-2 reported that it is a **Fresh EC**. Due to some shortcomings, the Project was referred back to PP on 5.7.2022, 17.7.2022 and reply to the same was submitted on 6.7.2022, 18.7.2022. The proposal is now placed in 35th EAC Meeting held on 28-29 July, 2022, wherein the PP and an accredited Consultant, M/s. Envisafe Environment Consultants [Accreditation number NABET/EIA/1922/RA0178 Valid up to 22.8.2022], 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 0.5251 Ha and no R& R is involved in the Project. The details of products and by-products are as follows:

Sr. No.	Name of Products	CAS No.	Capacity, TPM	Uses
1.	Formaldehyde	50-00-0	9,000.0	

2.	Para Formaldehyde	30525-89-4	1,000.0	Resins, Paint, Pharmaceuticals, Textiles & Plywood
3.	Urea Formaldehyde Resin	9011-05-6	600.0	Binding agent in laminates and plywood
4.	Melamine Formaldehyde Resin	9003-08-1	300.0	
5.	Phenol Formaldehyde Resin	9003-35-4	300.0	
6.	Hexamine	100-97-0	1,000.0	Plastics & as Hardening component in Resins
			12,200.0	

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. River Nyari is flowing at a distance of 9 km in NNE direction and Veri Reservoir is at a distance of 6.8 km in SSE direction. There is no forest land involved in the proposed project. PP reported that Shikra (*Accipiter badius*), Black Winged Kite (*Elanus caeruleus*), Black Kite (*Milvus migrans*), Indian Peafowl (*Pavo cristatus*), Indian Flapshell Turtle (*Lissemys punctata*) and Bengal Monitor Lizard Schedule-I species exist within the project area, conservation plan has been prepared and submitted to District wildlife warden with budgetary provision of ₹ 4.0 Lakh.

7. The PP reported that Ambient air quality monitoring was carried out at 8 locations during March 2021 to May 2021 and the baseline data indicated the ranges of concentration as: PM₁₀ (43- 83 µg/m³), PM_{2.5} (14.8-41.0 µg/m³), SO₂ (11.8-35.1 µg/m³), NO₂ (14-38.1 µg/m³) and CO (0.8-2.3 mg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.228 µg/m³, 0.686 µg/m³ and 0.061 µg/m³ with respect to PM₁₀, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). The monitored noise levels were compared with the standards prescribed by MoEF&CC which indicates that the noise levels at all the locations were found well within the limit for day & night time. It is observed from the surface water analysis of the study area and compared with classes for designated use of fresh Water Standards, that samples of study area at all the villages are suitable for "E Class" i.e. Irrigation, industrial cooling & Controlled Waste Disposal. Bulk density of collected samples was in range of 1.01 gm/cm³ to 1.42 gm/cm³It shows no effect on root growth. The pH of the eight soil samples ranged from 5.65 to 7.90, which indicates soil is lime free at Bharuddi and Pipaliya Village. Ideal range for crops growth at Panchiyavadar, Shemla and Bhunava Village presence of free lime at Project Site, Ardoi and Hadmtala Village. The Electrical conductivity of the samples varied from 348 to 1430 µs/cm, which indicates, there is no problem with the salinity of the soil in the study area. The organic matter in the soil ranged from 1.95% to 5.18%. The result range signifies that the soil has been cropped heavily and maintained in an optimal desired range. The concentration of the available Nitrogen, Phosphorous and Potassium in the soil samples signifies that the soil of the area is less fertile.

8. The PP reported that the water requirement for the proposed project will be met through borewell within premises. The fresh water requirement for various domestic, gardening & industrial activities will be 80.5 KLD. An application of NOC for withdrawal of ground waterhas

been submitted vide application number: 21-4/9281/GJ/IND/2022 dated 18.6.2022. There will not be any wastewater generation from manufacturing process as the water utilized in the manufacturing process will be partially carried along with the product and generation of condensate water will be reused in manufacturing process. Total effluent generation from various industrial activities will be 9.5 KLD and sewage of 0.8 KLD will be generated from domestic activities. Effluent generated from industrial activities will be sent to Effluent Treatment Plant having primary treatment facilities followed by RO & evaporator. Primary treated effluent from ETP @9.5 KLD will be sent to RO. Permeate from RO @8 KLD will be re-used in boiler make-up and reject from RO @1.5 KLD will be subjected to evaporation. Sewage generation from domestic activities @0.8 KLD will be sent to soak pit through septic tank system. Plant will be based on Zero Liquid Discharge system.

9. The PP reported that Power requirement will be 300 KW and will be met from Pashchim Gujarat Vij Company Ltd. (PGVCL). One DG sets of 300 KVA capacity will be used as standby during power failure. Stack (height 7 m) will be provided as per CPCB norms. A Multicyclone separator followed by Water Scrubber with a stack height of 15 m will be installed to 3 TPH steam boiler for controlling the Particulate emission within the statutory limit of 150 mg/Nm³ for the proposed boilers. Stack height of 18 m will be installed to 6 TPH Tail gas incinerator cum waste heat recovery boiler.

