GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-3 SECTOR)
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Dated: 15.11.2022

MINUTES OF THE 41st EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON 31st OCTOBER –1st NOVEMBER, 2022

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

Time: 10:00 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 apprised the Committee about the details of Agenda items to be discussed during this EAC meeting.

(iii) Confirmation of Minutes of the 40th Meeting of the EAC (Industry-3 Sector) held during October 18- 19, 2022 through VC.

The EAC noted that the final minutes of the above meeting were issued after incorporating the comments offered by the members and approved by the Chairman. Subsequently, two PPs requested for a few modifications in the MoM. The EAC confirmed the MoM with the following modifications:

Agenda No. 40.4

Proposed Expansion of Chemical and Agro-Chemical Intermediates by increase in 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 was recommended by the EAC in its 40th Meeting held on 18-19 October, 2022 and the MoM were published on 30.10.2022. The PP vide e-mail dated 4.11.2022 requested the following corrections in the MoM:

Point No. of the 40th EAC MoM	Details in 40th EAC MOM needs to be corrected	Updated Details	Reference Document
Point no. 3	The 2nd EDS generation date mentioned is 05.06.2022 35th EAC meeting date mentioned is 28-29 June, 2022	The 2nd EDS generation date should be **05.07.2022** 35th EAC meeting date should be **28-29 July, 2022**	-

Point no. 10	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.	The low concentration stream will be **253 KLD** & the high concentration stream will be **182 KLD**	Post EAC submittal documents
Point no. 12	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/Nm^3 for the proposed boilers. A Thermic 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.	**Pulse jet bag filter along with a** 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 **50 mg/Nm^3** for the proposed boilers. A Thermic fluid heater of 2 Lac Kcal/hr, and a Pulse jet bag filter along with Multi cyclone dust collector with stack of height 19 m will also be installed in the unit after expansion.	Updated Brief Summary & MOM of 35th EAC meeting.
Point no. 14	In the Non-hazardous waste table, STP sludge quantity has not been mentioned.	STP sludge of **0.74 TPA** quantity will be used as manure in green belt development.	Updated Brief Summary
Point no. 15	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 in the study area of the project site, Drinking water facilities, Sanitation and Health facilities within the study area of the project site.	Industry proposes to allocate Rs. 120 lakhs towards **CER solar panel for Gram Panchayat of nearby Village**	Post EAC submittal & MOM of 35th EAC meeting
Point no. 16	Industry will develop greenbelt in an area of 11,866.23 m^2 with provision of 5555 number of trees.	Industry will develop greenbelt in an area of 11,866.23 m^2 with provision of **6945 number of trees** considering **80% survival rate.**	Post EAC submittal
Point no. 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	The Sequestration by the trees was calculated on a per species basis and the Others is calculated on the basis of	Post EAC submittal & MOM of

	total of 1641.7 tonnes of CO_2 Per annum. During the peak operations, the total CO_2 emissions will be 16750 MT/annum which is equivalent to 0.49 tonne CO_2 eq./tonne Production. Through development of a green belt having a total area of 5189.5 sq.m having 1176 trees, there will be natural sequestration of CO_2 emissions. Due to which, the company will sequester 1641.7 MT/annum eq. CO_2 (10%) through new green belt development within plant premises within every operational year. Therefore, at peak production the Residual Gate to Gate CO_2 emissions from the proposed plant will be 15109 Tonne eq. CO_2/annum which is about 0.44 tonne CO_2 eq. / tonne production	Literature and found to be a total of **9895 tonnes of CO_2** per annum. During the peak operations, the total CO_2 emissions will be 16750 MT/annum which is equivalent to 0.49 tonne CO_2 eq./tonne production. Through development of a green belt having a total area **of 11,866.23 sq.m having 5555 trees**, there will be natural sequestration of CO_2 emissions. **In addition, through the supplementation of 150 kW from Solar Energy On-site & 300 kW Off-Site, there will be a further reduction of Carbon emissions.** Due to which, the company will sequester **12422 MT/annum eq. CO_2 (70%)** of carbon emissions every operational year. Therefore, at peak production, the Residual *Gate to Gate* CO_2 emissions from the proposed plant will be **4328 Tonne eq. CO_2/annum** which is about **0.13 tonne CO_2 eq./tonne** production"	35th EAC meeting

2. Deliberations by the EAC:

The EAC deliberated the issues and noted that that these are typographical errors and factual in nature and recommended for appropriate corrections in the minutes, as requested by the PP. However, the EAC noted that the PP has proposed a stack height of 26 m and 19 m, which shall be revised to a minimum of 30 m and also stipulated in the condition no. (xiii).

Agenda No. 40.8.

Proposed expansion of Monochloro Acetic Acid (MCA) Manufacturing Unit by increase in production capacity from 32,000 TPA to 48,000 TPA and co-product (Hcl) from 41,600 TPA to 62,400 TPA and HE-Di-Chloro and Tri-chloro acetic acid from 448 TPA to 672.00 TPA located at Plot No. 33/P1 (part of plot no. 33), Village Atul, Tehsil & District Valsad, Gujarat by M/s. Anaven LLP (Joint Venture of Nouryon Chemicals B and Atul industries) - Consideration of EC (under 7(ii))

[Proposal No. IA/GJ/IND3/290050/2022; File No. J-11011/286/2018-IA-II(I)]

1. The proposal was recommended by the EAC in its 40th Meeting held on 18-19 October, 2022 and the MoM were published on 30.10.2022. The PP vide e-mail dated 4.11.2022 requested the following modification in the MoM:

*At point no. 4 for the product HCl acid, under heading "product sale (Local/export)" please revise the statement mentioned to "**HCl acid will be used in house or sold (domestic/export)**" instead of "Domestic/Export (Sell to Industry having permission under Rule 9 of HW rule 2016)"*

2. The PP also submitted the current status of the three partially complied conditions as per the CCR of the IRO, wherein it was inter-alia, informed that they have received the OCEMS and the installation of the same will be undertaken shortly. The photographs of the OCEMS received were also provided.

3. Deliberations by the EAC:

The EAC deliberated the issue and noted that usage of HCl in house will have a positive environmental impact and the categorization of HCl as a Hazardous Waste Product is under deliberation by the EAC. Hence, the EAC recommended the above modification requested by the PP in the MoM.

Agenda No. 40.9.

Proposed expansion of Agrochemicals & its formulation and specialty chemicals in existing unit with production capacity from 14400 TPM to 21600 TPM located at plot no. d-2/ch-12, GIDC, industrial estate, Village Dahej, Taluka Vagra, Dist. Bharuch, Gujarat by M/s. Indofil Industries Limited - Consideration of EC.

[Proposal No. IA/GJ/IND2/48107/2013; File No. J-11011/265/2013-IA II (I)]

1. The proposal was recommended by the EAC in its 40th meeting held on October 18-19, 2022. Subsequently, the PP/Consultant submitted that the production capacity mentioned in the project title and Para No.1 of the MoM is of inorganic product only and requested to include the production capacities of the other organic products. Accordingly, the project title and Para No.1 of the MoM may be modified as follows:

   "Proposed expansion of Agrochemicals (69500 MTPA to 79500 MTPA), Specialty Chemicals (39815 MTPA to 72870 MTPA), Agro Formulations (112000 MTPA) and Inorganic Product (14400 MTPA to 21600 MTPA) in existing unit located at plot no. D-2/CH-12, GIDC, Industrial Estate, Village Dahej, Taluka Vagra, Dist. Bharuch, Gujarat by M/s. Indofil Industries Limited".

2. The EAC noted that the said modification is typographical & factual in nature and recommended the same.

After confirmation of minutes of the 40th EAC meeting, discussion on each of the agenda items was taken up ad-seriatim. Details of the proposals considered during this 41st EAC meeting, deliberations made and the recommendations of the EAC are detailed in the respective agenda items as under:

Agenda No. 41.1

Proposed expansion by installation of Specialty Chemicals Manufacturing Unit (10,808 MT/Month) within existing API Manufacturing Unit (130.01 MT/Month) located at Plot No. 406, GIDC Estate, Panoli, Taluka Ankleshwar, District Bharuch, Gujarat by M/s Omkar Chemical Industries Private Limited - Consideration of ToR

[Proposal No. IA/GJ/IND3/401571/2022; File No. IA-J-11011/411/2022-IA-II(I)]

The PP vide email dated 28.10.2022 informed that they would be unable to attend the meeting and requested to consider in the next meeting. The proposal was accordingly, **deferred.**

Agenda No. 41.2

Expansion of Fertilizer plant of Deepak Fertilizers and Petrochemicals Corporation Limited located at Plot K1- K5, MIDC Industrial area, Taloja, District Raigad, Maharashtra by M/s Smartchem Technologies Limited - Reconsideration of Amendment in Environmental Clearance

[Proposal No. IA/MH/IND3/276713/2022; File No. J-11011/167/2016-IA II (I)]

The PP vide email dated 28.10.2022 informed that due to unavoidable circumstances, they would be unable to attend the meeting and requested to consider in the next meeting. The proposal was accordingly, **deferred.**

Agenda No. 41.3

Proposed Expansion of production capacity of Formaldehyde from 900 MTPM to 3000 MTPM and Resins from 1000 MTPM to 3000 MTPM in Existing Unit located at S. No. 357/2C, Village - Nani Chirai, Taluka - Bhachau, Dist. Kutch, Gujarat by M/s A K Formaline Pvt. Ltd. - Reconsideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/273389/2011; File No. J-11011/312/2010-IA II (I)]

The PP vide email dated 28.10.2022 informed that due to unavoidable circumstances, they would be unable to attend the meeting and requested to consider in the next meeting. The proposal was accordingly, **deferred.**

Agenda No. 41.4

Expansion in Manufacturing of Rubber Chemicals, (Calcol 300 MTPA to 500 MTPA; TMTD 500 MTPA to 800 MTPA; ZDBC 75 MTPA to 150 MTPA; ZDEC 200 MTPA to 300 MTPA and ZDMC-840 MTPA) located at G-998,999,1000, Phase-III, RIICO Industrial Area Bhiwadi, Tehsil Tijara, District Alwar, Rajasthan by M/s Thakar Dass & Co. Private Limited - Consideration of ToR.

[Proposal No. IA/RJ/IND3/401372/2022; File No. IA-J-11011/132/2021-IA-II(I)]

The PP vide email dated 27.10.2022 informed that the subject proposal was already granted Standard ToR by the Ministry on 25.09.2021 and the final EIA report along with other details uploaded online on 26.09.2022. Due to some confusion after launching Parivesh-2.0, another proposal for ToR was also created. **Therefore, kindly stand this proposal as withdrawn.** The proposal was accordingly, **returned to PP.**

Agenda No. 41.5

Setting up of manufacturing plant of synthetic organic chemicals (API & its intermediates) at Plot no. 7904/F, GIDC Estate Ankleshwar, District Bharuch, Gujarat by M/s Apex Pharma - Consideration of Amendment in Environmental Clearance

[Proposal No. IA/GJ/IND3/292501/2022; File No. IA-J-11011/469/2022-IA-II(I)]

1. The proposal is for amendment in the Environmental Clearance granted by SEIAA vide letter no. SEIAA/GUJ/EC/5(f)/1212/2020 on 12/10/2020 for the above project. Since the project is located in a critically polluted area, the proposal was submitted at the Centre.

2. The project proponent has requested for 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.	**Project Address**	**Address: Plot No.: 7904-F,** GIDC Estate Ankleshwar, Ta. Ankleshwar, Dist. Bharuch.	**Address: Plot No.: 7904-F + 7904-E,** GIDC Estate Ankleshwar, Tal.: Ankleshwar-393002, Dist.: Bharuch.	PP has purchased Plot No.: 7904-E having Plot Area 5095.00 Sq. m. on the name of M/s. Apex Pharma Chem vide FTO No.: GIDC/RM/ANK/TRF/FTO/ANK1/1655 Dated: 17/12/2021 and later on obtained Final Order of Amalgamation of Plot no.: 7904-F & 7904-E (GIDC plot Amalgamation vide letter no.: GIDC/RM/ANK/AM/FO/ANK1/64 Dated: 01/08/2022) Proposal for addition of adjoining plot (i.e., Plot area-5095.00 Sq. m.) in existing environmental clearance. **After Amalgamation, total plot area is 11626.99 Sq. m.** This proposal is for providing better work Environment as after this addition of plot; Production area, Raw material Storage, Utility will be distributed in both the plot.

2.	**A2 Water/ Condition no. 24**	Total water requirement for the project shall not exceed **138.9 KLD**. Unit shall reuse 1 KLD of treated industrial effluent within premises. Hence, fresh water requirement shall not exceed **137.9** and it shall be met through tankers only. Prior permission from the concerned authority shall be obtained for withdrawal of water.	Total water requirement for the project shall not exceed **273.9 KLD**. Unit shall reuse **127.0 KLD** of treated industrial effluent within premises. Hence, fresh water requirement shall not exceed **146.9 KLD** and it shall be met through GIDC Water Supply Authority only. Prior permission from the concerned authority shall be obtained for withdrawal of water.	After addition of adjoin Plot, there shall be increase in Greenbelt area. We have Proposed 43% of greenbelt (i.e., 4999.60 m^2) of total plot area (i.e., 11626.99 m^2). Hence, Fresh Water Consumption increased. Water Supply permission letter vide No.: NTA/ANK/DEE(WS)/1045 Dated: 20.08.2022
	A2 Water/ Condition no. 26	The Industrial effluent shall be segregated into two streams (1) High COD & TDS Effluent (2) Low COD & TDS Effluent and it shall be managed as below **<u>High COD & TDS Effluent (45 KLD)</u>** ➢ 45 KLD, High COD & TDS effluent from process shall be treated in Solvent Stripper. 44.4 KLD treated effluent shall be further treated with Low COD Stream in Primary ETP. **<u>Low COD and TDS Effluent (49.3 KLD)</u>** 44.4 KLD treated effluent from stripper and 4.9 low COD and TDS effluent from utility, cooling, scrubber and washing shall be treated in primary ETP consists of primary treatment units. 49.3 KLD treated effluent shall be sent to CMEE.	The Industrial effluent shall be segregated into two streams (1) High COD & TDS Effluent (2) Low COD & TDS Effluent and it shall be managed as below **<u>High COD & TDS Effluent (10 KLD)</u>** ➢ 10 KLD, High COD & TDS effluent from process shall be treated in Solvent Stripper. Output of Stripper shall be treated in Primary ETP & send to Common Evaporation Facility. **<u>Low COD and TDS Effluent (40 KLD)</u>** 40.1 KLD effluent from Process filtrate, utility, washing & Scrubbing shall be treated in Primary & Secondary Treatment Units. 40 KLD Treated effluent shall be sent to CETP, ETL.	Unit is going from single discharge - common evaporation facility to dual discharge: CETP of ETL & common evaporation facility. **High Concentration Effluent (10 KLD)** from process section will be segregate and subjected to stripper & ETP. Treated effluent shall be sent to Common Evaporation facility of BEIL. **CMEE: vide letter No.: BEIL/ANK/2022 dated: 03.10.2022** **Low Concentration Effluent (40 KLD)** from Process filtration, utility,

				washing & scrubbing shall be treated in Primary ETP & combine with Domestic wastewater shall be subjected to Secondary ETP & then send to CETP-ETL for further treatment & disposal. **CETP- ETL: Vide letter No.: ETL/ANK/2022-23/539 dated: 17.08.2022**
3.	**A4 Solid/Hazardous Waste/ Condition no. 41**	**Sr. No. 1: ETP Waste** **Specific Source of generation (Name, of the activity, Product, etc.):** Effluent Treatment Plant **Category and schedule as per HW Rules:** 35.3 **Quantity:** 30 MT/Annum **Management of HW:** Collection, Storage, Transportation and disposal at approved TSDF	**Sr. No. 1: ETP Waste** **Specific Source of generation (Name, of the activity, Product, etc.):** Effluent Treatment Plant **Category and schedule as per HW Rules:** 35.3 **Quantity:** 215 MT/Annum **Management of HW:** Collection, Storage, Transportation and disposal at approved TSDF	Unit is going from single discharge - common evaporation facility to dual discharge: CETP of ETL & common evaporation facility.
4.	**A5 Other/ Condition no. 44**	The Project Proponent shall allocate the separate fund of Rs. 8 Lakhs i.e., 2% of the capital investment for the activities in accordance to the MoEFCC's office Memorandum No. F. No.22-65/2017-IA.III dated 01/05/2018. The entire activities proposed under CER shall be monitored and the monitoring report	The Project Proponent shall allocate the separate fund of Rs. 12.0 Lakhs i.e., 2% of the capital investment for the activities in accordance to the MoEFCC's office Memorandum No. F. No.22-65/2017-IA.III dated 01/05/2018. The entire activities proposed under CER shall be monitored and the monitoring report shall be submitted to the Regional	--

		shall be submitted to the Regional Office of MoEF&CC as a part of half yearly compliance Report and to district collector. The Monitoring report shall be posted on the website of the project proponent.	Office of MoEF&CC as a part of half yearly compliance Report and to district collector. The Monitoring report shall be posted on the website of the project proponent.	
5.	**B.2.7 Greenbelt and other Plantation/ Condition no. 119**	The PP shall develop green belt within premises as committed before SEAC. Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of Operation phase in consultation with GPCB.	The PP shall develop green belt within premises **(4999.60 Sq. m. i.e., 43% of the total Plot area)** as committed before SEAC. Green belt shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of Operation phase in consultation with GPCB.	Greenbelt area increased due to addition of Adjoin Plot (Plot No.: 7904-E)

3. Deliberations by the EAC:

The EAC noted that the PP could not provide any proof for the green belt development undertaken as per the existing EC. Hence, the PP needs to first comply the greenbelt condition and submit the details of green belt developed along with aerial photographs and video. Further, the PP should calculate the number of trees by considering a maximum survival rate of 80% and shall also revise the budget for the green belt development.

