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

Dated: 18.04.2023

MINUTES OF THE 49th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON 3rd, 5th & 6th April, 2023

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

Time: 10:30 AM onwards

(i) Opening Remarks by the Chairman

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

(ii) Details of Agenda items by the Member Secretary

The Member Secretary apprised the Committee about the details of Agenda items to be discussed during this Expert Appraisal Committee (EAC) meeting.

(iii) Confirmation of Minutes of the 48th Meeting of the EAC (Industry-3 Sector) held during 9th - 10th & 13th March, 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. The EAC confirmed the MoM with the following modifications (Agenda No. 48.12 & 48.21), based on the request of the Project Proponent (PP).

Agenda No. 48.12

Proposed Phosphatic Fertilizer and Allied Products Manufacturing Industry of Production Capacity 5,74,200 TPM located at Plot No. T-22, Nardana MIDC Phase – II, Tal. Sindkheda & Dist. Dhule, Maharashtra by M/s. Indian Phosphate Limited - Consideration of Environmental Clearance (EC)

[Proposal No. IA/MH/IND3/416941/2023; File No. IA-J-11011/495/2022-IA-II(I)]

1. The proposal was recommended by the EAC in its 48th Meeting held on 9th - 10th & 13th March, 2023 and the MoM were published on 21.3.2023. Subsequently, the PP vide e-mail dated 27.03.2023 requested the following modification in the MoM:

2. In the minutes of meeting at Point No. 13, Sr. No. 1, 1 x 14 TPH Boiler is mentioned with 30 m stack height and Multi Cyclone Scrubber. As it is a Waste Heat Boiler of 14 TPH, no stack and Wet Scrubber are required.

3. The EAC noted that the same was a part of the documents submitted by the PP/Consultant, for which they should be cautious in the future. Since the modification reuested is factual in nature, the EAC recommended the said modification.

Agenda No. 48.21

Proposed Expansion of Synthetic Organic Chemical Industry (Dyes& Dye Intermediates, Bulk Drugs and intermediates Excluding Drug Formulation, Synthetic Rubbers, Basic Organic Chemicals, Other Synthetic Organic Chemicals and Chemical Intermediates) of Total Production Capacity 4,04,720 TPA located at Plot No. 1430/1, NH No. 8A, Taluka Bhachau, District Kutch, State Gujarat by M/s. Aarti Industries Limited - Consideration of EC

[Proposal No. IA/GJ/IND3/420096/2023; File No. IA-J-11011/293/2020-IA-II(I)]

1. The proposal was recommended by the EAC in its 48th meeting held during 9th - 10th & 13th March, 2023. Subsequently, the PP vide email dated 27.03.2023 submitted that minor correction is required as given in the table below:

Point no.	Details as per MoM	Corrections required in MoM	Remarks
22. (xiii)	The industrial effluent of 11.82 KLD shall be treated in ETP, MEE and RO and shall be reused in process, boiler, cooling tower and scrubber. Domestic wastewater of 4.5 KLD shall be collected in separate collection tank and sent to STP. The treated wastewater shall be reused for plantation. The plant shall be based on Zero Liquid Discharge system.	The industrial effluent of **1266 KLD** shall be treated in **ETP, MEE+ATFD & RO and shall be reused in cooling tower and DM plant**. Domestic wastewater of **68 KLD** shall be collected in separate collection tank and sent to STP. The treated wastewater shall be reused for **plantation/ cooling tower**. The plant shall be based on Zero Liquid Discharge system.	Reference: EC presentation – PPT page no. 14: Slide 4(B) Details of wastewater generation with treatment facility & mode of discharge.

2. The EAC noted that the specific condition no. (v) in the earlier MoM stipulates that, "*Total Industrial Effluent after the proposed expansion will be 1266 KLD (Existing: 128 KLD + Proposed 1138 KLD) and the entire quantity shall be treated through Effluent Treatment Plants & Sewage of 68 KLD shall be treated in Sewage Treatment Plant. The plant shall be based on Zero Liquid Discharge system".* The modification required is the same as this condition. It seems that the said specific condition is a typographical error and shall be omitted.

Agenda No. 49.1

Setting up of various Insecticides for veterinary animal health & household use manufacturing unit of capacity 757.2 MT/Annum located at Plot No. 18, Survey No. 300, Village Indrad, Taluka Kadi, District Mehsana, Gujarat by M/s Synergia Sciences Pvt. Ltd. - Reconsideration of Amendment in EC.

[Proposal No. IA/GJ/IND3/291490/2022; File No. IA-J-11011/197/2019-IA II(I)]

1. The proposal is for amendment in the EC granted by the Ministry vide letter dated 1.12.2020 and amendment in EC vide letter dated 4.2.2021 for setting up of various Insecticides for veterinary animal health & household use manufacturing unit of capacity 757.2 MT/Annum located at Plot No. 18, Survey No. 300, Village Indrad, Taluka Kadi, District Mehsana, Gujarat by M/s Synergia Sciences 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 the EC	To be revised/ read as	Justification/ reasons
1.	Specific Condition A(ii) at Page 2 of 7	As already committed by the project proponent, zero liquid discharge shall be ensured and no waste/treated water shall be discharge outside the premises. Treated effluentshall be reused in the process/utilizes. Treated industrial effluent shall not be used for gardening/ greenbelt development/ horticulture.	During initial phase of the project, till the primary treated high concentration effluent together with RO Reject effluent reaches 15.0 KLD,it will be sent to Common Spray Drying at **Chhatral Enviro Management System Pvt. Ltd. (CEMSPL)**. As the project gradually advances and high concentration effluent generation increasesbeyond 15 KLD, unit will switch over to in-house MEE treatment system and will achieve	○ It is not technically feasible and economically viable to achieve zero liquid discharge withinplant premise during initial phase till the effluent quantity reaches 15 KLD. ○ Energy requirement for in- house system will be more compared to spray drying (CEMPSL) as a result; carbon emissions and impact on environment will be more in in-house system compared to common spray drying (CEMPSL). ○ Unit operating cost forspray drying is more economical compared to

			Zero Liquid Discharge.	treatment in-house system**.** Summary of techno-economic feasibility of the effluent treatment system has been submitted. o The detailed evaluation ofCAPEX and OPEX of effluent treatment prepared by **M/s. Project plus Consultants LLP has been submitted.** o Membership certificate of CEMPSL and CTE and CC&A of CEMPSL from Gujarat Pollution Control Board (GPCB) has been submitted.
2.	--	Biofuel (Agrowaste) &/OR Coal **@7 TPD** will be used as a fuel for steam boilers (2 TPH) and thermic fluid heater (1 Lacs Kcal/ hr).	Biofuel (Agrowaste) **@7.5 TPD** will be used as a fuel for steam boilers (2 TPH) and thermic fluid heater (1Lacs Kcal/hr).	o Biofuel (Agrowaste) isfound to be a better fuel and carbon emissions willbe less compared to use of coal. o Further it will also reduce the dust emission while fuel handling. o The details of fuel requirement has been submitted.

3. The proposal was earlier considered in the 39th EAC meeting held on 29th -30th September, 2022 wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by the PP, which is as follows:

S. No.	Queries Raised by EAC	Reply by PP	Observation of EAC

1.	The PP needs to first comply w.r.t greenbelt condition and submit the details of green belt developed along with aerial photographs and video.	• The unit has developed green belt area of 1,920 m^2 (33.28 % of total plot area) within the project premises and already planted 57 trees and 2,265 plants / shrubs within the premises. • Now, as per your instruction, the unit has planted additional 109 trees (Total 166 trees) within the premises. The unit has also plan to plant 314 more trees within the premises during the next monsoon July-Aug. 2023	The EAC noted that the PP has accounted for the lawns, ornamental plants etc. also in the green belt, which is not acceptable.
2.	The PP also needs to submit the compliance of partly-complied conditions mentioned in certified compliance report of EC w.r.t following points:	• The unit submitted the detailed action taken report / plan on 12/10/2022 in response to Letter no. IA-J-11014/90/2022-IA-I, dated 26/09/2022 issued by MoEF&CC, New Delhi regarding non-compliance mentioned in CCR of EC. • Further, revised details of compliance of partly complied condition of CCR is given with ADS reply uploaded on 14/03/2023 in Parivesh Portal and through e-mail on 17/03/2023 and in subsequent slides. • It is to be noted that the unit has uploaded EC compliance for the period of April'22 to September'22 online on the portal of Parivesh on 11/03/2023 and also forwarded to the concerned regulatory authorities vide e-mail on 13/03/2023. Compliance of Rain Water Harvesting has been submitted. Compliance of Wildlife Conservation Plan has been submitted. Compliance of CER Activity has been submitted	The EAC noted that the wildlife conservation plan was not approved by the competent authority and the donations given to various organizations were also accounted for the CER activities without any details.

4. **Deliberations by the EAC:**

The EAC noted that the PP needs to comply with the earlier issues raised above i.e. w.r.t green belt development, conservation plan for Schedule-I species duly approved by the competent authority and CER activities.

In view of above, the EAC **returned** the proposal in its present form.

Agenda No. 49.2

Proposed Expansion of Synthetic Organic Chemicals (Plasticizers) Manufacturing Unit of Production Capacity 75,000 TPA located at T-2/Part, MIDC Taloja, Dist. Raigad by IG Petrochemicals Limited - Consideration of ToR

[Proposal No. IA/MH/IND3/407419/2022; File No. IA-J-11011/508/2022-IA-II(I)]

1. The proposal is for the issue of ToR for preparation of EIA/EMP for Proposed Expansion of Synthetic Organic Chemicals (Plasticizers) Manufacturing Unit of production capacity 75,000 TPA located at T-2/Part, MIDC Taloja, Dist. Raigad by IG Petrochemicals Limited. **The PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the CPCB.**

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry. 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 No. **IA/MH/IND3/407419/2022** dated 22.11.2023. Due to the shortcoming the proposal was referred back to PP on 25.11.2022 and reply for the same has been submitted to PP on 14.2.2023. The proposal was earlier listed in the 48th EAC meeting held on 9th-10th & 13th March, 2023 and the proposal was deferred based on the request of the PP. The proposal is now placed in 49th EAC Meeting held on 3th,5th -6th April, 2023, wherein the PP made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

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

S. N.	Name of Product / By Products	Existing Quantity (as per CTO)	Proposed Quantity (MTPA)	After Expansion Quantity (MTPA)
	Product			
1	Retail repackaging of Phthalic Anhydride (PA)	120 No./day	--	120 No./day
	Total			**120 No./day**
2	PLASTICIZERS			
	Di- Octyl Phthalate (DOP)		30809	30809
	Di- Butyl Phthalate (DBP)		5283	5283

	Di- Iso Butyl Phthalate (DIBP)		12327	12327
	Di-Iso Nonyl Phthalate (DINP)		26331	26331
	Di-Iso Octyl Phthalate (DIOP)		*250*	*250*
	Di-Iso Decyl Phthalate (DIDP)			
	Di- Octyl Maleate (DOM)			
	Di- Butyl Maleate (DBM)			
	Di- Octyl Terephthalate (DOTP)			
	Tri-Octyl Trimellitate (TOTM)			
	DI- Octyl Adipate (DOA)			
	Di- Isononyl Adipate (DIDA)			
	Total (Plasticizers)		75000	75000
	By Products			
a	Monoester salt		2000	2000

5. The PP reported that the total land area of the plot is 17,150 m^2, no additional land will be used for proposed expansion.

6. The PP reported that Ministry had issued EC earlier vide letter no to the existing facility: Existing facility at Plot T-2/Part is for repacking of phthalic anhydride and has valid CTO Format1.0/RO/UAN No.0000132493/CR/2203001624 dated 30.03.2022 valid upto 31.03.2027. Existing activity does not fall under EIA notification, 2006 and subsequent amendments. Hence, earlier EC is not applicable.

7. The PP reported that Matheran Eco-sensitive zone (as notified under section 3 for the Environment (Protection) Act, 1986) is located within 5 km from proposed project. The approximate distance from site to Matheran ESZ is 3.4 Km towards Northeast.

8. The PP report The total estimated water requirement will be ~ 408 cmd mainly for domestic, process, boiler & cooling purpose. It will be sourced from MIDC water works. Trade effluent of 61 cmd will be treated through ETP, UF, RO & Evaporator. The treated effluent 61 cmd will be reused for Cooling Tower make up. Domestic effluent of 8.5 cmd will be treated in STP and recycled for green belt.

9. Power requirement will be 1200 KW (Fuel: HSD 180 Lit/Hr) and will be sourced from MSEDCL grid. DG set of 1000 KVA is proposed & will be used during grid power failure. 850 Kg/hr Boiler and 2 nos. of 25 Lacs Kcals/hr each Thermic Fluid Heaters will be installed and Natural gas will be used as fuel. Natural gas consumption for proposed boiler & Thermic fluid heaters will be 690 SCM/hr.

10. The PP reported that the project, being in notified industrial area i.e., MIDC Taloja vide Notification No. IDC.1065/13583-(I) –IND-I. dated 11.3.1966, is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

11. To comply green belt area requirement of 40% of total plot area (as per compliance to CEPI condition) IGPL proposes to develop green belt of 1501.42 m^2 within plot and 5813.40 m^2 on MIDC Open space plot OS- 44 adjacent to site. Total green belt area will be 42.6% of total plot area i.e. 7314.82 m^2.

12. The total cost of the proposed expansion project will be Rs. 170 Crores. The PP reported that IGPL expect to generate employment to about 140 personnel (skilled and non-skilled).

13. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the utilization of oxygen separated in the Nitrogen plant, greenbelt and advised the PP to submit the following.

- IGPL to utilize oxygen separated in the nitrogen plant for sale or use in ETP.
- Industry will plant 2500 trees per hectare density and shall provide Green Belt exceeding 40% requirement as specified for severely polluted areas.

The PP submitted the same and the EAC found it to be satisfactory.

14. After detailed deliberations, the EAC **recommended** the project for grant of ToR (**Standard ToR [Annexure-II]** and **additional ToR as mentioned below)**, **without public hearing** as per the provisions of the EIA Notification, 2006 and as per O.M. No. 22-23/2018-IA.III dated 05.07.2022.

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

(ii) The PP needs to submit the action plan with respect to mitigation measures for CPA mentioned in the Ministry's O.M dated 31.10.2019.

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

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

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

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

(vii) Activity-wise, a time bound action plan along with budgetary provisions for occupational health & surveillance, environment management plan, and green belt development plans shall be prepared and submitted.

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

(ix) The PP shall submit an undertaking to the effect that the project is not a violation proposal in pursuant to the S.O. 804(E) dated 14.03.2017 and SoP dated 07.07.2021.

(x) Action Plan for the management of hazardous waste and provision for its utilization in co-processing if applicable shall be prepared and submitted.

(xi) Provision for reuse/recycle of treated wastewater, wherever feasible shall be made. The PP shall explore the possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. A detailed water harvesting plan also needs to be prepared and submitted. Provision for Zero Liquid Discharge whenever techno-economically feasible shall be included. The PP shall make necessary provisions for continuous monitoring of the effluent quality/quantity.

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

(xiii) The PP should develop Greenbelt over an area of 42.6 % of the total land area i.e 7314.82 m2 (1501.42 m^2 within plot and 5813.40 m2 on MIDC Open space plot OS- 44 adjacent to site.). Accordingly, 2500/ha Number of saplings selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution.

(xiv) The PP shall utilize oxygen separated in the Nitrogen plant for sale or use in ETP.

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

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

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

Agenda No. 49.3

Expansion of existing Co-products i.e. Stable bleaching Powder & Anhydrous Aluminium Chloride and addition of new Co-Products i.e. Poly Aluminium Chloride, Calcium Chloride & Sodium Sulphate within existing plant premises at Rehla, Garwa Road, District: Palamau, Jharkhand by M/s. Grasim Industries Limited (Chemical Division, Rehla) - Amendment in Environment Clearance

[Proposal No. IA/JH/IND3/298331/2023; File No. J-11011/1213/2007/-IA-II(I)]

1. The proposal is for Amendment in the EC granted by the Ministry vide letter dated 11.2.2009 for the project Expansion of Caustic Soda Lye Plant from 225 TPD to 550 TPD & CPP from 30 MW to 60 MW located at Rehla, Garwa Road, District: Palamau, Jharkhand in favour of M/s. Bihar Caustic & Chemical Ltd. Thereafter, this plant was taken over by M/s. Aditya Birla Chemicals India Limited on 14.1.2009. Aditya Birla Chemicals (India) Limited merged into M/s. Grasim Industries Limited (Chemical Division, Rehla) from 4.1.2016, thereafter the company was known as M/s Grasim Industries Limited (Chemical Division, Rehla). Transfer of EC from M/s. Bihar Caustic & Chemical Limited to M/s. Grasim Industries Limited (Chemical Division, Rehla) was obtained from MoEFCC, New Delhi vide letter dated 6.2.2023.

2. For higher utilization of chlorine generated during caustic production and augmenting the capacity of by-products, in view to consume all the generated by-products in a system and in order to reduce the transportation of Chlorine (generated during Caustic Soda production), which is hazardous, company is planning to expand the capacity of existing co-products i.e., Stable Bleaching Powder & Anhydrous Aluminium Chloride and the addition of new co-products i.e. Poly Aluminium Chloride, Calcium Chloride & Sodium Sulphate to enhance sustainability of Rehla site.Therefore, M/s. Grasim Industries Limited is proposing an Amendment in the existing EC Letter No. J11011/1213/2007/-IA-II(I) dated 11th Feb., 2009 regarding Expansion of existing Co-Products i.e. Stable Bleaching Powder & Anhydrous Aluminium Chloride and addition of new Co-Products i.e. Poly Aluminium Chloride, Calcium Chloride & Sodium Sulphate within existing plant premise at Rehla, Garwa Road, District: Palamau (Jharkhand).

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

S. No.	***PARA OF EC ISSUED BY MoEFCC***	***DETAILS AS PER THE EC***	***TO BE REVISED/ READ AS***	***JUSTIFICATION / REASONS***
1.	***2.0***	***THE MINISTRY OF ENVIRONMENT AND FORESTS***	***THE PROJECT PROPOSAL OR THE DETAILED DESCRIPTION OF THE EXISTING GRANTED, EXISTING OPERATING, PROPOSED CAPACITIES & TOTAL CAPACITY AFTER AMENDMENT ARE GIVEN IN TABLE BELOW:***	***FOR HIGHER UTILIZATION OF CHLORINE GENERATED DURING CAUSTIC***

<table>
<tr><th>S. No.</th><th>Para of EC issued by MoEF CC</th><th>Details as per the EC</th><th>To be revised/ read as</th><th>Justification / reasons</th></tr>
<tr>
<td></td>
<td></td>
<td>has examined your application and noted that the proposal for expansion of Caustic Soda Lye Plant from 225 TPD to 550 TPD and CPP from 30 MW to 60 MW at Rehla, Garwa Road, District Palamau, Jharkhand by M/s Bihar Caustic & Chemicals Ltd. Expansion will be in two phases for caustic soda plant.</td>
<td>
<table>
<tr><th>S. No.</th><th>Products</th><th>Unit</th><th>Existing Capacity</th><th>Capacity for Proposed Amendment</th><th>Total Capacity after Amendment</th></tr>
<tr><td colspan="6">Main Product</td></tr>
<tr><td>1.</td><td>Caustic Soda</td><td>TPD</td><td>550</td><td>Nil</td><td>550</td></tr>
<tr><td>2.</td><td>CPP</td><td>MW</td><td>60</td><td>Nil</td><td>60</td></tr>
<tr><td colspan="6">Co-Products*</td></tr>
<tr><td>3.</td><td>Stable Bleaching Powder</td><td>TPD</td><td>50</td><td>100</td><td>150</td></tr>
<tr><td>4.</td><td>Anhydrous Aluminium Chloride</td><td>TPD</td><td>50</td><td>50</td><td>100</td></tr>
<tr><td>5.</td><td>Poly Aluminium Chloride</td><td>TPD</td><td>NA</td><td>300</td><td>300</td></tr>
<tr><td>6.</td><td>Calcium Chloride</td><td>TPD</td><td>NA</td><td>100</td><td>100</td></tr>
<tr><td>7.</td><td>Sodium Sulphate</td><td>TPD</td><td>NA</td><td>5</td><td>5</td></tr>
</table>
*EC is not required as per EIA Notification, 2006; as amended from time to time
</td>
<td>production and augmenting the capacity of by-products, in view to consume all the generated by-products in a system and in order to reduce the transportation of Chlorine (generated during Caustic Soda production), which is a hazardous process, company is planning to expand the capacity of existing co-products i.e., Stable Bleaching Powder & Anhydrous Aluminium Chloride</td>
</tr>
</table>

S. NO.	PARA OF EC ISSUED BY MOEFCC	DETAILS AS PER THE EC	TO BE REVISED/ READ AS	JUSTIFICATION / REASONS
				AND THE ADDITION OF NEW CO-PRODUCTS I.E. POLY ALUMINIUM CHLORIDE, CALCIUM CHLORIDE & SODIUM SULPHATE TO ENHANCE SUSTAINABILITY OF REHLA SITE.

4. **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 Greenbelt, water balance and advised the PP to submit the following:

- Existing greenbelt details along with undertaking.
- Breakup of water requirement along with the water balance diagram.

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

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

(i). 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.

(ii). 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. 49.4

Expansion of Agrochemicals (Pesticides) & Organic Chemicals Manufacturing in Existing Unit (from 22750 MTPA to 77450 MTPA) located at Plot No. C-393 to C-396, Sayakha GIDC Estate, Taluka Vagra, District Bharuch, Gujarat by M/s. Gharda Chemicals Ltd. - Consideration of EC

[Proposal No. IA/GJ/IND3/417731/2023; File No. J-11011/09/2016-IA. II(I)]

1. The proposal is for the EC for the Expansion of Agrochemicals (Pesticides) & Organic Chemicals Manufacturing in Existing Unit (from 22750 MTPA to 77450 MTPA) located at Plot No. C-393 to C-396, Sayakha GIDC Estate, Tal: Vagra, Dist: Bharuch – 392 140 (Gujarat) by M/s. Gharda Chemicals Ltd.

2. The project/activity is covered under Category 'A' of item 5(b)- Pesticides and 5(f) -Synthetic Organic Chemicals of Schedule of EIA Notification, 2006 (as amended) and requires appraisal at Central Level by the EAC.