10. **Details of Process Emissions Generation and their Management:** There will not be any process gas emissions from any of the proposed products. However, the tail gases containing Hydrogen (17.8%) generated from manufacturing of formaldehyde will be used as fuel in Tail gas incinerator cum waste heat recovery boiler.

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

Type of waste	Category	Quantity per Annum	Method of Disposal
Dried ETP Sludge	Sch-I 35.3	10 MT	Collection, Storage, Transportation, Disposal by landfilling at GPCB approved TSDF
Discarded Containers/ Bags	Sch-I 33.1	190 MT (12,100 Nos.)	Collection, Storage, Decontamination and Disposal by selling to authorized recyclers
Spent Oil/ Used Oil	Sch-I 5.1	1.0 KL	Collection, Storage, Transportation, sell to registered Reprocessor/ MoEF approved recyclers OR Reused as Lubricant within premises

12. The PP submitted that advertisement for Public Hearing was published in two newspaper viz. **The Times of India & Sandesh** dated 19.02.2022. The Public hearing for the proposed project has been conducted by Gujarat Pollution Control Board on 29th March, 2022 which was presided by Resident Additional Collector & Additional District Magistrate, Rajkot. The main issues raised during the public hearing are related to employment opportunities and Social welfare activities.

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 56.8 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 18.35 Lakh per annum, which includes Water Pollution Control) [₹ 10.0 lakh (capital) and ₹ 3.50 lakh/annum (Recurring)], Air Pollution Control ([₹ 10.0 lakh/annum (capital) and ₹ 2.50 lakh/annum

(Recurring)], Hazardous solid waste management [₹ 2.0 lakh (capital) and ₹ 0.25 lakh/annum (Recurring)], Noise Pollution control [₹ 2.0lakh (capital), ₹ 0.30 lakh/annum (Recurring)], Occupational Health [₹2.5 lakh/annum (Capital)], ₹ 1.80 lakh/annum (Recurring), Fire Safety [₹10.0 lakh (capital), ₹ 1.00 lakh/annum (Recurring)], Greenbelt Development [₹1.3 lakh (capital), ₹ 1.00 lakh/annum (Recurring)], Environment monitoring [₹2.0lakh (capital), ₹ 8.0 lakh/annum (Recurring)], Community welfare [₹17.0 lakh (capital), Industry proposes to allocate ₹ 17.0 Lakhs @ of 2 % towards the Corporate Environment Responsibility (CER) for health, water and sanitation, Infrastructure Development, Greenbelt Development, Wildlife conservation.

14. Industry will develop green belt in area of 1,733 m² (33.0% of total plot area) within the project premises.
15. The PP proposed to set up an Environment Management Cell (EMC) to engage Partner-EHS/ Plant Manager – chemist/ supervisor, operators, helpers for the functioning of EMC.
16. **The PP reported that carbon emission and sequestration is as follows:**

Sr. No.	Source	TYPE	CO ₂ Generation/ Emission	
			TPD	TPA
A	Fuel	Direct	36.58	13,169.13
B	Process	Direct	15.80	5,688.69
C	Transportation	Direct	1.027	369.591
D	Energy/Power Consumption	Indirect	5.904	2,125.440
Total			43.511	15,664.161

Sr. No.	Sequestration Mode	Sequesterate CO ₂ Generation/ Emission, TPA
A	Alternative Fuel Source	1,250.71
B	Use of Tail Gas (Hydrogen)	292.73
C	Tree Plantation	162.50
D	Renewable Energy	77.04
Total		1,782.98

17. The PP submitted the disaster and Onsite and Offsite Emergency Plans in the EIA report.
18. The PP also submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.2011 'I, The Undersigned, Mr. Arvind J. Meghani, As A Partner Of Maruti Formalin, Do Hereby Undertake As Follows; We Have Proposed To Set Up a Unit to be Located at Plot

No. 1, Old Survey No. 87/P1, New Sr. No, 100, Hadamtala Industrial Zone, Gondal Highway, Bin Santosh Petrol Pump, at Hadamtala, Tal. Kotda Sangani, Dist. Rajkot, Gujarat for Manufacturing of Formaldehyde, Para Formaldehyde PF, MF & UF Resins and Hexamine Cumulative @12,200 TPM. All The Data and Information pertaining to the Project Presented in The EIA Report Are Our Own and Have Been Compiled for Our Proposed Project. All The Data and Information Pertaining to A Project Submitted in The EIA Report Is Factually Correct to The Best of Our Understanding. I Solemnly Affirmed That the Above Stated Details Are True to The Best of My Knowledge and Belief’.

19. The consultant submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009 that, “This report has been prepared by M/s Envisafe Environment Consultants for obtaining Environmental Clearance based as per ToRs issued by MoEF&CC. Information provided in this report (unless attributed to references) shall not be copied or used without the written consent of M/s Envisafe Environment Consultants”.
20. The estimated project cost is ₹ 8.52 Crores. Total Employment will be 20 persons.