Further, the EAC sought the revised water balance by incorporating the rain water harvesting (roof top), undertaking w.r.t details of additional plot (construction etc.) and compliance/action plan w.r.t each of the mitigation measure for CPA mentioned in the Ministry's O.M. dated 31.10.2019

The EAC also advised the PP and the consultant that in future, they should ensure the compliance of existing EC including green belt before applying for amendment in EC.

In view of above, the EAC recommended to **defer** the proposal.

Agenda No. 41.6

Increase in production capacity & addition of new products within existing premises from 210 TPM to 1000 TPM at Survey No. 313, Village Mujpur, Taluka Padra, Dist. Vadodara, Gujarat by M/s Shimmer Chemicals Pvt. Ltd. - Consideration of Amendment in Environmental Clearance

[Proposal No. IA/GJ/IND3/292389/2022; File No. J-11011/763/2008-IAII(I))]

1. The proposal is for amendment in the Environmental Clearance granted by the Ministry vide Letter No. J-11011/763/2008-IA-II(I) dated 25/01/2021 for the project, increase in production capacity & addition of new products within existing premises from 210 TPM to 1000 TPM located at Survey No. 313, Village Mujpur, Taluka Padra, District Vadodara, Gujarat by M/s. Shimmer Chemicals Pvt. Ltd.

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

S. No.	Para of EC issued by MoEF&CC	Details as per EC	To be revised/ read as	Justification/Reasons
1	**J-11011/ 763/2008-IA-II(I) Para No. 1 of Condition No. 6**	Total Water requirement is estimated to be 79.1 cum/day, which includes fresh water requirement of 62.7 cum/day, proposed to be met from existing bore well. Total industrial wastewater generation will be 6.4 KLD, which will be used in HCl Scrubbing to form 30% HCL Solution and Cl2 scrubbing to form 10% NaOCl Solution. The unit will remain Zero Liquid Discharge after Proposed Expansion.	Total Water requirement is estimated to be 79.1 cum/day, which includes fresh water requirement of **66.17 cum/day**, proposed to be met from existing bore well. Total industrial wastewater generation will be **7.93 KLD**. From that 2.93 KLD will be reused in HCl scrubbing to form 30% HCl Solution and Cl_2 scrubbing to form 10% NaOCl Solution. And remaining 5 KLD will be treated in ETP and sent for further treatment at CETP, EICL, Padra.	• We had proposed ZLD by recycling wastewater generated by industrial activity. Generated wastewater is directly used to make 30% HCl Solution. But it deteriorates the quality of HCl Solution. So, after amendment Generated wastewater will be treated in ETP and treated wastewater will be sent to CETP facility, which is established by M/s. Enviro infrastructure Company limited (EICL), Umaraya, Padra for further treatment of the wastewater. • As per EC, Total Fresh Water consumption is 62.7 KL/Day. As wastewater generation is 6.4 KLD, it is used to make scrubbing solution for HCl. But after amendment wastewater generation will be increasing i.e. 7.93 KLD as R.O Reject will be increasing from 22% to 33%. So, generated 2.93 KLD (2.5 KLD Boiler Blow down and 0.43 KLD RO Reject) will be directly reused in APCM for preparation of scrubbing solution and remaining 5 KLD (0.23 KLD Process + 1 KLD cooling + 3.77 KLD RO Reject) will be treated in ETP and 5 KLD treated

				wastewater will be sent to the CETP. So, Fresh Water Consumption quantity will be increased from 62.7 KL/Day to 66.17 KL/Day.
2	**J-11011/ 763/2008-IA-II(I) Para No. 5 of Condition No. 6**	Entire quantity of hazardous waste will be handled and disposed as per Hazardous & Other waste (Management and Transboundary Movement) Rules, 2016. Distillation residue, spent catalyst will be sent for incineration at M/s NECL, Nandesari. Whereas discarded containers/ Barrels/Liners will be sent to GPCB authorized dealer. Used or spent oil will be reuse in plant & machinery as lubricant or sell it to authorized re-refiners/ recycler. Spent HCl (30% Solution), Sodium Hypo chlorite (10% Solution), Sodium Benzoate (10% Solution) collection, storage, Treatment, Transportation and Disposal and selling to actual re-users having valid authorization from GPCB & permission of Central Pollution Control Board, New Delhi. Fly Ash will be sale to brick manufacturers. Distillation will be done of the Process waste and the recovered materials will be used as Raw materials in products.	Entire quantity of hazardous waste will be handled and disposed as per Hazardous & Other waste (Management and Transboundary Movement) Rules, 2016. ETP Sludge will be sent for Co-processing at cement industries or TSDF and Distillation residue, spent catalyst will be sent for incineration at M/s NECL, Nandesari. Whereas discarded containers/ Barrels/Liners will be sent to GPCB authorized dealer. Used or spent oil will be reuse in plant & machinery as lubricant or sell it to authorized re-refiners/ recycler. Spent HCl (30% Solution), Sodium Hypo chlorite (10% Solution), Sodium Benzoate (10% Solution) collection, storage, Treatment, Transportation and Disposal and selling to actual re-users having valid authorization from GPCB & permission of Central Pollution Control Board, New Delhi. Fly Ash will be sale to brick manufacturers.	After proposed EC Amendment, Wastewater will be treated into ETP and sent to CETP for further treatment of wastewater. Hence, ETP sludge will be generated of the quantity 73 MT/Year and will be sent for Co-processing at cement industries or authorized TSDF site for disposal. We have obtained Membership Certificate of Landfilling site M/s. Maurya Enviro Project Pvt. Ltd., Balasinor, Mahisagar, for disposal of ETP Sludge.

			Distillation will be done of the Process waste and the recovered materials will be used as Raw materials in products.	
3	**J-11011/ 763/2008-IA-II(I) Condition No. 13 (iii)**	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste /treated water shall be discharged outside the premises. Treated effluent shall be reused in process/ utilities. Treated industrial effluent shall not be used for gardening/ greenbelt development /Horticulture	As already committed by the project proponent, 2.93 KLD waste water will be reused in APCM and 5 KLD will be treated in ETP and sent for further treatment to CETP. Treated effluent shall be reused in process/ utilities. Treated industrial effluent shall not be used for gardening/ greenbelt development/ Horticulture.	We had proposed ZLD by recycling wastewater generated by industrial activity. Generated wastewater is directly used to make 30% HCl Solution. But it deteriorate the quality of HCl Solution. So, after amendment Generated wastewater will be treated in ETP and treated wastewater will be sent to CETP facility, which is established by M/s. Enviro infrastructure Company limited (EICL), Umaraya, Padra for further treatment of the wastewater. Which is at a distance of 3.7 Km from M/s. shimmer chemicals Pvt. Ltd.
4	**Condition No. 13 (xi)**	Total fresh water requirement shall not exceed 62.7 cum/day proposed to be met from bore well. Necessary permission in this regard shall be obtained from the concerned regulatory authority/ CGWA, and renewed from time to time.	Total fresh water requirement shall not exceed 66.17 cum/day proposed to be met from bore well. Necessary permission in this regard shall be obtained from the concerned regulatory authority/ CGWA, and renewed from time to time.	Total fresh water consumption quantity will be increasing i.e. 66.17 KLD. We will obtain necessary permission from the concerned regulatory authority/ CGWA, and renewed from time to time.

3. Deliberations by the EAC:

The EAC constituted under the provisions of the EIA Notification, 2006 and comprising of expert members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired form.

The EAC inter-alia, deliberated on the water balance diagram, wastewater generation, treatment & details of ETP, green belt development etc. and advised the PP to submit the following:

- Effluent Characteristics (Estimated) at ETP Inlet and ETP Outlet
- Undertaking that the 3.47 KLD excess water required shall be met from roof top/rain water harvesting and the fresh water consumption shall not be increased after proposed amendment.

- Undertaking for Green Belt development with total nos. of 1926 trees within a year considering 20% mortality ratio.

The PP submitted the above information/documents and the EAC found it to be satisfactory. Accordingly, the following is the **revised request for amendment in the EC:**

Sr. No.	Para of EC issued by MoEF&CC	Details as per EC	To be revised/ read as	Justification/Reasons
1	**F. No. J-11011/ 763/2008-IA-II(I) Para No. 1 of Condition No. 6**	Total Water requirement is estimated to be 79.1 cum/day, which includes fresh water requirement of 62.7 cum/day, proposed to be met from existing bore well. Total industrial wastewater generation will be 6.4 KLD, which will be used in HCl Scrubbing to form 30% HCL Solution and Cl2 scrubbing to form 10% NaOCl Solution. The unit will remain Zero Liquid Discharge after Proposed Expansion.	Total Water requirement is estimated to be 79.1 cum/day, which includes fresh water requirement of 62.7 cum/day, proposed to be met from existing bore well and 3.47 KLD will be used from roof top/ rain water harvesting. Total industrial wastewater generation will be 7.93 KLD. From that 2.93 KLD will be reused in HCl scrubbing to form 30% HCl Solution and Cl2 scrubbing to form 10% NaOCl Solution. And remaining 5 KLD will be treated in ETP and sent for further treatment at CETP, EICL, Padra.	We had proposed ZLD by recycling wastewater generated by industrial activity. Generated wastewater is directly used to make 30% HCl Solution. But it deteriorate the quality of HCl Solution. So, after amendment Generated wastewater will be treated in ETP and treated wastewater will be sent to CETP facility, which is established by M/s. Enviro infrastructure Company limited (EICL), Umaraya, Padra for further treatment of the wastewater. As per EC, wastewater generation is 6.4 KLD. It is used to make scrubbing solution for HCl. But after amendment wastewater generation will be increasing i.e. 7.93 KLD as R.O Reject will be increasing from 22% to 33%. So, generated 2.93 KLD (2.5 KLD Boiler Blow down and 0.43 KLD RO Reject) will be directly reused in APCM for preparation of scrubbing solution and remaining 5 KLD (0.23 KLD Process + 1 KLD cooling + 3.77 KLD RO Reject) will be treated in ETP and 5 KLD treated wastewater will be sent to the CETP. And 3.47 KLD excess water will be used from roof top/ rain water harvesting. So, Fresh Water Consumption quantity will be remain same as existing.
2	**F. No. J-11011/ 763/2008-IA-II(I) Para No. 5 of Condition No. 6**	Entire quantity of hazardous waste will be handled and disposed as per Hazardous & Other waste (Management and Transboundary Movement) Rules,	Entire quantity of hazardous waste will be handled and disposed as per Hazardous & Other waste (Management and Transboundary Movement) Rules, 2016. ETP Sludge will be sent for Co-	After proposed EC Amendment, Wastewater will be treated into ETP and sent to CETP for further treatment of wastewater. Hence, ETP sludge will be generated of the quantity 73 MT/Year and will be sent for Co-processing at cement industries or authorized

		2016. Distillation residue, spent catalyst will be sent for incineration at M/s NECL, Nandesari. Whereas discarded containers/ Barrels/ Liners will be sent to GPCB authorized dealer. Used or spent oil will be reuse in plant & machinery as lubricant or sell it to authorized re-refiners/ recycler. Spent HCl (30% Solution), Sodium Hypo chlorite (10% Solution), Sodium Benzoate (10% Solution) collection, storage, Treatment, Transportation and Disposal and selling to actual re-users having valid authorization from GPCB & permission of Central Pollution Control Board, New Delhi. Fly Ash will be sale to brick manufacturers. Distillation will be done of the Process waste and the recovered materials will be used as Raw materials in products.	processing at cement industries or TSDF and Distillation residue, spent catalyst will be sent for incineration at M/s NECL, Nandesari. Whereas discarded containers/ barrels/ Liners will be sent to GPCB authorized dealer. Used or spent oil will be reuse in plant & machinery as lubricant or sell it to authorized re-refiners/ recycler. Spent HCl (30% Solution), Sodium Hypo chlorite (10% Solution), Sodium Benzoate (10% Solution) collection, storage, Treatment, Transportation and Disposal and selling to actual re-users having valid authorization from GPCB & permission of Central Pollution Control Board, New Delhi. Fly Ash will be sale to brick manufacturers. Distillation will be done of the Process waste and the recovered materials will be used as Raw materials in products.	TSDF site for disposal. We have obtained Membership Certificate of Landfilling site M/s. Maurya Enviro Project Pvt. Ltd., Balasinor, Mahisagar, for disposal of ETP Sludge.
3	**F. No. J-11011/ 763/2008-IA-II(I) Condition No. 13 (iii)**	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste /treated water shall be discharged outside the premises. Treated effluent shall be reused in process/ utilities. Treated industrial effluent shall not be used for gardening/ greenbelt development /Horticulture	As already committed by the project proponent, 2.93 KLD waste water will be reused in APCM and 5 KLD will be treated in ETP and sent for further treatment to CETP. Treated effluent shall be reused in process/ utilities. Treated industrial effluent shall not be used for gardening/ greenbelt development/ Horticulture.	We had proposed ZLD by recycling wastewater generated by industrial activity. Generated wastewater is directly used to make 30% HCl Solution. But it deteriorate the quality of HCl Solution. So, after amendment Generated wastewater will be treated in ETP and treated wastewater will be sent to CETP facility, which is established by M/s. Enviro infrastructure Company limited (EICL), Umaraya, Padra for further treatment of the wastewater. Which is at a distance of 3.7 Km

				from M/s. shimmer chemicals Pvt. Ltd.