3. The standard ToR has been issued by Ministry vide letter no. IA- J-11011/09/2016-IA II (I) dated 30.9.2020. The PP submitted that Unit is located in Sayakha GIDC Estate. Which falls in PCPIR region. EC of PCPIR Region was obtained File no. 21-49/2010-IA-III dated 14th September, 2017 so the Public Hearing (PH) is exempted as per para 7 (i) Stage III (3)(i)(b) of the EIA notification, 2006. The PP applied for Environment Clearance on 14.2.2023 in CAF and submitted EIA/EMP Report and other documents. The PP reported in Form that it is an **Expansion EC**. Due to some shortcomings, the proposal was referred back to PP on 2.3.2023 and the reply for the same has been submitted on 10.3.2023. The proposal was placed in 49th EAC Meeting held on 28th-29th March, 2023, wherein the PP and an accredited consultant, M/s. Aqua-Air Environmental Engineers Pvt. Ltd. [Accreditation number – NABET/EIA/2023/IA0062, Valid up to 7.10.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that the total 75,410.29 m^2 (Existing – 75,410.29 m^2 + Additional – 0 m^2) and no R& R is involved in the Project. The details of products are as follows:

S. No.	Name of Product	CAS No.	Existing (TPA)	Proposed (TPA)	Total (TPA)	End Use	LD 50-Oral (Rat) mg/kg	Category as per EIA Notification 5(f) or 5(b)	Remarks

1	Para Dichloro Benzene	106-46-7	6000	0	6000	Chemical Intermediate	500	5f	No change
2	O-Phenylenediamine (OPDA)	95-54-5	1000	0	1000	Chemical Intermediate	516	5f	No change
3	3-Amino-9-Ethyl Carbazole (AEC) and its intermediates	132-32-1	150	0	150	Intermediate for pigment	144	5f	No change
	a) Ethyl Carbazole	86-28-2					NA	5f	
	b) Nitro Ethyl Carbazole	86-20-4					NA	5f	
4	Chloranil and its intermediates	118-75-2	150	0	150	Fungicide	4000	5b	No change
	a) 2,4,6-Tri Chlorophenol	88-06-2					820	5f	
5	Meta Phenoxy Benzyl Alcohol (MPBA)	13826-35-2	100	0	100	Chemical Intermediate	1496	5f	No change
	a) Meta bromo benzaldehyde	3132-99-8					1126	5f	
	b) Meta bromo benzaldehyde acetal	62373-79-9					NA	5f	
6	A) Poly Ether Ketone (PEK)	104135-57-1	500	0	500	Specialty Polymer	NA	5f	No change
	a) Para Chloro Benzoyl Chloride (PCBC)	122-01-0						5f	
	b) Chlorohydroxy Benzophenone (CHBP)	42019-78-3						5f	
	c) Sodium Salt of 4-Chloro-4'-hydroxy Benzophenone (NaCHBP)	1202872-85-2						5f	
	d) Diphenyl Sulphone (DPSO2)	127-63-9						5f	
	B) Poly Ether Ketone Ketone (PEKK)	30604-15-0						5f	
	a) Terepthaloyl Chloride (TPC)	100-20-9						5f	

	C) Polybenzimidazole (ABPBI)	29692-96-4						5f	
7	Poly Ether Imide and its intermediates	61128-46-9	5000	0	5000	Specialty Polymer	>5000	5f	No change
	a) 4-Nitro N-Methyl Pthalimide (Nitro NMPI)	41663-84-7					2800	5f	
	b) Bis Phenol A Bis Ether –Tetra Carboxylic Acid (BPA-BE-TCA)	38103-05-8					NA	5f	
8	Hexaconazole and its intermediates	79983-71-4	300	0	300	Fungicide	2189	5b	No change
	a) Valeryl Chloride	638-29-9					NA	5f	
	b) 2,4-Dichloro Valerophenone	61023-66-3					NA	5f	
	c) 2-Butyl-2-(2,4-Dichklorophenyl) Oxirane	88374-07-6					NA	5b	
9	Propiconazole	60207-90-1	500	0	500	Fungicide	>1517	5b	No change
10	Dicamba and its intermediates	1918-00-9	5000	0	5000	Herbicide	2740	5b	No change
	a) 2,3 Di Chloro Nitro Benzene	3209-22-1					381	5f	
	b) 2,3 Di Chloro Aniline	608-27-5					NA	5f	
	c) 2,3 Di Chloro Phenol	576-24-9					2585 (mouse)	5f	
	d) Dipotassium salt of 3,6-Dichloro salicylic acid (DCSA K 2 Salt)	68938-80-7					NA	5f	
	e) 3,6-Dichloro-2-methoxy methyl benzoate (Dicamba Ester)	6597-78-0					NA	5f	

11	Profenofos and its intermediates	41198-08-7	1000	0	1000	Insecticide	162	5b	No change
	a) 4-Bromo-2-chlorophenol (BCP)	3964-56-5					NA	5f	
	b) Phosphorothioic acid O-(4-bromo-2-chlorophenyl) O, O-diethyl ester (PC-1)	60731-55-7					NA	5f	
12	Bifenthrin and its intermediates	82657-04-3	200	0	200	Pyrethroid	53.4	5b	No change
	a) Bifenthrin chloride	84541-46-8					NA	5b	
13	Lambda Cyhalothrin and its intermediates	91465-08-6	100	0	100	Pyrethroid	79	5b	No change
	a) 3-(2-Chloro-3-Trifluoropropenyl-2,2-Dimethyl Cyclopropane Carbonyl Chloride (CHAC)	393870-46-7					NA	5b	
14	Thiamethoxam	153719-23-4	500	0	500	Insecticide	> 2000	5b	No change
15	Difenthiuron and its intermediates	80060-09-9	500	0	500	Insecticide	2068	5b	No change
	a) 1-(2,6-Disisopropyl-4-Phenoxyphenyl) (Thiourea)	135252-10-7					NA	5b	
	b) 4-phenoxy-2 ,6-diisopropylaniline isothiocyanate	80058-93-1					NA	5f	
16	Metalaxyl and its intermediates	57837-19-1	1000	0	1000	Fungicide	669	5b	No change
	a) Methoxy Acetyl Chloride	38870-89-2					NA	5f	
	b) Methyl (2,6-Dimethyl Phenylamino) Propanoate (Alaninate)	52888-49-0					NA	5b	

17	Buprofezin	69327-76-0	250	0	250	Insecticide	2198	5b	No change
18	Carbendazim and its intermediates	10605-21-7	500	0	500	Insecticide	> 5000	5b	No change
	a) Ortho Nitro Aniline (ONA)	88-74-4					2050	5b	
	b) O-Phenylenediamine (OPDA)	95-54-5					516	5f	
	c) Cyano Methyl Carbamate (CMC)	21729-98-6					NA	5b	
19	Dicamba and its intermediates	1918-00-9	0	4000	4000	Herbicide	2740	5b	New Product
	a) 2,5-Dichloro Phenol	583-78-8					580	5f	
	b) Mono Chloro Benzene	108-90-7					2300	5f	
	c) Para Dichloro Benzene	106-46-7					2950	5f	
	d) 2,5-Dichloro Nitro Benzene	89-61-2					2120	5f	
	e) 3,4-Dichloro Nitro Benzene	99-54-7					953	5f	
	f) 2,5-Dichloro Aniline	95-82-9					1600	5f	
	g) 3,4-Dichloro Aniline	95-76-1					545	5f	
	h) 2,3-Dichloro Aniline	608-27-5					NA	5f	
	i) Nitrosyl Sulphate	7782-78-7					NA	5f	
	j) Ortho Dichloro Benzene	95-50-1					500	5f	
	k) Meta Dichloro Benzene	541-73-1					NA	5f	
	l) 1,2,4-Tri Chloro Benzene	120-82-1					756	5f	
	m) 1,2,3-Tri Chloro Benzene	87-61-6					NA	5f	
	n) 1,3,5-Tri Chloro Benzene	108-70-3					800	5f	

	o) 2,3-Dichloro Nitro Benzene	3209-22-1					NA	5f	
	p) Dipotassium salt of 3,6-Dichloro salicylic acid	68938-80-7					NA	5f	
	q) Methyl Chloride	74-87-3					1800	5f	
	r) 3,6-Dichloro-2-methoxy methyl benzoate (Dicamba Ester)	6597-78-0					NA	5b	
20	Mesotrione and its intermediates (MCB Route)	104206-82-8	0	2500	2500	Herbicide	>2000	5b	New Product
	a) 4-chloro benzene sulfonyl chloride (MCB sulfonyl chloride)	98-60-2					4250	5f	
	b) 1-Chloro-4-(methyl sulfonyl) benzene	98-57-7					400	5f	
	c) 1-Chloro-2-nitro4-(methyl sulfonyl) benzene (Chloro NMSB)	97-07-4					NA	5f	
	d) Methyl-2-Cyano-2-(4-(methyl sulfonyl)-2-Nitrophenyl) acetate Cyano NMSB)	NA					NA	5b	
	e) 2-Nitro-4-methyl sulfonyl benzoic acid (NMSBA)	110964-79-9					NA	5b	
	f) 2-Nitro-4-methyl sulfonyl benzoyl chloride (NMSBAc)	110964-80-2					NA	5b	
	g) 1,3-Cyclohexane dione - sodium salt (1,3-CHD -Na salt)	504-02-9					NA	5f	
	h) 3-(4'-methylsulfonyl-2'-nitro-benzoyloxy)-2-cyclohexene-1-one (Mesotrione enol ester)	226944-49-6					NA	5b	
21	Mesotrione and its intermediates (TSC Route)	104206-82-8					NA	5b	
	a) 4-Methyl sulfonyl toluene (MST)	3185-99-7					NA	5f	

	b) 2-Nitro-4-methyl sulfonyl toluene (NMST)	1671-49-4					NA	5f	
	c) 2-Nitro-4-methyl sulfonyl benzoic acid (NMSBA)	110964-79-9					NA	5f	
	d) 2-nitro -4-(methyl sulfony) benzoyl chloride (NMSBAc)	110964-80-2					NA	5f	
	e) 1,3-Cyclohexane dione - sodium salt(1,3-CHD -Na salt)	504-02-9					NA	5f	
	f) 3-(4'-methylsulfonyl-2'-nitro-benzoyloxy)-2-cyclohexene-1-one (Mesotrione enol ester)	226944-49-6					NA	5b	
22	Tembotrione and its intermediates	335104-84-2				Herbicide	> 2000	5b	New Product
	a) Methane thiol	74-93-1					61	5f	
	b) 3-Chloro-2-methyl phenyl methyl sulphide (CMTT)	82961-52-2					NA	5f	
	c) 2-Chloro-3-methyl-4-methylthio acetophenone (Acyl CMTT)	181997-71-7					NA	5f	
	d) 2-chloro-3-methyl -4-methyl sulfonyl acetophenone	181997-72-8					NA	5b	
	e) 2-chloro-3-methyl -4-methyl sulfonyl benzoic acid (CMMSBA)	106904-09-0					NA	5b	
	f) 2-chloro-3-methyl -4-methyl sulfonyl benzoic acid methyl ester (CMMSBA Ester)	120100-04-1					NA	5b	
	g) Methyl-(2-chloro-3-bromomethyl-4-methyl sulfonyl benzoate (CBrMMSBA Ester)	120100-44-9					NA	5b	
	h) 2-chloro-4-(methylsulfonyl)-3-[(2,2,2-trifluoroethoxy)methyl]	120100-77-8					NA	5b	

	benzoic acid (CTFEMMSBA)								
	i) 2-chloro-4-(methylsulfonyl)-3-[(2,2,2-trifluoroethoxy)methyl] benzoyl chloride (CTFEMMSBAc)	1118729-23-9					NA	5b	
	j) 1,3-Cyclohexane dione - sodium salt (1,3-CHD -Na salt)	504-02-9					NA	5f	
	k) 3-oxo-cyclo hexyl-2-chloro-4-(methyl sulfonyl)-3-((2,2,2-trifluoro ethoxy)methyl) benzoate (Tembotrione enol ester)	263401-21-4					NA	5f	
23	Sulcotrione and its intermediates	99105-77-8				Herbicide	NA	5b	New Product
	a) 4-Methyl sulfonyl toluene (MST)	3185-99-7					NA	5f	
	b) 2-Chloro-4-Methyl sulfonyl toluene (CMST)	1671-18-7					NA	5f	
	c) 2-Chloro-4-Methyl Sulfonyl Benzoic Acid (CMSBA)	53250-83-2					NA	5f	
	d) 2 Chloro-4-Methyl sulfonyl benzoic acid chloride (CMSBAc)	106904-10-3					NA	5f	
	e) 1,3-Cyclohexane dione - sodium salt (1,3-CHD -Na salt)	504-02-9					NA	5f	
	f) Sulcotrione Ester	114911-83-0					NA	5f	
24	Sulfentrazone and its intermediates	122836-35-5	0	1500	1500	Herbicide	2855	5b	New Product
	a) 5-Methyl-2-phenyl-2,4-dihydro-[1,2,4]-triazol-3-one (PT)	22863-24-7					NA	5f	
	b) 4-Difluoromethyl-5-methyl-2-phenyl-2,4-dihydro-	133840-80-9					NA	5b	

	[1,2,4]-triazol-3-one (DFMPT)								
	c) 4-Difluoromethyl-5-methyl-2-(2,4-dichlorophenyl)-2,4-dihydro-[1,2,4]-triazol-3-one (DCPT)	111992-16-6					NA	5b	
	d) 4-Difluoromethyl-5-methyl-2-(2,4-dichloro-5-nitrophenyl)-2,4-dihydro-[1,2,4]-triazol-3-one (DCNPT)	111992-17-7					NA	5b	
	e) 4-Difluoromethyl-5-methyl-2-(5-amino-2,4-dichlorophenyl)-2,4-dihydro-[1,2,4]-triazol-3-one (ADCPT)	111992-18-8					NA	5b	
	OR Bromoxynil Octanoate and its intermediates	1689-99-2					250	5b	
	P-Hydroxy benzonitrile	767-00-0					450	5f	
	2,6 – Dibromo-4-cyano-phenol	1689-84-5					190	5f	
	Octanoyl chloride	111-64-8					>2000	5f	
	OR Bromoxynil Heptanoate and its Intermediates	56634-95-8					550	5b	
	P-Hydroxy benzonitrile	767-00-0					450	5f	
	2,6 – Dibromo-4-cyano-phenol	1689-84-5					190	5f	
	Heptanoyl chloride	2528-61-2					N/A	5f	
25	Bispyribac Sodium	125401-92-5	0	200	200	Herbicide	5000	5b	New Product
26	Anilophos and its intermediates	64246-01-0	0	1200	1200	Herbicide	500	5b	New Product

	a) 2-Chloro -N- (4-chlorophenyl) -N- isopropyl-acetamide (Anilide)	84012-61-3					NA	5b	
	b) Ammonium Salt of Dimethyl Dithio Phosphoric Acid (Ammonium DMTA)	1066-97-3					NA	5b	
27	Triclopyr Acid Butotyl Ester and its intermediates	64700-56-7	0	1500	1500	Herbicide	> 1000	5b	New Product
	a) 3,4,5 Trichloro Pyridinol Sodium Salt (NaTCPOL)	37439-34-2					NA	5b	
	b) Triclopyr Acid Methyl Ester	60825-26-5					NA	5b	
	c) 3,5,6-Trichloro-2-pyridinyloxy acetic acid (Triclopyr Acid)	5533-53-06					650	5b	
28	Diuron and its intermediates	330-54-1	0	5000	5000	Herbicide	3400	5b	New Product
	a) N Methyl-N-(3,4 Dichloro) Phenyl Carbamate	1918-18-9					522	5b	
29	Pinoxaden and its intermediates Route 1	243973-20-8	0	1000	1000	Herbicide	3129	5b	New Product
	a) 2,6-diethyl -4-methyl bromo-benzene	314084-61-2					NA	5f	
	b) 1-(2,6-diethyl -4-methyl phenyl)-malononitrile	314020-53-6					NA	5f	
	c) 1-(2,6-Diethyl-4-methyl-phenyl)-malonamide	314020-40-1					NA	5b	
	d) N,N'-diacetylhydrazine (DAH)	3148-73-0					NA	5f	
	e) 2,2'-Dichlorodiethyl ether (DCDEE)	111-44-4					75	5b	
	f) 4,5-Diacetyl-1,4,5-hexahydro-oxadiazepine (DAODAP)	83598-13-4					NA	5b	

	g) Hexahydro-1,4,5-oxadiazepine HCl (OXA.HCl)	405281-14-3					NA	5b	
	h) Pyrazole-oxadiazepine	314020-44-5					NA	5b	
	Or Pinoxaden and its intermediates Route 2	243973-20-8					3129	5b	New Product
	Heptylene-4-malononitrile	33296-20-7					NA	5f	
	Methacrolein	78-85-3					NA	5f	
	2-(2,6-diethyl -4-methyl cyclohexene-1-ylidine)-malononitrile	2231217-69-7					NA	5f	
	1-(2,6-diethyl -4-methyl phenyl)-malononitrile	314020-53-6					NA	5f	
	e) 1-(2,6-Diethyl-4-methyl-phenyl)-malonamide	314020-40-1					NA	5b	
	f) N,N'-diacetylhydrazine (DAH)	3148-73-0					NA	5f	
	g) 2,2'-Dichlorodiethyl ether (DCDEE)	111-44-4					75	5b	
	h) 4,5-Diacetyl-1,4,5-hexahydro-oxadiazepine (DAODAP)	83598-13-4					NA	5b	
	i) Hexahydro-1,4,5-oxadiazepine HCl (OXA.HCl)	405281-14-3					NA	5b	
	j) Pyrazole-oxadiazepine	314020-44-5					NA	5b	
30	Imazethapyr	81335-77-5	0	2000	2000	Herbicide	>5000	5b	New Product

31	Fipronil and its intermediates	120068-37-3				Insecticide	200	5b	New Product
	a) Trichloro methyl sulfenyl chloride	594-42-3					82.6	5f	
	b) Thiophosgen	463-71-8					929	5f	
	c) Ortho-Chloro benzyl trifluoromethyl sulfide (OCBTMS)	251926-48-4					NA	5f	
	d) Trifluoromethyl sulfinyl chloride (CF3SOCl)	20621-29-8					NA	5f	
	e) Aminopyrazole	120068-79-3					NA	5f	
32	Indoxacarb and its intermediates	173584-44-6	0	600	600	Insecticide	>5000	5b	New Product
	a) 5-Chloro Indanone	42348-86-7					NA	5f	
	b) 5-Chloro Indanone Ester	657386-56-9					NA	5f	
	c) 5-Chloro Indanone Hydroxy Ester	144172-24-7					NA	5f	
	d) Urea Derivative	144172-25-8					NA	5f	
	e) Oxadiazine	200568-74-7					NA	5f	
33	Temephos and its intermediates	3383-96-8	0	400	400	Insecticide	4204	5b	New Product
	a) Dimethyl Thiophosphoryl Chloride (DMTC)	2524-03-0					1340	5f	
34	Chlorpyriphos Methyl and its intermediates	5598-13-0	0	7000	7000	Insecticide	3000	5b	New Product

	a) 3,4,5-Trichloro Pyridinol Sodium Salt (NaTCPOL)	37439-34-2					NA	5b	
	b) Dimethyl Thiophosphoryl Chloride (DMTC)	2524-03-0					1340	5f	
35	Chlorpyriphos and its intermediates	2921-88-2				Insecticide	200	5b	New Product
	a) 3,4,5-Trichloro Pyridinol Sodium Salt (NaTCPOL)	37439-34-2					NA	5b	
	b) Di-ethyl Thiophosphoryl Chloride (DETC)	2524-04-1					800 (mouse)	5b	
36	Diflubenzuron and its intermediates	35367-38-5	0	1000	1000	Insecticide	>4640	5b	New Product
	a) 2,6-Difluorobenzamide (2,6-DFBA)	18063-03-1					3299	5f	
37	Cartap Hydrochloride and its intermediates	15263-52-2	0	2500	2500	Insecticide	345	5b	New Product
	a) N,N-Dimethyl allyl amine	2155-94-4					NA	5f	
	b) 2,3-Dichloro-N,N-Dimethyl propyl amine hydrochloride (DCDMPA.HCl)	50786-84-1					641	5f	
	c) 2-N,N-dimethylanino-1-Sodium-3-thiosulphate propane (Monosultap)	29547-00-0					333	5b	
38	Imidacloprid and its intermediates	138261-41-3	0	1000	1000	Insecticide	450	5b	New Product
	a) Nitro Guanidine	556-88-7					10200	5f	
	b) N-(Nitro-imono) imidazolidine (NIIMDA)	5465-96-3					NA	5f	
	c) 2-Chloro-5-Methyl Pyridine (CMP)	18368-64-4					1000	5f	

	d) 2-Chloro-5-chloromethyl pyridine (CCMP)	70258-18-3					NA	5f	
39	Acetamiprid and its intermediates	135410-20-7				Insecticide	217	5b	New Product
	a) Dry HCl gas	7647-01-0					277	5f	
	b) Methyl-N-Cyano acetamide (NCMA)	5652-84-6					432	5f	
	c) 2-Chloro-5(Methylaminomethyl)Pyridine (CMPMA)	120739-62-0					NA	5f	
40	Clothianidin and its intermediates	210880-92-5	0	2500	2500	Insecticide	>5000	5b	New Product
	a) 2,3 Dichloropropene (2,3-DCP)	78-88-6					320	5f	
	b) 2-Chloroallyl isothiocyanate	14214-31-4					NA	5f	
	c) 2-Chloro-5-chloromethylthiazole (CCMT)	105827-91-6					NA	5f	
	d) Nitro guanidine	556-88-7					10200	5f	
	e) N-methyl-N'-nitro guanidine	4245-76-5					1000	5f	
	f) 1,5-dimethyl-2-nitroiminohexahydro-1,3,5-triazine (DMNITCH)	136516-16-0					3200	5f	
	g) 1-(2-chloro-5-thiazolylmethyl)-3,5-dimethyl-2-nitroimino-hexahydro-1,3,5-triazine (DMNITCH + CCMT)	NA					NA	5f	
41	Chlorantraniliprole and its intermediates Route 1	500008-45-7				Insecticide	>5000	5b	New Product
	a) 2,3-Dichloropyridine (DCP)	2402-77-9					NA	5f	

	b) 3-Chloro-2-hydrazinopyridine (CHP)	22841-92-5					NA	5f	
	c) Ethyl 2-(3-chloropyridin-2-yl)-5-oxo-pyrazolidine-3-carboxylate (DHPy)	500011-88-1					NA	5b	
	d) Ethyl 3-bromo-1-(3-chloro-2-pyridinyl)-4,5-dihydro-1H-pyrazole-5-carboxylate (DHBrPy)	500011-91-6					NA	5b	
	e) Ethyl 3-bromo-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxylate (BrPy)	500011-92-7					NA	5b	
	f) 3-Bromo-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxylic acid (Intermediate-B)	500011-86-9					NA	5b	
	g) 2-Hydroxyimino-N-o-tolyl-acetamide (Isonitroso)	1132-03-2					NA	5b	
	h) 7-Methylisatin /7-Methylindole-2,3-dione	1127-59-9					NA	5f	
	i) 5-Chloro-7-methylisatin/5-Chloro-7-methylindole-2,3-dione	14389-06-1					NA	5b	
	j) 6-Chloro-8-methylisatoic anhydride/6-chloro-8-methyl-1 H-benzo[d][1,3]oxazine-2,4-dione	120374-68-7					NA	5f	
	Or Chlorantraniliprole and its intermediates Route 2	500008-45-7					>5000	5b	New Product
	3-Chloro-2-hydrazinopyridine (CHP)	22841-92-5					NA	5f	
	Ethyl 2-(3-chloropyridin-2-yl)-5-oxo-pyrazolidine-3-carboxylate (DHPy)	500011-88-1					NA	5b	
	Ethyl 3-bromo-1-(3-chloro-2-pyridinyl)-4,5-dihydro-1H-	500011-91-6					Na	5b	

	pyrazole-5-carboxylate (DHBrPy)								
	Ethyl 3-bromo-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxylate (BrPy)	500011-92-7					NA	5b	
	3-bromo-1-(3-chloro-2-pyridinyl)-1H-pyrazole-5-carboxylic acid (Inter-B)	500011-86-9					NA	5b	
	Isonitroso	1132-03-2					NA	5b	
	7-Methylisatin (7-Methylindole-2,3-dione)	1127-59-9					NA	5f	
	5-Chloro-7-methylisatin (5-Chloro-7-methylindole-2,3-dione)	14389-06-1					NA	5b	
	2-Amino-5-chloro-3-methylbenzoic acid (ACMBA)	20776-67-4					NA	5f	
42	Azoxystrobin and its intermediates	131860-33-8	0	6000	6000	Fungicide	>2000	5b	New Product
	a) 3-Methoxymethylene benzofuran-2(3H)-one (MMB)	40800-90-6					NA	5b	
	b) Methyl 2-(2-hydroxyphenyl)-3,3-dimethoxy propanoate (MMB inter)	175971-61-6					NA	5b	
	c) 2-((6-chloropyrimidin-4-yl)oxy) benzonitrile (CPOB)	913846-53-4					NA	5b	
	d) Dimethoxy Azoxystrobin	NA					> 5000	5b	
43	Pyraclostrobin and its intermediates	175013-18-0				Fungicide	>5000	5b	New Product
	a) Sodium salt of 1-(4-chlorophenyl)-3-hydroxypyrazole	76205-19-1					NA	5b	
	b) 1-(4-chlorophenyl)-3-[2-(nitrophenyl)-methoxy]-1H-pyrazole (PNBE)	220368-29-6					NA	5b	