21. **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 the 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 green belt development plan and observed that PP has included lawn in the green belt plan. The committee is of the view that development of lawn should not come under green belt area and accordingly, the PP submitted the revised green belt plan wherein the area under tree plantation is increased from 1000m² to 1733m² and number of trees is also increased from 150 to 542. The committee observed that the PP has reduced the budget under green belt plan and is of the view that capital cost should not be less than ₹ 1.5 lakh and recurring cost should not be less than ₹ 1.0 lakh to maintain the atleast 80% of the survival rate.

The Committed further deliberated on Biofuel (Agrowaste) &/OR Coal as a fuel for proposed steam boiler (3 TPH). The PP submitted an undertaking in this regard wherein it is mentioned that “*We will use Biofuel (Agrowaste) &/OR Coal as a fuel for our proposed steam boiler of 3 TPH. Biofuel (agrowaste) will be used as primary fuel and coal will be used only when the Biofuel is not available*”.

The Committee also deliberated on the carbon sequestration plan and as there is change in green belt area and use of cleaner fuel, ask the PP to submit revised calculation. The PP submitted the revised carbon sequestration and carbon footprint as per which CO₂ generation will be 15,664.161 TPA and carbon Sequesterate CO₂ will be 233.25 TPA. Therefore, the difference between Carbon footprint & Sequestration comes out to be 15,430.91 (15,664.16 – 233.25) CO₂ TPA.

The Committee also observed that unit should have proper Environment Management Cell (EMC) for ensuring the Environment Clearance conditions etc., the PP submitted the revised EMC structure as per which Environment Engineer BE/ ME (Environment) Or M.Sc Environment, Supervisor B.Sc Environment / Chemistry, Operators ITI / Diploma and Helpers. The budgetary allocation of ₹ 27.6 Lakhs annually will be made for the salaries of personnel of environmental management cell. Besides this, the capital investment towards the environmental protection, control & mitigation measures will be about Rs. 56.8 Lakhs and annual recurring cost for the same will be about ₹18.4 Lakhs. This also includes budget for Environmental Monitoring.

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 Expert Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

The Committee is of the view that the recommendation of the EAC and the grant of environmental clearance by the 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.

22. 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 1733 m² by planting 542 number of trees will be planted within a year, with atleast 80% survival rate. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2m). The budget earmarked for the plantation shall not be less than ₹ 1.50 Lakh (Capital) & ₹ 1.0 Lakh (recurring) and shall be kept in separate account and should be audited annually. The 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. As committed by the PP shall engage sufficient number of Environmental Engineer BE/ ME (Environment) Or M.Sc Environment, Supervisor B.Sc Environment / Chemistry, Operators ITI / Diploma and Helpers. In addition to this one safety & health officer with suitable qualification and experience shall be engaged within six month of grant of EC. The budget earmarked for EMC shall not be less than 27.6 Lakh. The PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in the 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 PP shall use Briquettes- as the first priority fuel and in case of unavailability of the same the unit may use coal as an alternative fuel. The PP shall submit to the Regional Office of MoEF&CC before 1st July of every year for the fuel used during the previous year clearly mentioning the quantity. In case the coal is used, then, analysis report from a NABL Accredited Laboratory w.r.t the proximate analysis and Sulphur content of the coal should also be submitted.
- (iv) 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 shall not be less than ₹ 56.8 lakh (Capital cost) and ₹ 18.4 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.
- (v) Total water requirement is 80.5 KLD which will be met from Bore Well. The PP should ensure that Ground water utilization should not be above the permissible limit and only after obtaining valid NOC from CGWA/ Concerned Authority. The PP should submit the details of GW abstraction and utilization to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year. In addition to this the PP shall submit the target for reduction of GW utilization to Regional Office of MoEF&CC within a period of one year.
- (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 species-specific conservation plan of Schedule-I species viz. Shikra (Accipiter badius), Black Winged Kite (Elanus caeruleus), Black Kite (Milvus migrans), Indian

Peafowl (*Pavo cristatus*), Indian Flapshell Turtle (*Lissemys punctata*) and Bengal Monitor Lizard shall be implemented within time limit and as per the approval of the Chief Wildlife Warden of the State Government. The budget earmarked for the same is ₹ 4.0 Lakh. The PP shall deposit the amount as approved by shall be implemented within time limit and as per the approval of the Chief Wildlife Warden in Government Account. The PP should submit the approved conservation plan and payment details to the Regional Office of MoEF&CC.

- (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) As already committed by the PP, Zero Liquid Discharge shall be ensured and the entire volume of 9.5 KLD effluent shall be treated through Effluent Treatment Plant having primary treatment facilities followed by RO & evaporator.
- (xiii) 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.
- (xiv) 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.
- (xv) 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.
- (xvi) 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.
- (xvii) 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.