4. After detailed deliberation, the EAC **recommended** amendment in EC, as detailed in above mentioned table subject to the following additional conditions:

(i). About 1926 saplings shall be planted within one year and before the next monsoon considering a density of 2500 trees per ha. and 80% survival rate.
(ii). The fresh water requirement shall not exceed 62.7 KLD. The additional water requirement of 3.47 KLD shall be met from roof top/ rain water harvesting.
(iii). All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The Project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.
(iv). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

Agenda No. 41.7

Setting up Resin manufacturing unit of capacity 200 TPD at Village Hambran, Tehsil & District Ludhiana, Punjab by M/s Balaji Overseas - Consideration of Amendment in Environmental Clearance

[Proposal No. IA/PB/IND3/291955/2022, File No. IA-J-11011/56/2019-IA II (I)]

1. The proposal is for amendment in the Environmental Clearance granted by Ministry vide letter no. J-11011/56/2019-IA II (I) dated 13.10.2020 for setting up Resin manufacturing unit of capacity 200 TPD at Village Hambran, Tehsil & District Ludhiana, Punjab by M/s Balaji Overseas.

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

S. No.	Para of EC issued by MOEF&CC	Detail as per EC Granted	To be revised/read as	Justification for amendment
1.	Total water requirement is estimated to be 258cum/day, which includes fresh water	Use of surface water with permission	Use of Ground water with permission	1. In the EIA/EMP report and the EC grant order of the total water requirement of 258 cum/day, the fresh water 244 cum/day is to be met from surface water (Condition no.

	requirement of 244cum/day, proposed to be met from surface water (Kotli Miner 2-R Rajwaha Burji 9200 left side). Permission has been obtained vide letter dated 25th June 2020 issued by Superintendent Engineer, Sirhind Canal area, Punjab.			12 (vii) of Kotle Minor 2-R Sirhind canal for which necessary permission has already been obtained. 2. Sirhind canal and the various miners originating from it are the major source of irrigation in the Malwa region of Punjab. 3. It is highly likely that surface water from the Kotla miner may not be available for industrial use all around the year at the cost of agriculture/ Irrigation and the industry may face operational difficulties. 4. In the view of the likely implications of surface water availability, the industry has obtained NOC from Punjab Water Regulation Development Authority (PWRDA)vide letter no.-PWRDA/04/2021/L2/39 dated 29.04.2021. It is pertinent to mention that at the time of submitting the project for EC, the project area was categorized as Dark zone & NOC used to be issued by CGWA. However, with the constitution of PWRDA, NOCs for ground water abstraction are being issued by the State Regulatory body.

3. Deliberations by the EAC:

After detailed deliberations, the EAC sought the following information/documents and accordingly, **deferred** the proposal:

(i) The PP needs to first comply the greenbelt condition (@2500 per hectare) and submit the details of green belt developed/number of trees along with aerial photographs and video and with time bound action plan for proposed greenbelt in consultation with forest department.
(ii) Revised layout by revising the green belt plan
(iii) Details of rain water harvesting (roof top) proposed and accordingly, revised water requirement and water balance
(iv) Carbon footprint details due to change in the source of water

The EAC also advised the PP and the consultant that in future, they should ensure the compliance of existing EC including green belt before applying for amendment in EC.

Agenda No. 41.8

Proposed Synthetic Organic Chemical Manufacturing Unit with production capacity of 4128 TPA located at Plot No. E-73, MIDC Tarapur, District Palghar, Maharashtra by M/s SIP Chemical Industries - Consideration of EC.

[Proposal No. IA/MH/IND3/272164/2022; File No. I IA-J-11011/164/2022-IA-II(I))]

1. The proposal is for environmental clearance for Proposed Synthetic Organic Chemical Manufacturing Unit with production capacity of 4128 TPA located at Plot No. E-73, MIDC Tarapur, District Palghar, Maharashtra by M/s SIP Chemical Industries

2. The project/activity is covered under Category 'B' 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). However, since the project site is located in a critically polluted area, the project attracts the general condition and considered as Category 'A' at Centre.

3. The PP applied for the ToR vide proposal number IA/MH/IND3/272164/2022 dated 20.5.2022 and the standard ToR was issued by the Ministry, vide letter No. IA-J-11011/164/2022-IA-II(I) dated 11.7.2022. The PP submitted that public hearing is exempted as it is located in the notified industrial area. The PP applied for Environment Clearance on18.10.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP in the Form-2 reported that it is a **Fresh EC case.** The proposal is now placed in 41st EAC Meeting held on 31st October-1st November, 2022, wherein the Project Proponent and an accredited Consultant, Perfact Enviro Solutions Pvt. Ltd., [Accreditation number NABET/EIA/1922/SA0143 valid up to 26.11.2022], 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 0.1316 Ha and no R& R is involved in the Project. The details of products and by–products are as follows:

S. No.	Products/By-Product Name	Hazardous/Non Hazardous & CAS No.	Proposed (TPA)
A. PRODUCT			
1	Maleic Acid	110-16-7	360
2	Fumaric Acid	110-17-8	480
3	DL- Tartaric Acid	133-37-9	60
4	Potassium Bitartarate (Cream of Tartar)	868-14-4	48
5	SIP-25 (N- Cyano Ethyl N-Methyl Aniline)	94-34-8	120
6	SIP-8 (N- Cyano Ethyl N- Ethyl Aniline)	148-87-8	72
7	SIP- EDDM (Biocide)	3586-55-8	480
8	SIP-TZSCAV (Triazine H2S scavenger 50%,61%,78%)	4719 -04 -4	360

9	SIP- RAPSAMIDE (PEG-4 Rapeseedamide)	85536-23-8	240
10	FATTY AMIDE and BLEND (Oleamide, Stearamide, Lauramide)	301-02-0	60
11	Diisopropyl Fumarate	7283-70-7	120
12	SIP-NTBS (H2S Scavenger)	It is a formulation product with no CAS No. Major Component will be SIP-EDDM (Biocide) CAS -3586-55-8	360
13	SIP-BT20 (Biocide Formulations)	It is a formulation product with no CAS No. Major Component will be benzisothiazolinone CAS -2634-33-5	60
14	SIP-CED (Biocide Formulations)	It is a formulation product with no CAS No. Major Component will be SIP-EDDM (Biocide) CAS -3586-55-8	240
15	SIP- CM (Biocide Formulations)	It is a formulation product with no CAS No. Major Component will be SIP-EDDM (Biocide) CAS -3586-55-8	120
16	SIP- C7 (Biocide Formulations)	It is a formulation product with no CAS No. Major Component will be CIT/MIT CAS -26172-55-4	120
17	SIP- 045 (Biocide Formulations)	It is a formulation product with no CAS No. Major Component will be 2-Octyl-2H-Isothiazol-3-one(OIT) CAS -26530-20-1	60
18	SIP- DCO (Biocide Formulations)	It is a formulation product with no CAS No. Major Component will be 2-Octyl-2H-Isothiazol-3-one(OIT) CAS -26530-20-1	60
19	SIP- OED (Biocide Formulations)	It is a formulation product with no CAS No. Major Component will be 2-Octyl-2H-Isothiazol-3-one(OIT) CAS -26530-20-1	120
20	SIP- GCI (Gas Corrosion Inhibitor)	It is a formulation product with no CAS No. Major Component will be Imdiazoline Amide CAS -68585-99-9	60
21	SIP- ACI (Acid Corrosion Inhibitor)	It is a formulation product with no CAS No. Major Component will be Imdiazoline Amide CAS -68585-99-9	60
22	SIP- DEMO (Demulsifier Water in Oil)	It is a formulation product with no CAS No. Major Component will be NonylPhenol Ethoxylate ,Caster Oil Ethoxylate with CAS -68585-99-9 and 61791-12-6	120

23	SIP- ASP (Asphaltene dispersant)	It is formulation product of Dodecyl benzene sulphonic acid and Heavy Aromatic Naphtha with CAS No. 25155-30-0 and 64742-47-8	24
24	SIP- 15(N- Hydroxy Ethyl N-Ethyl Aniline)	It is diluted product of N-Hydroxy Ethyl N-Ethyl Aniline with water and cas will be 92-50-2	240
25	ACIDON-SD	It is a formulation product with no CAS No. Major Component will be DL-Tartaric Acid CAS -133-37-9	60
26	SIP- DESCALER (Scale Remover)	It is a formulation product with no CAS No. Major Component will be Phosphonic Acid with CAS - 13598-36-2	60
27	SP- DEMW (Demulsifier oil in water)	It is a formulation product with no CAS No. Major Component will be Dodecyl Benzene sulphonic Acid with CAS - 25155-30-0	24
28	SIP- OCTANEBOOSTER	It is a formulation product with no CAS No. Major Component will be naphtha medium aliphatic with CAS - 13598-36-2	12
29	SIP- CETANEBOOSTER	It is a formulation product with no CAS No. Major Component will be naphtha medium aliphatic and 2-ethylhexyl nitrate with CAS - 13598-36-2 and 27247-96-7	12
30	SIP- LUBRICANT (Lubricant Additive)	It is a formulation product with no CAS No. Major Component will be Tall oil fatty acid with CAS - 61790-12-3	12
31	SIP- ANTIOXIDANT	It is a formulation product with no CAS No. Major Component will be N,N'-di-sec-butyl-p-phenylenediamine with CAS - 101-96-2	12
32	SIP- DRAG	It is a formulation product with no CAS No. Major Component will bePoly alpha olefins with CAS- 151006-60-9	12
Total Production Capacity			**4128**

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 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/water bodies - Banganga River 1.62 Km NW, Jununa Nadi 4.01 Km SE, Arabian Sea 4.87 Km WSW, Dudh River 5.11 Km SSE, Alewadi Lake 5.13 Km SW, Gundale Talav 5.28 Km, SSW, Bandhara Talav 5.78 km in SW, Nand Gaon Lake 6.31 km in SW, Old Akkar patti Lake 7.01 Km in NW, Vikas Nagar Talav 8.25 km in SSW, Navale lake 9.05 km in NW direction and no Schedule-I species exist within 10 km study area of the project.

7. The PP reported that the ambient air quality monitoring was carried out at 7 locations during winter season from March-May 2022 and the baseline data indicates the ranges of concentrations as: PM_{10} (76.20 µg/m^3 to 90.69 µg/m^3), $PM_{2.5}$ (36.56 µg/m^3 to 44.86 µg/m^3), SO_2 (14.14 µg/m^3 to 16.90 µg/m^3) and NOx (22.6 µg/m^3 to 26.39 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum GLCs after the proposed project would be 0.655 µg/m^3, 0.528 µg/m^3 ,0.691 µg/m^3, 1.09 µg/m^3 and 0.087 mg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_x, NO_x and CO. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

8. Noise level - Core Zone (Industrial Area): N1 & N2: The ambient noise level during day time at the proposed project site varies from 62.8 dB (A) to 63.2 dB (A) which are within the day time standard limit of Industrial area ~ 75 dB (A). During night, the noise level at the project site ranges from 56.1 dB (A) to 56.3 dB (A) which are within the night time standard limit of Industrial area 70.0 dB (A) N3: The ambient noise level at Shekhawat Nagar is 56.3 dB (A) which is slightly higher than the day time noise standard limit of the Residential area of ~ 55.0 dB (A). During the night, the noise level was recorded at 46.2 dB (A), which is higher than the night-time noise standard limit of ~ 45.0 dB (A). The increased noise level is due to residential activity & vehicular movement in the village.

9. **Ground Water:** The PP reported that the water quality at location W1, onsite (Bore well) shows that all the parameters are within the drinking water standards (IS:10500). Buffer zone: The water quality of the buffer zone shows that the Total Dissolved Solids (TDS) of the sampling locations ranges from 406 mg/l to 990.10 mg/l. The TDS of all sampling locations except W2, W3, W5 and W7 are higher than the standard i.e. 500 mg/l. 2. The Total Hardness of the sampling locations ranges from 184 mg/l to 488 mg/l. The hardness of all sampling locations except W3, W4, W5, W6 and W8 are within the standard i.e. 200 mg/l. 3. The Calcium Concentration of the sampling locations ranges from 44.8 mg/l to 147.20 mg/l. The Calcium levels are higher than the standards for all the sampling locations i.e. 75 mg/l. 4. The Chloride Concentration of all the sampling locations ranges from 80 mg/l to 144 mg/l. The Chloride levels are well within the standards for all the sampling locations i.e. 250 mg/l.

10. **Surface water:** The PP reported that the surface water quality of the surface water sampling locations SW1, SW2, SW4 & SW5 is meeting the criteria defined by class “B” as per the CPCB criteria. Thus it can be used for Outdoor bathing (Organised) as per CPCB Designated-Best-Use criteria. The Surface water quality of the surface water sampling locations SW3 is meeting the criteria defined by class “C” as per the CPCB criteria. Thus it can be used for Drinking water sources after conventional treatment and disinfection as per CPCB Designated Best-Use criteria.

11. **Soil:** The PP reported that after analysing the samples collected from the site shows that the soil texture in the core zone is Clay loam, Colour is 6/8 Brown, pH is 7.73. Amount of primary nutrients like Organic matter is 0.75 %, the available nitrogen 64.4 mg/kg and available Potassium 27.3 mg/kg while the available Phosphorus 14.6mg/kg. Thus it can be concluded that soil is medium fertile in the core Zone. Buffer Zone: Color is 3/4 Brown, pH ranges from 7.04 to 7.88. Amount of primary nutrients like Organic matter 0.51 % to 0.93 %, the Available Nitrogen 48.4 mg/kg to 75.4 mg/kg is lower in range, the Available Phosphorus 12.8 mg/kg to 16.2 mg/kg is high in range, Available Potassium 21.6 mg/kg to 34.4 mg/kg is low in range, Primary nutrient profile shows that soil is low fertile due to the availability of low amount of nitrogen, available potassium.

12. The PP reported the total water requirement will be 21 KLD out of which 19 KLD freshwater will be sourced from MIDC Supply and 2 KLD treated effluent will be reused. Total waste water generation from the plant will be 4.2 KLD i.e. 2.2 KLD wastewater from the process & utility operations and 2.0 KLD Sewage from Domestic Water. 2.0 KLD domestic wastewater will be primarily screened, sent through the Oil & Grease Separator and to a tank followed by a soak pit.

2.2 KLD process effluent will be subjected to neutralisation followed by solid-liquid separation in the settling tank before being subjected to MVR evaporation. The liquid effluent 2 KLD from MVR/Stripper coil and from the settling tank will be meeting the environmental parameters and thus it will be taken up for reuse in process and solid waste 0.2 KLD from MVR will be reused in the process if the quality meets the requirement or else the same will be disposed to TSDF site.

13. The PP reported that power requirement will be 74.6 kVA and will be sourced from Maharashtra State Electricity Distribution Company Limited (MEDCL). The proposed unit has DG sets with a capacity of 23 kVA. Adequate stack height will be provided as per CPCB norms of the proposed DG sets.

14. The PP reported that 1 No. of 0.6 TPH boiler will be proposed with Multi cyclone separator with a stack of height of 13 m for controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 for the boilers.