	c) Methyl N-hydroxy-N-(2-{[1-(4-chlorophenyl)-1H-pyrazol-3-yl] oxymethyl} phenyl) Carbamate (PHABEC)	NA					NA	5b	
44	Trifloxystrobin and its intermediates	141517-21-7				Fungicide	> 2000	5b	New Product
	a) 3-Bromo benzotrifluoride	401-78-5					NA	5f	
	b) 3-Trifluoromethyl acetophenone	349-76-8					NA	5f	
	c) 3-Trifluoromethyl acetophenone oxime	99705-50-7					NA	5f	
	d) Methyl -2-oxo-2-(o-tolyl) acetate	34966-54-6					NA	5f	
	e) Methyl-2-(2'-bromoethylphenyl)-2-oxoacetate	126534-57-4					NA	5b	
	f) Methyl (E)-2-oxo-2-(2-((((1-(3 (trifluoromethyl) phenyl) ethylidene) amino) oxy) methyl) phenyl) acetate	141493-05-2					NA	5b	
	g) Methyl(Z)-2-(hydroxyimino)-2-(2-(((((E)-1-(3 (trifluoromethyl) phenyl) ethylidene)amino)oxy) methyl)phenyl acetate (Oxime Product)	NA					NA	5b	
45	Deltamethrin and its intermediates	52918-63-5	0	1000	1000	Pyrethroid	87.4	5b	New Products
	a) Tetrachloro Butyronitrile (TBN)	41797-95-9					NA	5f	
	b) Tetrachloro Butyric Acid (TBA)	4387-77-3					NA	5f	
	c) Tetrachloro Butyric Acid Chloride (TBAC)	68121-36-8					NA	5f	

	d) 2 Chlorobutanone (2-CB)	6869 7-08-5					NA	5f	
	e) Cypermethric Acid (CMA)	5904 2-49-8					NA	5b	
	f) R,R-Sodium salt of Cypermethric Acid (Na-CMA)	1282 41-41-8					NA	5b	
	g) R,R-Cypermethric Acid (CMA)	5566 7-40-8					NA	5b	
	h) Dibromo Cypermethric Acid (DBCMA)	6359 7-73-9					NA	5b	
	i) Di Bromo Cypermethric Acid ester (DB Ester)	6177 5-87-9					NA	5b	
	j) Di Bromo Cypermethric Acid Chloride (DBCMAC)	5571 0-82-2					NA	5b	
46	Alphamethrin and its intermediates	6737 5-30-80				Pyrethroid	200	5b	New Products
	a) Tetrachloro Butyronitrile (TBN)	4179 7-95-9					NA	5f	
	b) Tetrachloro Butyric Acid (TBA)	4387 -77-3					NA	5f	
	c) Tetrachloro Butyric Acid Chloride (TBAC)	6812 1-36-8					NA	5f	
	d) 2 Chlorobutanone (2-CB)	6869 7-08-5					NA	5f	
	e) Cypermethric Acid (CMA)	5904 2-49-8					NA	5b	
	f) Cypermethric Acid Chloride (CMAC)	5231 4-67-7					NA	5b	

	g) Cypermethrin	52315-07-8					500	5b	
47	Cypermethrin and its intermediates	52315-07-8	0	5200	5200	Pyrethroid	500	5b	New Products
	a) Tetrachloro Butyronitrile (TBN)	41797-95-9					NA	5f	
	b) Tetrachloro Butyric Acid (TBA)	4387-77-3					NA	5f	
	c) Tetrachloro Butyric Acid Chloride (TBAC)	68121-36-8					NA	5f	
	d) 2 Chlorobutanone (2-CB)	68697-08-5					NA	5f	
	e) Cypermethric Acid (CMA)	59042-49-8					NA	5b	
	f) Cypermethric Acid Chloride (CMAC)	52314-67-7					NA	5b	
48	Bifenthrin and its intermediates	82657-04-3				Pyrethroid	500	5b	New Products
	a) Bifenthrin chloride	84541-46-8					375	5b	
49	Lambda Cyhalothrin and its intermediates	91465-08-6				Pyrethroid		5b	New Products
	a) 3-(2 Chloro 3 Trifluoro Propenyl -2, 2- Dimethyl Cyclopropane Carbonyl Chloride (CHAC)	393870-46-7					56	5b	
50	Permethrin and its intermediates	52645-53-1				Pyrethroid		5b	New Products
	a) Tetrachloro Butyronitrile (TBN)	41797-95-9					383	5f	

	b) Tetrachloro Butyric Acid (TBA)	4387-77-3					NA	5f	
	c) Tetrachloro Butyric Acid Chloride (TBAC)	68121-36-8					NA	5f	
	d) 2 Chlorobutanone (2-CB)	68697-08-5					NA	5f	
	e) Cypermethric Acid (CMA)	59042-49-8					NA	5b	
	f) Cypermethric Acid Chloride (CMAC)	52314-67-7					NA	5b	
51	Mepiquat Chloride	24307-26-4	0	100	100	Growth Regulator	464	5b	New Product
52	A) Meta Phenoxy Benzaldehyde (MPB) and its intermediates	39515-51-0	0	6000	6000	Chemical Intermediate	NA	5f	New Product
	a) Meta bromo benzaldehyde	3132-99-8					1126	5f	
	b) Meta bromo benzaldehyde acetal	62373-79-9					NA	5f	
	B) Meta Phenoxy Benzyl Alcohol (MPBA) and its intermediates	13826-35-2					NA	5f	
	a) Meta bromo benzaldehyde	3132-99-8					1126	5f	
	b) Meta bromo benzaldehyde acetal	62373-79-9					NA	5f	
53	EKKE Monomer	54299-17-1	0	500	500	Specialty Polymer	NA	5f	New Product
	PEKK Polymer 100:00 OR	65461-61-2					NA	5f	

	PEKK Polymer 80:20 OR	121115-58-0					NA	5f	
	PEKK Polymer 70:30 OR	121115-58-0					NA	5f	
	PEKK Polymer 60:40 OR	121115-58-0					NA	5f	
	S PEKK and its Intermediates	2217635-74-8					NA	5f	
54	Pigment Violet 23 and its intermediates	228-767-9	0	2000	2000	Pigment & Chemical intermediate	>2000	5f	New Product
	a) Carbazole	86-74-8					500	5f	
	b) Ethyl Carbazole	86-28-2					NA	5f	
	c) Nitro Ethyl Carbazole	86-20-4					NA	5f	
	d) Amino Ethyl Carbazole	132-32-1					NA	5f	
	e) Chloranil	118-75-2					4000	5f	
55	Pigment Yellow-237 (Florescent Yellow 8501 B and its intermediates)	40382-92-1				Pigment & Intermediate	NA	5f	New Product
	a) 1,2,3,4 Tetra Chloro isoindolo [2,3-a] benzimidazol-11-one (TCBBIZ)	40382-92-1					NA	5f	
56	Pigment Red 168 and its intermediates	4378-61-4				Pigment & Intermediate	8300	5f	New Product
	a) 1,1,Binaphthyl-8,8-Dicarboxylic Acid (DINAH Acid)	29878-91-9					NA	5f	
57	Pigment Red 254	84632-65-5				Pigment	8380	5f	New Product
58	Pigment Red 255	120500-90-5				Pigment	8340	5f	New Product

59	Pigment Red 122 and its intermediates	980-26-7				Pigment & Intermediate	>5000	5f	New Product
	a) 2,5-di (P-toludino) Terephalic acid (DTTPA)	10291-28-8					NA	5f	
60	Pigment Violet 19 and its intermediates	1047-16-1				Pigment & Intermediate	8420	5f	New Product
	a) 2,5 Dianilino terephthalic acid (DATPA)	10109-95-2					NA	5f	
61	Pigment Yellow 138 and its intermediates	30125-47-4				Pigment & Intermediate	8370	5f	New Product
	a) 8-Chloro Quinaldine	3033-82-7					NA	5f	
	b) 8-Amino Quinaldine	18978-78-4					NA	5f	
62	Pigment Yellow 139	36888-99-0				Pigment	8310	5f	New Product
63	Pigment Yellow 151	31837-42-0				Pigment	8330	5f	New Product
64	Pigment Yellow 154	68134-22-5				Pigment	>5000	5f	New Product
	Grand Total		22750	54700	77450				

Products that do not require EC:

Sr. No.	Name of Product	Existing (TPA)	Proposed (TPA)	Total (TPA)	End Use	Remarks
1	Pesticide Formulations (Solid & Liquid) (from own technical products and/or technical products purchased from outside market)	6000	6000	12000	Pesticide	CTE from GPCB is obtained.

Sr.	Name of Product	CAS No.	Existing	Proposed (TPA)	Total	End Use	LD 50-Oral	Category as per EIA	Remarks

No.			(TPA)		(TPA)		(Rat) mg/kg	Notification 5(f) or 5(b)	
1	KCl + KF	7447-40-7 + 7789-23-3	0	2898	2898	KCl is used in making fertilizer. KF is used in etching glass, as a preservative, as an insecticide, and in organic synthesis	2600 + 245	Inorganic	By-product
2	Calcium Chloride (35%)	10043-52-4	24219	27724	51493	Used in antifreeze mixtures, as coagulant in rubber etc.	1000	Inorganic	By-product
3	Ortho Dichloro Benzene (ODCB)	95-50-1	1998	0	1998	Used as a solvent for waxes, gums, resins, tars, rubbers, oils, asphalts and as a degreasing agent for metals and leather Used as starting raw materials for other chemicals.	1516	5(f)	By-product
4	Trichloro Benzene (TCB)	120-82-1	312	0	312	Used as a dye carrier, a herbicide intermediate, dielectric fluid in	756	5(f)	By-product

						transformers, a degreaser, a lubricant, and as a solvent in chemical manufacturing			
5	30 % HCl	7647-01-0	20760	65594	86354	Will be used as raw material for other chemical process internally or will be sold externally for use in metal pickling	900 (Rabbit)	Inorganic	By-product
6	Calcium Sulfate (92%)	10101-41-4	9840	3655	13495	Used as landfill / gypsum	3000	Inorganic	By-product
7	SO2 or Sodium Bisulphite Solution ($NaHSO_3$) (20-25%)	7446-09-5 or 7631-90-5	6500	0	6500	Used as Bleaching agent, and used in manufacture of chemical intermediates internally.	1310 ($NaHSO_3$)	Inorganic	By-product
8	Aluminum Chloride Solution	7446-70-0	4690	46804	51494	Used for making Poly Aluminum Chloride (PAC)	3450	Inorganic	By-product
9	Potassium Chloride Solution	7447-40-7	5000	39130	44130	KCl is used in making fertilizer.	2600	Inorganic	By-product

10	Sulfuric Acid	7664-93-9	19095	95721	114816	Used in the manufacture of fertilizers, chemicals.	2140	Inorganic	By-product
11	HBr Solution	10035-10-6	1525	23340	24865	Will be used internally in other products or used as pharmaceutical and chemical intermediate	NA	Inorganic	By-product
12	Sodium Bromide Solution	7647-15-6	1158	855	2013	Will be used internally in other products or used as pharmaceutical and chemical intermediate	3500	Inorganic	By-product
13	Ammonia Solution	1336-21-6	162	2551	2713	Used in the production of ammonium fertilizers, synthetic urea, synthetic fibers, dyes, and plastics.	350	Inorganic	By-product
14	Sodium Sulphite	7757-83-7	1312	7985	9297	Used in chemical manufacture, and as bleaching agent	3560	Inorganic	By-product

15	Sodium Bicarbonate	144-55-8	0	59960	59960	Used in the manufacture of many chemicals.	4220	Inorganic	By-product
16	Ammonium Nitrate 40% Solution	6484-52-2	0	2149	2149	Used in pesticide and fertilizer industry	2217	Inorganic	By-product
17	Nitric Acid	7697-37-2	0	11331	11331	Used in the manufacture of chemical intermediates for fertilizers, dyes, etc.	NA	Inorganic	By-product
18	Methanol	67-56-1	0	4854	4854	Used as a solvent, fuel additive, and in the manufacture of chemical intermediates.	5600	5(f)	By-product
19	Compressed SO2	7446-09-5		8479	8479	It is used internally for our other chemical processes and in industries such as paper production, waste water treatment and metal and oil refining.	NA	Inorganic	By-product

20	2-chloro-3-methyl -4-methyl sulfonyl acetophenone	181997-72-8	0	438	438	Chemical intermediate	--	5(f)	By-product
21	Chloroform	67-66-3	0	1602	1602	It is widely used in the production of liquid refrigerant, as a solvent, chemical intermediate, dry cleaning agent, fumigant ingredient and in synthetic rubber production.	36 (mouse)	5(f)	By-product
22	Methane Sulfinic acid Sodium salt	20277-69-4	0	102	102	Used in the manufacture of alkyl methyl sulfones and other chemicals intermediates.	NA	5(f)	By-product
23	Sodium Carbonate	497-19-8	0	20806	20806	Used in the manufacture of chemicals. And used as a bleaching agent. Will be used as waste alkali	4090	Inorganic	By-product

24	Phosphoric Acid	7664-38-2	0	50141	50141	Used in chemical, fertilizer and dye industries.	1250	Inorganic	By-product
25	Ammonium Chloride	12125-02-9	0	15351	15351	It is used in manufacturing of various ammonia compounds	1410	Inorganic	By-product
26	NaSH (Sodium hydrosulfide)	16721-80-05	0	502	502	Used in the manufacture of chemicals. pigment & dyes. It is also used in tanneries and paper and textile industries.	96	Inorganic	By-product
27	2,6-DE-4-Me-Phenol	35050-88-5	0	227	227	Chemical / Herbicide intermediate, used as buffer in battery, photoreceptor.	--	5(b) & 5 (f)	By-product
28	Bromine	7726-95-6	0	4219	4219	Will be used internally as Raw material in other processes. Also used in manufacturing of organic and inorganic chemicals, such as fuel	2600	Inorganic	By-product

						additives, fire retardants, pesticides, oil well drilling fluids, pharmaceuticals and dyestuffs. Also used as a brominating agent, water disinfectant and bleaching agent.			
29	Methyl Acetate	79-20-9	0	6574.09	6574	Used widely as a solvent and catalyst in chemical manufacturing. Also used in paint remover compounds, lacquer solvents and synthetic flavoring.	5000	5(f)	By-product
30	Acetic Acid	64-19-7	0	5888	5888	Used widely to make other chemicals, and as a solvent in chemical manufacturing. It is also used	3310	5 (f)	By-product

						for fabric dyeing, production of nylon and in leather tanning.			
31	Sodium Acetate	127-09-3	0	2624	2624	Used in manufacturing of chemical intermediates, pharmaceuticals, buffer solutions, soaps and dehydrating agents. It is also used in electroplating tanning, textile and food industries.	3530	5(f)	By-product
32	Calcium Fluoride	7789-75-5	0	1044	1044	It is used in manufacture of glass, iron and steel castings.	4250	Inorganic	By-product
33	Benzotrifluoride	98-08-8	0	838	838	Used as a chemical intermediate in the manufacture of dyes, polymers, insecticides and pharmaceuticals.	15000	5(f)	By-product
34	Magnesium Sulphate	10034-99-8	0	8786	8786	It is used in the manufactur	NA	Inorganic	By-product

						e of plastics, fertilizers, detergents and ceramics, and textiles.			
35	Succinimide	123-56-8	0	2661	2661	It is used in the manufacture of chemical intermediates and pharmaceutical preparations.	14000	5(f)	By-product
36	t-Butanol/ tertiary butyl alcohol	75-65-0	0	1411	1411	Used as a solvent, denaturant for ethanol, paint removers and octane booster in gasoline. It is also used in the manufacture of flotation agents, flavors, perfumes, oil-soluble resins and antioxidants.	3100	5(f)	By-product
37	Phenol	108-95-2	0	333	333	Used for chemical manufacturing, appliance and	317	5(f)	By-product

						automotive industries. Other uses of include as a slimicide, as a disinfectant.			
38	Diethyl-5-ethyl-pyridine-2,3-dicarboxylic acid (Diacid)	105151-39-1	0	472	472	Chemical intermediate	--	5(b)	By-product
39	Ethanol	64-17-5	0	1186	1186	Will be used as a solvent in cleaners and as a fuel additive. It is also used in the production of other chemicals, perfumes, pharmaceuticals, and cosmetics. It is also used as a fungicide and to regulate plant growth.	7060	5(f)	By-product
40	Sulphur	7704-34-9	0	1133	1133	It is used in the as fumigants, Fungicides, Acaricides, Repellants,	5000	Inorganic	By-product

						pulp and paper, cosmetics, rubber vulcanization, detergents, petroleum refining, dyes, drugs and pharmaceutical intermediates.			
41	Methyl Chloride	74-87-3	0	1125	1125	It is used in the manufacture of various chemical intermediates, silicone resins and rubbers.	1800	5(f)	
42	Sodium Chloride	7647-14-5	0	18402	18402	It has wide applications in chemical, highway de-icing and stabilization, agriculture and water conditioning field. It is widely consumed in textiles, dyeing, pulp and paper, metal processing,	3000	Inorganic	By-product

						tanning and leather treatment, and rubber manufacture.			
43	Bisultap	52207-48-4	0	2131	2131	Pesticide and Chemical intermediate	120 (Mouse)	5(b)	By-product
44	Ammonium Sulphate	7783-20-2	0	1927	1927	Used as chemical intermediate and fertilizer.	2840	Inorganic	By-product
45	Dimethyl Amine	124-40-3	0	712	712	It will be used for the manufacture of chemical intermediates internally or to other manufacturers.	1000	5f	By-product
46	Benzyl Chloride	100-44-7	0	640	640	It is used as a chemical intermediate in the manufacture of certain dyes and pharmaceuticals, plasticizers, disinfectants and phase-transfer catalysts.	1231	5f	By-product
47	N, N- bis (dichloromethyl)	34645-08-4	0	1280	1280	Chemical intermediate	--	5f	By-product

	methyl amine								
48	KHSO4	7646-93-7	0	281	281	It is used in the manufacture of chemical intermediates. It is also used in bleaching and cleaning products.	2340	Inorganic	By-product
49	Cupric Chloride	10125-13-0	0	1542	1542	Used as catalyst and oxidizing agent for organic and inorganic reactions, used in dyeing and printing textiles. Also used in manufacture of glass, ceramics, wood preservatives, disinfectants.	140	Inorganic	By-product
50	Sodium Bisulphite	7631-90-5	0	8491	8491	Used in the manufacture of chemicals, vat dyes textiles. It is also used as a bleaching agent,	1310	Inorganic	By-product

						reducing agent, and color preservative for pale crepe rubber and for wood pulp digestion.			
51	Bromobenzene	108-86-1	0	3372	3372	Used in the manufacture of chemical and pharmaceutical intermediates as a crystallizing solvent, and as solvent in organic synthesis.	2383	5f	By-product
52	Di Bromobenzene	106-37-6	0	450	450	Used for the organic synthesis of dyestuffs & drugs, manufacture of chemical intermediates and as a fumigant.	3120 (Mouse)	5f	By-product
53	Ammonium Acetate	631-61-8	0	850	850	Used in the manufacture of chemical intermediates, foam rubbers, vinyl	NA	5f	By-product

						plastics, and drugs.			

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 Ministry had issued EC earlier vide letter no. J-11011/09/2016-IA-II (I), dated 19.12.2017 for setting up Agro- chemical (pesticides) & organic chemical manufacturing unit of capacity 22750 TPM at plot no. C-393 to C-396, Sayakha GIDC Estate, Tal: Vagra, Dist: Bharuch – 392 140 (Gujarat) by M/s. Gharda Chemicals Ltd. Certified compliance report has been issued by the IRO, Gandhinagar dated 13.1.2023, out of 35 condition it may be seen that 10 are compiled 4 are partly complied and 21 are agreed to comply. Action Taken Plan for the partly complied and agreed to comply conditions of CCR is also submitted to Government of India, Ministry of Environment, Forest & Climate Change, Integrated Regional office, Gandhinagar dated 11.02.2023

7. The PP reported that there are no national parks and Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River Narmada is flowing at distance of 10.0 Km in South direction. Schedule I species or Indian Peafowl exist within 10 km study area of the project, for which conservation plan is submitted to PCCF/ chief wildlife warden dated 1.2.2023.

8. The PP reported that the **ambient air quality** monitoring was carried out at 8 locations during October, 2020 to December, 2020 and the maximum concentration of SPM (140.4 $\mu g/m^3$), PM_{10} (78.63 $\mu g/m^3$), $PM_{2.5}$ (47.41 $\mu g/m^3$), SO_2 (14.38 $\mu g/m^3$), NOx (16.96 $\mu g/m^3$), O_3 (13.72 $\mu g/m^3$) & VOC (0.8 ppm) was recorded in study area. The minimum concentration of SPM (124.2$\mu g/m^3$), PM_{10} (70.43 $\mu g/ m^3$), $PM_{2.5}$ (40.86 $\mu g/m^3$), SO_2 (9.13 $\mu g/m^3$), NOx (10.25 $\mu g/m^3$), O_3 (10.67 $\mu g/m^3$) & VOC (0.3 ppm) was recorded in study area. **Noise**- Based on noise level data obtained during the survey for residential area and industrial area, it is interpreted that noise levels are within the standard norms prescribed by CPCB. Looking towards the increase in noise generating sources it is suggested that there is need to apply noise reducing devices at noise generating sources and generate public awareness. **Soil**- The porosity of soils can be considered as moderate too good for air and water movement in the soil and the pH of soils are slightly alkaline. The concentration of available Nitrogen, Phosphorous and Potassium in the soil samples signifies that the soil of the area is fertile. **Groundwater**- Based on comparison study with drinking water standards, it is interpreted that water samples collected from the villages should not be directly used in drinking but can be used in other domestic purposes like washing, bathing and irrigation. Results of copper, lead in the water sample of all the villages are found below detectable. It can be observed that ground water qualities in terms of various essential and desirable characteristics are found within the limits specified by IS 10500:2012. **Surface water**- There are seven ponds considered in the study area. However, this water is not used for domestic/industrial activities; as the raw water is easily available through pipelines of local authorities. These water sources cannot be utilized for drinking but the water of these ponds can be used in irrigation. The water quality is good and it was observed that all the parameters are well within the range of acceptance criteria as per IS: 10500.

9. The PP reported that the total water requirement is 8164 KLD of which fresh water requirement of 3447 KLD and will be met from GIDC Water Supply letter no. GIDC/DEE/WS/BRH/421, Dated: 28/07/2022. Effluent will be treated in ETP having primary, secondary, tertiary treatment, RO, Solvent striper & MEE. The wastewater generation will be 5098.0 KLD (Existing – 319 KLD + Additional proposed - 4779 KLD). Wastewater generated will be segregated into high concentration and low concentration streams. High concentration stream will be treated in Multiple Effect Evaporator (MEE) and low concentration stream will be treated in ETP followed by Reverse Osmosis (RO). Wastewater generated (5098 KLD) will be segregated into high concentration and low concentration streams. High concentration stream will be treated in Multiple Effect Evaporator (MEE) and low concentration stream will be treated in ETP followed by Reverse Osmosis (RO). Out of 5098 KLD, 1399 KLD will be discharged to deep sea via CETP, 157 KLD solids from MEE will be disposed to CHWTSDF, 63 KLD treated sewage will be used for tree plantation & remaining 3454 KLD treated effluent along with 1200 KLD steam condensate (Total 4617 KLD) will be recycled/reused back in process. Domestic waste water 70 KLD will be treated in STP and 63 KLD will be reused for Gardening.

10. The Power requirement will be 14.2 MW (DGVCL/Torrent Energy Ltd:./Captive Power Plant @ 4.8 MWH), DG Set (1500 KVA x 3 Nos.). Unit will have 3 Nos. DG sets of 1500 KVA capacity, additionally DG sets are used as standby during power failure. Stack (height 15 m) will be provided as per CPCB norms to the proposed DG sets. Unit will have 3 Nos. of Cogen Boilers (30 TPH (2 Nos.) & 50 TPH (1 Nos.)) & 2 Nos. of Hot Oil Unit (10 lac KCal/hr) will be installed. Adequate Stack Height of 35 m & 30 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the proposed boilers.