- (xviii) 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.
- (xix) 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.
- (xx) The activities and the action plan proposed by the PP to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

Agenda No. 35.11

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

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

1. The proposal is for the amendment in the Environmental Clearance (Splitting of the Existing EC of M/s. Atul Ltd. between two entity M/s. Atul Ltd. and M/s. Atul Products Ltd.) granted by the Ministry vide letter no. IA-J-11011/108/2015-IA-II(I), dated 03.08.2021 for the expansion of Dyes, Pesticide, Chlor-Alkali, Bulk Drugs & Pharmaceutical, 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 has requested for splitting the existing EC of Atul Ltd. between M/s Atul Ltd. and M/s Atul Products Ltd. Major changes are **proposed Chlor-Alkali** plant transfer to **Atul Products Limited** with split of all EC conditions laid down in the EC granted to M/s Atul Ltd.
3. 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 8 th 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	Due to administrative requirements, company wishes to split of EC of Atul

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 Chlor-Alkali & Co-Products Manufacturing Unit at Survey Part of S. No. 33 (new S. No. 256), S. No. 37 (new S. No. 262 & 263), 144 (new S. no. 599), 147 (new S. no. 602), 148 (new S. no. 603) of Atul Village and 317 of Haria Village	Ltd granted by the MoEF&CC, New Delhi between two entities Atul Ltd & Atul Products Limited																					
3.	<p>The details of products and capacity are as under:</p> <p style="text-align: center;">Detailed product profile</p> <table border="1" data-bbox="379 887 1458 1301"> <thead> <tr> <th></th> <th>CHLOR-AKLALI</th> <th>Category as per EIA Notification, 2006</th> <th>Capacity (MTPM)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Caustic soda/potash & sodium sulfide</td> <td rowspan="4">4(d)</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>4</td> <td>Sodium hypo chlorite solution (10%)</td> <td>1853.7</td> </tr> <tr> <td></td> <td style="text-align: right;">Total</td> <td></td> <td>22986.99</td> </tr> </tbody> </table>				CHLOR-AKLALI	Category as per EIA Notification, 2006	Capacity (MTPM)	1	Caustic soda/potash & sodium sulfide	4(d)	11100	2	Liquid Chlorine /HCl	9768	3	Hydrogen	265.29	4	Sodium hypo chlorite solution (10%)	1853.7		Total		22986.99
	CHLOR-AKLALI	Category as per EIA Notification, 2006	Capacity (MTPM)																					
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4	Sodium hypo chlorite solution (10%)		1853.7																					
	Total		22986.99																					
4	<p>It is reported that the existing land area is 1126078.27 sqm, and no additional land will be required for proposed expansion.</p> <p>Industry has developed greenbelt in an area of 409030 sqm, covering 36.32% of total project area.</p> <p>The estimated project cost is ₹ 1789.03 crores excluding existing investment of ₹ 956.2 Crore.</p> <p>Total capital cost earmarked towards environmental pollution control measures is ₹ 451.81 crore and the recurring cost (operation and maintenance) will be about ₹ 138.43 crore per annum.</p>	<p>Land area is 58960 sqm</p> <p>Industry has developed greenbelt in an area of 409030 sqm, covering 36.32% of total project area.</p> <p>The estimated project cost will be now Rs. 300.0 Cr.</p> <p>Total capital cost earmarked towards environmental pollution control measures is ₹ 17.87 crore and the recurring cost (operation and maintenance) will be about ₹ 2.13 crore per annum.</p>	<p>Due to administrative requirements, company wishes to split the EC of Atul Ltd. granted by MoEF&CC, New Delhi between two entities Atul Ltd. & Atul Products Limited</p>																					

	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 25 persons directly and 25 persons indirectly after expansion.	
	Industry proposes to allocate ₹ 8.472 crore towards Corporate Environmental Responsibility.	As per the cost break up, Atul Products Ltd will allocate ₹ 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,	It is noted that total water requirement is 2193.5 m³/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 306 KLD including domestic effluent (0.5 KLD). Unit will achieve ZLD(Zero Liquid Discharge). Low COD, low TDS effluent is 306 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.	

	<p>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</p> <p>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.</p> <p>The process emission generation is from 57 nos. of stacks/vents.</p> <p>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</p>		
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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 PP 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 PP 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 31 st May to 1 st June, 2021 in the Ministry through video conferencing, wherein the PP 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 PP in desired format along with EIA/EMP reports prepared and	The proposal was considered by the Expert Appraisal Committee (Industry-3) in its meeting held on 31 st May to 1 st June, 2021 in the Ministry through video conferencing, wherein the PP 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	

	<p>submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.</p> <p>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 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 PP.</p> <p>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.</p> <p>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</p>	<p>submitted by the PP in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.</p> <p>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 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 PP</p> <p>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.</p> <p>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</p>	
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	<p>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.</p> <p>The Committee noted that, in response to the Committee's observations, the PP 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 PP 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 PP 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 PP to be satisfactory and addressing to the concerns of the Committee.</p> <p>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</p>	<p>forest department/villages in this regard.</p> <p>No disposal of industrial effluent hence proposal does not attract the provisions of the CRZ Notification, 2011. The Committee noted that, in response to the Committee's observations, the PP 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.</p> <p>Low COD, low TDS effluent is 306 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)</p> <p>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.</p>	
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	<p>proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.</p> <p>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.</p>		
10	<p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p>	
11.	<p>Based on the proposal submitted by the PP 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,</p>	<p>Based on the proposal submitted by the PP 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</p>	

	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.	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 PP. No banned raw material shall be used in the unit. The PP shall adhere to the notifications/guidelines of the Government in this regard.	No banned chemicals shall be manufactured by the PP. No banned raw material shall be used in the unit. The PP 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 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 PP 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 306 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	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	

	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.	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 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.	
(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.	No use of solvent or organic compound hence no requirement of solvent management.	