15. Details of process emissions generation and its management:

Stack No.	Particulars	Quantity in no.	Stack Height in m	APCM	Emission Limit mg/Nm^3
Emissions from utilities					
1	Boiler - 0.6 TPH	1	13	Multi Cyclone Separator as Dust Collector	PM- 150 mg/Nm^3 SO_2- 286 mg/Nm^3 NO_x- 102 mg/Nm^3
2	DG-23 kVA	1	4.5	Adequate Stack Height will be maintained	–
Emissions from process					
3	Process Reactor	1	6.0	Adequate height with Scrubber	Acid mist- 35 mg/Nm^3

16. Details of solid waste/hazardous waste generation and its management:

Category	Type of Waste	Treatment Method	Proposed kg/day
Biodegradable	Organic Waste	Will be handed over to approved Vendor of the Municipal Solid Waste handler in MIDC, Tarapur for Disposal.	0.84 (0.31 TPA)
Non-Biodegradable	Recyclable Waste (Plastic,wood, glass etc)	Will be given to Approved Recycler	1.62 (0.59 TPA)
	Total		**2.46 (0.90 TPA)**

S. No.	Type of waste	Category (as per HWM Rules,2016)	Unit	Proposed Quantity	Disposal
1	Spent Carbon	28.3	TPA	0.72	Collection, Storage, Transportation and final disposal at common CHWTSDF-Mumbai Waste Management Ltd. located at MIDC Taloja, Maharashtra
2	Empty barrels / containers /liners contaminated with hazardous chemicals / wastes	33.1	Nos/Annum	240	Disposed off at TSDF site approved by State Pollution Control Board as per HWM Rules, 2016
3	ETP Sludge : Chemical Sludge from wastewater treatment	35.3	TPA	0.6	Disposed off at TSDF site approved by State Pollution Control Board as per HWM Rules, 2016
4	Concentration or Evaporation residues	35.3	TPA	0.12	Sold to secondary users after decontamination having registration under Rule 9 of HWM Rules, 2016 from CPCB
5	Spent Oil	5.1	TPA	10	TSDF site or sold to recyclers having registration under Rule 9 of HWM Rules, 2016 from CPCB
6	Oil Cotton waste	5.1	TPA	2	TSDF or Sent to Recycler having registration

					under Rule 9 of HWM Rules, 2016

17. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 65.00 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 19.50 Lakh per annum, Industry proposes to allocate5 Lakhs for CER like Provision of emergency medical service in hospital Thunga, Provision of Renovation & fencing of pond beautification in Tebhi Village, Tree plantation in nearby villages.

18. The PP reported that the Public Hearing is exempted as it is located in the notified industrial area.

19. Green belt planning will be done as per guidelines laid by CPCB. With ecological perspectives for the project, availability of space and other aspects will be considered. This will help in increasing the aesthetic effect of the environment. Green belt/greenery will be developed along most of the periphery of the project area as well as along roads. Total Green belt required to be proposed: 526 m^2 (40 %). Proposed Green belt within industrial premises: 157 m^2. Additional Green belt proposed outside industrial unit on MIDC land as per MIDC letter dated 20.08.2022: 375.93 m^2.

20. The PP proposed to set up an Environment Management Cell (EMC) by engaging Head of the unit- Plant manager-Technical Head- Environmental Engineer- chemist- ETP operator for the functioning of EMC.

21. The PP reported that the the total CO_2 emissions will be **16750 MT/annum** which is equivalent to **0.49 tonne CO_2 eq / tonne Production.** Through development of a green belt having total area of 157.0 m^2 having 173 trees, there will be natural sequestration of CO_2 emissions. Due to which, company will sequester **1641.7 MT/annum eq. CO_2 (10%)** through new green belt development within plant premises within every operational year. Therefore, at peak production the *Residual Gate to Gate CO_2* emissions from the proposed plant will be **15109 Tonne eq. CO_2/ annum** which is about **0.44 tonne CO_2 eq./tonne production**

22. The PP submitted the Disaster and Onsite & Offsite Emergency Plans in the EIA report.

23. The estimated project cost is ₹ **5.10 Crores.** Total Employment generation will be 14 persons as direct & indirect after expansion.

24. **Deliberations by the EAC**:

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

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

The EAC 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 EAC deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The EAC advised that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC inter-alia, deliberated on the wet scrubber for the proposed boiler, greenbelt development, wastewater treatment, Compliance to OM dated 31.10.2019 for projects falling within CPA, OCEMS to be connected to STP and advised the PP to submit the following:

- Undertaking for the use of wet scrubber as an APCS for the boiler proposed.
- Undertaking for the Green belt will be developed within 1 year of the operation.
- Updated layout plan showing increased green belt development within the plant.
- Revised Waste water treatment scheme diagram
- Revised Compliance to OM dated 31.10.2019 for projects falling within CPA.
- OCEMS to be connected to STP treated water to monitor the parameters.

The PP submitted the above information/documents and the EAC found it to be satisfactory.

The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during implementation also 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 EAC is of the view that its recommendation and 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.

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

(i) Adequate stack height as per CPCB/SPCB guidelines shall be provided. Stack emission levels shall be stringent than the existing standards i.e. PM < 50 mg/Nm^3; SOx < 50 mg/Nm^3; NOx < 100 mg/Nm^3.

(ii) Effective fugitive emission control measures shall be adopted in the process, transportation, packing etc.

(iii) The PP shall explore transportation of materials by rail/belt conveyor.

(iv) Natural gas shall be used as the primary fuel for the boiler and agro-briquettes/LDO shall be backup fuels to be used in emergency circumstances only.

(v) The best available technology shall be used.

(vi) The PP shall develop Greenbelt over an area of at least 48.56% of the proposed project area, (20 % green belt within the project boundary and 28.56 % outside the project boundary) by planting approx. 227 numbers of saplings within a year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. 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 expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(vii) The transportation load on roads shall be within their carrying capacity and adequate width of roads shall be maintained inside the industrial premises.

(viii) The process effluent shall be treated in MVR system and the treated water shall be reused in cooling tower. The domestic effluent shall be treated in STP and the treated water shall be reused for gardening. Zero Liquid Discharge shall be maintained.

(ix) Continuous monitoring system shall be installed at the outlet of STP for the water used for gardening. The CEMS shall be connected to MPCB/CPCB server as well to comply with the norms.

(x) The rainwater from part of the rooftops shall be diverted using rain water pipes to the surface and via a storm water drain network. Rainwater collection pits shall be made and the water shall be used for cooling tower & boiler makeup to reduce freshwater consumption for rainy days. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

(xi) The hazardous waste (ETP Chemical sludge, spent carbon, evaporation residue, discarded empty containers, oily cotton waste and used oil from DG set) shall be collected, stored, transported, and disposed to CHWTSDF- Mumbai Waste Management Ltd. located at MIDC Taloja, Maharashtra. The waste should be preferably utilized in co-processing.

(xii) Monitoring of the compliance of EC conditions shall be submitted with third party audit every year.

(xiii) Provision of emergency medical service in hospital Thunga (ambulance/ fund to PHC), fencing & pond beautification and RWH/ Solar PV in Tebhi village shall be done under the CER.

(xiv) 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 Head of the unit- Plant manager- Technical Head- Environmental Engineer- chemist- ETP operator. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xv) 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 respe ct of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget propose under EMP is ₹ 65.00 lakhs (Capital cost) and ₹ 19.50 crore per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xvi) The total water requirement shall be 21 KLD out of which 19 KLD freshwater shall be sourced from MIDC 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 withdrawn 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.

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

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

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

(xx) 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.

(xxi) 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.

(xxii) 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.

(xxiii) 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.

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

(xxv) 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.

(xxvi) 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. 41.9

Proposed establishment of "Active Pharmaceutical Ingredients (APIs) and Intermediates Manufacturing Unit" of production capacity 50 TPM located at Plot No. 54, Kadechur Industrial Area, Yadagir Taluk & District, Karnataka by M/s Liha Life Sciences Pvt. Ltd. - Consideration of EC

[Proposal No. IA/KA/IND3/286890/2022; File No. No. IA-J-11011/135/2022-IA-II(I)]

1. The proposal is for environmental clearance for the proposed establishment of "Active Pharmaceutical Ingredients (APIs) and Intermediates Manufacturing Unit" of production capacity 50 TPM located at Plot No. 54, Kadechur Industrial Area, Yadagir Taluk & District, Karnataka by M/s Liha Life Sciences Pvt. Ltd.

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). However, since the project site is located within 5 km of interstate boundary, the project attracts the general condition and considered as Category 'A' at Centre.

3. The PP applied for the ToR vide the proposal number IA/KA/IND3/267889/20221dated 15.4.2022 and the standard ToR was issued by the Ministry, vide letter No. IA-J-11011/135/2022-IA-II(I) dated 22.4.2022. The PP submitted that the Public Hearing is not required for the proposed project as it is located at KIADB, Kadechur Industrial Area. EC was granted by MOEF&CC dated 14.10.2016. The PP applied for the Environment Clearance on 20.10.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP in the Form-2 reported that it is a **Fresh EC.** The proposal was placed in 41st EAC Meeting held on 18-19 October, 2022, wherein the PP and an accredited Consultant, AM Enviro Engineers [Accreditation number NABET/EIA/2023/SA0167 Valid up to 30.6.2023], made a detailed presentation on the salient features of the project and informed the following:

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

S. No	Name of Product	Qty in TPM	CAS number	Therapeutic use
1.	**Benzophenone**	10	119-61-9	used in sunscreens to absorb UV radiation.
2.	**Citalopram HBr**	1	59729-32-7	to treat depression

a)	5-Cyanophthalide	5	82104-74-3	Citalopram HBr intermediate
b)	4-[4-(Dimethylamino)-1-(4-fluorophenyl)-1-hydroxybutyl]-3-(hydroxymethyl)benzonitrile Hydrobromide (Diol HBr)	2	-	Citalopram HBr intermediate
3.	**Etoricoxib**	1	202409-33-4	treatment of acute pain, acute gouty arthritis, chronic low back pain, primary dysmenorrhea, and osteoarthritis and rheumatoid arthritis.
a)	N,N Di Methyl-2-chloro tri methenium Hexafluoro Phosphate (HFP)	9	249561-98-6	Etoricoxib intermediate
b)	4- Methyl thio Benzyl cyanide	2	38746-92-8	Etoricoxib intermediate
c)	4-(Methyl sulfonyl) Phenyl acetic acid	2	90536-66-6	Etoricoxib intermediate
d)	1-(6-Methyl-3-pyridinyl-2-4[4-(methyl sulfonyl)Phenyl ethanone (ketosulfone)	2	221615-75-4	Etoricoxib intermediate
4.	**Fexofenadine HCl**	1	83799-24-0	treatment of seasonal allergic rhinitis and chronic idiopathic urticaria.
a)	2-Methyl-2-Phenyl propyl acetate	5	18755-52-7	Fexofenadine HCl intermediate
b)	Azacyclonol	1	1798-50-1	Fexofenadine HCl intermediate
c)	Methyl-2-[4-(4-chlorobutanoyl) phenyl]-2-methylpropanoate	3	343255-26-5	Fexofenadine HCl intermediate
5.	**Fluconazole**	1	86386-73-4	to treat serious fungal, yeast infections, including vaginal candidiasis, oropharyngeal candidiasis
a)	1-(2,4-Difluorophenyl)-1-(1H-1,2,4-triazole-1yl)-ethanone (DFTA)	2	86404-63-9	Fluconazole intermediate
6.	**Gabapentin**	1	60142-96-3	To prevent and control partial seizures.
a)	1,1-Cyclohexane-Diacetic Acid (Di-Acid) (CDA)	10	4355-11-7	Gabapentin intermediate
b)	1,1-Cyclohexane Diacetic Acid Monoamide (CDMA)	2	99189-60-3	Gabapentin intermediate
7.	**Itraconazole**	1	84625-61-6	to treat fungal infections, such as aspergillosis (fungal infection in the lungs), blastomycosis
a)	1-(4-Methoxyphenyl) piperazine dihydrochloride	5	38869-47-5	Itraconazole intermediate
b)	cis-2-(Bromomethyl)-2-(2,4-dichlorophenyl)-1,3-dioxolane-4-ylmethyl benzoate	10	61397-56-6 61397-57	Itraconazole intermediate

8.	**Levocetirizine 2HCl**	1	130018-77-8	to relieve runny nose; sneezing; and redness, itching, and tearing of the eyes caused by hay fever, seasonal allergies
a)	(-)-1-[(4-Chlorophenyl) phenylmethyl] piperazine	1	303-26-4	Levocetirizine 2HCl intermediate
b)	4-Chlorobenzophenone	5	134-85-0	Levocetirizine 2HCl intermediate
9.	**Losartan Potassium**	1	124750-99-8	to treat high blood pressure (hypertension) and to help protect the kidneys from damage due to diabetes
a)	Valero Nitrile	10	110-59-8	Losartan Potassium intermediate
b)	2 n-butyl 4 chloro-5-Formyl imidazole (BCFI)	5	83857-96-9	Losartan Potassium intermediate
10.	**Olmesartan**	1	144689-63-4	to treat high blood pressure (hypertension).
a)	Ethyl 4-(1-hydroxy-1-methylethyl)-2-propyl-imidazole-5-carboxylate	2	144689-93-0	Olmesartan intermediate
b)	2-propyl-1H-imidazole-4,5-dicarboxylic acid	1	144689-94-1	Olmesartan intermediate
11.	**Sertraline Hydrochloride**	1	79617-96-2	to treat depression, panic attacks, obsessive compulsive disorder, post-traumatic stress disorder, social anxiety disorder (social phobia)
a)	4-(3,4-Dichlorophenyl)-1-tetralone	10	79560-19-3	Sertraline HCl intermediate
b)	4-(3,4-Dichlorophenyl)-1,2,3,4-tetrahydro-N-methyl-1-naphthalenamine hydrochloride)	2	–	Sertraline Hydrochloride intermediate
c)	cis-(1S,4S)-N-Methyl-4-(3,4-Dichlorophenyl)-1,2,3,4-Tetrahydro-1-Naphthalenamine Mandelate	2	79617-97-3	Sertraline Hydrochloride intermediate
12.	**Telmisartan**	1	144701-48-4	to treat high blood pressure (hypertension)
a)	2-n-Propyl-4-methyl-6-(1-methylbenzimidazole-2-yl) benzimidazole	5	152628-02-9	Telmisartan intermediate
b)	N-Methyl-O-phenylenediamine dihydrochloride	5	25148-68-9	Telmisartan intermediate
13.	**Vildagliptin**	1	274901-16-5	used for the treatment of Type 2 diabetes
a)	1-Amino-3-adamantanol	2	702-82-9	Vildagliptin intermediate
b)	(2S)-1-(2-Chloroacetyl)-2-pyrrolidinecarbonitrile	2	207557-35-5	Vildagliptin intermediate

14.	**Voriconazole**	0.5	137234-62-9	to treat serious fungal infections such as invasive aspergillosis, esophageal candidiasis
15.	**Veratric Acid**	5	93-07-2	Intermediate
16.	**Custom Synthesis of Organic compound from pilot plant**	0.5		
	Total (5 products)	**50 TPM**		

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

LIST OF PROPOSED BY-PRODUCTS

S. No.	Name of the Product	Name of the By-product	Qty in kgs/day
APIs			
1.	Benzophenone	Aluminium hydroxide	1166.7
2.	Citalopram hydrobromide	Magnesium Chloride	15.7
3.	Losartan Potassium	Succinimide	7.2
		Trityl Alcohol	18.9
4.	Sertraline hydrochloride	Aluminium hydroxide	57.5
5.	Vildagliptin	Trifluoro acetic acid	25.1
Intermediates			
1.	4-[4-(Dimethylamino)-1-(4-fluorophenyl)-1-hydroxybutyl]-3-(hydroxymethyl)benzonitrile Hydrobromide (Diol HBr)	Magnesium chloride	37.3
2.	4- Methyl thio Benzyl cyanide	Sodium sulphate	90.3
3.	4-(Methyl sulfonyl) Phenyl acetic acid	Sodium sulphate	47.8
4.	4-(3,4-Dichlorophenyl)-1,2,3,4-tetrahydro-N-methyl-1-naphthalenamine hydrochloride	Aluminium hydroxide	115.1
5.	cis-(1S,4S)-N-Methyl-4-(3,4-Dichlorophenyl)-1,2,3,4-Tetrahydro-1-Naphthalenamine Mandelate	Aluminium hydroxide	128.7
6.	Veratric Acid	Aluminium Hydroxide	587.6

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 the project site is not located within 10 km distance of national parks, sanctuaries, Biosphere Reserves, Migratory corridors of wild animals. Kadechur lake is at 1.47 km in Northeast direction and Bhima River is at 8.8 km in Southwest direction. The PP reported that no Schedule-I species exist within 10 km study area of the project.