11. **Details of Process Emission Generation and Its Management:**

Flue Gas Stack
Existing

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
Existing Flue Gas Stacks & Emission Details:						
1	Boiler-1 (10 TPH)	30	Coal	1500 kg/h	PM, SO_2, NOx	Electrostatic Precipitator + Water scrubber
2	Boiler-2 (10 TPH)	30	Coal	1500 kg/h		Electrostatic Precipitator + Water scrubber
3	Boiler-3 (10 TPH)	30	Coal	1500 kg/h		Electrostatic Precipitator + Water scrubber
4	Hot oil unit-1 (5 lac KCal/hr)	30	HSD	45 L/h		--

5	Hot oil unit-2 (5 lac KCal/hr)	30	HSD	45 L/h		--
6	Coal Fired Boiler (30 TPH) for (3 MW Power Plant)	30	Coal	4500 kg/h	PM, SO_2, NOx	Electrostatic Precipitator + Water scrubber
7	D.G. Set-1 (1150 KVA (Stand-by))	30	HSD	300 L/h	PM, SO_2, NOx	Adequate stack height
8	D.G. Set-2 (1150 KVA (Stand-by))	30	HSD	300 L/h	PM, SO_2, NOx	Adequate stack height

Total After Proposed Expansion

Sr. No.	Source of emission With Capacity	Stack Height (meter)	Stack Diameter (meter)	Type of Fuel	Quantity of Fuel	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
Total Flue Gas Stacks & Emission Details After Proposed Expansion:							
1	Cogen Boiler-1 (30 TPH)	35	1.25	Coal	4500 kg/h	PM, SO_2, NOx	Electrostatic Precipitators (1 for each) + Caustic scrubber
2	Cogen Boiler-2 (30 TPH			Coal	4500 kg/h	PM, SO_2, NOx	
3	Cogen Boiler-3 (50 TPH) (4.8 MW Power Plant considering all boilers in operation)	35	1.25	Coal	7500 kg/h	PM, SO_2, NOx	
3	Hot oil unit-1 (10 lac KCal/hr)	30	1.0	HSD	90 L/h	PM, SO_2, NOx	Adequate stack height
4	Hot oil unit-2 (10 lac KCal/hr)						
5	D.G. Set-1 (1500 KVA (Stand-by))	15	0.4	HSD	400 L/h	PM, SO_2, NOx	Adequate stack height

6	D.G. Set-2 (1500 KVA (Stand-by))	15	0.4	HSD	400 L/h	PM, SO_2, NOx	Adequate stack height
7	D.G. Set-3 (1500 KVA (Stand-by))	15	0.4	HSD	400 L/h	PM, SO_2, NOx	Adequate stack height

Note: All Existing Flue Gas Stacks are to be removed and replaced with new ones after proposed expansion

Process Stack
Existing

Sr. No.	Process Stack Attached To	No. Of Scrubbers	Height from Ground (M)	Diameter (M)	Air Pollution Control System	Expected Pollutants Mg/Nm^3
Existing Process Vent Details						
1	Chloranil	2	20	0.08,0.1	Caustic Scrubber, Venturi Scrubber	HCl, Cl_2, SO_2
2	PDCB	2	20	0.08,0.1	Caustic Scrubber, Venturi Scrubber	HCl, Cl_2
3	Hexaconazole	2	20	0.08,0.1	Caustic Scrubber, Venturi Scrubber	HCl, Cl_2, SO_2
4	Dicamba	NA	20	NA	Sent to Co-incineration	CH_3Cl
5	Profenophos	4	20	0.1, 0.08	Caustic Scrubber, Venturi Scrubber	HBr, HCl, Cl_2, Br_2
6	Lambda Cyhalothrin	2	20	0.08,0.1	Caustic Scrubber, Venturi Scrubber	HCl, Cl_2, SO_2
7	Difenthiuron	2	20	0.08,0.1	Caustic Scrubber, Venturi Scrubber	HCl, Cl_2, SO_2
8	Metalaxyl	3	20	0.08,0.1	Caustic Scrubber, Venturi Scrubber	HCl, Cl_2, SO_2

Total Proposed

S. No.	Process Stack Attached To	No. Of Scrubbers	Height from Ground (M)	Diameter (M)	Air Pollution Control System	Expected Pollutants Mg/Nm3
Additional Process Vent Details						
1	Chloranil	2	33	0.08,0.1	Caustic Scrubber, Venturi Scrubber	HCl, Cl2, SO2
2	PDCB	2	33	0.08,0.1	Caustic Scrubber, Venturi Scrubber	HCl, Cl2
3	Hexaconazole	2	33	0.08,0.1	Caustic Scrubber, Venturi Scrubber	HCl, Cl2, SO2

4	Dicamba	NA	33	NA	Methanol Scrubber	CH3Cl
5	Profenophos	4	33	0.1, 0.08	Caustic Scrubber, Venturi Scrubber	HBr, HCl, Cl2, Br2
6	Lambda Cyhalothrin	2	33	0.08,0.1	Caustic Scrubber, Venturi Scrubber	HCl, Cl2, SO2
7	Difenthiuron	2	33	0.08,0.1	Caustic Scrubber, Venturi Scrubber	HCl, Cl2, SO2
8	Metalaxyl	3	33	0.08,0.1	Caustic Scrubber, Venturi Scrubber	HCl, Cl2, SO2
9	Tembotrione	2	NA	NA	Flame arrestor followed by Blow down tank	H2
			33	0.1	Emergency Caustic scrubber	SO2
			33	0.08	Water scrubber	HCl
10	Mesotrione (MCB Sulfonyl Chloride Route)	3	33	0.08	Water scrubber	HCl
			33	0.1	Caustic Scrubber	CO2
			NA	NA	Methanol Scrubber	CH3Cl
			33	0.1	Emergency Caustic scrubber	SO2
			NA	NA	Flame arrestor followed by Blow down tank	H2
11	Mesotrione (Toluene sulfonyl Chloride Route)	4	33	0.1	Caustic Scrubber	CO2
			NA	NA	Methanol Scrubber	CH3Cl
			33	0.08	H2O2 Scrubber	NOx
			33	0.08	Water scrubber	HCl
			33	0.1	Emergency Caustic scrubber	SO2
			NA	NA	Flame arrestor followed by Blow down tank	H2
12	Sulfentrazone	3	NA	NA	Flame arrestor	Freon-22
			33	0.1	Caustic Scrubber	Cl2
			33	0.08	H2SO4 Scrubber	NOx
			NA	NA	Flame arrestor followed by Blow down tank	H2
			33	0.08	Water scrubber	HCl
13	Bromoxynil Octanoate	4	33	0.08	Water scrubber	HCl
			33	0.1	Caustic scrubber	SO2
			33	0.1	Water Scrubber	HBr

			33	0.08	Water Scrubber	NH3
14	Bromoxynil Heptanoate	4	33	0.08	Water scrubber	HCl
			33	0.1	Caustic scrubber	SO2
			33	0.1	Water Scrubber	HBr
			33	0.08	Water Scrubber	NH3
15	Sulcotrione	4	NA	NA	Methanol Scrubber	CH3Cl
			33	0.1	Caustic Scrubber	CO2
			33	0.1	Caustic Scrubber	Cl2
			33	0.08	Water scrubber	HCl
			33	0.1	Emergency Caustic scrubber	SO2
			NA	NA	Flame arrestor followed by Blow down tank	H2
16	Dicamba	4	33	0.08	Water scrubber	HCl
			33	0.1	Caustic Scrubber	Cl2
			NA	NA	Flame arrestor followed by Blow down tank	H2
			33	0.1	Caustic Scrubber	CO2
			NA	NA	Methanol Scrubber	CH3Cl
17	Bispyribac Sodium	0	NA	NA	Flame arrestor followed by Blow down tank	H2
18	Anilophos	3	33	0.08	Water scrubber	HCl
			33	0.1	Caustic Scrubber	H2S
			33	0.08	Water scrubber	NH3
19	Diuron	1	33	0.08	Water scrubber	HCl
			NA	NA	Water Scrubber	DMA
20	Pinoxaden	4	33	0.1	Caustic Scrubber	Cl2
			33	0.1	Caustic Scrubber	Br2
			NA	NA	Flame arrestor followed by Blow down tank	H2
			33	0.08	Water scrubber	HCl
			33	0.1	Caustic Scrubber	CO2
21	Pyraclostrobin	2	33	0.1	Caustic Scrubber	Cl2
			33	0.1	Caustic Scrubber	CO2
22	Trifloxystrobine	5	33	0.1	Caustic Scrubber	Br2
			33	0.1	Calcium Hydroxide Scrubber	HF

			33	0.1	Caustic Scrubber	HBr
			33	0.08	Water scrubber	HCl
			33	0.1	Caustic Scrubber	Cl2
23	Indoxacarb	2	33	0.08	Water scrubber	HCl
			33	0.1	Emergency Caustic scrubber	SO2
			NA	NA	Flame arrestor followed by Blow down tank	H2
24	Fipronil	3	33	0.1	Caustic Scrubber	Cl2
			33	0.1	Emergency Caustic scrubber	SO2
			33	0.08	Water scrubber	NH3
25	Imazethapyr	0	NA	NA	Flame arrestor followed by Blow down tank	H2
26	Temephos	2	33	0.1	Caustic Scrubber	Cl2
			33	0.08	Water scrubber	HCl
27	Chloropyriphos	2	33	0.1	Caustic Scrubber	Cl2
			33	0.08	Water scrubber	HCl
28	Chloropyriphos Methyl	2	33	0.1	Caustic Scrubber	Cl2
			33	0.08	Water scrubber	HCl
29	Cartap Hydrochloride	1	NA	NA	Water scrubber	DMA
			33	0.1	Caustic Scrubber	Cl2
			NA	NA	Methanol Scrubber	CH3Cl
30	Imidacloprid	2	33	0.08	Water Scrubber	DMA
			33	0.1	Caustic Scrubber	Cl2
			33	0.08	Water scrubber	HCl
31	Acetamiprid	1	33	0.08	Water scrubber	HCl
			NA	NA	Water scrubber	MMA
32	Clothianidin	5	33	0.1	Caustic Scrubber	Cl2
			33	0.08	Water scrubber	HCl
			33	0.1	Emergency Caustic scrubber	SO2
			33	0.08	Water scrubber	NH3
			33	0.1	Caustic Scrubber	CO2
33	Chlorantraniliprole	3	33	0.1	Caustic Scrubber	Cl2
			33	0.1	Caustic Scrubber	CO2
			NA	NA	Flame arrestor followed by Blow down tank	H2
			33	0.08	Water scrubber	HCl
34	Deltamethrin	4	33	0.1	Caustic Scrubber	Cl2

			33	0.08	Water scrubber	HCl
			33	0.1	Emergency Caustic scrubber	SO2
			33	0.08	Water Scrubber	HBr
35	Cypermethrin	3	33	0.1	Caustic Scrubber	Cl2
			33	0.08	Water scrubber	HCl
			33	0.1	Emergency Caustic scrubber	SO2
36	Alphamethrin	3	33	0.1	Caustic Scrubber	Cl2
			33	0.08	Water scrubber	HCl
			33	0.1	Emergency Caustic scrubber	SO2
37	Permethrin	3	33	0.1	Caustic Scrubber	Cl2
			33	0.08	Water scrubber	HCl
			33	0.1	Emergency Caustic scrubber	SO2
38	Mepiquate Choride	0	NA	NA	Methanol Scrubber	CH3Cl
39	Amino Ethyl Carbazole	0	NA	NA	Flame arrestor followed by Blow down tank	H2
40	Meta Phenoxy Benzyl Alcohol	0	NA	NA	Flame arrestor followed by Blow down tank	H2
41	Meta Phenoxy Benzaldehyde	2	33	0.08	Water scrubber	HCl
			33	0.1	Caustic Scrubber	Cl2
42	Meta Phenoxy Benzaldehyde Acetal	2	33	0.08	Water scrubber	HCl
			33	0.1	Caustic Scrubber	Cl2
43	O-Phenyline Diamine	0	NA	NA	Flame arrestor followed by Blow down tank	H2
44	PEKK	2	33	0.1	Emergency Caustic scrubber	SO2
			33	0.08	Water scrubber	HCl
45	PEK	2	33	0.1	Emergency Caustic scrubber	SO2
			33	0.08	Water scrubber	HCl
46	ABPBI	2	33	0.1	Emergency Caustic scrubber	SO2
			33	0.08	Water scrubber	HCl
47	Carbendazim	2	33	0.08	Water scrubber	NH3
			NA	NA	Flame arrestor followed by Blow down tank	H2

			33	0.08	Water scrubber	HCl
48	Thiamethoxam	1	33	0.08	Water Scrubber	HCl
49	Metalaxyl	3	33	0.08	Water scrubber	HCl
			33	0.1	Emergency Caustic scrubber	SO2
			33	0.08	Water scrubber	NH3
			33	0.1	Water Scrubber	HBr
			33	0.1	Caustic Scrubber	Br2
			33	0.08	Water scrubber	HCl
			33	0.1	Caustic Scrubber	Cl2
50	Hexaconazole	2	33	0.08	Water scrubber	HCl
			33	0.1	Emergency Caustic scrubber	SO2
51	Lambda Cyhalothrin	2	33	0.08	Water scrubber	HCl
			33	0.1	Emergency Caustic scrubber	SO2
52	Difenthiuron	5	33	0.1	Caustic Scrubber	Br2
			33	0.1	Water Scrubber	HBr
			33	0.1	Caustic Scrubber	Cl2
			33	0.08	Water scrubber	HCl
			33	0.08	Water scrubber	NH3
53	Triclopyr Acid / Triclopyr Butotyl Easter	1	33	0.1	Caustic Scrubber	Cl2
54	Azoxystrobin	1	33	0.1	Caustic Scrubber	CO2
55	PV 23	4	NA	NA	Flame arrestor followed by Blow down tank	H2
			33	0.08	Water scrubber	NH3
			33	0.1	Emergency Caustic scrubber	SO2
			33	0.08	Water scrubber	HCl
			33	0.1	Caustic Scrubber	Cl2
56	PR-168	2	33	0.1	Water Scrubber	HBr
			33	0.08	Caustic Scrubber	Br2
57	PR-254	0	NA	NA	Flame arrestor followed by Blow down tank	H2
58	PR-255	0	NA	NA	Flame arrestor followed by Blow down tank	H2
59	PR-122	0	NA	NA	Flame arrestor followed by Blow down tank	H2

60	PV-19	0	NA	NA	Flame arrestor followed by Blow down tank	H2
61	PY-138	2	33	0.1	Emergency Caustic scrubber	SO2
			33	0.08	Water scrubber	NH3
			33	0.1	Caustic Scrubber	CO2
			33	0.1	Caustic Scrubber	Cl2
			33	0.08	Water scrubber	HCl
			33	0.1	Emergency Caustic scrubber	SO2
			NA	NA	Flame arrestor followed by Blow down tank	H2

13. Details of Solid Waste/ Hazardous Waste Generation and Its Management: 12 Categories of Hazardous/Solid Wastes and their management & 2 Nos. of Non-Hazardous waste.

Hazardous/Solid Wastes

Sr. No.	Type of Waste	Nature/Type of solid waste	Hazardous Waste Category	Existing Qty (MT/Year)	Additional Proposed Qty (MT/Year)	Total Qty (MT/Year)	Treatment /Disposal
1	Used/ spent Oil	Liquid	5.1	24	14	38	Collected, Stored, Transported & Disposed by CHWIF/ Co-Processing/Pre-Processing or selling it to Authorized registered recyclers
2	Oil Waste	Solid/Semi-Solid	5.2	16	5.0	21.0	Collected, Stored, Transported & Disposed by CHWIF/ Co-Processing/Pre-Processing or selling it to

							Authorized registered recyclers
3	Distillation Residues	Solid/Semi-Solid	20.3	6075	21351	27426	Collected, Stored & Transported by disposing it CHWIF0/Co-Processing/ Pre-Processing
4	Spent solvents	Liquid	29.4	25	85.0	110	Collected, Stored, Transported & Disposed by CHWIF/ Co-Processing/Pre-Processing or selling it to Authorized registered refiners
5	ETP Sludge	Solid	35.3	3500	1022	4522	Collected, Stored & Transported to authorized TSDF for land filling
6	Concentration/ Evaporation Residue (MEE Salt/ Solids)	Solid	37.3	6935	66065	73000	Collected, Stored & Transported to authorized TSDF for land filling
7	Oily Waste from ETP	Solid/Semi-Solid	35.4	24	66.0	90.0	Collected, Stored, Transported & Disposed by Incineration/ CHWIF/ Co-Processing/Pre-Processing
8	Spent Catalyst	Solid	29.5	1.2	4.8	6.0	Collected, Stored & Transported to

							authorized TSDF or sell to registered recyclers
9	Spent activated Carbon	Solid	28.3	103	748.5	851	Collected, Stored & Transported by disposing it CHWIF/Co-Processing/Pre-Processing
10	Discarded barrels/containers /liners a) Drums b) Carboys c) Glass Bottles d) Used contaminated PPEs	Solid	33.1	20000 Nos. / 420.0 MT	30000 Nos./ 772 MT	50000 Nos./ 1192. MT	Collected, Stored, decontaminated & detoxification & Sell to GPCB approved end-users after decontamination/ CHWIF/Authorized recyclers/ Authorized decontamination facility
11	Date expired/ off spec pesticides	Solid	29.3	0	5	5	Collected, Stored & Transported to authorized TSDF
12	Process waste	Solid /Semi-Solid	29.1	250	7897.5	8147.5	Collected, Stored & Transported by disposing it CHWIF/ Co-Processing/Pre-Processing

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 70.11 Crore (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 150.0 Lakh per annum, Industry proposes to allocate Rs. 1.07625 Crore in next 2 years towards Corporate Social Responsibility

15. Industry will develop Greenbelt over an area of 34.37% i.e., 25,916.92 m^2 out of total area of the project. Total 75,410.29 m^2 land area is available at site; out of this area about 25,916.92 m^2 (34.37 %) area will be covered as greenbelt. Trees will be planted in the plant premises with spacing of 2m x 2m and Approx. 8630 number of trees will be developed accordingly.

16. The PP proposed to set up an Environment Management Cell (EMC) by engaging Site head-GM EHS- Env. Manager - Env. Deputy manager in charge for the functioning of EMC.

17. The PP reported that the total CO_2 generation would be 130817.5 MT/ annum which is equivalent to 3.61 tonne Co_2 eq/tonne production. The company will sequester 15826.1MT/annum eq. Co_2 through greenbelt development within plant premises.

18. The PP submitted the Disaster and On-site and Off-site Emergency Plans in the EIA report.

19. The Total Project Cost will be Rs. 463.50 Crores (Existing – Rs. 320.0 Crores + Additional Rs. 143.5 Crores). M/s. Gharda Chemicals Ltd. will give direct employment to 775 Nos of people based on qualification and requirement. In addition to direct employment, indirect employment shall generate ancillary business to some extent for the local population.

20. **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 to the effect 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 EC 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 Greenbelt development plan, Fuel, Sewage treatment Plant and advised the PP to submit the following:

- Revised Greenbelt details.
- Undertaking for Usage of agro briquette with imported coal as a fuel in 1:10 ratio, whenever agro briquette are not available, imported coal shall be used as a fuel.
- Process Description for proposed STP.

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 EC.

The EAC is of the view that its recommendation and grant of EC 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.

21. The EAC, after detailed deliberations, **recommended the project for the grant of EC, 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, 25,916.92 m^2 (34.37%) by planting 9348 saplings 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 2 m). The budget earmarked for the plantation shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of the expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

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

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget propose under EMP is ₹ 70.11 Crore (Capital cost) and ₹ 150.0 Lakh annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iv) Agro briquettes shall be used as a primary fuel and only during the unavailability of agro briquettes, imported coal shall be used as fuel.

(v) The total water requirement is 8164 KLD of which fresh water requirement of 3447 KLD and will be met from GIDC 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 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.

(vi) The wastewater generation shall be 5098.0 KLD (Existing – 319 KLD + Additional proposed - 4779 KLD). Wastewater generated shall be segregated into high concentration and low concentration streams. High concentration stream shall be treated in Multiple Effect Evaporator (MEE) and low concentration stream will be treated in ETP followed by Reverse Osmosis (RO). Wastewater generated (5098 KLD) shall be segregated into high concentration and low concentration streams. High concentration stream shall be treated in Multiple Effect Evaporator (MEE) and low concentration stream shall be treated in ETP followed by Reverse Osmosis (RO). Out of 5098 KLD, 1399 KLD shall be discharged to deep sea via CETP, 157 KLD solids from MEE shall be disposed to CHWTSDF, 63 KLD treated sewage shall be used for tree plantation & remaining 3454 KLD treated effluent along with 1200 KLD steam condensate (Total 4617 KLD) shall be recycled/reused back in process. Domestic waste water 70 KLD shall be treated in STP and 63 KLD shall be reused for Gardening.

(vii) 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.

(viii) The project proponent shall comply with the environment norms for Pesticide Industry as notified by the Ministry of Environment, Forest and Climate Change, *vide* GSR 446 (E), dated 13.6.2011 under the provisions of the Environment (Protection) Rules, 1986.

(ix) The project proponent shall comply with the environment norms for synthetic organic chemical as notified by the Ministry of Environment, Forest and Climate Change, *vide* GSR 608 (E), dated 21. 7.2010 under the provisions of the Environment (Protection) Rules, 1986.

(x) 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.

(xi) 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.

(xii) 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.

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

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

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

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

(xvii) The unit shall make the arrangement for 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 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. 49.5

Proposed Expansion of Synthetic Organic Chemicals Manufacturing Unit with Production Capacity from 30 TPM to 300 TPM located at Plot No. N-33 & N-34, MIDC Tarapur, Boisar, Palghar, Maharashtra by Vardhman Dyestuff Industries Pvt. Ltd. - Consideration of ToR

[Proposal No. IA/MH/IND3/416691/2023; File No. IA-J-11011/59/2023-IA-II(I)]

1. The proposal is for the issue of ToR for preparation of EIA/EMP for the Proposed Expansion of Synthetic Organic Chemicals Manufacturing Unit with production capacity from 30 TPM to 300 TPM located at Plot No. N-33 & N-34, MIDC Tarapur, Boisar, Palghar, Maharashtra.by Vardhman Dyestuff Industries Pvt. Ltd. **The PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the CPCB.**

2. The project/activity is covered under Category 'A' of item 5 (f)-Synthetic organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) requires appraisal at Central Level by the Expert Appraisal Committee (EAC).

3. The PP applied for the ToR vide proposal number No. **IA/MH/IND3/416691/2023** dated8 .2.2023. The proposal is now placed in 49th EAC Meeting held on 3th,5th -6th April, 2023, wherein the PP and an accredited Consultant, Green Circle Inc. [Accreditation number: NABET/EIA/2124/RA 0219, Valid up to 26.1.2024] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

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

S. No.	Name of the Products	CAS no. / CI no.	Quantity MT/Month		
			Existing	Proposed	Total
1.	Pigment Green 7 (CPC Green)	14832-14-5	30	170	200
2.	Copper Phthalocyanine Blue Crude	147-14-8	0	200	
3.	Pigment Beta Blue 15:3	147-14-8	0	200	
4.	Pigment Beta Blue 15:4	147-14-8	0	200	
5.	Pigment Blue 15:0/15:1[Alpha Blue]	147-14-8	0	200	
6.	Pigment Violet 23	215247-95-3	0	200	
7.	Pigment Violet 27	12237-62-6	0	200	
8.	Pigment Violet 19	1047-16-1	0	200	
9.	Pigment Orange 5	3468-63-1	0	200	

S. No.	Name of the Products	CAS no. / CI no.	Quantity MT/Month		
			Existing	Proposed	Total
10.	Pigment Orange13	3520-72-7	0	200	
11.	Pigment Orange 34	15793-73-4	0	200	
12.	Pigment Yellow 74	6358-31-2	0	200	
13.	Pigment Yellow 83	5567-15-7	0	200	
14.	Pigment Red 122	980-26-7	0	200	
15.	Mono Sulpho Additive [Synergist]/Solosperse 12000	28901-96-4	0	200	
16.	Phthalimido Additive [Synergist]/Solosperse 5000	85-41-6	0	200	
17.	Acrylic Binders	25767-47-9	0	200	
18.	Middle Chrome	1344-37-2	0	200	
19.	Lemon Chrome	1344-37-2	0	200	
20.	Scarlet Chrome	12656-85-8	0	200	
21.	Pigment Yellow1	2512-29-0	0	200	
22.	Pigment Yellow12	6358-85-6	0	200	
23.	Pigment Yellow13	5102-83-0	0	200	
24.	Pigment Yellow 14	5468-75-7	0	200	
25.	Pigment Yellow17	4531-49-1	0	200	
26.	Pigment Yellow74	6358-31-2	0	200	
27.	Pigment Yellow 83	5567-15-7	0	200	
28.	Pigment Red 170	2786-76-7	0	200	
29.	Pigment Red 112	6535-46-2	0	200	
30.	Pigment Red 3	2425-85-6	0	200	
31.	Pigment Red 4	2814-77-9	0	200	
32.	Pigment Red 8	6410-30-6	0	200	
33.	Pigment Red 53:1	73263-40-8	0	200	
34.	Pigment Red 57:1	5281-04-9.	0	200	
35.	Pigment Red48:2	7023-61-2	0	200	
36.	Pigment Red48:3	15782-05-5	0	200	
37.	Pigment Orange 5	3468-63-1	0	200	
38.	Pigment Orange13	3520-72-7	0	200	
39.	Pigment Orange34	15793-73-4	0	200	
40.	Copper Sulphate	7758-99-8	0	200	
41.	Aluminium Chloride	7446-70-0	0	200	
42.	PAC	1327-41-9	0	2200	2200
43.	HYPO	10022-70-5	0	350	350
44	30% HCL	7647-01-0	0	250	250
	TOTAL				**3000**

5. The PP reported that the total land area of the plot is 3900 m^2. No additional land will be used for proposed expansion.