	<p>(b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages.</p> <p>(c) Solvents shall be stored in a separate space specified with all safety measures</p> <p>(d) Proper earthing shall be provide in all the electrical equipment wherever solvent handling is done</p> <p>(e) Entire plant shall be flame proof. The solvent storage tanks shall be provide with breather valve to prevent losses.</p> <p>(f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.</p>		
(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)	<p>The company shall undertake waste minimization measures as below</p> <p>(a) Metering and control of quantities of active ingredients to minimize waste</p> <p>(b) Reuse of by-products from the process as raw material or as raw material substitutes in other processes.</p> <p>(c) Use of automated filling to minimize spillage.</p> <p>(d) Use of Close Feed system into batch reactors.</p> <p>(e) Venting equipment through vapor recovery system</p> <p>(f) Use of high-pressure hoses for equipment clearing to reduce waste water generation.</p>	<p>The company shall undertake waste minimization measures as below</p> <p>(g) Metering and control of quantities of active ingredients to minimize waste</p> <p>(h) Reuse of by-products from the process as raw material or as raw material substitutes in other processes.</p> <p>(i) Use of automated filling to minimize spillage.</p> <p>(j) Use of Close Feed system into batch reactors.</p> <p>(k) Venting equipment through vapor recovery system</p> <p>(l) Use of high-pressure hoses for equipment clearing to reduce waste water generation.</p>	
(xvi)	<p>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.</p>	<p>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.</p>	
(xvii)	<p>As proposed the PP shall undertake plantation activities (10,000 plant) in the Parnera hill and other areas with the support</p>	<p>As proposed the PP shall undertake plantation activities (10,000 plant) in the Parnera hill and other areas with the support of State</p>	

	of State Forest Department/ Village Administration.	Forest Department/ Village Administration.	
(xviii)	As committed, at least ₹ 5 lakhs shall be allocated for conservation of Schedule species. The implementation report shall be submitted to the IRO, MoEFCC,	As committed, at least ₹ 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 PP 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 PP 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	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	

	environmental protection measures required, if any.	imposed and to add additional environmental protection measures required, if any.	
(ii)	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 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.	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 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.	
(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	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 in the project area for the overall improvement of the environment	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 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 PP 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 PP 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 PP 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 PP 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 31 st March in Form-V as is mandated	The environmental statement for each financial year ending 31 st March in	

	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.	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 PP 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 PP 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	This Environmental Clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble	

	Court of Law, if any, as may be applicable to this project.	NGT and any other Court of Law, if any, as may be applicable to this project.	
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4. Deliberations by the EAC:

The EAC observed that there is a lack of clarity in the presentation made by the PP, there are errors in the presentation, particularly at slide no. 29. The Committee is 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 committee therefore, **deferred** the proposal

Agenda No. 35.12

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.

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

Para/Sr. No. of EC issued by MoEF&C C	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 8 th 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	Due to administrative requirements, company wishes to split of EC of Atul
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,	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, 34, 35, 36, 38, 80, 81, 84, 85, 91, 96 to 105, 108, 112 to 117, 142, 145, 146 of Atul Village and 274, 275, 276, 315, 316, 318,	Ltd granted by MoEFCC, New Delhi between two entities Atul Ltd & Atul Products Limited

	Taluka and District Valsad, Gujarat by M/s Atul Ltd	319, 320 and 321 of Haria village, Taluka and District Valsad, Gujarat by M/s Atul Ltd		
3.	The details of products and capacity are as under:			
	Product Group:			
	S. No.	Name of Products	Category	Production capacity remain with Atul Ltd after split of EC (MT/M)
	A	Dyes	5(f)	11170.13
	B	Chlor-Alkali	4(d)	7500
	C	Pesticides Tech	5(b)	14285.87
	D	Bulk Drug and Pharmaceuticals	5(f)	2329.6
	E	Resins	5(f)	20432.57
	F	Other Chemicals	5(f)	60757.427
		Total Production Capacity of this group Sodium Thio sulphate (dry basis)		
		Other Chemicals	5(f)	63557.427
		Total Production Capacity of this group Sodium Thio sulphate (wet basis)		
	G	Flavors & Fragrances	5(f)	7233.3
	H	Co Products	--	420
		Total Production Capacity with Sodium Thio sulphate (dry basis)		124128.9
	Total Production Capacity with Sodium Thio sulphate (wet basis)		126928.9	
<u>Detailed product profile is given in Annexure-I below</u>				
4	It is reported that the existing land area is 1126078.27 sqm, and no additional land will be required for proposed expansion.	Land area is 1067118.27 sqm	Due to administrative requirements, company wishes to split of EC of Atul Ltd granted by MoEFCC, New Delhi between two entities Atul Ltd & Atul Products Limited	
	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.		
	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	Total capital cost earmarked towards environmental pollution control measures is		