7. The PP reported that Ambient air quality monitoring was carried out at 8 locations during March to May 2022 and the baseline data indicates the ranges of concentrations as: PM_{10} (69.25 –

79.61 µg/m^3), $PM_{2.5}$ (28.63 – 46.91 µg/m^3), SO_2 (12.76 – 19.02 µg/m^3) and NO_2 (20.22 – 30.67µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.2 µg/m^3, 0.1 µg/m^3 and 0.013 µg/m^3 with respect to PM_{10}, SO_2 and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

8. **Noise -**. The daytime noise level at the Project site were observed to be in the range of 49.3 dB (A) to 51.1 dB(A), which is below the permissible limits of 75 dB(A) for industrial zone. The night-time noise level in the Project site were observed to be in the range of 39.9 dB (A) to 43.7 dB (A), which is below the permissible limits of 70 dB (A) for industrial zone.

9. **Water –** The PP reported that the pH of the ground water samples collected was in the range of 7.23 – 7.62. Total dissolved solids in the ground water samples were in the range of 624 – 952 mg/l. Total hardness was found to vary between 250 - 460 mg/l. The Chlorides concentration was found to vary between 31.0 – 212.0 mg/l. The Sulphates concentration was found to vary between 29.5 – 68.8 mg/l. Fluoride concentration in all samples are found to be below acceptable limits of 1 mg/l. Most of the heavy metals were not detected. Overall, the ground water is potable and suitable for domestic use. The pH of surface water sample collected were in the range of 7.23 – 7.52. Total dissolved solids in the samples were in the range of 154 - 295 mg/l. Total hardness was found to be between 90 - 180 mg/l. Chloride's concentration was found to be between 25 - 60 mg/l. Fluoride concentration was found to be 0.1 mg/l. Sulphate's concentration was found to be between 1.2 – 2.3 mg/l. Each of the parameter analyzed conforms to all the class criteria.

10. **Soil-** The PP reported that The topsoil of the study area having higher proportion of sand and silt. The pH of the soil is moderately alkaline (7.14 - 7.94). Electrical conductivity of the sample varied from 216 to 416 µS/cm, which indicates, no salinity ingress in the study area. Percentage of Total Organic Carbon is observed in between 0.54% to 0.98% indicating average sufficiency in nature. The concentration of available Nitrogen, Phosphorous and Potassium in the samples signifies that the soil has sufficient nutrient content, and the area is fertile.

11. The PP reported that total water requirement is 104.0 KLD of which freshwater requirement of 61.5 KLD will be met from KIADB Water Supply. Overall water consumption for the proposed project is 104 KLD which includes freshwater requirement of 62.5 KLD. The total effluent generation is 37.8 KLD which includes industrial effluent of 36.6 KLD and domestic effluent of 1.2 KLD. The industrial effluent from process, scrubbing, RO reject, washing and cooling tower blowdown are proposed to be treated through CETP of Kadechur. The domestic effluent will be sent to septic tank followed by multigrade filter, and the supernatant liquid will be used for gardening. The boiler blowdown conforming to required standards will be used for gardening.

12. 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.

13. The unit is proposing for 1X4 TPH Coal/Briquette fired Boiler. 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/Nm^3 for the proposed boilers.

14. Details of Process emissions generation and its management:

S. No.	Name of the Gas	Quantity in Kg/Day	Treatment Method	Disposal Method

1.	Hydrogen chloride	1359.1	Scrubbed by using water media	Generated Dil. HCl will be reused within the industry
2.	Ammonia	45.4		Generated NH_4OH will be reused within the industry
3.	Sulphur dioxide	147.3	Scrubbed by using C.S. Lye solution	The generated effluent will be sent to CETP along with high TDS effluent.
4.	Hydrogen Bromide	84.0		
5.	Dimethyl amine	41.8		
6.	Nitrogen	3.0	Dispersed into atmosphere	-
7.	Oxygen	8.9		
8.	Carbon dioxide	399.0		
9.	Hydrogen	13.8	Dispersed into atmosphere through flame arrester	-

15. Details of Solid waste/ Hazardous waste generation and its management:

S. No.	Category of HW	Name of HW	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	317.1 kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing
4.	28.1	Process Residues & Waste	809.0 kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
5.	28.2	Spent Catalyst	11.3 kgs/day	Store in secured manner and hand over to authorized recycler
6.	28.3	Spent Carbon	93.9 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
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 Solvents	300 KL/Month	Store in secured manner and hand over to authorized recyclers/cement industries

10.	33.1	Detoxified-Container & Container Liners of Hazardous Chemicals and Wastes	300 No's/Month	After complete detoxification, shall be disposed to the outside agencies.
11.	33.2	Contaminated cotton rags or other cleaning materials	25 Kgs/month	Store in secured manner and hand over to KSPCB Authorized Vendor
12.	35.2	Spent ion exchange resin	150 kgs/annum	Sent to TSDF
13.	A1160	Used Lead Acid batteries	2 No's/Annum	Returned back to dealer/ Supplier
Other Solid Wastes				
14.	--	Coal ash	1120 kgs/day	Sent to Brick Manufacturers
15.	--	Briquette ash	2860 kgs/day	Sent to fertilizer industries
16.	--	Used PPE	6 Kgs/ Month	Sent to authorized vendor
17.	--	E- Waste	150 Kgs/ Annum	Authorized recyclers
18.	--	Plastic Waste	200 Kgs/ Annum	Authorized recyclers
19.	--	Metal Scrap	3 TPA	Sale to outside agencies/ recyclers
20.	--	Used Filters (HEPA filters, Oil Filters etc.)	25 Nos /year	Sent to TSDF
21.	--	Used / Discarded RO Membranes	0.2 TPA	Sent to TSDF

15. The PP has submitted the following pollution load information and the EAC deliberated on the issue.

EFFLUENT WATER								**SOLID WASTE In kg**					
Water input in liter	**Water in Effluent in liter**	**Organics in effluents in liter**	**TDS in Kg**	**COD in Kg**	**HTDS in liter**	**LTDS in liter**	**Total Effluent in litre**	**Organic**	**In Organic**	**Spent carbon**	**Spent catalyst**	**Process emission**	**Distillation residue**

18280.8	21884.2	213.5	1667.1	612.9	16822.7	3680.4	20503.1	417.5	391.5	93.9	11.3	1134.2	317.1

16. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 95.89 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 26.50 Lakh per annum. The industry proposes to allocate ₹ 10 lakhs towards CER.

17. The total plot area is 8094 m^2 (2 acres). Out of total area of the project site area, 2685 m^2(33.2%) shall be for greenbelt development. Native trees of 675 numbers shall be identified for plantation and guidelines issued by CPCB for development of green belt shall be followed.

18. The PP proposed to set up an Environment Management Cell (EMC) consisting of HOD (Environment and safety)- Deputy Manager (Env.) – Ass. Manager (Safety)- officer (safety) for the functioning of EMC.

19. The PP submitted the onsite and offsite disaster management plans in the EIA report.

20. The estimated project cost is ₹ 7.0 Crores. Total Employment will be 20 persons as direct & 10 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 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 EAC noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC inter-alia, deliberated on the percentage of carbon sequestration, fuel usage and advised the PP to remove briquette during the calculation of carbon footprint. The reply given by the PP during the meeting and the EAC found it to be satisfactory.

The EAC deliberated the Onsite and Offsite Emergency plans and also the various mitigation measures 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, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, as amended from time to time.

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 EAC is of the view that its recommendation 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.

20. 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 2685 m^2 by planting 675 number of trees within a period of one year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2m). The budget earmarked for the plantation shall be ₹ 4.25 Lakh and shall be kept in a 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. The PP shall engage HOD (Environment and safety)- Deputy Manager (Env.) – Ass. Manager (Safety)- officer (safety). The PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 95.89 Lakh (Capital cost) and ₹ 26.50 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 PP shall carry out detailed Phyto and Zooplankton studies of the Nala water passing through the industrial area during non-monsoon season and submit the report within one year for its appraisal before the EAC.

(v) The Total water requirement is 104.0 KLD of which freshwater requirement of 61.5 KLD will be met from KIADB Water 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.

(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 project proponent shall comply with the environment norms for Organic Chemical Industry as notified by the Ministry of Environment, Forest and Climate Change, *vide* GSR 608(E), dated 21.07.2010 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 industrial effluent from process, scrubbing, RO reject, washing and cooling tower blowdown are proposed to be treated through CETP of Kadechur. The domestic effluent shall be sent to septic tank followed by multigrade filter, and the supernatant liquid shall be used for gardening. The boiler blowdown conforming to required standards shall be used for gardening

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

(xiii) 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 the Ministry and the 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 vapour recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

Agenda No. 41.10

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

[Proposal No. IA/GJ/IND3/404001/2022; File No. J-11011/300/2015-IA-II(I)]

1. The proposal is for environmental clearance to the Proposed Expansion in Pesticide Technical and Pesticide Specific Intermediates Manufacturing Unit from 26572 MTPA to 30790 MTPA and By-product: 13639 MTPA to 17852 MTPA located at Plot No. 306/3, Phase II, GIDC Estate, Vapi, Valsad, Gujarat by M/s Bayer Vapi Pvt. Ltd.

2. The project/activity is covered under Category 'A' of item 5(b) Pesticide Industry and pesticide specific intermediates (excluding formulations) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by Expert Appraisal Committee (EAC). The PP also reported that the project is located in the critically polluted area.

3. The PP applied for ToR vide proposal number. IA/GJ/IND3/281831/2022 dated 5.7.2022 and the ToR has been issued by the Ministry, vide letter No J-11011/300/2015-IA-II(I) dated 8.9.2022. The PP submitted as the project site is in a Notified Industrial Area i.e., GIDC Industrial Area, Vapi. Thus, in accordance with Clause 7(i) (III) of EIA notification 2006 & OM J-11011/321/2016-IA. II(I) dated 27.04.2018. The PP applied for Environment Clearance on 21.10.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP reported in Form-2 that it is a **Fresh EC**. The proposal was placed in 41th EAC Meeting held on 18-19 October, 2022, wherein the PP and an accredited Consultant, EQMS India Pvt Limited [Accreditation number

NABET/EIA/1922/RA0197 dated 15.03.2021 valid till 23.11.2022], 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 34.8 Ha and no R& R is involved in the Project. The details of products are as follows:

S. No.	Name of Products	CAS No.	Category	Sub-category	As per EC (MTPA) (I)	Additional to EC (Proposed) (MTPA) (II)	Total after Expansion (MTPA) (I= I + II)
Products							
1	Cypermethrin	52315-07-8	Insecticides	Synthetic Pyrethroids	2496	1024	4000
2	Alphamethrin	67375-30-8	Insecticides	Synthetic Pyrethroids	480		
3	Deltamethrin	52918-63-5	Insecticides	Synthetic Pyrethroids	504	216	900
4	Becisthemic Acid	53179-78-5	Intermediate	-	180		
5	Permethrin	52645-53-1	Insecticides	Synthetic Pyrethroids	1374	226	1600
6	Transfluthrin	118712-89-3	Insecticides	Synthetic Pyrethroids	(Either individual or total production of 2 products)		
7	Acrinathrin	101007-06-1	Insecticides	Synthetic Pyrethroids	45	-45	0
8	Imidacloprid	138261-41-3	Insecticides	Synthetic Pyrethroids	720	-720	0
9	Beta Cyfluthrin	1820573-27-0	Insecticides	Synthetic Pyrethroids	982.32	267.68	1250

10	Cyfluthrin	68359-37-5	Insecticides	Synthetic Pyrethroids	(Either individual or total production of 2 products)		
11	Ethofumesate	26225-79-6	Herbicide	-	3300	1200	4500
12	NC 9770 2-hydroxy-3,3-dimethyl-2,3-dihydro-1-benzofuran-5-yl ethanesulfonate	68505-81-7	Intermediate	-	(Either individual or total production of 3 products)		Removing NC 9770 from the group
13	Aclonifen	74070-46-5	Herbicide	-			(Either individual or total production of 2 products)
14	Triafamone	874195-61-6	Herbicide	-	180	-180	0
15	Sulphonyl Indole (1-difluoromethanesulfonyl-3-(4,6-dimethoxy-1,3,5-triazin-2-yl)-7-fluoro-1H-indol-2-ol)	1383692-20-3	Intermediate	-	(Either individual or total production of 2 products)		
16	Triazoindolinon 3-(4,6-dimethoxy-1,3,5-triazin-2-yl)-7-fluoro-2,3-dihydro-1H-indol-2-one	1383706-71-5	Intermediate	-			
17	Metaphenoxy Benzaldehyde (3-Phenoxybenzaldehyde)	39515-51-0	Intermediate	-	3000	-1200	1800
18	Pyma Acetate (2- Aminomethyl-3-Chloro-5-Trifluoromethylpyridine Acetate)	1208081-43-9	Intermediate	-	0		(Either individual or total production of 2

							products)
19	NaCMTS (Sodium 4-(methoxycarbonyl)-5-oxo-2,5-dihydrofuran-3-olate)	1134960-41-0	Intermediate	-	1200	0	1200
20	CPDM (1,1-Cyclopropanedicarboxylic acid, dimethyl ester)	6914-71-2	Intermediate	-	0		(Either individual or total production of 2 products)
21	Cypermethric Acid Chloride (CMAC)/ Cypermethric Acid (CMA) 3-(2,2-Dichlorovinyl)-2,2-dimethylcyclopropanecarbonyl chloride (CMAc) / 3-(2,2-Dichlorovinyl)-2,2-dimethylcyclopropanecarboxylic acid(CMA)	52314-67-7/ 55701-05-8	Intermediate	-	2400	1100	3500
22	Cypermethric Acid Chloride from DV Ester (3-(2,2-Dichloroethenyl)-2,2-dimethyl-methyl Ester (DV Ester)	61898-95-1	Intermediate	-	600	0	600
23	Acid Chloride Preparation (RTPAC) (1R)-trans-3-(2,2-Dichlorovinyl)-2,2-dimethylcyclopropanecarbonyl Chloride	61914-47-4	Intermediate	-	(Either individual or total production of 2 products)		
24	Metaphenoxy Benzyl Alcohol (3-Phenoxybenzyl Alcohol)	13826-35-2	Intermediate	-	1200	0	1200
25	Chrysanthemic Acid (3,3-Dimethyl-2-(2-methyl-1-propenyl)cyclopropanecarboxylic Acid)	10453-89-1	Intermediate	-	180	-180	0
26	Allethrolones (4-hydroxy-3-methyl-2-prop-2-enylcyclopent-2-en-1-one)	29605-88-7	Intermediate	-	(Either individual or total production of 2		

					products)		
27	TCA (2,2-dimethyl-3-(2,2,2-trichloroethyl)cyclopropane carboxylic acid)	60066-84-4	Intermediate	-	540	260	800
28	RTCMA (1R-trans-Permethric acid)	55701-03-6	Intermediate	-	(Either individual or total production of 2 products)		
29	DM Base (D-threo-(-)-2-dimethylamino-1-(p-nitrophenyl)-1,3-propanediol or (1R,2R)-2-N,N-Dimethylamino-3-(p-nitrophenyl)propane-1,3-diol)	18867-45-3	Intermediate	-	50.4	-50.4	0
30	Fipronil	120068-37-3	Insecticides	Pyrazoles	540	-540	0
31	Ethiprole	181587-01-9	Insecticides	Pyrazoles	1020	3480	4500
32	Pyrazole (5-Amino-1-[2,6-dichloro-4-(trifluoromethyl)phenyl]-1Hpyrazole-3-carbonitrile)	120068-79-3	Intermediate	Pyrazoles	0		(Either individual or total production of 2 products)
33	Fluopyram	658066-35-4	Fungicide	Carbamate	3000	-1800	1200
34	PYACN [3-chloro-5-(trifluoromethyl) pyridin-2-yl] acetonitrile	157764-10-8	Intermediate	-	(Either individual or total production of 2 products)		(Either individual or total production of 2 products)
35	Tembotrione	335104-84-2	Herbicide	Others	1020	-1020	0
36	Pyrasulfotle	365400-11-9	Herbicide	Others	300	-300	0
37	Amid Chloride (4-[[(2-methoxybenzoyl)	816431-72-8	Intermediate	Intermediate	1020	-1020	0

	amino]sulfonyl)benzoyl chloride)						
38	Flumethrin	69770-45-2	Insecticides	Synthetic Pyrethroids	60	0	60
39	BDCB (4-Bromo-1,2-dichlorobenzene)	18282-59-2	Intermediate	-	0	3500	3500
40	R & D Products		Not Specified	-	180	0	180
Total Product					**26572**	**4218**	**30790**
By-Products/Co-Products							
1	Recovered Methanol	67-56-1	-	-	811	-811	0
2	Potassium Chloride	7447 -407	-	-	540	1866	2406
3	Sodium Bisulphite/Sodium Bi Sulphite Solution	7631-90-5	-	-	4051	1857	5908
4	Soduim Sulphite Solution	7757-83-7	-	-	1575	-337	1238
5	Monobromo Toluene/Mix Isomer PBrODCB	18282-59-2	-	-	2095	3525	5620
6	Ammonium Chloride Crystal	12125-02-9	-	-	1614	742	2356
7	Potassium Chloride Solution	7447-40-7	-	-	2953	-2953	0
8	Sodium Fluoride	7681-49-4	-	-	0	324	324
Total By-products					**13639**	**4213**	**17852**

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 the EC for the existing project was issued vide letter no. J-11011/300/2015-IA. II (I) dated 28.03.2017 and amended on 21.02.2018 with total production capacity of 26572 MTPA and By-product: 13639 MTPA.