6. The PP reported that Company has valid CTO vide F. No. Format1.0/AS(T)/UAN No. 0000148213/CO/2212001450 dated 21.12.2022.

7. The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. River Banganaga is flowing at a distance of 1.70 Km in SE direction.

8. The PP report that Proposed fresh water requirement will be 295 KLD which will be met from MIDC Tarapur in which Industrial Water consumption will be 280 KLD, Domestic 10 KLD and Gardening will be 5 KLD. Total waste water generated will be 405 KLD in which Strong COD/TDS stream is 30 KLD and Weak COD/TDS stream is 375 KLD The treated effluent (10.2 KLD- At Present Sent to CEPT, Tarapur for disposal) from our sister unit i.e M/s. Unilex Colours & Chemicals Ltd, located at Plot No. E 10/2, MIDC Tarapur, Taluka & District Palghar, Maharashtra State, will be taken to the proposed effluent treatment of M/s. Vardhaman Dyestuff Industries Pvt. Ltd. The distance between the industries is 3 Kms only. The treated effluent will be transported through tankers or by closed pipeline. Existing effluent shall be sent to CETP for disposal. For the treatment of effluent generated from proposed expansion, the existing ETP shall be upgraded and the treated effluent shall be recycled back to process/ makeup water for cooling towers and boiler.

9. The PP reported that the Power requirement after expansion will be 785 KW. Including existing 355 KW and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). Existing unit has DG sets of 125 KVA capacity, additionally 1* 125 KVA DG sets will be used as standby during power failure. Stack (5 m height) will be provided as per CPCB norms to the proposed DG sets.

10. The PP reported that the project, being in notified industrial area i.e., MIDC Tarapur vide **Notification No. IDC -2180/102842 (2385)/ udyog-14 dated 2.7.1980**, is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

11. Total 3900 m^2 land area is available at site; out of which 273 m^2 (7%) will be developed inside and outside at boundaries of the project land the premises and remaining 33% will be developed outside the premises.

12. The total cost of the proposed expansion project will be Rs. 20 Crores. The PP reported that project shall provide employment opportunity for about 30 number of skilled, semi-skilled and unskilled people during the operation phase. And 20 number of people during construction phase. Industry proposes to allocate Rs. 40 lakhs towards CER.

13. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the Greenbelt development plan, layout plan, fuel consumption, action plan and mitigation measures proposed being a project located in CPA, and sought the following requisite information/documents:

(i). Compliance to green belt development of minimum 40% of the total area of the existing unit (within the site and the industrial estate) @2500 per hectare, in consultation with forest department and accordingly, submit the details of green belt developed, number of trees and aerial photographs and video.

(ii). Revised layout plan with the requisite green belt.

(iii). Undertaking for the use of natural gas/biomass instead of coal.

(iv). Quantified and specific compliance and action plan for the additional safeguard measures prescribed in the Ministry's O.M. dated 31.10.2019 for critically and severely polluted areas.

(v). Detailed justification/trend w.r.t the CEPI score of the CPA since the declaration as CPA.

In view of above, the EAC **deferred** the proposal.

Agenda No. 49.6

Proposed New Technical Grade Pesticides Manufacturing Unit of Production Capacity 220 MTPA located at Murabba No. 51, Killa No. 20-21, Village-Faijalipur Majra, P.O Chaura, Tehsil Gharaunda, District Karnal, Haryana by M/s Sahib Pesticides Pvt. Ltd. - Consideration of EC.

[Proposal No. IA/HR/IND2/145586/2020; File No. IA-J-11011/57/2020-IA-II(I)]

1. The proposal is for the EC for Proposed to set up new technical grade pesticides manufacturing unit of production capacity 220 MTPA located at Murabba No. 51, Killa No. 20-21, Village-Faijalipur Majra, P.O Chaura, Tehsil Gharaunda, District Karnal, Haryana.by M/s Sahib Pesticides Pvt. Ltd

2. The project/activity is covered under Category 'A' of item 5(b) **Pesticides industry and pesticide specific intermediates (excluding formulations)** of Schedule of EIA Notification, 2006 (as amended) as the project is located outside the notified industrial area.

3. The ToR has been issued by the Ministry, vide letter no. No. IA-J-11011/57/2020-IA-II(I) dated18.4. 2020. The PP submitted that the Public Hearing for the proposed project has been conducted by the Haryana Pollution Control Board on 12.7.2021 which was presided by the Additional Deputy Commissioner, Karnal. The PP applied for Environment Clearance on 17.11.2021 in Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a **Fresh EC case.** Due to the shortcomings, the proposal was referred back to the on PP 24.11.2021, 4.10.2022, 27.10.2022 and the reply and reply for the same has been submitted on 30.9.2022, 12.10.2022, 16.3.2023. Accordingly, the proposal is placed in this 49th EAC meeting on 3rd &5th – 6th April, 2023, wherein the PP along with accredited Consultant, Wolkem India Limited [Accreditation number NABET/EIA/2124/RA 0216 valid up to 5.2.2024] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows

4. The PP reported that the proposed total land area is - 5794.16 m^2 will be used for proposed project and no R& R is involved in the Project. The details of products are as follows:

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

6. The PP reported that there are no national parks, wildlife sanctuaries, biosphere reserves, tiger/elephant reserves, wildlife corridors etc. within 10 km distance from the project site. River Yamuna is flowing at a distance of 6.90 in East direction There is no forest land involved in the proposed project. No Schedule-I species were observed in the 10 km radius from the proposed project.

7. The PP reported that the **Ambient air** quality monitoring was carried out at 8 locations during 15th December 2021 to 15th March 2022 and the baseline data indicates the ranges of concentrations as: PM_{10} (40.19 µg/m³ to 64.72 µg/m³), $PM_{2.5}$ (20.93 µg/m³ to 36.95 µg/m³), SO2 (6.99 µg/m³ to 14.86 µg/m³), NO_2 (14.26 µg/m³ to 35.85 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.17 µg/m^3, 6.43 µg/m^3, 10.27 µg/m^3 with respect to PM_{10}, SO_2 and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise** -The day time (Leq night) Noise levels are observed to be in the range of minimum 52.4 and maximum 64.2 dB(A). The night time (Leq night) Noise levels are observed to be in the range of minimum 38.4 and maximum 46.1 dB(A). **Ground water** The pH value of ground water is an important index of acidity or alkalinity. pH value of the sample varies from 6.9 to 7.9 in all locations, which is well within the specified standard of 6.5 to 8.5. Colour of ground water sample found less than 5 hazen at all location in the project area core zone and buffer zone. Total dissolved solids ranges from 348 mg/l to 610 mg/l. Highest total dissolve solids was found at Faizalipur and minimum at Bharatpur. The TDS values were found at all locations within permissible limit as per Indian Standard IS: 10500-2012. The hardness values in ground water of the study area ranges between 98 to 404 mg/l. Highest value of hardness is found at Faizalipur and minimum at Bharatpur. Hardness values at all locations were within the permissible limit as per Indian Standard IS: 10500- 2012. The chloride values in ground water of the study area ranges between 14 to 72 mg/l. Chloride values at all locations were within the permissible limit as per Indian Standard IS: 10500-2012. The fluoride content was found well within presumable limit at all location of project area core zone and buffer zone. The analysis results of ground water samples of study area indicate that the quality of ground water is good and suitable for drinking purpose. The water quality at Bharatpur village is very good, over all, the obtained results are meeting the permissible limit of Indian Standard IS: 10500-2012. **Surface water-** The pH value of ground water is an important index of acidity or alkalinity. pH value of the sample varies from 7.41 to 7.58 in all locations, which is well within the specified standard of 6.5 to 8.5. Colour of ground water sample found less than 5 hazen at all location in the project area core zone and buffer zone. Total dissolved solids ranges from 172 mg/l to 240 mg/l. Highest total dissolve solids was found at Upstream Yamuna River and minimum at Azizpur drain. The TDS values were found at all locations within permissible limit as per Indian Standard IS: 10500-2012. The hardness values in ground water of the study area ranges between 112 to 162 mg/l.

Highest value of hardness is found at Upstream Yamuna River and minimum at Azizpur drain. Hardness values at all locations were within the permissible limit as per Indian Standard IS: 10500- 2012. The chloride values in ground water of the study area ranges between 9.5 to 11 mg/l. Highest value of Chloride is found at Downstream stream Yamuna River and minimum at Azizpur drain. Chloride values at all locations were within the permissible limit as per Indian Standard IS: 10500- 2012. The fluoride content was found well within presumable limit at all location of project area core zone and buffer zone. No metallic contamination was found in the river water. The water quality of river was found to meet the Best Designated Use – 'D' Criteria of CPCB (i.e fit for fish propagation). **Soil**. The pH of the soil is an important property; plants cannot grow in low and high pH value soils. The normal range of the soils in 6.0 to 8.5 is called as normal to saline soils. Most of the essential nutrients like N, P, K, Cl and SO_4 are available for plant at the neutral pH except for Fe, Mn and Al which are available at low pH range. The soils having pH below 7 are considered to be acidic from the practical standpoint, those with pH less than 5.5 and which respond to liming may be considered to qualify to be designated as acid soils.

8. The PP reported that the water requirement of proposed project will be met through in-house bore well. CGWA permission for ground water withdrawal has applied vide Application No. HWRA/IND/N/2021/1442. Total wastewater generation shall be 12.47 KLD. Industrial effluent 10.57 KLD will be treated at ETP, MEE and RO and will be reuse in cooling tower and domestic wastewater 1.9 KLD will be sent to STP for aerobic and anaerobic treatment and treated water will be used in plantation

9. Total power requirement 400 KVA to be provided by UHBVN (Uttar Haryana Bizali Vitaran Nigam). Also, for power backup, DG set 300 KVA will be provided for emergency power supply during the failure of electricity.

10. **Details of Process Emissions Generation and Its Management:**

QUANTITY MODE OF TREATMENT OF PROCESS EMISSION

S. No	Name of Product	Name of Gas	Gas emission (MT/MT)	Mode of Treatment
1	Buprofezin Technical	Toluene	0.220	All gaseous emission will be sent to VOC control system having condenser with brine water supply. The VOC control system will be connected to activated carbon adsorption system and incinerator for final disposal of gaseous emission.
		CO_2	0.225	
2	Fipronil Technical	Ethyl acetate	0.150	
		EDS	0.300	
3	Thiamethoxam Technical	DMF	0.300	
		Methanol	0.100	
4	Diafenthiuron Technical	IPA	0.100	
5	Bifenthrin Technical	DMF	0.050	
6	Novaluron Technical	Toluene	0.100	
7	Pymetrozine Technical	-	-	-

8	Clodinafop-propargyl Technical	SO_2	0.350	Wet Scrubber having caustic lye solution.
		HCL	0.200	
		DMF	0.100	All gaseous emission will be sent to VOC control system having condenser with brine water supply. The VOC control system will be connected to activated carbon adsorption system and incinerator.
		Methanol	0.075	
9	Metsulfuron-methyl Technical	Toluene	0.100	
10	Imazethapyr Technical	DMF	0.160	
		Methanol	0.020	
11	Metribuzin Technical	-		
	Pyrazosulfuron-ethyl Technical	Toluene	0.060	
12	Sulfentrazone Technical	HCL	0.100	Wet Scrubber
		Toluene	0.200	All gaseous emission will be sent to VOC control system having condenser with brine water supply. The VOC control system will be connected to activated carbon adsorption system and incinerator.
13	Bispyribac Sodium Technical	-		
14	Azoxystrobin Technical	DMF	0.100	
		Methanol	0.300	
15	Tebuconazole Technical	NMP	0.150	
		Hexane	0.100	
16	Thifluzamide Technical	HCL	0.160	Wet Scrubber
17	Pyraclostrobin Technical	CO_2	0.150	Activated carbon Adsorption
		DMF	0.100	
18	Isoprothiolane Technical	-	-	-
	Paclobutrazol Technical	-	-	

11. Details of Solid Waste/ Hazardous Waste Generation and Its Management:

S. No.	HW/Solid Waste	Category	Proposed (MTPA)	Disposal Method
1	Used Oil	5.1	50 Lit/Month	Collection, Storage, Transportation & Disposal by selling to Registered. Re-processors / reuse as lubricant
2	ETP Sludge	34.3	9 MT/Month	Collection, Storage, Transportation & send to TSDF(Gujarat Enviro Protection and Infrastructure (GEPIL), Haryana)

3	Discarded Barrels contaminated with hazardous Wastes /chemicals	33.3 Nos./Month	10 Nos./Month	Collection, Storage, Decontamination & Detoxification, sale to Authorized agencies
4	Process Residue	20.3	58.41 MT/Annum	Collection, Storage, Transportation, Disposal by Incineration or sale for processing in cement industries.
5	Rice husk briquettes Ash	36.2	288 MT/Annum	Collection, Storage, Transportation, Sale to brick manufacturer or Disposal at TSDF (Gujarat Enviro Protection and Infrastructure (GEPIL), Haryana)
6	MEE salt	34.3	116 MT/Month	Collection, storage & transportation & final disposal at TSDF.(Gujarat Enviro Protection and Infrastructure (GEPIL), Haryana)

12. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 178.5 Lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 17.25 Lakhs per annum. Industry proposes to allocate Rs. 7.0 Lakhs towards Corporate Social Responsibility

13. Total 5794.16 sq. meter land area is available at site; out of this area about 1912.07 sq. meter (33%) area is covered as greenbelt and other forms of greenery. Also, greenbelt will increase the aesthetic beauty of the surrounding area. Local plants will be preferred for the plantation
14. The PP reported that Public Hearing for the proposed project has been conducted by the Haryana State Pollution Control Board on 12th July 2021 which was presided in the presence of Additional Deputy Commissioner. The main issues raised during the public hearing are related to:
    - Employment requirement
    - Control measures of Volatile organic carbon (VOC).
    - Provision for green belt area of proposed project
    - Measures be taken to control water pollution in proposed project
    - Measures be taken to control air pollution during the construction activities.
    - Measures to be taken to installation of online monitoring system.
    - Measures to be taken to control hazardous waste management

The Response/Commitment from the PP to the issues raised along with an action plan with time frame and budget is as follows:

Issue raised	**Response/Commitment from Project Proponent**	**Action plan with time frame and budget**

Employment requirement	Project proponent Mr. Subhas Khurana assured to employment opportunities for nearby villagers.	Employment- 5 lakhs
Control measures of Volatile organic carbon (VOC).	Revenue generation of Haryana government will be increased due to proposed project and people of surrounding area will get employment opportunities and their living standard will be high	Air Pollution control- 20 lakhs
Provision for green belt area of proposed project	Dr S. K. Yadav consultant replied to RO that the adequate green belt i.e., 33 % (1912.07 Sq.m.) of the total plot area shall be developed in the plant area	2.5 lakhs budget for green belt
Measures be taken to control water pollution in proposed project	Dr S. K. Yadav consultant replied to RO that There is a provision of ETP, MEE, RO and STP for treatment of wastewater. Treated water will used in cooling tower. Sewage Treatment Plant (STP) will be used in treatment of domestic wastewater and treated water will be utilized for the plantation purpose. ZLD will be maintained in the plant premises.	125 Lakhs taken for ETP, MEE, RO & STP
Measures be taken to control air pollution during the construction activities.	Consultant replied that to control air pollution VOC control system, activated charcoal column, scrubber, and multi-cyclone will be used. During the construction activities water will be sprinkled to suppress the dust particles and also construction site will be covered to avoid spreading of dust emission	Already budget taken 20 Lakhs of air pollution.
Measures to be taken to installation of online monitoring system.	Consultant replied that There is a provision of online 24*7 monitoring to control air pollution	Already budget taken 20 Lakhs of air pollution.
Measures to be taken to control hazardous waste management	Consultant replied that Hazardous waste will be stored category wise in the designated yard. Later on, the hazardous material will be segregated and disposed off into.	25 Lakhs

15. The PP proposed to set up an Environment Management Cell (EMC) by engaging well qualified persons is proposed which will be responsible for managing the activities related to environment associated with project activities for the functioning of EMC.

16. The PP reported that Total emissions reduction that can be achieved is 1120.164 t CO_2 eq.

/ year. Net emissions = gross emissions – emission reduction Net emissions = 2046.019 – 1120.164 = 925.855 t CO_2 eq. / year The net emissions of Diamines and Chemicals Ltd. are **925.855 t CO_2 eq. / year.** The total savings that can be achieved by avoided emissions and carbon sequestration are **55%.**

17. The PP submitted the Disaster Management Plan and On-site and Off-site Emergency Plans in the EIA report.

18. The total estimated cost of the proposed project is Rs. 8.0 Crores. The total employment will be 85 persons.

19. **Deliberations by the EAC:**

The EAC inter-alia, noted that a request for EC was made by the PP (Sahib Pesticides Pvt. Ltd.) which currently doesn't have any legal entity. At present, it's Sahib Seeds Ltd. only with no pesticides manufacturing. The PP doesn't have any specific location and layout of the project. Without any engineering layout, how the layout of with green belt can be scrutinised? The number of plantations to be raised were also not firmed up. The project area needs to be in the name of the PP.

After detailed deliberations, the EAC sought the following requisite documents, which were not submitted by the PP:

(i) Registration documents of M/s Sahib Pesticides Pvt. Ltd.
(ii) NOC from the Town & Country Planning Department for establishing the Pesticides Unit
(iii) Detailed undertaking/clarification w.r.t continuation/dis-continuation of seeds processing unit after installation of the proposed pesticides unit.
(iv) Revised plant layout with 33% green belt @2500 trees per hectare with a survival rate of around 80%.

The proposal was accordingly, **deferred.**

Agenda No. 49.7

Proposed Expansion of Existing Manufacturing Facility of Synthetic Organic Chemicals (Dyes and Dyes Intermediates) with Production Capacity from 6 MT/Month to 200 MT/Month along with Addition of New Products located at Plot No. 8101, GIDC Sachin, Taluka–Chorasi, District – Surat, Gujarat by M/s. Panchsheel Intermediates - Consideration of ToR

[Proposal No. IA/GJ/IND3/418035/2023; File No. J-11011/93/2003-IA-II(I)]

1. The proposal is for the issue of ToR for preparation of EIA/EMP for Proposed Expansion of Synthetic Organic Chemicals (Plasticizers) Manufacturing Unit of production capacity 75,000 TPA located at T-2/PART, MIDC Taloja, Dist.: Raigad by IG Petrochemicals Limited. **The PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the**

CPCB.

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry. 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 No. **IA/GJ/IND3/418035/2023** dated16.2 .2023. Due to the shortcoming the proposal was referred back to PP on 24.2.2023 and reply for the same has been submitted to PP on 17.3.2023. The proposal is now placed in 49th EAC Meeting held on 3th,5th -6th April, 2023, wherein the PP made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

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

Sr. No.	Products	CAS/Cl Numbers	Manufacturing Capacity (MT/MONTH)			End Use of Products
			Existing	Proposed	Total	
Existing Acid Dyes						
1	Acid Brown-14 **AND/OR**	5850-16-8	6	194	200	Dyes & Dye intermediates;
2	Acid Orange-24 **AND/OR**	1320-07-6				
3	Acid Black-1 **AND/OR**	1064-48-8				
4	Acid Yellow-73 **AND/OR**	2538-85-4.				
5	Acid Red-42 **AND/OR**	6245-60-9				
6	Acid Blue-113 **AND/OR**	3351-05-1				
7	Acid Black-58 **AND/OR**	12218-94-9/71839-85-5				
8	Acid Black-64 **AND/OR**	12238-84-5				
9	Acid Brown-45 **AND/OR**	12219-54-4				
10	Acid Dark Brown-48 **AND/OR**	--				
11	Acid Orange-80 **AND/OR**	85969-26-2				
12	Acid Orange- 86 **AND/OR**	12220-07-4				
13	Acid Violet-78 **AND/OR**	1694-9-3				
14	Acid Yellow-114 **AND/OR**	61901-51-7				

Sr. No.	Products	CAS/Cl Numbers	Manufacturing Capacity (MT/MONTH)			End Use of Products
			Existing	Proposed	Total	
Proposed Acid Dyes						
15	Acid Yellow-151 **AND/OR**	12715-61-6	--	200		
16	Acid Brown-48 **AND/OR**	12219-54-5				
17	Acid Blue- 80 **AND/OR**	4474-24-2				
18	Acid Blue-129 **AND/OR**	6397-02-0				
Existing Solvent Dyes						
19	Solvent Black-27 **AND/OR**	12237-22-8	6	194		
20	Solvent Black-29 **AND/OR**	61901-87-9				
21	Solvent Black-34 **AND/OR**	32517-36-5				
22	Solvent Blue-48 **AND/OR**	61711-30-6				
23	Solvent Brown-43 **AND/OR**	61116-28-7				
24	Solvent Dark Brown- 5R **AND/OR**	--				
25	Solvent Fire Red-119 **AND/OR**	--				
26	Solvent Orange-58 **AND/OR**	71775-93-4				
27	Solvent Orange-99 **AND/OR**	110342-29-5				
28	Solvent Red-89 **AND/OR**	61725-81-3				
29	Solvent Red-122 **AND/OR**	12227-55-3				
30	Solvent Red-127 **AND/OR**	61969-48-0.				
31	Solvent Red-132 **AND/OR**	61725-85-7				
32	Solvent Yellow-62 **AND/OR**	61901-98-7				
33	Solvent Yellow-82 **AND/OR**	12227-67-7				
34	Solvent Yellow-90 **AND/OR**	61116-26-5				
Proposed Solvent Dyes						

Sr. No.	Products	CAS/Cl Numbers	Manufacturing Capacity (MT/MONTH)			End Use of Products
			Existing	Proposed	Total	
35	Solvent Yellow- 79 **AND/OR**	85455-32-9	--	200	200	
36	Solvent Yellow-14 **AND/OR**	842-07-9				
37	Solvent Yellow-18 **AND/OR**	6407-78-9				
38	Solvent Yellow- 72 **AND/OR**	2481-94-9				
39	Solvent Yellow- 2 **AND/OR**	60-11-7				
40	Solvent Yellow-Xt **AND/OR**	--				
41	Solvent Orange- 62 **AND/OR**	52256-37-8				
42	Solvent Orange-56 **AND/OR**	12227-68-8				
43	Solvent Orange- 7 **AND/OR**	3118-97-6				
44	Solvent Red-119 **AND/OR**	12237-27-3				
45	Solvent Red-160 **AND/OR**	69899-68-9				
46	Solvent Red- 8 **AND/OR**	33270-70-1				
47	Solvent Red-23 **AND/OR**	85-86-9				
48	Solvent Red-24 **AND/OR**	85-83-6				
49	Solvent Red-195 **AND/OR**	164251-88-1				
Proposed Intermediates						
50	1-PHENYL-3-METHYL-5-PYRAZOLONE **AND/OR**	89-25-8				
51	1-3-CHLORO PHENYL-3-METHYL-5-PYRAZOLONE **AND/OR**	90-31-3				
52	4-SULFO 1,8-Naphthalic Anhydride **AND/OR**	--				
	Total		**6**	**194**	**200**	

5. The PP reported that the existing area of the project site is 3000 m^2. Proposed expansion will be carried out within existing premises only. No additional land will be required for the same.