	<p>crore and the recurring cost (operation and maintenance) will be about Rs. 138.43 crore per annum.</p> <p>The project will lead to additional employment for 100 persons directly and 200 persons indirectly after expansion.</p> <p>Industry proposes to allocate Rs. 8.472 crore towards Corporate Environmental Responsibility.</p>	<p>Rs. 433.94 crore and the recurring cost (operation and maintenance) will be about Rs. 136.30 crore per annum.</p> <p>The project will now lead to additional employment for 75 persons directly and 175 persons indirectly after expansion.</p> <p>As per the cost break up, Atul Ltd will allocate Rs. 7.051 Cr towards Corporate Environmental Responsibility</p>	
5	<p>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</p>	<p>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</p>	
6	<p>It is noted that the total water requirement is 42236 m³/day of which fresh water requirement of 18050 m³/day will be met from Surface Water Source - Par River, 9335 m³/day will be recycled/ treated water, 11778 m³/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 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</p>	<p>It is noted that the total water requirement is 40042.5 m³/day of which Fresh water requirement of Atul Ltd will be 16101.5 KLD will be met from Surface Water Source - Par River, 9090 m³/day will be recycled/treated water, 11778 m³/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 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 KLD; out of which 19379 KLD will be treated in ETP and 7458 KLD will further passed through RO after treatment followed by MEE. Utility w/w</p>	

	<p>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</p> <p>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.</p> <p>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.</p> <p>The process emission generation is from 57 nos. of stacks/vents.</p> <p>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</p>	<p>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</p> <p>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.</p> <p>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.</p>	
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	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	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 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 PP 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 PP has informed that there is no litigation pending against the proposal.	
9.	The proposal was considered by the Expert Appraisal	The proposal was considered by the Expert Appraisal	

	<p>Committee (Industry-3) in its meeting held on 31st May to 1st June, 2021 in the Ministry through video conferencing, wherein the PP and their accredited consultant M/s San Envirotech Pvt. Ltd. presented the EIA/EMP report as per the ToR.</p> <p>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 PP in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.</p> <p>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 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 PP.</p> <p>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</p>	<p>Committee (Industry-3) in its meeting held on 31st May to 1st June, 2021 in the Ministry through video conferencing, wherein the PP and their accredited consultant M/s San Envirotech Pvt. Ltd. presented the EIA/EMP report as per the ToR.</p> <p>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 PP in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the PP.</p> <p>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 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 PP</p> <p>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</p>	
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	<p>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 letter dated 09.03.2020 was found to be satisfactory.</p> <p>The Committee noted that, in response to the Committee's observations, the PP 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 PP informed that the current permitted effluent discharge to the Par river is 20514 KLD as per earlier EC and CTO. The Committee</p>	<p>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 letter dated 09.03.2020 was found to be satisfactory.</p> <p>The Committee noted that, in response to the Committee's observations, the PP 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</p>	
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	<p>noted that CRZ clearance was granted on 17th January, 1998 for laying a 4-km long pipeline for effluent discharge. The PP 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 PP to be satisfactory and addressing to the concerns of the Committee.</p> <p>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.</p> <p>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</p>	<p>preventive action to control accidents were found to be satisfactory. The PP 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 PP 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 PP to be satisfactory and addressing to the concerns of the Committee.</p> <p>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</p> <p>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</p>	
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10	<p>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.</p> <p>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.</p>	<p>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.</p> <p>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.</p>	
11.	<p>Based on the proposal submitted by the PP 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.</p>	<p>Based on the proposal submitted by the PP 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.</p>	
A	Specific conditions		
(i)	<p>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</p>	<p>The effluent quantity to be discharged shall be within the prescribed limit as per the existing CRZ clearance and any increase in the effluent</p>	

	changes in pipeline attracts the provisions of the CRZ clearance.	load or changes in pipeline attracts the provisions of the CRZ clearance.	
(ii)	No banned pesticides/chemicals shall be manufactured by the PP. No banned raw material shall be used in the unit. The PP shall adhere to the notifications/guidelines of the Government in this regard.	No banned pesticides/chemicals shall be manufactured by the PP. No banned raw material shall be used in the unit. The PP 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 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 PP 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 PP 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 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.	
(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	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	

	<p>equipment wherever solvent handling is done</p> <p>(e) Entire plant shall be flame proof. The solvent storage tanks shall be provide with breather valve to prevent losses.</p> <p>(f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.</p>	<p>equipment wherever solvent handling is done</p> <p>(e) Entire plant shall be flame proof. The solvent storage tanks shall be provide with breather valve to prevent losses.</p> <p>(f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.</p>	
(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)	<p>The company shall undertake waste minimization measures as below</p> <p>(m) Metering and control of quantities of active ingredients to minimize waste</p> <p>(n) Reuse of by-products from the process as raw material or</p>	<p>The company shall undertake waste minimization measures as below</p> <p>(s) Metering and control of quantities of active ingredients to minimize waste</p>	