7. The PP reported that certified compliance of existing EC was given by IRO, MoEF&CC Gandhinagar on 05.09.2022. As per the report, out of total 41 conditions, 37 are complied, 2 are partly complied and 2 are agreed to comply by the project proponent. Response of partly complied conditions was submitted by the PP to IRO on 23.09.2022.

8. The PP reported that there are no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from site. Only one Reserved Forest is present at 7.5 Km from project site. Four river/creek/water bodies are present in 10 Km radius of project site i.e., Creek (within site), Kolak River (2.7 Km, NE), Daman Ganga (4 Km, SW) and Kalu River (7.5 Km, SW). The PP reported that no Schedule-I species exist within 10 km study area of the project.

9. The PP reported that ambient air quality monitoring was carried out at 8 locations during March-May,2022 and the baseline data indicates the range of concentrations as PM_{10} (40.3 – 143.6 µg/m^3), $PM_{2.5}$ (17.5-68.4 µg/m^3), SO_2 (5.7-16.6 µg/m^3) and NO_2 (8.4-31.3 µg/m^3), Cl_2 (<0.1 ppm), HBr (<0.1 µg/m^3) and HCl (<0.1 ppm). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.0048 µg/m^3, 0.0026 µg/m^3, 0.082 µg/m^3 and 0.144 µg/m^3 with respect to Cl2, HBr, HCl and SO_2. The resultant concentration of Cl_2, HBr, HCl and SO_2 are within the National Ambient Air Quality Standards. PM_{10} and $PM_{2.5}$ concentrations are found higher than the NAAQS at few locations due to industrial activities in the nearby area.

10. Ambient Noise quality monitoring was carried out at 8 locations during the March-May, 2022 and baseline data indicates the range of concentrations as Day Noise (49.2-65.2 dB(A)) and Night Noise (37.5-54.8 dB(A)). The noise levels observed in the project site and study are within prescribed limits except the location near NH-5 (N-6). The noise level exceeded at this location due to extensive traffic at NH-5.

11. Ground water quality monitoring was carried out at 8 locations during the March-May, 2022 and baseline data indicates pH ranged between to 6.82 to 7.62 which are well within the specified standard of 6.5 to 8.5 limit. Total hardness levels were recorded in the range of 212 to 628 mg/l. Total dissolved solids were recorded in the range of 438 to 1250 mg/l that falls within permissible limits of 2000 mg/l. Chloride levels were recorded between 78 to 240 mg/l that falls within the range of permissible limit i.e., 1000 mg/l. Sulphate levels were observed in the range of 41 to 136 mg/l and were within the acceptable limit i.e., 400 mg/l. Bacteriological studies reveal that no coliform bacterial are present in the samples. The heavy metal contents were observed to be in below detectable limits. Parameters for toxic substances were recorded within the permissible limits. All physical and general parameters were observed within the permissible limit as per IS10500:2012 (Second Revision).

12. Surface water quality monitoring was carried out at 4 locations during the March-May,2022 and baseline data indicates pH values of all analysed samples ranged between 7.09 – 7.26. TDS levels were observed to be in range from 181 to 228 mg/l. Total hardness levels were observed to be in the range of 116 to 144 mg/l. Dissolved Oxygen values ranged between 7.2 to 7.7 mg/l. The chlorides level was observed to be in range of 25 to 37 mg/l. Sulphate level were found to be ranging from 12 to 20 mg/l. Nitrate levels were found to be observed within the range of 6.5 to 9.5 mg/l. Total Coliform levels were found to be in the range of $1.6*10^2$ to $2.3*10^2$ MPN/100 ml. Biochemical Oxygen Demand (BOD) was observed to be in range of 2.1 to 2.8 mg/l. Comparing the values as per classification for designated best use water quality criteria by CPCB, all surface water locations were classified under “Class B- Outdoor Bathing (Organized)”.

13. The PP reported that after expansion, total water requirement of the plant will be 2890 KLD. Out of which 2530 KLD freshwater requirement shall be met through GIDC supply and rest 360 KLD from in-house treatment schemes. GIDC has already issued commitment letter to Bayer vide letter no. No./DEE/WS/NA/VPI/514 dated 04.08.2022 for supply of 2530 KLD fresh water. The facility has full-fledged wastewater pre-treatment plant (WWPT) and effluent treatment plants to treat wastewater (Domestic + Industrial) generated from plant. The wastewater is segregated at source and treated based on its characteristics viz. COD, TDS and BOD/COD Ratio. The wastewater pre-treatment plant comprised of Evaporators for treatment of high COD and high TDS streams, Fenton oxidation plant to treat streams having low biodegradability, stripper to separate low boiling liquid organic components in the wastewater.

14. The PP reported that after expansion, total power requirement of plant will be 12000 KVA, being sourced through Dakshin Gujarat Vij Company Limited (DGVCL). For Power backup, DG sets of capacity 2x1500 kVA, will be installed in the unit along with existing DG sets of 3 x1500 kVA,

2x750 kVA. Bureau of Energy Efficiency (BEE) Star rated equipment are used in the plant to reduce the power consumption.

15. Existing unit has 5 nos. of Natural gas-based boilers (4x10 TPH & 1x15 TPH). No additional boiler is proposed in the plant. Stack of 20 m has been provided for all Boilers for controlling the particulate emissions within the CPCB norms.

16. Details of flue gas & process emissions generation and its management are given below:

S. No.	Stack Attached to	Source of emission	Stack Height in m	Type of Fuel	Fuel Consumption, Sm3/hr/APCM	Remarks
Utility Stacks						
1	Boiler -1 (10 TPH)	Flue Gas	20	NG	713	Existing
2	Boiler -2 (10 TPH)	Flue Gas	20	NG	713	Existing
3	Boiler -3 (10 TPH)	Flue Gas	20	NG	713	Existing
4	Boiler -4 (10 TPH)	Flue Gas	20	NG	713	Existing
5	Boiler -5 (15 TPH)	Flue Gas	20	NG	1150	Existing
6	Thermic Fluid Heater 1 (Capacity 0.4 Mkcal/Hr)	Flue Gas	25	NG	75	Existing
7	Thermic Fluid Heater 2	Flue Gas	25	NG	49	To be removed
8	Incinerator I-Old (2.18 Mkcal/hr) (Cyclone Separator +Alkali Packed bed scrubber)	Flue Gas	40	NG	246	Existing
9	Incinerator II-New (6.5 Mkcal/hr) (Cyclone Separator +Alkali Packed bed scrubber)	Flue Gas	40	NG	700	Existing
10	DG Set-1 (1500 kVA)	Flue Gas	30	HSD	375	Existing
11	DG Set-2 (750 kVA)	Flue Gas	13	HSD	166	Existing
12	DG Set-3 (750 kVA)	Flue Gas	13	HSD	166	Existing
13	DG Set-4 (325 kVA)	Flue Gas	10	HSD	85	Existing
14	DG Set-5 (325 kVA)	Flue Gas	10	HSD	85	Existing
15	DG Set-6 (325 kVA)	Flue Gas	10	HSD	85	Existing
16	DG Set-7 (1500 kVA)	Flue Gas	30	HSD	375	Existing
17	DG Set-8 (1500 KVA)	Flue Gas	30	HSD	375	Existing
18	DG Set-9 (1500 KVA)	Flue Gas	30	HSD	375	Proposed
19	DG Set-10 (1500 KVA)	Flue Gas	30	HSD	375	Proposed
Process Stacks						
1	MPB reactor drowning vessels & ventilation system	Process Emission	22	_	Water scrubber followed by caustic scrubber	Existing
2	CMAC Reactors	Process Emission	20	-	Water scrubber followed by caustic scrubber	Existing
3	TBAC Reactors	Process Emission	20	_	Water scrubber followed by	Existing

					caustic scrubber	
4	Bromination reaction reactor in Deltamethrin	Process Emission	22	-	Water scrubber followed by caustic scrubber	Existing
5	Acylation reaction reactor in Deltamethrin	Process Emission	22	-	Water scrubber followed by caustic scrubber	Existing
6	Acylation/Esterification reactor of Transfluthrin /Acid chloride preparation /Cypermethric acid chloride from DV Ester	Process Emission	11	_	Water scrubber followed by caustic scrubber	Existing
7	Condensation reactor of Permethrin	Process Emission	20	_	Water scrubber followed by caustic scrubber	Existing
8	Vent attached to CPPL preparation reactor of Acrinathrin Plant	Process Emission	11	-	Water scrubber followed by caustic scrubber	To be removed
9	Vent attached to acid chloride preparation Reactor of Acrinathrin	Process Emission	11		Water scrubber followed by caustic scrubber	To be removed
10	Acid Chloride preparation Reactor in flumethrin (ECO)	Process Emission	11	_	Water scrubber followed by caustic scrubber	Existing
11	Vent connected to Process Reactors of Allethrones	Process Emission	20	_	Caustic Scrubber	To be removed
12	Vent connected to 1st reaction of Triafamone	Process Emission	20	-	Caustic Scrubber	To be removed
13	Vent connected to 2nd stage reaction of Triafamone	Process Emission	20	_	Caustic Scrubber	To be removed
14	Vent attached to Amidchloride preparation reactor in Amid chloride plant	Process Emission	20	-	Water scrubber followed by caustic scrubber	To be removed
15	Vent connected to CSE & Pyrazole sulfide Formation reactors of Ethiprole	Process Emission	20	-	Water scrubber followed by caustic scrubber	Existing
16	Vent attached to acid chloride preparation in Tembotrione	Process Emission	20	-	Water scrubber followed by caustic scrubber	To be removed

17	Vent connected to chlorination reactor of Pyrasulfotole	Process Emission	20	-	Water scrubber followed by caustic scrubber	To be removed	

17. Details of solid waste/ hazardous waste generation and its management are given below:

S. No	Type of waste	Category	Capacity (MT/Annum)			Facility
			Existing CTO	Proposed	Total Proposed after Expansion	
1	Chemical Sludge from Wastewater Treatment	35.3	2436	0	2436	Collection, Storage, Transportation, Disposal by sending to approved and authorized TSDF / at authorized pre-processing and / or Co-processing facilities by use of GPS mounted vehicles and XGN manifest system
2	Evaporation residue	37.3	11794	7071	18865	Collection, Storage, Transportation, Disposal by sending to approved and authorized TSDF / at authorized pre-processing and / or Co-processing facilities by use of GPS mounted vehicles and XGN manifest system
3	Distillation Residues	20.3	8884	7887	16771	Collection, Storage, Transportation and Disposal by sending for co-processing to cement industries or authorized pre-processing facilities or by incineration at captive incineration or by sending to authorized CHWIF sites by use of GPS mounted vehicles and XGN manifest system

4	Ash from Incinerator and flue gas cleaning residue	37.2	273	77	350	Collection, Storage, Transportation and disposal by sending to approved and authorized TSDF site by use of GPS mounted vehicle and XGN manifest system.
5	Oil and grease skimming	35.4	30	0	30	Collection, Storage, Transportation and Disposal by sending for co-processing to cement industries or authorized pre-processing facilities or by incineration at captive incineration or by sending to authorized CHWIF sites by use of GPS mounted vehicles and XGN manifest system
6	Used Oil or Spent Oil	5.1	30	0	30	Collection, Storage, Transportation and Disposal by reuse or selling to authorized recycler / refiners / at authorized pre-processing and / or Co-processing facilities or by incineration at captive incineration or by sending to authorized CHWIF sites by use of GPS mounted vehicles and XGN manifest system
7	Spent Solvents	29.4	1261	995	2256	Collection, Storage, Transportation and Disposal by sending for co-processing to cement industries or authorized pre-processing facilities or by incineration at captive incineration or by sending to authorized CHWIF sites by use of GPS

						mounted vehicles and XGN manifest system
8	Empty barrels / Containers / liners contaminated with hazardous chemicals / waste	33.1	597	0	597	Collection, Storage, transportation Decontamination & disposal by selling to authorized recyclers having all required permission of SPCB by use of GPS mounted vehicles and XGN manifest system
9	Spent Catalyst	29.5	271	-10	261	Collection, Storage, Transportation, Disposal by selling to registered recycler / offsite recovery at units from where catalyst is procured / other units doing recovery / authorized pre-processing and / or Co-processing facilities / incineration at captive incineration / authorized CHWIF sites by use of GPS mounted vehicles and XGN manifest system
10	Date Expired and off - specification Pesticides	29.3	Generation if any	0	As and when Generated	Collection, Storage, Transportation and Disposal by sending for co-processing to cement industries or authorized pre-processing facilities or by incineration at captive incineration or by sending to authorized CHWIF sites by use of GPS mounted vehicles and XGN manifest system

11	Spent Resin	35.2	12	0	12	Collection, Storage, Transportation and disposal by sending for Co-processing to cement industries or by incineration at captive incineration or by sending authorized CHWIF sites or by selling to end users having all required permissions of SPCB by use of GPS mounted vehicles and XGN manifest system
12	Waste or residue containing oil	5.2	2	0	2	Collection, Storage, Transportation and disposal by sending for Co-processing to cement industries or by incineration at captive incineration or by sending to authorized CHWIF sites by use of GPS mounted vehicles and XGN manifest system
13	Spent Carbon or filter materials	36.2	83.8	0	84	Collection, Storage, Transportation and disposal by sending for Co-processing to cement industries or by incineration at captive incineration or by sending to authorized CHWIF sites or by sending to authorized recyclers/re-processors having all require permission of SPCB by use of GPS mounted vehicles and XGN manifest system
14	Process Waste	29.1	1252	2520	3772	Collection, Storage, Transportation and Disposal by sending for co-processing to cement industries or

						authorized pre-processing facilities or by incineration at captive incineration or by sending to authorized CHWIF sites by use of GPS mounted vehicles and XGN manifest system
15	Contaminated cotton rags or other cleaning materials	33.2	10	0	10	Collection, Storage, Transportation and disposal by sending for Co-processing to cement industries or by incineration at captive incineration or by sending to authorized CHWIF sites by use of GPS mounted vehicles and XGN manifest system.
16	Process Waste (Waste Insulation Material and Bricks / Refractory)	29.1	160	90	250	Collection, Storage, Transportation and disposal by sending to approved and authorized TSDF site by use of GPS mounted vehicle and XGN manifest system
17	Process Waste (Used PPEs)	29.1	As and When Generated	0	As and when Generated	Collection, Storage, Transportation and disposal by sending for Co-processing to cement industries or by incineration at captive incineration or by sending to authorized CHWIF sites by use of GPS mounted vehicles and XGN manifest system
18	Spent HCl	29.6	956	2104	3060	Collection, Storage, Transportation and disposal by selling to authorized end users/captive use having all require permission of SPCB by uses of GPS

						mounted vehicles and XGN manifest system.
19	Contaminated Soil / Debris	35.3	As and When Generated	0	As and when Generated	Collection, Storage, Transportation and disposal by sending to approved and authorized TSDF site by use of GPS mounted vehicle and XGN manifest system
20	Aluminum Chloride Solution (28%)	Sch II-C2	11127	-516	10611	Collection, Storage, Transportation and disposal by selling to authorized end users having all require permission of SPCB by uses of GPS mounted vehicles and XGN manifest system.
21	Potassium Bromide (25%) / Sodium Bromide (18%)	Sch II-C2	5564	2358	7922	Collection, Storage, Transportation and disposal by selling to authorized end users having all require permission of SPCB by uses of GPS mounted vehicles and XGN manifest system.
22	Insulated Copper wire Scrap or Copper with PVC sheeting including ISRI-Code material namely " Druid"	Sch IV -7	As and When Generated	0	As and when Generated	Collection, Storage, Transportation disposal by selling to authorized recyclers having all require permission of SPCB by uses of GPS mounted vehicles and XGN manifest system.
23	Jelly Filled Copper Cables	Sch IV -8	As and When Generated	0	As and when Generated	Collection, Storage, Transportation disposal by selling to authorized recyclers having all require permission of SPCB by uses of GPS mounted vehicles and XGN manifest system.