6. The PP reported that Ministry had issued EC earlier vide letter no. J-11011/93/2003-IA-II(I); dated 27th July 2004 to the existing project of synthetic organic chemicals in favour of M/s. Panchsheel Intermediates.

7. The PP reported that There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body Unn Lake at a distance of approx. 1.29 km in North direction.

8. The PP report that at present, total water requirement is 8.5 m^3/day (7 m^3/day for industrial activities + 1.5 m^3/day for domestic activities) which will be increased to 145 m^3/day (139.5 m^3/day for industrial activities + 2.5 m^3/day for domestic activities + 3 m^3/day for gardening activities) of which fresh water requirement of 32 m^3/day will be met from Sachin Notified Area Authority. At present, total effluent generation is 9.7 m^3/day (8.3 m^3/day from industrial activities + 1.4 m^3/day from domestic activities) which will be increased to 106.6 m^3/day (104.3 m^3/day from industrial activities + 2.3 m^3/day from domestic activities). There will be two stream segregation based on effluent characteristics. (1) Low COD Effluent Stream of 8.3 m^3/day & (2) High COD Effluent Stream of 96 m^3/day. 8.3 m^3/day of low COD effluent stream, (3.5 m^3/day from Cooling Tower, 2.5 m^3/day from Washing + 2.5 m^3/day from Scrubber) will be send to CETP of M/s. Globe Enviro Care Limited (GECL), Surat after primary treatment as per existing granted quantity in CC&A. 96 m3/day of high COD effluent stream of 96 m^3/day (93 m^3/day from Process + 3 m^3/day from Boiler) shall be collected and neutralized. Neutralized waste water shall be treated in stripper, followed by in house MEE, Fenton treatment & Neutralization and then RO plant. Here, 86 m^3/day RO permeate will be reused in plant premises and 18 m^3/day RO reject will be again sent to in house MEE plant.

9. Power requirement after expansion will be 250 KVA including existing 100 KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has DG sets of 100 KVA capacity, which will be replaced by 175 KVA capacity of DG set in proposed expansion project. Stack (5 m) will be provided as per CPCB norms to the proposed DG sets. Existing unit has baby boiler (300 kg/hr) natural gas fired boiler which will be replaced by 1500 Kg/Hr natural gas fired boiler. As Natural Gas will be used as a fuel, 20 m stack height will be provided to control emission of PM, SOx, NOx and to achieve emission standards as per NAAQS.

10. The PP reported that the project, being in notified industrial area i.e., GIDC Sachin vide Notification No. GHU: 2005 (30) GID -2002-2998. Dated 31.8.2005, is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

11. Unit has proposed to develop greenbelt in 1978 m^2 area (990 m^2 area within plant premises and 988 m^2 area outside plant premises in Sachin GIDC) which is 65.9 % of the total area. Unit has already made agreement with Sachin GIDC and obtained permission for the same.

12. The estimated additional project cost is Rs. 15 Crores. The PP reported that total Employment will be 50 persons as direct & indirect after expansion (30 existing + 20 additional).

13. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the sewage generation, greenbelt, number of trees, and advised the PP to submit the following:

- Revised sewage generation and water balance diagram.
- Maximized area of greenbelt within the plant premises.
- Number of trees to be planted for greenbelt.
- Undertaking for development of greenbelt within time frame of one year from construction activities.

The PP submitted the same and the EAC found it to be satisfactory.

14. After detailed deliberations, the EAC **recommended** the project for grant of ToR (**Standard ToR [Annexure-II]** and **additional ToR as mentioned below)**, **without public hearing** as per the provisions of the EIA Notification, 2006 and as per O.M. No. 22-23/2018-IA.III dated 05.07.2022.

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

(ii) The PP needs to submit the action plan with respect to mitigation measures for CPA mentioned in the Ministry's O.M dated 31.10.2019.

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

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

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

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

(vii) Activity-wise, a time bound action plan along with budgetary provisions for occupational health & surveillance, environment management plan, and green belt development plans shall be prepared and submitted.

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

(ix) The PP shall submit an undertaking to the effect that the project is not a violation proposal in pursuant to the S.O. 804(E) dated 14.03.2017 and SoP dated 07.07.2021.

(x) Action Plan for the management of hazardous waste and provision for its utilization in co-processing if applicable shall be prepared and submitted.

(xi) Provision for reuse/recycle of treated wastewater, wherever feasible shall be made. The PP shall explore the possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. A detailed water harvesting plan also needs to be prepared and submitted. Provision for Zero Liquid Discharge whenever techno-economically feasible shall be included. The PP shall make necessary provisions for continuous monitoring of the effluent quality/quantity.

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

(xiii) The PP should develop 1978 m^2 area (1038 m^2 area within plant premises and 988 m^2 area outside plant premises in Sachin GIDC) which is 65.9 % of the total area. Accordingly, 2500/ha Number of saplings selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution.

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

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

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

Agenda No. 49.8

Manufacturing of Synthetic Organic Chemicals (Acrylate Polymers) located at Survey No.473 & 481, Village Borisana, Taluka Kadi, District Mehsana, Gujarat by M/s Corel Pharma Chem Pvt. Ltd. - Amendment in EC

[Proposal No. IA/GJ/IND3/298731/2023; File No. J-11011/313/2017-IA-II(I)]

1. The proposal is for amendment in the EC granted by the Ministry vide letter no. J-11011/313/2017-IA-II (I) dated 27th July, 2020 and it's transferred on dated: 18th December, 2020 for the project M/s. Corel Pharma Chem (India) Pvt. Ltd located at Survey No. 453, 463 & 464, Borisana Village, Taluka: Kadi, District: Mehsana, Gujarat – 384441 in favor of M/s. Corel Pharma Chem (India) Pvt. Ltd.

2. The project proponent has requested for amendment in the ToR/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.	Condition No. 2	The Ministry of Environment, Forest and Climate Change has examined the proposal for manufacturing of synthetic organic chemicals (Acrylate Polymers) of capacity 2000 TPM by M/S. Corel Pharma Chem Pvt. Ltd. in an area of 56,129 sq.m located at survey No. 473 & 481, Village Borisana, Taluka Kadi, District Mehsana (Gujarat).	The Ministry of Environment, Forest and Climate Change has examined the proposal for manufacturing of synthetic organic chemicals (Acrylate Polymers) of capacity 2000 TPM by M/S. Corel Pharma Chem (India) Pvt. Ltd. in an area of 67,800 sq.m located at Survey No. 453, 463 & 464, Borisana Village, Taluka: Kadi, District: Mehsana, Gujarat – 384441.	Additional land has been purchased only for greenbelt development and parking facility.
2.	Condition No. 4	Total land area available for the project is 56,129 sqm. Industry will develop green belt in an area of 18,750 sqm, covering 33.41% of total project area. The estimated project cost is Rs.20 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.41 lakhs and the recurring cost (operation and maintenance) will be about Rs.6.75 lakhs per annum. Employment opportunity will be for 220 persons.	Total land area available for the project is 67,800 sqm. Industry will develop green belt in an area of 22,375 sqm, covering 33% of total project area. The estimated project cost is Rs.20 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.41 lakhs and the recurring cost (operation and maintenance) will be about Rs.6.75 lakhs per annum. Employment opportunity will be for 220 persons.	Additional land has been purchased only for greenbelt development and parking facility.
3.	Condition No.	Total water requirement is 203 cum/day of which fresh water	Total water requirement is 530 cum/day out of which	Sardar Sarovar Nigam Limited

	6	requirement will be 203 cum/day proposed to be met from canal of Sardar Sarovar Nigam Limited. Effluent of 13.33 cum/ day will be treated through ETP. Total water treated in MEE+ATFD 13.33 KLD condensate water will be used for green belt Development & Cooling Make up. 8 KLD will be generated from Domestic use which will be treated in STP and treated water will be used for gardening purpose. The plant will be based on Zero liquid discharge system. Power requirement of 2500 kVA will be met from Uttar Gujarat Vij Company limited (UGVCL). Two DG set of 250 kVA capacity & three nos. of DG sets of 500 kVA capacities will be installed and used as standby during power failure. Stack height 3 m for 250 kVA DG sets and 5 m for 500 kVA DG sets will be provided as per CPCB norms to the proposed DG sets. The unit is proposed 2 nos. of steam boilers, 2 nos. of TFH, 6 nos. of HAG. The details of boilers are as under:-	fresh water requirement will be 530 cum/day proposed to be met from the bore-well. Effluent of 17.2 KLD will be treated through ETP. Total water of 134.7 KLD water will be evaporated in the MEE followed by ATFD, out of which 122.8 KLD condensate water will be reused in cooling – makeup and 8.7 KLD will be reused for green belt Development. 10 KLD of RO-reject water will be reused for green belt Development. 18 KLD will be generated from Domestic use which will be treated in STP and reused for gardening purpose. The plant will be based on Zero Liquid Discharge system. Power requirement of 2500 kVA will be met from Uttar Gujarat Vij Company limited (UGVCL). Two DG set of 250 kVA capacity & three nos. of DG sets of 500 kVA capacities will be installed and used as standby during power failure. Stack height 3 m for 250 kVA DG sets and 5 m for 500 kVA DG sets will be provided as per CPCB norms to the proposed DG sets. The unit is proposed 2 nos. of steam boilers, 1 no. of TFH. The details of boilers are as under:-	(SSNL) is at a distance of approximately 5-6 km from the site. A permission letter and installation would take almost 3-4 years. The unit has obtained a NOC for the abstraction of ground water.

4.	Condition No. 6	*given below this table	#given below this table	Higher Kcal/hr Thermic Fluid Heater (TFH) is to be installed to make up for the 6 Hot Air Generators (HAGs) which are desired to be removed. One TFH supplying heat to various locations would be more efficient as compared to 6 HAGs at 6 different locations. White coal (agricultural briquette which is a renewable source of energy) is to be used as a fuel in the 20 Kcal/hr TFH. This would in turn replace diesel that was proposed to be used in each of the separate HAGs at various locations.
5.	Condition No. 12	The recommendation of Expert Appraisal Committee has been examined in the Ministry. Based on the proposal submitted by the project proponent and recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords EC to project for manufacturing of synthetic organic chemicals (Acrylate	The recommendation of Expert Appraisal Committee has been examined in the Ministry. Based on the proposal submitted by the project proponent and recommendations of the EAC, the Ministry of Environment, Forest and Climate Change hereby	--

		Polymers) of capacity 2000 TPM by M/s Corel Pharma Chem Pvt. Ltd., located at Survey No. 473 & 481, Village Borisana, Kadi Thol Road, Kadi, District Mehsana (Gujarat), under the provisions of the EIA Notification, 2006, and the amendments therein, subject to the compliance of the terms and conditions as under:-	accords EC to project for manufacturing of synthetic organic chemicals (Acrylate Polymers) of capacity 2000 TPM by M/s Corel Pharma Chem (India) Pvt. Ltd., located at Survey No. 453, 463 & 464, Borisana Village, Taluka: Kadi, District: Mehsana, Gujarat – 384441, under the provisions of the EIA Notification, 2006, and the amendments therein, subject to the compliance of the terms and conditions as under:-	
6.	Specific Condition No. VIII	Total fresh water requirement shall not exceed 203 cum/day, proposed to be met from canal of Sardar Sarovar Nigam Limited. Prior permission in this regard shall be obtained from the concerned regulatory authority. No ground water shall be used.	Total fresh water requirement shall not exceed 530 KLD, proposed to be met from the bore-well. Prior permission in this regard shall be obtained from the concerned regulatory authority.	Sardar Sarovar Nigam Limited (SSNL) is at a distance of approximately 5-6 km from the site. A permission letter and installation would take almost 3-4 years.

*Condition No. 6 (as per EC)

Sr. No.	Details	Capacity	Fuel name	Fuel quantity	Air Pollution control Measure
1	Steam boiler-I	3 TPH	White coal/Briquettes/PNG	3MT/Day OR 400 SCM/Day	Multi cyclone separator/ bag filter
2	Steam boiler-II	3 TPH	White coal/Briquettes/PNG	3 MT/Day OR 400 SCM/Day	Multi cyclone separator/ bag filter

3	Thermal fluid heater - 1	4 Lakhs Kcal/hr	HSD/LDO	40 Lt/hr	Adequate Stack Height
4	Thermal fluid heater -2	4 Lakhs Kcal/hr	HSD/LDO	40 Lt/hr	Adequate Stack Height
5	DG set -1 250 KVA	250 KVA	HSD	40 Lt/hr	
6	DG set -2 250 KVA	250 KVA	HSD	40 Lt/hr	
7	DG set -3 500 KVA	500 KVA	HSD	80 Lt/hr	
8	DG set -4 500 KVA	500 KVA	HSD	80 Lt/hr	
9	DG set -5 500 KVA	500 KVA	HSD	80 Lt/hr	
10	Hot Air Generator -1	500 Kg/hr	HSD/LDO	100 Lt/hr	
11	Hot Air Generator -2	500 Kg/hr	HSD/LDO	100 Lt/hr	
12	Hot Air Generator -3	400 Kg/hr	HSD/LDO	90 Lt/hr	
13	Hot Air Generator -4	400 Kg/hr	HSD/LDO	90 Lt/hr	
14	Hot Air Generator -5	400 Kg/hr	HSD/LDO	90 Lt/hr	
15	Hot Air Generator -6	400 Kg/hr	HSD/LDO	90 Lt/hr	
The stack height of boiler will be 30 m, TFH 11 m, HAG 5 m and DG set 3-5m. There is no process emission from manufacturing processes.					

#Condition No. 6 (to be revised as)

Sr. No.	Details	Capacity	Fuel name	Fuel quantity	Air Pollution control Measure
1	Steam boiler-I	6 TPH	White coal/Briquettes/PNG	27 MT/Day OR 1200 SCM/Day	Multi cyclone separator/ bag filter
2	Steam boiler-II (Stand by)	3 TPH	White coal/Briquettes/PNG	3.5 MT/Day OR 400 SCM/Day	Multi cyclone separator/ bag filter
3	Thermal Fluid Heater	20 Lakhs Kcal/hr	White coal/Briquettes	18 MT/Day	Adequate Stack Height

5	DG set - 1 250 KVA	250 KVA	HSD	40 Lt/hr	
6	DG set - 2 250 KVA	250 KVA	HSD	40 Lt/hr	
7	DG set - 3 500 KVA	500 KVA	HSD	80 Lt/hr	
8	DG set - 4 500 KVA	500 KVA	HSD	80 Lt/hr	
9	DG set - 5 500 KVA	500 KVA	HSD	80 Lt/hr	
The stack height of boiler will be 30 m, TFH 11 m, and DG set 3-5m. There is no process emission from manufacturing processes.					

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 consumption and advised the PP to submit the justification for the proposed additional water consumption in tabular form. The PP submitted the same and the EAC found it to be satisfactory.

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

(i) 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.

(ii) 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.

Agenda No. 49.9

Proposed Phenol Formaldehyde Resin Manufacturing Unit of Production Capacity 300 TPM located at Plot no. –G1-628, RIICO Industrial area, Village- Chopanki, Bhiwadi, Tehsil- Tiajra, District- Alwar, Rajasthan by M/s. Veskn Industry Pvt. Ltd. - Consideration of EC

[Proposal No. IA/RJ/IND3/418452/2023; File No. IA-J-11011/280/2022-IA-II(I)]

1. The proposal is for EC for the Proposed Phenol Formaldehyde Resin manufacturing unit of production capacity 300 TPM located at Plot no. –G1-628, RIICO Industrial area, Village- Chopanki, Bhiwadi, Tehsil- Tiajra, District- Alwar, Rajasthan by M/s. Veskn Industry Pvt. Ltd.

2. The project/activity is covered under 5(f) – Synthetic Organic Chemicals Industry under category 'B'. **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 ToR has been issued by the Ministry, vide letter no. IA-J-11011/280/2022-IA-II(I) dated 5.10.2022. The PP applied for the Environment Clearance on 16.2.2023 in Common application form and submitted the EIA/EMP Report and other documents. Due to some shortcomings, the project was referred back to the PP on 3.3.2023, 16.3.2023 and reply to the same was submitted by the PP on15.3.2023, 17.3.2023. The PP in the Form-2 reported that it is a **Fresh case.** The proposal is placed in 49th EAC Meeting held on 3rd & 5th – 6thApril, 2023, wherein the PP and an accredited Consultant, **M/s. Vardan EnviroNet, Gurugram Haryana (NABET Accrediation No.- NABET/EIA/2023/SA0158 dated 05.05.2023**], 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 1000 m^2 and no R&R is involved in the Project. The details of products are as follows:

S. No.	Product	CAS No.	Proposed Capacity
1.	Phenol Formaldehyde Resin	9003-35-4	300 TPM

5. The PP reported that there is no violation as per the EIA notification, 2006, no court case is pending against the proposal and one 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. Gondhan PF located at 0.40 km in NW and there is no major water body nearby. The PP reported that no forest area is involved in the proposed project. 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 8 locations during (1st October to 31st December, 2022) to and the baseline data indicates the ranges of concentrations as: PM_{10} (54.3 μg/m^3 to 82.7 μg/m^3), $PM_{2.5}$ (28 μg/m^3 to 48.9 μg/m^3), SO_2 (8.0

$\mu g/m^3$ to 21.7 $\mu g/m^3$) and NO_2 (15.3 $\mu g/m^3$ to 35.1 $\mu g/m^3$). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 82.76719 $\mu g/m^3$, 48.92672 $\mu g/m^3$, 23.12502 $\mu g/m^3$ and 35.41265 $\mu g/m^3$ with respect to PM10, PM2.5, SO_2 and NO_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise-** Minimum and maximum noise levels recorded during the day time were from 50.08 dB Leq. (N5) and 71.96 dB Leq. (N1) respectively and minimum and maximum level of noise during night time were 40.76 dB Leq. (N5) and 63.67 dB Leq. (N1) respectively. The **Ground Water** pH varies from 7.46 to 7.71. Total Hardness varies from 212.00 to 352.14 mg/l. Total Dissolved Solids varies from 333.0 to 444.0 mg/l. Fluoride varies from 0.28 to 0.40 mg/l. The water samples are within permissible limits as per IS 10500:2012. The surface water pH varies from 7.65 to 7.84, Total Hardness varies from 361.22 to 526.34 mg/l., Total Dissolved Solids varies 924.0 to 1022.00 mg/l. Dissolved oxygen varies from 5.7 to 6.2 (mg/l), BOD varies from 12.0 to 19.00 (mg/l). The soil pH value ranges from 7.56 to 7.88 with organic matter 0.24 % to 0.36%. The concentration of Nitrogen (120.81 Kg/ha. to 148.11 Kg/ha.) Phosphorus (10.96 Kg/ha. to 15.08 Kg/ha.) and Potassium (111.54 Kg/ha. to 137.51 Kg/ha.).

8. The PP reported that the Total Fresh Water requirement of the project **is 9.0 KLD** which will be met from **Ground Water.** Exemption certificate has been obtained from CGWA to withdraw ground water dated 21.05.2022 Effluent of **4.6 KLD** quantity will be treated through **Evaporator.** The plant will be based on Zero Liquid discharge system. 1.5 KLD of domestic waste water will be generated and for the treatment of domestic water, we will install STP and treated water will be reused for green belt development.

9. The PP reported that Power requirement for the project is 559.50kVA which will be sourced from JVVNL (Jaipur Vidyut Vitran Nigam Limited). One DG set of 150 kVA capacity will be installed for the power backup. Unit proposed 2.0 lakh Kilo Calories Per Hour and 8 lakh Kilo Calories Per Hour, Gas fired boiler. Stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers.

10. **Details of process emissions generation and its management**: there is no process gas is emitted. After proposed expansion, unit has proposed to install two process gas stacks. One process gas stack is for control of emission of SO_2 and two stage alkali scrubbers will be installed as APCM to control the same. Second process stack is for control of NH_3 fumes and two stage (water + HCL) scrubber will be installed as APCM to control the same.

11. **Details of Solid Waste/Hazardous Waste Generation and Its Management:**

Type of Waste	Cat.	Quantity	Source of Waste	Method of storage	Method of Disposal
Salts from Evaporator	37.3	0.2 TPD	MEE	Stored in covered area with platform	Send to TSDF facility.

Empty Barrels/ Containers	33.1	2 nos.	Storage godown	Stored in covered area with platform	Send to vendor/ Sell to approved RSPCB approved scrap dealer
Used Oils	5.1	20 litres/day	Utilities	Stored in covered area with platform	Authorized recyclers identified by RSPCB

12. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹20.00 Lakh (capital) and the Recurring cost (operation and maintenance) will be about 3.4 Lakhs per annum. The industry proposes to allocate 3.15 Lakhs towards CER.

13. The PP reported that as the project site is located within a **RIICO Industrial area** (**Notification No.Pa.4{23}Uo/1/93 dated 14.9.1994**), Public Hearing is exempted under the provisions as per paragraph 7-III Stage (3)(b) of the EIA Notification, 2006 and also as per, MoEF&CC O.M dated 27th April 2018.

14. Industry will develop green belt inside the plant in an area of **40** %. We will plant total 100 nos. of trees as per MoEF&CC norms. Local trees will be planted in 260 Sq.m. area inside the plant premises out of the total area of 1000 m^2. and 140 m^2. Greenbelt will be done outside the plant premises due to space constraint.

15. The PP proposed to set up an Environment Management Cell (EMC) consisting of Group of technically qualified person for the functioning of EMC.

16. The PP submitted the Onsite and Offsite disaster management plans in the EIA report.

17. The estimated project cost is ₹ **3.10 Crores** Total employment will be 25 nos.

18. **Deliberations by the EAC**:

The EAC inter-alia, deliberated on the Greenbelt development plan and its budget, layout plan, water balance, action plan and mitigation measures proposed being a project located in CPA, and sought the following requisite information/documents:

(i). Action Plan for green belt development of minimum 40% of the project area (within the site and the industrial estate) @2500 per hectare, in consultation with forest department.

(ii). Land allotment letter of RIICO for the green belt within the industrial area.

(iii). Revised layout plan with the requisite green belt

(iv). Revised budget for green belt development

(v). Revised and detailed water balance

(vi). Quantified and specific compliance and action plan for the additional safeguard measures prescribed in the Ministry's O.M. dated 31.10.2019 for critically and severely polluted areas.

(vii). Detailed justification/trend w.r.t the CEPI score of the CPA since the declaration as CPA.

In view of above, the EAC **deferred** the proposal.

Agenda No. 49.10

Proposed Manufacturing of Oncology, API & API Intermediates of Production Capacity 30 MT/M located at Plot No. E-128, MIDC Tarapur, Taluka: Palghar, District: Palghar, Maharashtra by M/s. Royal Pharmaceuticals Industries Pvt. Ltd. - Consideration of EC

[Proposal No. IA/MH/IND3/417550/2023; File No. IA-J-11011/330/2022-IA-II(I)]

1. The proposal is for EC for Proposed Manufacturing of Oncology, API & API Intermediates of production capacity 30 MT/M located at Plot No. E-128, MIDC Tarapur, Taluka: Palghar, District: Palghar, Maharashtra by M/s. Royal Pharmaceuticals Industries Pvt. Ltd.