	<p>as raw material substitutes in other processes.</p> <p>(o) Use of automated filling to minimize spillage.</p> <p>(p) Use of Close Feed system into batch reactors.</p> <p>(q) Venting equipment through vapor recovery system</p> <p>(r) Use of high-pressure hoses for equipment clearing to reduce waste water generation.</p>	<p>(t) Reuse of by-products from the process as raw material or as raw material substitutes in other processes.</p> <p>(u) Use of automated filling to minimize spillage.</p> <p>(v) Use of Close Feed system into batch reactors.</p> <p>(w) Venting equipment through vapor recovery system</p> <p>(x) Use of high-pressure hoses for equipment clearing to reduce waste water generation.</p>	
(xvi)	<p>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. Trees have to be planted with spacing of 2m x 2m and number of trees has to be increased accordingly. The Plant species can be selected that will give better carbon sequestration. The action plan proposed in this regard shall be implemented.</p>	<p>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. Trees have to be planted with spacing of 2m x 2m and number of trees has to be increased accordingly. The Plant species can be selected that will give better carbon sequestration. The action plan proposed in this regard shall be implemented.</p>	
(xvii)	<p>As proposed the PP shall undertake plantation activities (10,000 plants) in the Parnera hill and other areas with the support of State Forest Department/ Village Administration.</p>	<p>As proposed the PP shall undertake plantation activities (10,000 plants) in the Parnera hill and other areas with the support of State Forest Department/ Village Administration.</p>	
(xviii)	<p>As committed, at least Rs. 5 lakhs shall be allocated for conservation of Schedule I species. The implementation report shall be submitted to the IRO, MoEFCC,</p>	<p>As committed, at least Rs. 5 lakhs shall be allocated for conservation of Schedule I species. The implementation report shall be submitted to the IRO, MoEFCC</p>	

(xix)	The activities and the action plan proposed by the PP 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 PP 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 PP shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous	The PP shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and	

	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.	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.	
(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 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 PP 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 PP 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 PP 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 PP 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 31 st 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	The environmental statement for each financial year ending 31 st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection)	

	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.	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 PP 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 PP 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.	

3. Deliberations by the EAC:

The EAC observed that there is a lack of clarity in the presentation made by the PP, there are errors in the presentation, particularly at 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.

Agenda No. 35.13

Clarification regarding Applicability of Environmental Clearance to the project for Setting up of LABSA (Linear Alkyl Benzene Sulphonic Acid) manufacturing unit of capacity 28800 TPA by M/s Mahaveer Surfactants Pvt Ltd in an area of 2.62 ha at Plot No. A6/2Part, C4, SIPCOT Industrial Park, Village Thervoy Kandigai, Taluk Gummidipoondi, District Tiruvallur, Tamil Nadu). under the purview of EIA Notification, 2006.

The Member Secretary informed the committee that the PP vide e-mail dated 28.07.2022, requested, to place the proposal in the next EAC meeting. The Committee, accepted the request of the PP.

Any Other Item with Permission of Chair:

Agenda No. 35.14

Proposed manufacturing of Synthetic Organic Chemicals of production capacity 3575 TPM, located at Sy. No. 11,16 & 18 p, Gumpam Village, Pusapatirega Mandal, Vizianagaram District, Andhra Pradesh by M/s IVAX Paper Chemicals Private Limited - Consideration of ToR

[Proposal No. IA/AP/IND3/278569/2022; File No. IA-J-11011/140/2022-IAII(I)]

1. The Member Secretary informed that proposal was earlier considered in 34th EAC held during 12-13 July, 2022, wherein the Committee recommended the project for the grant of the ToR for preparation of EIA/EMP. The proposal was processed in the Division and Competent Authority in the Ministry is of the view that Committee may appraise the proposal in the light of the Standing Operating Procedure (SoP) issued by the Ministry on 07.07.2021. The EAC agreed for the same.
2. The Member Secretary informed that Ministry in its Circular No. J-11013/41/2006-IA. II(I) dated 21.11.2006 inter-alia, mentioned that *“Consent to Establish (NOC) and prior Environment Clearance are separate legal requirement, any PP has to fulfil. NOCs required under Water and Air Acts are mandatory requirement under those acts and will have to be taken as required and do not required to be linked to environment clearance”*. In the instant case also, PP was required to obtain prior EC for production of Akenyl Succinic Anhydride (ASA), although the plant was operated based on the CTE/CTO but it comes under the violation as per the Ministry's Notification S.O. 804(E) dated 14.03.2017 and now as per the SOP dated 07.07.2021.

3. The EAC observed that, as per **para 11, Step-1 of the SoP dated 07.07.2021**, the project which did not obtain EC needs to be closed. In the instant case, there are three other products which do not require EC and APPCB has issued CTO for the same.