24	Lead Scrap	Sch IV - 17	As and When Generated	0	As and when Generated	Collection, Storage, Transportation disposal by selling to authorized recyclers having all require permission of SPCB by uses of GPS mounted vehicles and XGN manifest system.
25	Chemical containing residue arising from decontamination	34.1	24	0	24	Collection, Storage, Transportation and disposal by sending for Co-processing to cement industries or by incineration at captive incineration or by sending to authorized CHWIF sites by use of GPS mounted vehicles and XGN manifest system
26	Sludge from Wet Scrubber	37.1	48	0	48	Collection, Storage, Transportation and disposal by sending to approved and authorized TSDF site by use of GPS mounted vehicle and XGN manifest system

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 329 Crore (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 149 Crore, Industry proposes to allocate ₹ 100 Lakh towards CER for Maintain housekeeping and green belt at primary school in nearby area and/or of primary Scholarships distribution of education materials to the needy children etc., Tree plantation /rainwater harvesting, Awareness programme for waste segregation and support to gram panchayat for solid waste management.

14. The PP reported that the proposed expansion project is to be set up within the existing premises of land area 29.4 Ha. Site has allocated 11.50 Ha of land including private land which is procured for green belt development and planted 22000 trees. The site has also carried out plantation in 1.45 Ha of land in surrounding site periphery and various locations at GIDC. So, the total green belt area is 12.95 Ha which is equivalent to 44% of manufacturing site area. To meet the requirement of 2500 trees/Ha, additional trees i.e., 10375 nos. will be planted within the premises as well as outside premises.

15. The PP proposed to set up an Environment Management Cell (EMC) by engaging Health and safety cell for the functioning of EMC.

16. The PP reported the following w.r.t carbon foot print/sequestration:

Particular	Carbon Footprint Reduction
Installation of low temperature evaporator with MVR	7723 MT CO_2 per year
Heat recovery from waste incineration	2509 MT CO_2 per year
Contract for hybrid power renewable energy	15096 MT CO_2 per year
Replacement of existing boiler with higher energy efficient	857 MT CO_2 per year
Centralization of Utility	276 MT CO_2 per year
Solar Panel (370 KW)	878 MT CO_2 per year
Carbon Sequestration through Plants	2312 MT CO_2 per year
Total	**29651 t CO_2 per year**
Scope 1 & 2 Carbon Footprint	78754 t CO_2 per year
Carbon Footprint Reduction	**37.6%**

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

18. The estimated project cost is ₹ 707.46 crores including existing investment of ₹ 582.46 Crore. Total employment will be 1230 persons during operation phase after expansion.

19. **Deliberations by the EAC:**

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

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

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

The EAC inter-alia, deliberated on the life cycle assessment, green belt development, compliance of the mitigation measures of CPA, etc. and advised the PP to submit the revised greenbelt development plan considering a density of 2500 trees per ha. and 80% survival rate and detailed action plan w.r.t mitigation measures for CPA as per the Ministry's OM dated 31.10.2019. The PP submitted the same and the EAC found it to be satisfactory

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

20. 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) Adequate stack height as per SPCB and CPCB guidelines shall be provided. Stack emission levels shall be stringent than the existing standards i.e. SO_2 < 25 mg/Nm^3; HCl < 10 mg/Nm^3; Cl_2 < 5 mg/Nm^3 and HBr < 3.5 mg/Nm^3

(ii) CEMS shall be installed as per the SPCB and CPCB directions and connected to SPCB and CPCB server.

(iii) Effective fugitive emission control measures shall be adopted in the process, transportation, packing etc.

(iv) The PP shall explore transportation of materials by rail/belt conveyor.

(v) Natural gas shall be used as a fuel in the plant.

(vi) The Best Available Technology shall be used.

(vii) The PP shall develop Greenbelt over an area of at least 12.95 ha (44 %) by planting approx. 10375 numbers of saplings (within the premises as well as outside premises) within a year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The PP shall also approach the irrigation department for tree plantation near the water channel passing through project site. 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 expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(viii) The transportation load on roads shall be within their carrying capacity and adequate width of roads shall be maintained inside the industrial premises.

(ix) Full-fledged ETP shall be provided for treatment of wastewater (Domestic + Industrial) generated from plant. About 360 KLD of treated water shall be reused within the plant after treatment.

(x) Continuous monitoring system for effluent quality/quantity shall be installed.

(xi) Rainwater shall be collected in 3000 KL storage tank and reused in plant for preparing scrubbing solution after pre-treatment.

(xii) Major Hazardous waste shall be sent for co-processing to cement industries or authorized pre-processing facilities. The other hazardous waste shall be disposed to GPCB approved TSDF/CHWIF.

(xiii) Monitoring of the compliance of EC conditions shall be submitted with third party audit every year.

(xiv) Housekeeping and green belt at primary school in nearby area and/or primary scholarships, distribution of education materials to the needy children etc., tree plantation /rainwater harvesting, awareness programme for waste segregation and support to Grampanchyat for solid waste management shall be done under the CER.

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

(xvi) 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 ₹ 329 Crore (Capital cost) and ₹ 149 crore per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xvii) The total water requirement of the plant shall be 2890 KLD, out of which freshwater requirement of 2530 KLD shall be met through GIDC supply and rest 360 KLD from in-house treatment schemes. 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.

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

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

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

(xxi) 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.

(xxii) 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.

(xxiii) 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.

(xxiv) 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.

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

(xxvi) 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.

(xxvii) 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.

(xxviii) 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. 41.11.

Proposed Pesticide Products and Specialty Chemicals Manufacturing Unit (8712 MT/Annum) located at Plot No. D-2/17/16, Dahej-II, GIDC Estate, Taluka Vagra, Dist. Bharuch, Gujarat by M/s Shree Ganesh Remedies Ltd. (Unit-5)

[Proposal No. IA/GJ/IND3/241900/2021; File No. IA-J-11011/396/2021-IA-II(I)]

1. The proposal is for environmental clearance to the proposed Pesticide Products and Specialty Chemicals Manufacturing Unit (8712 MT/Annum) located at Plot No. D-2/17/16, Dahej-II, GIDC Estate, Taluka Vagra, Dist. Bharuch, Gujarat by M/s Shree Ganesh Remedies Ltd. (Unit-5).

2. The project/activity is covered under Category 'A' of item 5(b), Pesticide Industry and pesticide specific intermediates (excluding formulations) and 5(f), Synthetic Organic Chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by Expert Appraisal Committee (EAC).

3. The PP applied for ToR vide proposal number. IA/GJ/IND3/241900/2021 dated 6.12.2021 and the ToR has been issued by the Ministry, vide letter IA-J-11011/396/2021-IA-II(I) dated 10.12.2021. The PP submitted as the project site is in a Notified Industrial Area i.e., Unit is located in Notified Industrial Area of GIDC, Dahej -2. Which is Fall in PCPIR. Hence, Public Hearing is exempted. EC of PCPIR Region was obtained vide File no. 21-49/2010-IA-III Dated 14th September, 2017. The PP applied for Environment Clearance on 13.9.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP reported in Form-2 that it is a Fresh EC. Due to some shortcomings, the Project was referred back to the PP on 22.9.2022 and reply to the same was submitted on 21.10.2022. The proposal was placed in 41th EAC Meeting held on 18-19 October, 2022, wherein the PP and an accredited Consultant, M/s. Aqua Air Environmental Engineers Pvt. Ltd. [Accreditation number NABET/EIA/2023/IA0062 (Rev.03) valid till 7.10.2023], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area is 4.05543 Ha and no R& R is involved in the Project. The details of products are as follows:

Sr. No.	Name of Products	Quantity MT/Annum	CAS No.	LD50 (mg/Kg)	Category
Agro Chemicals					
1	2,4 dichlorophenoxyacetic acid (2,4-D)	1200	94-75-7	3670	5(b)
2	Benfuresate		68505-69-1	2031	5(b)
3	Fluopicolide		239110-15-7	5000	5(b)
4	Anilofos		64249-01-0	1681	5(b)
5	Triazophos		24017-47-8	1100	5(b)
6	Deltamethrin		52918-63-5	5	5(b)
7	Flumethrin		69770-45-2	2000	5(b)
Intermediates					
8	1-[4-[2-(cyclopropylmethoxy)ethyl]phenoxy]-3-(propan-2-ylamino)propan-2-ol	1200	56392-17-7	--	5(f)
9	(R)-3-Amino-1-butanol		61477-40-5	--	5(f)
10	2-Aminomethyl-1- ethylpyrrolidine		22795-99-9	--	5(f)
11	1,3-Dimethyladamantane		702-79-4	--	5(f)
12	(R)-2-hydroxy-4- phenylbutanoic acid ethyl ester		90315-82-5	--	5(f)
13	Trans-4-aminocyclohexanol		27489-62-9	--	5(f)
14	2-Ethyl-2-methylbutanoic acid		19889-37-3	--	5(f)
15	trans-4-(4-Chlorophenyl)cyclohexanecarboxylic acid		49708-81-8	--	5(f)

16	4,4'-dimethylbiphenyl		613-33-2	--	5(f)
17	4-Phenylbenzonitrile		2920-38-6	--	5(f)
18	2-Methyl-[1,1'-biphenyl]-3-yl)methanol--		76350-90-8	--	5(f)
19	3-Chloro-2-methyl-1,1'- biphenyl		20261-24-9	--	5(f)
20	2-Fluorophenol		367-12-4	--	5(f)
21	2-Fluoroanisole		321-28-8	--	5(f)
22	2-Chloro-6-fluoroanisole		363-51-9	--	5(f)
23	(2-Chloro-4-fluoro-3-methoxyphenyl)boronic acid		944129-07-1	--	5(f)
24	1H-Pyrrole		109-97-7	--	5(f)
25	2-Chlorobenzonitrile		873-32-5	--	5(f)
26	1-Methoxy-2-propylamine		37143-54-7	--	5(f)
27	Bicyclo[4.2.0]octa-1,3,5-triene [Benzocyclobutene]		694-87-1	--	5(f)
28	N,N'-(2-(4-(2-aminobenzamido)butyl)pentan e-1,5-diyl)bis(2- aminobenzamide)		951-985-7	--	5(f)
29	4,5,6,7-Tetrahydrothieno[3,2-c]pyridine Hydrochloride		28783-41-7	--	5(f)
30	3,5-Dimethylbenzoyl chloride		6613-44-1	--	5(f)
31	1-(4-Chlorophenyl)-4,4- dimethyl-3-pentanone		66346-01-8	--	5(f)
32	2,4,6-triaminopyrimidine		1004-38-2	--	5(f)
33	dl-2,2-Dimethyl cyclopropane- 1-carboxylic acid		931-26-0	--	5(f)
34	4-Morpholinopiperidine		53617-35-9	--	5(f)
35	4,4'--DIMETHOXYTRITYL CHLORIDE		40615-36-9	--	5(f)
36	4-Hydroxy Benzyl Alcohol		623-05-2	--	5(f)
37	4 (2-chloro Ethyl) MorpholineHCl		3647-69-6	--	5(f)
38	Di Methyl Amino Isopropyl Chloride HCl		4584-49-0	--	5(f)
39	4- ChloroButyryl Chloride		4635-59-0	--	5(f)
40	Methyl 4- chlorobutyrate		3153-37-5	--	5(f)
41	Cyclorpropane Carbonyl Chloride		4023-34-1	--	5(f)
42	Cyclohexane Carbonyl chloride		2719-27-9	--	5(f)
43	2- Furoyl Chloride		527-69-5	--	5(f)
44	O- Acetylsalicloyl Chloride		5538-51-2	--	5(f)
Building Blocks					
45	1,1-Cyclobutane dicarboxylic acid	**1200**	5445-51-2	--	5(f)
46	Cyclobutane carboxylic acid		3721-95-7	--	5(f)
47	Cyclobutane carbonyl chloride		5006-22-4	--	5(f)
48	Cyclobutyl carbinol		4415-82-1	--	5(f)

49	Cyclobutyl carboxaldehyde		3019-25-8	--	5(f)
50	Cyclobutyl methyl Chloride		5911-08-0	--	5(f)
51	Cyclopropyl boronic acid		411235-57-9	--	5(f)
Aroma					
52	1-Cyclopropylmethyl-4-methoxybenzene	**1200**	16510-27-3	--	5(f)
53	2-(3,5-dimethylhex-3-en-2-yloxy)-2-methylpropyl cyclopropanecarboxylate		676532-44-8	--	5(f)
54	4-Methylpropiophenone		5337-93-9	--	5(f)
55	Cyclopropyl 4-methoxyphenyl ketone		7152-03-6	--	5(f)
56	1-(4-Chlorophenyl) cyclopropanecarboxylic acid		72934-37-3	--	5(f)
57	Para Anisyl Acetate		104-21-2	--	5(f)
58	(E,Z)-7,9-Dodecadienyl acetate		55774-32-8	--	5(f)
59	(Z)-13-Icosen-10-one		63408-44-6	--	5(f)
60	cis-7,8-Epoxy-2-methyloctadecane		29804-22-6	--	5(f)
61	(Z,E) -9,12-Tetradecadienyl acetate		69775-62-8	--	5(f)
62	(Z)-11-Tetradecenyl acetate		20711-10-8	--	5(f)
63	(E,Z)-3,13-Octadecadien-1-ol		53120-26-6	--	5(f)
64	(Z,Z)-3,13-Octadecadien-1-ol		53120-27-7	--	5(f)
65	(Z)-4-Tridecen-1-yl acetate		65954-19-0	--	5(f)
66	(E)-4-Tridecen-1-yl acetate		72269-48-3	--	5(f)
67	(E,E) -8,10-Dodecadien-1-ol		77967-64-7	--	5(f)
68	(Z)-11-Hexadecenyl Acetate		34010-21-4	--	5(f)
69	Methyl p-anisate		121-98-2	--	5(f)
Fine Chem					
70	Norcamphor	**1200**	497-38-1	--	5(f)
71	Anethol		104-46-1	--	5(f)
72	2,4 Dihydroxy Benzophenone		131-56-6	--	5(f)
73	7-Octyne-1-ol		871-91-0	--	5(f)
74	4-Pentenoic Acid		591-80-0	--	5(f)
75	4-Hexy Resorcinol		136-77-6	--	5(f)
76	2-Cyano Phenol		611-20-1	--	5(f)
77	7 – Bromo, 1 - heptene		4117-09-3	--	5(f)
78	1-Cyano-Cyclobutane-1,2-dicarboxylic acid dimethyl ester		14132-45-7	--	5(f)
79	E-Tetraacetate		15956-28-2	--	5(f)
80	N-Methyl-4-Chloro Piperidine HCl		5570-77-4	--	5(f)
81	Syringaldehyde		134-96-3	--	5(f)
82	Indoline		120-72-9	--	5(f)