2. The project/activity is covered under 5(f) – Synthetic Organic Chemicals Industry under category 'B'. 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 ToR has been issued by the Ministry, vide letter no. IA-J-11011/330/2022-IA-II(I) dated 6.10.2022. The PP applied for the Environment Clearance on 15.2.2023 in Common application form and submitted the EIA/EMP Report and other documents. Due to some shortcomings, the project was referred back to PP on 2.3.2023, and reply to the same was submitted by the PP on 18.3.2023. The PP in the Form-2 reported that it is a Fresh case. The proposal is placed in 49th EAC Meeting held on 3rd & 5th – 6thApril, 2023, wherein the PP and an accredited Consultant, M/s. Sadekar Enviro Engineers Pvt. Ltd.) NABET number-NABET/EIA/2124/SA 0146 Valid till 18.4.2023], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the Existing land area is 4320 m^2–and no R&R is involved in the Project. The details of products are as follows:

S. No.	Product Name	CAS No.	Quantity in MT/M	Uses
1	Sitagliptin and Its Intermediates	486460-32-6	3	**Anti-Diabetic**
2	Vildagliptin and Its Intermediates	274901-16-5	3	

3	Empagliflozin and Its Intermediates	864070-44-0	1	
4	Dapagliflozin and Its Intermediates	461432-26-8	1	
5	Canagliflozine and Its Intermediates	842133-18-0	1	
6	Benfotiamine and Its Intermediates	22457-89-2	5	
7	Bicalutamide and Its Intermediates	90357-06-5	4	**Oncology**
8	Enzalutamide and Its Intermediates	915087-33-1	2	
9	Palbociclib and Its Intermediates	571190-30-2	1	
10	Ibrutinib and Its Intermediates	936563-96-1	1	
11	Nintedanib and Its Intermediates	656247-17-5	1	
12	Olaparib and Its Intermediates	763113-22-0	1	
13	Sorafenib and Its Intermedites	284461-73-0	1	
14	Cabozantinib and Its Intermediates	1140909-48-3	1	
15	Imatinib and Its Intermediates	152459-95-5	1	
16	Ribociclib and Its Intermediate	1211441-98-3	1	
17	Fluvoxamine Maleate and Its Intermediates	61718-82-9	5	**Anti-Depression**
18	Duloxetine and Its Intermediates	136434-34-9	5	
19	Mirtazapine and Its Intermediates	61337-67-5	2	
20	Trazodone and Its Intermediates	19794-93-5	5	
21	Aripiprazole and Its Intermediates	129722-12-9	3	
22	Carisoprodol and Its Intermediates	78-44-4	3	
23	Ziprasidone and Its Intermediates	146939-27-7	1	

24	Ezetimibe and Its Intermediates	163222-33-1	3	**Cardiovascular**
25	Amiodarone Its Intermediates	1951-25-3	4	
26	Dronedarone and Its Intermediates	141626-36-0	2	
27	Spironolactone and Its Intermediates	52-01-7	3	
28	Clopidogrel and Its Intermediates	113665-84-2	3	
29	Ticagrelor and Its Intermediates	274693-27-5	1	
30	Dabigatran and Its intermediates	211915-06-9	4	
31	Fenofibrate and Its Intermediates	49562-28-9	2	
32	Nifedipine and Its Intermediates	21829-25-4	3	
33	Apixaban and Its Intermediates	503612-47-3	5	**Blood Thinners**
34	Rivaroxaban and Its Intermediates	366789-02-8	10	
35	Warfarin and Its Intermediates	81-81-2	3	
36	Deferasirox and Its Intermediates	201530-41-8	3	
37	Piroxicam and Its Intermediates	36322-90-4	3	**NSAID**
38	Meloxicam and Its Intermediates	71125-38-7	3	
39	Celecoxib and Its Intermediates	169590-42-5	2	
40	Metaxalone and Its Intermediate	1665-48-1	5	
41	Montelukast and Its Intermediates	158966-92-8	1	
42	Diethyl cyclopropane-1,1-dicarboxylate (DCD)	971559-02-0	1	
43	Betahistine	15430-48-5	3	**Other APIs**

44	Baclofen and Its intermediates	1134-47-0	1	
45	Imiquimod and Its Intermediates	99011-02-6	1	
46	**RND Product (APIs and Its Intermediates)**	NA	10	
47	2-Chloro-1,4-Naphthoquione	1010-60-2	3	**Other Intermediates and Custom Synthesis Products**
48	Atv Main Chain	NA	4	
49	Nitro Biphenyl (Eltrombopag)	496775-61-2	0.5	
50	Elt - Side Chain	NA	0.5	
51	Amino Hydroxy Pyridine	16867-03-1	0.5	
52	Diphenyl Propyl Amine	5586-73-2	3	
53	N-Methyl Pentyl Amine (NMPA)	25419-06-1	0.5	
54	Pentanone	107-87-9	0.5	
55	Benzocaine and Its Intermediates	94-09-7	3	**Local Anaesthetic**
56	Mebeverine and Its Intermediates	2753-45-9	5	**Anti-Spasmodic**
57	Drotaverine and Its Intermediates	985-12-6	5	
58	Nitazoxanide and Its Intermediate	55981-09-4	3	**Anti-Parasitic**
59	Entacapone and Its Intermediates	130929-57-6	5	**Anti-Parkinson**
60	Allopurinol and Its Intermediates	315-30-0	5	**Anti-Gout**
61	Febuxostate and Its Intermediate	144060-53-7	5	
62	Atovaquone and Its Intermediates	95233-18-4	5	**Anti-Pneumonia**

63	Diacerein and Its Intermediates	13739-02-1	5	**Anti-Inflammatory**
64	Bronopol	52-51-7	5	**Anti-Microbial**
65	Raltegravir	871038-72-1	1	**NNRTI's**
66	Rilpivirine	500287-72-9	1	
67	Silodosin	160970-54-7	1	**Alpha -Blockers**
68	Tamsulosin	106133-20-4	1	
69	Dasatinib	302962-49-8	1	**Kinase Inhibitor**
70	Bosutinib	380843-75-4	1	
TOTAL			**30**	
Note: The total production quantity will be restricted to 30 MT/M				

5. The PP reported that there is no violation as per the EIA notification, 2006, no court case is pending against the proposal and one 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. Upper Banganga River is at an aerial distance of 1.71 km from the project site in NW direction. The PP reported that no forest area is involved in the proposed project and one Schedule I species Peacock exist within 10 km study area of the project for which conservation plan has prepared and submitted to Deputy conservator of Forest on 16.2.2023

7. The PP reported that the **Ambient Air Quality** monitoring was carried out at **8** locations during March 2022 to May 2022 and the baseline data indicates the ranges of concentrations as: PM10 (63.2 – 89.1 µg/m^3), PM2.5 (29.1 – 46.1µg/m^3), SO_2 (16.2 – 35.8 µg/m^3) and NO2 (25.7 – 53.1 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 53.15 µg/m^3 and 2.4 mg/m^3 with respect to NOx and CO. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise** - Noise monitoring was carried out at **8** locations during March 2022 to May 2022 and the baseline data indicates the ranges of concentrations as: Industrial Zone: Day time (50.3-68.4) & for night time (40.4-65.9). Residential Zone: Day time (49-53.9) & for night time

(39.4-45.2). **Ground Water** monitoring was carried out at **8** locations during March 2022 to May 2022 and the baseline data indicates the ranges of concentrations as : Ph(7.31-8.31), TDS(166-2160), Total Hardness(96-520), Fluoride(0.63-1.72), Iron(0.0829-1.7342). **Surface Water-** Surface water monitoring was carried out at **8** locations during March 2022 to May 2022 and the baseline data indicates the ranges of concentrations as: pH (6.98- 8.27), COD (<4-106), BOD (<1-23), TDS (176- 14152), DO (2.3-5.6). Soil monitoring was carried out at **8** locations during March 2022 to May 2022 and the baseline data indicates the ranges of concentrations as: Calcium (6-10), Magnesium (7.21-10.82), Nitrogen (7.91-11.78), Potassium (894.18-3801.09), SAR (32.52-51.77).

8. The PP reported that the total water requirement is 108.4 m^3/day. The requirement of water will be met from Tarapur MIDC. Industrial Effluent of 62.88 CMD will be generated. An ETP of 80 CMD comprising of Primary, Secondary and Tertiary system will be provided for Industrial Effluent along with Stripper of 50 CMD, MVR of 70 CMD, ATFD of 20 CMD and R.O. system of 70 CMD respectively. The treated effluent will be reused back within the plot premises. Domestic effluent of 4 CMD will be treated in STP and reused for gardening.

9. The PP reported that Power requirement for construction phase will be 18.5 KVA. The power requirement during operation phase will be 1000 KVA. D.G. set of 250KVA capacity and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). DG sets are used as standby during power failure. Stack (height) will be provided as per CPCB norms to the proposed DG sets. Stack with height of 6 m will be provided as per CPCB norms to the proposed DG sets. Proposed unit has **2 no. of 1.0 TPH** Steam boiler fired by **PNG/HSD/LDO** and **2 no. of 500000 Kcal/Hr** Thermopack boiler fired by **PNG/HSD/LDO**. **Scubber** filter filter with a stack of height of will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm3 for the proposed boilers.

10. **Details of Process Emissions Generation and Its Management:**

Sr. No.	Name of the Gas	Quantity in Kg/Day	Treatment Method
1	Carbon Dioxide	31	Scrubbed with lime water
2	Hydrogen	20	Sent through water trap.
3	HCl Gas	20	Scrubbed in caustic media
4	Ammonia	21	Scrubbed with dilute Sulphuric acid.
5	Hydrogen Iodide	4	Scrubbed with water
6	SO2 gas	5	Scrubbed with water

11. **Details of Solid Waste/Hazardous Waste Generation and Its Management:**

Hazardous waste details					
Sr. No.	**Description**	**Cat. of waste**	**Proposed Quantity**	**UOM**	**Method of Disposal**

1	Used Oil	5.1	0.05	MT/M	Sent to authorized re-processors or co-processing or CHWTSDF
2	Empty barrels / containers	33.1	100	Nos./M	Sent to authorized vendors or CHWTSDF
3	ETP Waste	35.3	13	MT/M	Sent to CHWTSDF or co-processing
4	Used filter cloth	33.2	1.3	MT/M	Sent to CHWTSDF
5	Spent carbon & Hyflow	28.3	9.0	MT/M	Sent to authorized re-processors or co-processing or CHWTSDF
6	Distillation residue	20.3	20	MT/M	Sent to authorized re-processors or co-processing or CHWTSDF
7	Process residue (Organic)	28.1	90	MT/M	Sent to authorized vendors or CHWTSDF
8	Process residue (Inorganic)	28.1	36	MT/M	Sent to authorized vendors or CHWTSDF
9	Spent Catalyst	28.2	2.0	MT/M	Sent to authorized re-processors or co-processing or CHWTSDF
10	Spent solvent	28.6	810	MT/M	Sent to authorized recyclers / re-processors
11	Process residue (Spent Acid)	28.1	4.2	MT/M	Sent to authorized recyclers / re-processors
12	Residue from used Ion Exchanged material in water	35.2	0.05	MT/M	Sent to CHWTSDF
13	Residue from industrial effluent (Oil & Skimming)	35.4	0.1	MT/M	Sent to CHWTSDF
14	Off Specification Product	28.4	1.0	MT/M	Sent to authorized party or co-processing or CHWTSDF
15	ATFD Residue	37.3	205	MT/M	Sent to CHWTSDF
16	Triethyl amine HCl (By-Product)	--	4.5	MT/M	Sold to Authorized party or CHWTSDF
17	Sulfolane (By-Product)	--	6.0	MT/M	Sold to Authorized party or CHWTSDF
18	p-Toluene Sulfonic acid (By-Product)	--	0.3	MT/M	Sold to Authorized party or CHWTSDF
19	Sodium sulphate (By-Product)	--	1.0	MT/M	Sold to Authorized party or CHWTSDF

20	2,2 Dimethyl-Propionaldehyde (By-Product)	--	0.2	MT/M	Sold to Authorized party or CHWTSDF
21	Mix salt (By-Product)	--	0.8	MT/M	Sold to Authorized party or CHWTSDF
22	Potassium Chloride (By-Product)	--	2.5	MT/M	Sold to Authorized party or CHWTSDF

Details of Non-hazardous Waste			
Sr. No.	**Description**	**Total Quantity**	**Method of Disposal**
1.	Paper, Plastic, Scrap metal (Non Hazardous)	2 MT/M	To MPCB authorized recycler
2.	Unused Filter cloth	0.01 MT/M	To MPCB authorized recycler / local municipal body
3.	Wooden pallets & Empty Bags	0.1 MT/M	To registered scrap vendors
4.	STP Sludge	0.12 MT/M	It will be used as manure for gardening.

Details of Battery Waste		
Particulars	**Proposed**	**Method of Disposal**
Lead batteries from D.G. Sets, UPS system	1 Nos./A	Returned to supplier

Details of Bio-Medical Waste		
Particulars	**Proposed**	**Method of Disposal**
Contaminated face mask, Hand Gloves, Cotton waste, Bags	5 Kg/M	To CHWTSDF

Details of E-waste				
Sr. No.	**Particulars**	**E Waste Category**	**Proposed (Kg/A)**	**Method of Disposal**
1	Personal Computers (Central Processing Unit with input and output devices)	ITEW2	10	Sold to MPCB authorized recycler / returned to manufacturer / supplier
2	Personal Computing: Laptop Computers (Central Processing Unit with input and output devices)	ITEW3	5	

3	Printers including cartridges	ITEW6	10	
4	Telephones	ITEW12	1	

12. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 480.5 Lakhs capital) and the Recurring cost (operation and maintenance) will be about Rs 161.6 Lakhs per annum. The industry proposes to allocate Rs. 1 crore towards CER.

13. The PP reported that as the project site is located within **MIDC Tarapur** (**IDC. -2109/23023 IND-1. Dated 27.5.1989**), Public Hearing is exempted under the provisions as per paragraph 7-III Stage (3)(b) of the EIA Notification, 2006 and also as per, MoEF&CC O.M dated 27th April 2018.

14. Industry will develop greenbelt in an area of 43.91 % i.e., 1897 m^2 out of total area of the project. Around 1751 sq. m. (40.53%) of greenbelt will be developed inside the plot premises and about 146 sq. m. (3.38%) of greenbelt is developed along the boundary of the plot outside the plot premises.

15. The PP proposed to set up an Environment Management Cell (EMC) consisting of Managing Director- Factory Manager- Deputy Manager- ETP in charge- Maintenance officer- project engineer- EHS officer for the functioning of EMC.

16. The PP submitted the Onsite and Offsite disaster management plans in the EIA report.

17. The estimated project cost is ₹ 25 Crores Total Employment will be 100 persons as 75 unskilled workers & 25 skilled workers

18. **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 EC 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 storage and handling of Acetone, details of chemicals/raw material storage, Greenbelt development plan, carbon sequestration, Compliance to OM dated 31.10.2019 for projects falling within CPA, and advised the PP to submit the following:

- Specific recommendation for the storage and handling of Acetone.
- Details of Chemicals / Raw material Storage as per the Chemical Compatibility Chart.
- Detailed action plan for Greenbelt development PP to submit undertaking for the GB development plan within the 6-month timeframe along with the action plan and budgetary allocation.
- Details of amount of carbon sequestered in the unit through greenbelt/other modes.
- Detailed compliance and/or an action plan for the proposed project w.r.t each of the mitigation measures recommended in Ministry's OM dated 31.10.2019.

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 EC.

The EAC is of the view that its recommendation and grant of EC 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.

19. The EAC, after detailed deliberations, **recommended the project for the grant of EC, 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 and NOx < 100 mg/Nm^3. TPM values for stack shall be 115 mg/Nm^3 against the standard value of 150 mg/Nm^3

(ii) CEMS shall be installed for proposed stacks and connected to SPCB/MPCB Server.

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

(iv) Transportation of materials by rail/conveyor belt, wherever feasible, shall be explored.

(v) PNG shall be used as a primary fuel and in case of contingency LDO or HSD shall use as a fuel for proposed Steam boilers and proposed Thermotanks.

(vi) The best available technology shall be used.

(vii) The PP shall develop an additional greenbelt over an area of at least 1751 sq. m. accounting to 40.53%, and 146 sq. m. (3.38%) shall be developed between the MIDC internal road and plot boundary near the gate., by planting approx. 535(inside the premises and 45 outside the premises) 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 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 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) The plant shall be **Zero Liquid Discharge.** ETP of 80 CMD comprising of Primary, Secondary and Tertiary system shall be provided for Industrial Effluent along with Stripper of 50 CMD, MVR of 70 CMD, ATFD of 20 CMD and R.O. system of 70 CMD respectively. The HCOD/HTDS effluent stream from Process (45 CMD), Reactor washing (1.7 CMD) and Scrubber (2 CMD) will be subjected to Stripper followed by MVR & ATFD. The LCOD/LTDS effluent stream from boiler blowdown (1.68 CMD) and cooling tower blowdown (8.5 CMD) will be treated in a full-fledged ETP with primary, secondary and tertiary treatment along with MVR and ATFD condensate. The domestic sewage of (4 CMD) shall be treated in STP of 5 CMD which shall be provided at site. The treated sewage shall be used for gardening. The treated effluent from the ETP shall be further subjected to RO treatment. RO permeate shall be used for reactor washing, scrubber, boiler and in cooling tower makeup. RO reject will be send back to the MVR for further treatment. About 48.99 CMD treated water will be reused at site.

(x) Flow meters with IP cameras shall be installed and connected to the servers of MPCB/CPCB servers.

(xi) 413.75 m3/Annum rainwater shall be harvested. Total volume of harvested rain water (Considering 120 days) = 3.45 CMD capacity of rain water harvesting tank = 50. Harvested rain water shall be used for boiler purposes.

(xii) The PP shall install STP plant of 5 CMD capacity.

(xiii) The Company's Hazardous waste shall be managed & disposed according to the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, category specified in Schedule I [rule 3 (1) (17) (i)]. All records shall be maintained as per Form – 4 and Form – 10 of the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.

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

(xv) An amount of ₹ 1 Crore shall be allocated towards CER.

(xvi) 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 engaging Managing Director- Factory Manager- Deputy Manager- ETP in charge- Maintenance officer- project engineer- EHS 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.

(xvii) 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 ₹ 480.5 Lakhs (Capital cost) and ₹ 161.6 Lakhs 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.

(xviii) The total water requirement shall be 108.4 m^3/day. The requirement of water shall be met from Tarapur MIDC. 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.

(xix) 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.

(xx) 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.

(xxi) 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.

(xxii) 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.

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

(xxiv) The 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.

(xxv) 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.

(xxvi) 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.

(xxvii) 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.

(xxviii) 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.

(xxix) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

Agenda No. 49.11

Expansion in the Existing Unit with Production Capacity of Paper Decorative Laminated/ Industrial Sheets 3600 MT/M, Melamine Formaldehyde Resin (4000 MT/M), Phenol Formaldehyde Resin (5000 MT/M), Urea Formaldehyde Resin (5,000 MT/M), Formaldehyde (37%) (15,000 MT/M) (Total Production from 3,600 to 23,600 MT/M) located at survey no. 705/P1, P2&P3 village: Bhimasar Taluka: Anjar, District Kutch Gujarat by M/s Shree Salasar Decor Private Limited - Consideration of EC

[Proposal No. IA/GJ/IND3/410413/2022; File No. IA-J-11011/179/2022-IA-II(I)]

1. The proposal is for EC for Expansion in the existing unit with production capacity of paper decorative laminated/ industrial sheets 3600 MT/M Melamine formaldehyde Resin (4000 MT/M) Phenol formaldehyde Resin (5000 MT/M), Urea Formaldehyde Resin (5,000MT/M) Formaldehyde (37%) (15,000 MT/M) (Total Production from 3,600 to 23,600 MT/M) located at survey no. 705/P1,P2&P3 village : Bhimasar Taluka: Anjar, District Kutch Gujarat by M/s Shree Salasar Decor Private Limited .

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry of Schedule of EIA Notification, 2006 (as amended) as the project is located outside the notified industrial area

3. The ToR has been issued by the Ministry, vide letter no. IA-J-11011/179/2022-IA-II(I) dated 10-06-2022. The PP applied for the Environment Clearance on 16.12.2023 in Common application form and submitted the EIA/EMP Report and other documents. Due to some shortcomings, the project was referred back to PP on 5.1.2023, 6.3.2023,16.3.2023, and reply to the same was submitted by the PP on 22.2.2023, 10.3.2023 ,20.3.2023. The PP in the Form-2 reported that it is a **Fresh case.** The proposal is placed in 49th EAC Meeting held on 3rd & 5th – 6thApril, 2023, wherein the PP and an accredited Consultant, M/s. Bhagwati Enviro Care Pvt. Ltd**. (NABET Accreditation No.- QCI/NABET/ENV/ACO/23/2637 Valid Up to: 11/04/2023**], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the Existing land area is 76,890.0 m^2 and no additional land will be used proposed expansion and no R&R is involved in the Project. The details of products are as follows:

Sr. No.	Product Name	CAS No.	Quantity in MT/Month			Uses
			As per CTE	Proposed	Total	
1	Paper based decorative laminated/ Industrial sheets	---	3,600	0	3,600	Ply board, flush door, block board, practical boards
2	Melamine Formaldehyde Resin	9003-08-1	0	4,000	4,000	Resins are used in the Ply board, flush door, block board, practical boards and decorative laminate and in resins.
3	Phenol Formaldehyde Resin	28064-14-4	0	5,000	5,000	
4	Urea Formaldehyde Resin	9011-05-6	0	5,000	5,000	
5	Formaldehyde (37%)	50-00-0	0	15,000	15,000	
TOTAL			3600	29000	32600	

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

6. The PP reported that at present, Industry have obtained CTE for Paper based decorative Laminated/Industrial sheets. Now, we have applied for CTO & till date we have not obtained CTO.

7. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Bhimasar pond is at a distance of 4.42 km in direction ESE direction. The PP reported that no forest area is involved in the proposed project. one Schedule I species Peacock exist within 10 km study area of the project for which conservation plan has prepared.

8. The PP reported that the **Ambient Air Quality** monitoring was carried out at 08 locations during March to May, 2022 and the baseline the ranges of concentration as: PM10 (62.78-84.17 ug/m^3), PM2.5 (24.41-46.70 ug/m^3), SO2 (7.39-37.97 ug/m^3), NOx (6.49-43.43 ug/m^3). AAQ modeling study for point source emission indicated that the maximum incremental GLCs after the proposed expansion project would be 1.06206 ug/m^3, 0.33535 ug/m^3, 0.48737 ug/m^3, 0.39264 ug/m^3 with respect to PM_{10}, PM $_{2.5}$, SO_2, NO_x. The resultant concentrations are within the national ambient air quality standards (NAAQS). **Noise** - The monitored noise levels were compared with the standards prescribed by CPCB which indicates that the noise levels at all the locations were found well within the limit for day & night time. **Ground Water** - All the parameters of collected ground water and surface water samples were well within the permissible limits. All the heavy metals measured in all samples were below detection limit at all the locations. It is observed from the surface water

analysis of the study area and compared with classes for designated use of fresh Water Standards, that samples of study area at all the villages are suitable for "E Class" i.e. Irrigation, industrial cooling & Controlled Waste Disposal.

9. The PP reported that the total water requirement will be 445.84 m3/day of which fresh water requirement 428.84 m3/day will be met from GWSSV (Gujarat Water Supply and Sewerage Board).Total Effluent generation will be 24.5 KLPD from that, process effluent of 18 KLPD will be treated in ETP-1 (having primary treatment and Fenton process) then evaporated in In House Thermic Fluid Evaporator and other effluent 6.5 KLPD will be treated in ETP-2 (having primary treatment) then goes to RO system from that RO Permeate 5.0 KLPD reuse within premises and RO Rejected 1.5 KLPD evaporated in In House Thermic Fluid Evaporator. The plant will be based on Zero liquid discharge system.

10. The PP reported that Power requirement after expansion will be 500 KW will be met from PGVCL (Paschim Gujarat Vij Co. Ltd). Unit will install 01 DG sets of 1000 kVA capacity as standby during power failure. Stack height 15 Meter will be provided as per CPCB norms to the DG sets. Existing unit has installed 7.0 TPH steam boiler & 30 Lac Kcal/Hr Thermic fluid heater. Separate Multi Cyclone, Bag Filter & water scrubber with a stack height of 30 m are installed for controlling the Particulate emission within the statutory limit.