*The EAC recalled that the PP in the last meeting had apprised of an Order dated 25.03.2022 of the Hon'ble Supreme Court in the matter of Pahwa Plastics Pvt. Ltd. & Anr. Vs. Dastak NGO & Ors., wherein the Hon'ble Court had inter-alia, observed that industries making significant economic contributions, along with providing livelihood to hundreds of people, which have been set up pursuant to requisite approvals from the concerned statutory authorities, do not constitute pollution hazards and have applied for ex-post facto environmental clearance, **should not be closed down** for the technical irregularity of want of such prior environmental clearance, pending the issuance thereof.*

The EAC therefore, recommends that APPCB may issue CTO for the production of ASA for the earlier granted capacity of 200 TPM/2400TPA since the PP is in the process of obtaining EC and also in view of the above observations of EAC w.r.t the pollution load, environmental impacts and applicability of EC for the manufacture of ASA.

The committee observed that, as per **para 11, Step-2 of the SoP dated 07.07.2021**, the Ministry may take credible action for violation.

The Committee is of the view that as per **para 11, Step-3 (B) of the SoP dated 07.07.2021**, the project falls under the permissible category and is required to prepare the Damage Assessment, Natural Resource Augmentation/Remedial Plan and Community Augmentation Plan (to restore environmental damage caused including its social aspects). But in the instant case, although the ASA is a synthetic organic chemical attracting schedule 5 (f) of the EIA Notification, 2006, it's an additive product and it's manufacturing process is a closed loop system resulting in very low emissions and pollution load, which was also justified by the PP and through their expert opinion provided.

Further, the steps so far taken by the PP for the protection of the environment which includes development of green belt and to maintain the plant in a good condition are appreciable. Therefore, the Committee is of the view, that there is no requirement of preparation of Damage Assessment, Natural Resource Augmentation/Remedial Plan and Community Augmentation Plan. However, as per **para 12 of the SoP dated 07.07.2021**, penalty provisions are applicable in the instant case.

4. The Committee, after detailed deliberations, **recommended** the project for grant of ToR (**Standard ToR [Annexure-II]** and **additional ToR as mentioned below**), **with public hearing** as per the provision of the EIA Notification, 2006 and SOP dated 07.07.2021 **under violation category**.
- (i) The PP shall follow the Standard Operating Procedure (SoP) issued by the Ministry on 07.07.2021 for handling of the violation cases under the EIA Notification, 2006.
 - (ii) The PP should conduct Public Hearing as per the provisions of the EIA Notification, 2006 and all issues and its Action Plan should be addressed in the EIA/EMP
 - (iii) Calculation of penalty amount as per the provision of the SOP dated 7.07.2021 (i.e. 1% of the total project cost incurred up to the date of filing of application along with the EIA/EMP report PLUS 0.25% of the total turnover during the period of violation) with the supporting documents. In addition to this actual production vis-a-vis CTO capacity financial year wise in a tabular format with the supporting documents.
 - (iv) The State Government/SPCB to take action against the PP under the provisions of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC for the product which require EC.

- (v) Action plan for utilization of modern technologies for capturing the carbon emitted and developing carbon sink/carbon sequestration resources.
- (vi) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.
- (vii) Provision for Reuse/recycle of treated wastewater, wherever feasible. Explore the 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. The provisions for Zero Liquid Discharge (ZLD) whenever techno-economically feasible and for the continuous monitoring of the effluent quality/quantity.
- (viii) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.
- (ix) Activity-wise, a time bound action plan along with budgetary provision for occupational health & surveillance, environment management plan, and green belt development plan.
- (x) 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
- (xi) PP shall prepare a detailed rain water harvesting plan so as to ensure that unit will become water positive i.e. able to recharge the quantity equivalent to fresh water requirement of the plant or use only re-charged/restored water as a fresh water requirement.
- (xii) The PP should develop Greenbelt 2500 saplings/ha, 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. Number of Trees have to be planted with spacing of 2m x 2m and has to be calculated accordingly.

The meeting ended with thanks to the Chair.

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.

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) Forest, wildlife and CRZ related issues (if applicable):

- 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, NO_x, 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 NAQPM 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 carried out 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) CATEGORY 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 NH₃*, chlorine*, HCl*, HBr*, H₂S*, 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.

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
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3.	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
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, Santhnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
6.	Shri Sanjay Bisht Scientist 'E', Room No. 517, Office of the Director General of Meteorology, Indian Meteorological Department, Musam Bhawan, Lodhi Road, New Delhi -110003 E-mail: sanjay.bist@imd.gov.in	Member
7.	Dr. Suresh Panwar House No.4, Gayatri Green Society, NH 58 Bypass, Kankerkhera, Meerut, Uttar Pradesh Email: spcpri@gmail.com	Member

8.	Shri Tukaram M Karne "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2, PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	Member
9.	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
10.	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



11-08-2022

**(Prof. Aniruddha B. Pandit)
Chairman**