83	2-p-Anisyl Propanal		5462-06-6	--	5(f)
84	4-Amino Benzonitril		873-74-5	--	5(f)
85	Acrylamide Purified		79-06-1	--	5(f)
86	Ethylenediaminetetraacetic Acid Metal Chelate salts		60-00-4	--	5(f)
87	Sodium Selenite Pentahydrate		26970-82-1	--	5(f)
88	Peonile		10461-98-0	--	5(f)
89	4,5-Dichloro phthalic Acid		56962-08-4	--	5(f)
90	2-Nitro 4-Methoxy Aniline		96-96-8	--	5(f)
91	4 - Nitro-2-MethoxyAniline and 5-Nitro 2-Methoxy Aniline		97-52-9/ 99-59-2	--	5(f)
Inorganic Products					
92	Sodium Sulfite	**867**	7757-83-7	--	--
93	Calcium Chloride Fused Powder / Lumps	**1785**	7440-70-2	--	--
94	R&D	**60**	--		
TOTAL		**8712 MT/ ANNUM**	**--**		

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

6. The PP reported that there are no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from site. River Narmada is flowing at distance of 5.60 Km in south direction. PP reported that 5 Schedule I species exist within 10 km study area of the project, for which conservation plan has been submitted for Rs. 8 Lakhs to PCCF & Chief Wildlife Warden, which was approved by CWLW dated 3.6.2022.

7. The PP reported that ambient air quality monitoring was carried out at 9 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentrations as: PM_{10} (71.88 – 78.04 µg/m^3), PM $_{2.5}$ (41.74 – 46.46 µg/m^3), SO_2 (11.92 – 17.82 µg/m^3) and NO_2 (12.34 – 18.83 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.02 µg/m^3, 0.04 µg/m^{3}and 0.01 µg/m^{3}with respect to PM_{10}, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Ground water quality monitoring was carried out at 9 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentrations as: pH (7.14 – 8.16), TSS (<10.0 mg/l), Total Hardness (116.5 – 622.8 mg/l), Total Dissolved Solids (190 – 1856 mg/l) & Chlorides (15.02 – 695.3 mg/l). The resultant concentrations are within the Indian Standard (IS 10500:2012).

8. Surface water quality monitoring was carried out at 8 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentrations as: pH (7.70 – 8.79), DO (6.49 – 6.96 mg/l), COD (9.25 – 21.76 mg/l) & BOD (1.81 – 1.98 mg/l). Noise quality monitoring was carried out at 9 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentrations as: Leq (Day) (48.7 – 53.95 dB (A)), Leq (Night) (41.2 – 44.9 dB (A)). Soil quality monitoring was carried out at 9 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentrations as: pH (6.98 – 8.71), Nitrogen (N) (934.2 – 2691.9 mg/l), Phosphorus (P) (19.55 – 43.15 mg/l), Potassium (K) (30.09 – 264.2 mg/l) & Electric Conductivity (0.093 – 0.396 mg/l).

9. Total water requirement is 570.5 KL/Day of which fresh water requirement of 300 KL/Day will be met from GIDC Water Supply, permission for the same was granted vide letter no. GIDC/BRH/DEE/WS/1311 vide dated 11/01/2022. Effluent of 352.5 KL/Day (341 KL/Day Industrial

+ 11.5 KL/Day Domestic) will be treated in ETP having primary treatment, Solvent striper & MEE. Total Reuse Quantity will be 270.5 KL/Day. Effluent from Process, R&D (141 KL/Day) & washing (20 KL/Day) = 161 KL/Day will be treated in Solvent Stripper followed by ETP having primary treatment and then in MEE. MEE Condensate 131 KL/Day will be reused in plant premises. Utility wastewater (84 KL/Day) & low COD stream (96 KL/Day) from process, total (180 KL/Day) will be treated in ETP having primary treatment & then sent to common CETP, Dahej. Domestic waste water (11.5 KL/Day) will be treated in STP & (11.5 KL/Day) will be reuse in gardening.

10. Power requirement will be 1000 KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Unit will have 2 Nos. DG sets of 1000 KVA & 500 KVA capacity, additionally DG sets are used as standby during power failure. Stack (height 12 m) will be provided as per CPCB norms to the proposed DG sets.

11. Unit will have 3 Nos. of Steam Boilers (8 TPH*1 & 3 TPH*2), 1 Nos. of Thermic fluid heater (3 Lakhs Kcal/Hr) & 2 Nos. of Hot Air Generator (1 Lakh Kcal/Hr) will be installed. Adequate Stack Height of 20 m & 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm3 for the proposed boilers.

12. **Details of Process emissions generation and its management:**

1) Flue Gas Stack

S. No.	SOURCE OF EMISSION	STACK HEIGHT	Fuel	AIR POLLUTION CONTROL SYSTEM
1	Boiler -(8 TPH)	30 Meters	Imported Coal - 13.5 MT/Day	ESP + Scrubber
2	Boiler -(3 TPH)	30 Meters	Imported Coal - 6.5 MT/Day	MCS + Bag filter + Scrubber
3	Boiler -(3 TPH)	20 Meters	Natural Gas - 150 M^3/Hr	Adequate stack height
4	Thermic Fluid Heater (3 Lakhs Kcal/Hr)	20 Meters	Natural Gas - 50 M^3/Hr	Adequate stack height
5	HAG – 1 Lakh Kcal/Hr - 2 Nos. (For Spray Dryer)	20 Meters	Natural Gas – 30 M^3/Hr	Adequate stack height
6	D G Set(1000 KVA)	12 Meters	HSD - 480 Liters/hr	--
7	D G Set(500 KVA)	12 Meters	HSD - 240 Liters/hr	--

2) Process Stack

S. No.	Vent attached to	Stack Height (Meter)	Pollutants	Air pollution Control System
1	Process vent(Product No -29)	12	HCl	Two Stage Water Scrubber
2	Process vent(Product No - 94)	12	Cl_2	Two Stage Water+ Alkali Scrubber
3	Process vent (Product No - 26)	12	NH_3	Two Stage Water Scrubber

4	Process vent (Product No - 83)	12	HBr	Two Stage Water Scrubber
5	Process vent (Product No - 3)	12	HCl & SO_2	Two Stage Water +Alkali Scrubber

13. **Details of Solid waste/ Hazardous waste generation and its management.**16 Categories of Hazardous/Solid Wastes and their management & 1 Nos. of Non-Hazardous waste.

Hazardous/Solid Wastes

Sr. No.	Name of waste	Source of Generation	Category No.	Proposed Quantity (MT/Annum)	Mode of Disposal
1	Discarded Containers/Bags/ Liners	Storage & handling of Raw Materials	Sch-I/ 33.1	120	Collection, Storage, Transportation, Decontamination & Disposal by selling to registered recycler.
2	Used/Spent oil	Equipment & Machineries	Sch-I/ 5.1	15	Collection, Storage, Transportation and reused for Machine Lubrication / Given to GPCB registered reprocessor.
3	Spent Solvent	Process	Sch-I/ 28.6	19696	Collection, Storage, distill & Reuse within plant premises.
4	Distillation Residue	Solvent Distillation	Sch-I/ 20.3	560	Collection, Storage, Transportation and sell to co-processing or sent to Common Incineration Facility.
5	Stripper Residue	Solvent Stripper	Sch-I/ 35.3	1152	
6	Spent Carbon	Process (Product No 6)	Sch-I/ 29.1	72	
7	MEE Salt	MEE	Sch-I/ 35.3	1134	Collection, Storage, Transportation and sent to common TSDF.
8	Inorganic Salt	Process	Sch-I/ 29.1	891	
9	ETP Sludge	In-house ETP	Sch-I/ 35.3	1265.82	
10	Spent Catalyst	Process (Product No 12)	Sch-I/ 29.5	222	Collection, Storage, Transportation and sent to regenerator.
11	Sodium Chloride	Process (Product No 24 + Scrubber)	Sch-I/ 29.1	938.46	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
12	NaSH(30%)	Process (Product No 4)	Sch-I/ 29.1	708	

13	Dilute HBr	Scrubber	Sch-I/ 28.1	547.5	
14	Dilute NH3	Scrubber	Sch-I/ 28.1	547.5	
15	Sodium Bisulphite	Process (Product No 43 + Scrubber)	Sch-I/ 28.1	3034.8	Collect, Storage & will reuse in production of Sodium Sulfite within the plant premises.
16	HCl (30%)	Process (Product No 45) + Scrubber	Sch-II-Class B(15)	2976.30	Collect, Storage & will reuse in production of Calcium Chloride Fused Powder / Lumps within the plant premises.
Non-Hazardous Waste					
17	Ash from Boiler	--	--	365	Collect, Storage & Sell to Brick Manufacturer.

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 5.0 Crore (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 5.11 Crore, Industry proposes to allocate ₹ 110 Lakh towards CER.

15. The PP reported that they will develop Greenbelt in an area of 33% i.e., 13383 m^2 out of total area of the project. Total 40554.30 m^2 land area is available at site; out of this area about 13383 m^2 (33 %) area will be covered as greenbelt. Trees will be planted in the plant premises with spacing of 2m x 2m and Approx. 4015 number of trees will be developed accordingly (considering 80 % of survival rate of trees).

16. The PP proposed to set up an Environment Management Cell (EMC) by engaging Assistant manager- EHS manager- Shift in charge- executive- operator for the functioning of EMC.

17. The PP reported that Total Tonnes of CO_2 emission will 6587.76 tCO_2/annum and company will be reduced 1914.12 tCO_2/annum in 1st year, further 1992.27 tCO_2/annum in 2nd year & 2191.24tCO_2/annum in 3rd year and 2599.16 tCO_2/annum in 5th year. 125 Nos. of Solar LED lights will be install instead of conventional light in all premises i.e. 7.2 KW Power of 125 Nos. of Solar LED lights and that will be reduced to 122.45 tCO_2/annum equivalent Total Tonnes of CO_2 emission will 6587.76 tCO_2/annum and company will be reduced 1914.12 tCO_2/annum in 1st year, further 1992.27 tCO_2/annum in 2nd year & 2191.24 tCO_2/annum in 3rd year and 2599.16 tCO_2/annum in 5th year.

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

19. The estimated project cost is Rs. 55 crores and total employment will be 100 persons as direct.

20. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the fuel change, life cycle assessment, green belt and advised the PP to submit an undertaking for change of fuel from imported coal to natural gas/agro briquettes, revised Life Cycle Assessment report and revised Green Belt Plantation Design & budget. The PP submitted the same and the EAC found it to be satisfactory.

Subsequently, the PP informed that after detail discussion with their technical team, it came out that maximum production will be obtained from 8 TPH & 3 TPH imported coal fire boiler and

natural gas is not viable for the project. It was requested to give permission to use of imported coal as fuel in 8 TPH & 3 TPH Boiler as proposed in the EIA/EMP Report.

The EAC sought the following information/documents and **deferred** the proposal:

(i) Detailed environmental and economic justification for usage of natural gas as fuel vis-à-vis agro briquettes and imported coal.
(ii) ECs accorded for proposals in the same area based on natural gas, agro briquettes and imported coal.

Any Other Item with Permission of Chair

Agenda No. 41.12

Clarification on applicability of Environment Clearance for formulation of additives at existing chemical manufacturing unit of M/s. BASF India Ltd., Suratkal, Mangaluru, Karnataka.

1. The PP vide e-mail dated 12.10.2022 inter-alia, submitted to the Ministry that, M/s. BASF India Limited, the flagship company of BASF in India, has been operating at Mangalore since 1996. The unit is located at Sy Nos. 124/1-2, 126/1, 3, 127/1-2, Surathkal - Bajpe Road, Bala, Mangalore, Dakshina Kannada District, Karnataka – 575010. The industry is involved in the production of Dyes - 2,225 TPA, Polymer Dispersion - 70,000 TPA, Synthetic specialty Coatings - 19,000 TPA, Micronutrients - 15,000 TPA, Precious Slurry Metal catalysts - 230 TPA and Paint, textile and leather auxiliaries -10,000 TPA. The industry has obtained Environmental Clearance and Consents for the existing facility. The industry has valid Consent for Operation (CFO) for existing facility obtained under red category from Karnataka State Pollution Control Board (KSPCB) with Consent No. AW-326393 and PCB ID: 10123 dated 25.08.2021 valid till 30.06.2026.

2. M/s. BASF India Limited is proposing to expand the product portfolio to include formulation of Additives (Sovermol & Loxanol) - 10,000TPA and Mining auxiliaries - 5000 TPA. The proposed formulation products will be manufactured at the existing facility itself. As part of this proposal, we will install additional required equipment within the existing production block. With continuation of the same, as the nature of proposed products are formulations, we have submitted Application for Consent for Establishment to the SPCB on 21.04.2022. The Enforcement Committee considered the proposal in its meeting held on 23.08.2022 and after deliberation recommended to verify the applicability of EIA Notification, 2006 for the proposed expansion.

3. The proposal was placed before the EAC, wherein the PP made a presentation on the subject matter. The EAC deliberated on the subject matter and sought the following information/documents and **deferred** the proposal:
    - Quantification of pollution load
    - Complete details of process and MSDS
    - The PP shall also justify that no chemical reaction is possible in the manufacturing process and no secondary products are being produced at the operating conditions.

ANNEXURE-I

GENERAL EC CONDITIONS

- No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- The PP shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
- The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).
- The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.
- The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.
- A copy of the clearance letter shall be sent by the PP to concerned Panchayat, ZillaParishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- The PP shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office of MoEF&CC by e-mail.
- The PP shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at **https://parivesh.nic.in/**. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.

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

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Annexure-II

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

S. No.	Name of Members	Designation
1.	**Prof. (Dr.) A.B. Pandit** Vice Chancellor, Institute of Chemical Technology, Mumbai, Sir JC Bose Fellow, Government of India Email: ab.pandit@ictmumbai.edu.in	Chairman
2.	**Dr. Ashok Kumar Saxena, IFS** Bunglow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
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, Santnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
6.	**Dr. Suresh Panwar** House No.4, Gayateri Green Society, NH 58 Bypass,Kankerkhera, Meerut, Uttar Pradesh Email-spcppri@gmail.com	Member
7.	**Shri Tukaram M Karne** "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2, PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	Member
8.	**Shri Dinabandhu Gouda** Additional Director, DH IPC-I, Room No. 309A, Third Floor, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 110032 E-mail: dinabandhu.cpcb@nic.in	Member

9.	**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
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

(Prof. Aniruddha B. Pandit)
Chairman

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