11. **Details of Process Emissions Generation and Its Management:** Existing unit has installed Design dryer (2 Nos.) and Kraft dryer (6 Nos.) in process gas emission with separate stack height of 11 meter are provided

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

Sr. No	Type of Hazardous Waste	Source	Cat. No.	Quantity (MT/Year)			Management
				As per CTE	Proposed	Total	
1	ETP Sludge	ETP	35.3	10.0	60.0	70.0	Collection, Storage, Transportation & Disposed to TSDF site.
2	Discarded Bags/Containers	R.M Storage	33.3	150	350	500	Collection, Storage, Transportation, Disposed by selling out to authorized decontamination facility.
3	Used Oil	Plant machineries	5.1	0.05	0.2	0.25	Collection, Storage, Transportation, Disposed by selling out to registered refiners or reuse as

							lubricant in plant machineries.
4	Evaporation residue	Evaporation	37.3	10.0	60.0	70.0	Collection, Storage, Transportation & Disposed to TSDF site.

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 188.5 Lakhs capital) and the Recurring cost (operation and maintenance) will be about Rs 237.0 Lakhs per annum. The industry proposes to allocate Rs. 47 lakhs towards CER.

14. The PP reported that the Public Hearing for the proposed project has been conducted by the State Pollution control board on 18/10/2022 which was presided by the Deputy Collector & Sub-Divisional Magistrate. The Response/Commitment from the PP to the issues raised along with an action plan with time frame and budget is as follows:

Issue raised	Response/Commitment from Project Proponent	Action plan with time frame and budget
Employment requirement	Technical representative of project proponent stated that, in terms of employment, preference will be given to the local people of the surrounding area according to their qualification. So the employment will generate and also your suggestions are welcomed and with this expressed his thanks	We have given employment to 8-10 people during construction phase & 25-30 people of surrounding village according to their qualification in operation phase. Construction phase Budget: 1.5 Lac/M Timeline After 2 Months, During construction phase Operation phase Budget: 4.0 Lac/M Timeline: after 6 months during operational phase
Control of Air Pollution	Technical representative of project proponent stated that, In terms of pollution, air pollution control equipment will be installed along with chimneys and the polluted water generated from the industry will be evaporated in the in-house evaporator. So no polluted water will be released outside the plant.	We will install Adequate height & APCM i.e. Multi Cyclone with Bag Filter & Water Scrubber with Boiler (7.5 TPH) & Thermic fluid heater (30 Lac Kcal/Hr) respectively to control air emission

		from stacks. And We will install adequate ETPs for treatment of effluent generated from unit & evaporate it in the in-house thermic fluid evaporator 14 Lakh for Air Pollution Control Measures 28 Lakh for ETP & Evaporator
CER funds	After discussing with the people of the surrounding affected villages, we will cooperate in the development works of villages from CER fund. We will give CER fund for development of Villages & schools of villages in sectors i.e. Education, Sanitation, Renewable energy like solar panels & solar Lights, Drinking water facilities & greenbelt development etc	47 Lakh for CER
Fuel	Ash from the fuel i.e. Agro Briquettes, Bio Coal used in the company will be collected and sold to brick manufacturers or cement industries. Also we will install air pollution control equipment for the Gases coming out from the chimney, so its effects will be reduced We will sell the generated ash to the brick manufacturer.	2.5 Lakh for Ash management
Environment Monitoring	After the production work starts in the plant, the ambient air quality will be checked every 3 months.	6.0 Lakh for Environment monitoring .
Measures to be taken to installation of online monitoring system.	Consultant replied that There is a provision of online 24*7 monitoring to control air pollution	Already budget taken 20 Lakhs of air pollution.
Waste Generation	The generated waste from the ETP will be sent to an Active TSDF site The ETP waste which will be generated from the primary and neutralization treatment process of the effluent will be sent to the active TSDF site.	2.0 Lakhs for hazardous waste management

Medical facility	The workers who will work in the unit will be medically examined every 3 months.	4 Lakh for occupational health
Greenbelt Development plan	Based on the study for green belt, trees of local area like neem, pipal etc. will be planted.	8.0 Lakh for greenbelt

15. Industry will develop 35.7% greenbelt in an area of i.e. 27427.3 m^2 out of total area of the project. From that industry have already developed 4.9% i.e. 3750.0 m^2 greenbelt in premises.

16. The PP proposed to set up an Environment Management Cell (EMC) consisting of Director- EHS Manager- Executive EHS- Supervisions and operators for the functioning of EMC.

17. The PP submitted the Onsite and Offsite disaster management plans in the EIA report.

18. The estimated project cost is ₹ 23.5 Crore including existing investment of Rs. 15.5 Crores. Total employment will be 65 persons as direct & 15 persons indirect for proposed expansion project.

19. **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 EC 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 fuel, Greenbelt development plan, wastewater generation, Action plan of Public Hearing and advised the PP to submit the following:

- Undertaking regarding use of Agro Briquettes/ Bio coal as a primary fuel.
- Undertaking regarding greenbelt development and trees plantation in unit premises.
- Details regarding Domestic wastewater generation and its treatment & reuse of treated water from STP

- Letter regarding Authorization from The Collector of Kutch district for Deputy Collector & S.D.M. of Anjar – Kutch as his representative of Public hearing.
- To submit revised Public hearing action plan with budgetary plan and timelines & its responsibility.

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 EC.

The EAC is of the view that its recommendation and grant of EC 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.

20. The EAC, after detailed deliberations, **recommended the project for the grant of EC, 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, 27427.3 m^2 by planting 6856 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 2 m). The budget earmarked for the plantation shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of the expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(ii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage Head Director- EHS Manager- Executive EHS-

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

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget propose under EMP is ₹ 188.5 Lakh (Capital cost) and ₹ 237.0 Lakh (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iv) As committed by the PP, Biomass/ Agro briquette /Bio coal shall be used as primary fuel, during the unavailability of agro briquette Lignite/wood shall be used in case of emergency.

(v) The Total water requirement will be 445.84 m3/day of which fresh water requirement will be 429.04 m3/day met from GWSSB (Gujarat Water Supply and Sewerage Board).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.

(vi) As committed by the PP, Zero Liquid discharge shall be ensured, Total Effluent generation will be 24.5 KLPD from that, process effluent of 18 KLPD will be treated in ETP-1 (having primary treatment and Fenton process) then evaporated in In House Thermic Fluid Evaporator and other effluent 6.5 KLPD will be treated in ETP-2 (having primary treatment) then goes to RO system from that RO Permeate @ 5.0 KLPD will be reuse within premises and RO Rejected @ 1.5 KLPD will be evaporated in In House Thermic Fluid Evaporator.

(vii) 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.

(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) 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.

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

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

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

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

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

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

(xvi) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xvii) The 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.

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

Agenda No. 49.12

Proposed Manufacturing Unit of Synthetic Organic Chemicals of Production Capacity 500 TPM located at Sr. No. 47 P2/P1, Plot No. 1, SR. No. 47 P5 and 47 P6/P1, Plot No.1/P Open Land, Vill. Bharudi, Tal. Gondal, Dist. Rajkot, Gujarat by M/s Melamica Solutions LLP - Consideration of EC

[Proposal No. IA/GJ/IND3/417492/2023; File No. IA-J-11011/184/2022-IA-II(I)]

1. The proposal is for EC for Proposed Manufacturing Unit of Synthetic Organic Chemicals of production capacity 500TPM located at Sr. No. 47 P2/P1, Plot No. 1, SR. No. 47 P5 and 47 P6/P1, Plot No.1/P Open Land, Vill. Bharudi, Tal. Gondal, Dist. Rajkot, Gujarat by M/s Melamica Solutions LLP.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry of Schedule of EIA Notification, 2006 (as amended) as the project is located outside the notified industrial area

3. The ToR has been issued by the Ministry, vide letter no. IA- J-11011/184/2022-IA-II(I) dated 24-06-2022. The PP applied for the Environment Clearance on 1.3.2023 in Common application form and submitted the EIA/EMP Report and other documents. Due to some shortcomings, the project was referred back to PP on 14.3.2023, and reply to the same was submitted by the PP on 21 .3.2023. The PP in the Form-2 reported that it is a **Fresh case.** The proposal is placed in 49th EAC Meeting held on 3rd & 5th – 6th April, 2023, wherein the PP and an accredited Consultant, Green Circle Inc**. (NABET Accrediation No.- NABET/EIA/2124/RA 0219 Valid till 26.01.2024**], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the Existing land area is 11235.81 m^2 and no additional land will be used proposed expansion and no R&R is involved in the Project. The details of products are as follows:

S. No.	Name of Product	Quantity (MT/month)	CAS No.
1.	Melamine Formaldehyde Molding Powder	500.00	9003-08-1

5. The PP reported that there is no violation as per the EIA notification, 2006, no court case is pending against the proposal and one 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. Sitla Riveris at a distance of 6.97 km and Aji River is at a distance of 20 km . The PP reported

that no forest area is involved in the proposed project. and no Schedule I species Peacock exist within 10 km study area of the project.

7. The PP reported that the Ambient air quality monitoring was carried out at 08 locations during March to May, 2022 and the baseline the ranges of concentration as: PM10 (50.5-89.9ug/m^3), PM2.5 (30-15.9ug/m^3), SO2 (10.7-5.6ug/m^3), NOx (17.1-8.8ug/m^3). AAQ modeling study for point source emission indicated that the maximum incremental GLCs would be 0.05ug/m^3, 0.46 ug/m^3, 0.04 ug/m^3 with respect to PM_{10}, SO_2, NO_x. The resultant concentrations are within the national ambient air quality standards (NAAQS).

8. **Noise** The maximum noise level in day time 60.5 dB (A) and during night time 52.4 dB (A) was observed at T-point. The minimum noise level in day time 44.6 dB (A) and during night time 35.5 dB (A) was recorded at Bhunava being a rural residential area. **Ground water-** All values are within permissible limit 10500:2012. **Surface water-** All values are within permissible limit 10500:2012. **Soil-** Soil in the study area are moderately fertile

9. The PP reported that the total water requirement will be 32.5 KLD where 29.5 KLD water used will be fresh water and 3.0 KLD used water will be recycled. 2.5 KLD industrial waste water, there will be no use of water in the process; however effluent generated from the boiler blow down, cooling tower will be treated in RO.
.
10. The PP reported that Total power requirement for the project will be about 550 KVA which will be procured from PaschimGujarat Vij Corporation Limited (UGVCL). D.G.Set (100 KVA) will be installed for power backup.

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

S. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel	Type of emissions i.e. Air Pollutants	Permissible Limit	Air Pollution Control Measures (APCM)
1	Boiler (2 TPH)	12	Natural Gas	1200-1500Kg/ Day	PM SO2 NOX	150 mg/Nm^3 100 ppm 50 ppm	Adequate Stack heightwill be provided.
2	DG Sets (100 KVA)	11	HSD	23 L/Day			Adequate Stack heightwill be provided.

12. **Details of Solid Waste/Hazardous Waste Generation and Its Management:** The details of hazardous waste generation and handling / management are given in Table.

Hazardous Waste Details.

Sr. No	Name of the waste	Quantity	Disposal Method
01	FE Salts	5.00 (Kg/Day)	Sent to TSDF.
02	PP Bags	50 No's/Month	After Detoxification Sent to AuthorizedParties for Reprocessing / Recycling
03	Used Oils	20ltrs/ Annum	SPCB Authorized Agencies forReprocessing/Recycling
04	Used Lead Acid Batteries	2 No's/Annu m	Sent back to suppliers for buyback of NewBatteries
05	Evaporator Salt	0.9 MT/Day	Sent to TSDF.

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 98.96 Lakhs capital) and the Recurring cost (operation and maintenance) will be about Rs 40.7 Lakhs per annum. The industry proposes to allocate Rs. 17.76 lakhs towards CER.

14. The PP reported that the Public Hearing was conducted on 30.12.2022 which was presided by the District Collector. The Response/Commitment from the PP to the issues raised along with an action plan with time frame and budget is as follows:

Issue raised	Response/Commitment from Project Proponent
Waste	There will be no generation of waste water from process. Wastewater will be generating from boiler blow down and cooling tower. RO will be provided for the same. Generated domestic wastewater will be reuse after phyto -remediation treatment
Air pollution	PP will provide 2 TPH boiler and will use natural gas as a fuel which is a clean fuel
Employment Generation	There will be 50 workers require in our project so direct or indirect people of surrounding villages of 10 km radius will be employed. Out of total 50 workers 15 will be unskilled labor and 35 will be graduate worker.
CSR	Details of CSR has been submitted along with the EIA/ EMP report.

15. About 4879.96 m^2 (43.43%) area is reserved for greenbelt development, out of total plot area 11235.81 m^2. Total 1217 nos. of plany species will develop as greenbelt.

16. The PP proposed to set up an Environment Management Cell (EMC) consisting of Director- VP- General manager- Manager- Env.- Executive- Technical Associate for the functioning of EMC.

17. The PP submitted the Onsite and Offsite disaster management plans in the EIA report.

18. The estimated project cost is ₹ 23.5 Crore including existing investment of Rs. 8.88 Crores. There will be very good opportunity of employment generation directly and indirectly due to proposed new project. Due to proposed project there will be 50 people will be directly/indirectly employed (15 No of workers will be during construction phase and 35 No of workers employed during operation phase)

19. **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 EC 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 Greenbelt development plan, Life cycle assessment, and advised the PP to submit the following:

- Revised Greenbelt development plan.
- Life cycle Assessment report

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 EC.

The EAC is of the view that its recommendation and grant of EC 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.

20. The EAC, after detailed deliberations, **recommended the project for the grant of EC, 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 about 4879.96 m^2 (43.43%), by planting 1217 number of plant species 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 2 m). The budget earmarked for the plantation shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of the expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

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

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget propose under EMP is ₹ 98.96 Lakhs (Capital cost) and ₹ 40.7 Lakhs per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iv) The total water requirement will be 32.5 KLD where 29.5 KLD water used will be fresh water and 3.0 KLD used water will be recycled. 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.

(v) 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.

(vi) 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 21.7.2010 under the provisions of the Environment (Protection) Rules, 1986.

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

(viii) 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.

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

(x) The 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.

(xi) 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.

(xii) 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.

(xiii) 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.

(xiv) 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.

(xv) 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. 49.13

Expansion of Pigments and Pigment Related Products of Capacity from 10.25 TPM to 530 TPM by M/s Supreme Dyechem Private Limited, located at Plot No. A-6/3 in SIPCOT Industrial Complex, village Pachayakuppam, District Cuddalore, Tamilnadu by M/s Supreme Dyechem Private Limited - Amendment in EC

[Proposal No. IA/TN/IND3/298871/2023; File No. J-11011/172/2017-IA II (I)]

1. The proposal is for amendment in the EC granted by the Ministry vide letter no. F. No. J-11011/172/2017-IA-II(I), dated 14.09.2020 for the project of Pigments and Pigment related products manufacturing plant located at Plot No. A-6/3 in SIPCOT Industrial Complex, Village: Pachayakuppam, District: Cuddalore, Tamilnadu at Plot No. A-6/3 in SIPCOT Industrial Complex, Village: Pachayakuppam, District: Cuddalore, Tamilnadu in favour of M/s. Supreme Dyechem Private Limited.

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

Sr. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/read as	Justification/ reasons
1.	Sr. no. 5, pg no. 2 of 7	Total water requirement during operation of the proposed expansion for both domestic and industrial purpose will be 768 KLD. The fresh water requirement of 436 KLD will be met though SIPCOT water supply and **332 KLD** of water will be	Total water requirement during operation of the proposed expansion for both domestic and industrial purpose will be **770.5 KLD**. The fresh water requirement of **612 KLD** will be met though SIPCOT water supply and **158.5 KLD** of water	Unit has obtained membership of CUSECS for disposal of treated effluent to deep sea. Copy of Membership certificate has been submitted

		recycled water. Process Effluent of 375 KLD quantity will be treated though RO and MEE to achieve ZLD. The plant will be based on Zero Liquid discharge system.	will be recycled water. Process Effluent of **366 KLD** quantity will be treated in ETP to achieve desire norms of SPCB and after treatment, **366 KLD** will be sent to common marine disposal system of Cuddalore SIPCOT Industries Common Utilities Ltd. (CUSECS) for final disposal to deep Sea.	
2.	Sr. no. A(iii), pg no. 3 of 7	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 the process/utilities. Treated Industrial Effluent shall not be used for gardening/ greenbelt/horticulture.	Liquid effluent, after treatment in ETP and achieving desire norms of SPCB, shall be sent to common marine disposal system of Cuddalore SIPCOT Industries Common Utilities Ltd. (CUSECS) for final disposal to deep Sea and no waste/treated shall be used for gardening/ greenbelt/ horticulture.	CUSECS has valid consent to treat 500 KLH industrial effluent for treatment and final disposal to sea as per consented norms. Copy of Consent to operate with Sea disposal to CUSECS has been submitted.
3.	Sr. no. A(viii), pg no. 4 of 7	Total fresh water requirement shall be not exceed 436 cum/day, proposed to be met from SIPCOT supply. Necessary permission obtained in this regard shall be renewed from time to time. The fresh water demand shall be reduced by 10% using rain water harvesting system.	Total fresh water requirement shall be not exceed **612** cum/day, proposed to be met from SIPCOT supply. Necessary permission obtained in this regard shall be renewed from time to time. The fresh water demand shall be reduced by 10% using rain water harvesting system.	---

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, STP, stack details, fuel, greenbelt development and advised the PP to submit the following:

- Proposal of STP for raw sewage and treated sewage utilize for greenbelt instead of disposal in soak pit
- Revised water balance to considering maximum water recycling.
- Revised stack details in terms of increase stack height of boiler from 22 m to 30 m and if you are not going to use coal as fuel, then remove the coal from fuel details.
- Commitment regarding no use of coal as fuel.
- Confirmation letter from competent authority SIPCOT for greenbelt development in common area of SIPCOT Industrial Complex.

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

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

(i). The PP shall propose STP (of Capacity 15 KLD (MBBR based technology) for treatment of raw sewage and treated sewage shall be utilized for greenbelt development.

(ii). The PP shall not use coal as a fuel.

(iii). The PP shall develop greenbelt around 1500 m^2 area of the reserve plot by plant additional 300 number of trees near the plant premises.

(iv). 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.

(v). 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. 49.14

Regularization of the Existing Production and Expansion of Cosmeceuticals, Active Pharmaceuticals and Speciality Chemicals with Production Capacity from 141.32 TPM to 318 TPM located at Plot No. 62/63(A)/64 and 60/65, KIADB Industrial Area, Jigani Village, Anekal Taluk, Bengaluru District, Karnataka by M/s. Kumar Organic Products Limited – Consideration of EC (under violation category)

[Proposal No. IA/KA/IND3/408135/2022; File No. 23-47/2018-IA.III]

1. The proposal is for EC for the Regularization of the existing production and expansion of Cosmeceuticals, Active Pharmaceuticals and Speciality Chemicals with production capacity from 141.32 TPM to 318 TPM located at Plot No. 62/63(A)/64 and 60/65, KIADB Industrial Area, Jigani Village, Anekal Taluk, Bengaluru District, Karnataka by M/s. Kumar Organic Products Limited **(under violation category).**

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). However, since the the project site is located in a critically polluted area, the project attracts the general condition and is appraised at the Centre.

3. The standard ToR was issued by the Ministry, vide letter No. F. No. 23-47/2018-IA.III dated 13.08.2021. The PP applied for the Environment Clearance on 1.12.2022 in Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a Fresh EC. Due to the shortcoming the proposal was referred back to PP on 7.12.2022 & 8.3.2023 and reply for the same has been submitted on 24.2.2023 & 24.32023.The proposal is now placed in 49th EAC Meeting held on 3rd & 5th-6th April, 2023, wherein the Project Proponent and an accredited Consultant, M/s. AM Enviro Engineers [NABET Accreditation Number: NABET/EIA/2023/SA 0167 (Rev.01) valid till June 30, 2023], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the Existing land area is 18,615.5 m^2 there is no addition of land for the proposed expansion and no R&R is involved in the Project. The details of products and by–products are as follows:

S. No.	Product Details	CAS No.	Existing Qty (TPM)	Proposed Qty (TPM)	Total Qty (TPM)	Uses
1.	Aldehydec-6	66-25-1	3.00	-3.0	0.00	Cosmeceuticals
2.	Allyl caproate	123-68-2	1.00	-1.00	0.00	Cosmeceuticals
3.	Rose Oxide	-	30.00	-30.00	0.00	Cosmeceuticals
4.	Triclosan	3380-34-5	97.00	0.00	97.00	To reduce or prevent bacterial contamination
5.	Beta arbulin	-	0.99	-0.99	0.00	Suppresses melanin activity in the skin
6.	Indanone	83-33-0	8.34	-8.34	0.00	Treatment of acute lung injury
7.	N - Oxide	694-59-7	0.99	-0.99	0.00	Anesthetic

8.	4-Hexyl resorcinol	136-77-6	0.00	+4.00	4.00	Antiseptic for the treatment of minor skin infections
9.	6-pyrrolidino 2,4-diaminopyrimidine 3-oxide, monohydrate	-	0.00	+2.00	2.00	Inhibits general male-pattern or female pattern hair loss
10.	Benzalkonium Chloride	63449-41-2	0.00	+25.00	25.00	Antiseptic
11.	Benzethonium Chloride	121-54-0	0.00	+10.00	10.00	Used to treat minor cuts, scrapes, wounds, or cracked skin
12.	Chloroxyenol	88-04-0	0.00	+80.00	80.00	Antimicrobial used to treat cuts, etc
13.	Ciclopirox Olamine	41621-49-2	0.00	+2.00	2.00	To treat fungal skin infections
14.	Ethyl hexyl glycerin	70445-33-9	0.00	+18.00	18.00	Impressive skin moisturizing agent
15.	Kopdil aqua	-	0.00	+1.00	1.00	Hair growth ingredient.
16.	Kopexil (2,4-Diaminopyrimidine 3-N-oxide)	74638-76-9	0.00	+4.00	4.00	To slow or stop hair loss and promote hair regrowth
17.	Kopexil Aqua	-	0.00	+1.00	1.00	Strengthens hair from root to tip, and promotes hair thickness
18.	Kopyrrol (6-pyrrolidino 2,4-diaminopyrimidine 3-oxide)	-	0.00	+2.00	2.00	Inhibits general male-pattern or female pattern hair loss
19.	Kopyrrol Aqua	-	0.00	+1.00	1.00	To slow or stop hair loss and promote hair regrowth
20.	Minoxidil	38304-91-5	0.00	+7.00	7.00	To slow or stop hair loss and promote hair regrowth
21.	Minoxidil sulphate	83701-22-8	0.00	+2.00	2.00	For treatment of hair loss
22.	n-Butyl Resorcinol	18979-61-8	0.00	+2.00	2.00	To treat hyperpigmentation

23.	Piroctone Olamine	68890-66-4	0.00	+7.00	7.00	To treat dandruff and fungal infections
24.	Zinc Citrate	546-46-3	0.00	+50.00	50.00	To prevent dental plaque formation and gingivitis
25.	Zinc Lactate	16039-53-5	0.00	+20.00	20.00	Used to eliminate halitosis
TOTAL		-	**141.32**	**193.68**	**335**	-
TOTAL (10 products)					**318**	

Note: From the above list of products, any 10 products will be manufactured at a given point of time.

LIST OF BY-PRODUCTS

Sl. No	Name of the Product	Name of By Product	Quantity in TPM
1.	Triclosan	Spent Sulphuric Acid (60% concentration)	500
2.	Triclosan	Used Iron Powder	140

5. The PP reported that Industry was involved in change of products after 2006 till 2016 and obtained CFE (Consent for Establishment-Expansion) & CFO (Consent for Operation accordingly). In the year of 2016, industry applied for CFO renewal and KSPCB put an objection to the products for which EC not taken. Later on, by combining both units for which industry obtained consent separately from Pollution Control Board, approached State Level Environment Impact Assessment Authority (SEIAA) and submitted the application to get EC on 27/04/2016. As per Notification No. S.O 804(E) dated 14.3.2017, SEIAA Karnataka decided and considered as violation project. The duration of the violation period is from 2011 to 2020 i.e., 9 years.

6. The PP reported that the Bannerghatta National Park is at a distance of 4.2 km from the project site. The Konasandra lake is at 0.14 km in Southwest direction. No Schedule-I species were observed in the 10 km radius from the proposed project.

7. The PP reported that **Ambient air quality** monitoring was carried out at 8 locations during October 2021 to December 2021 and the baseline data indicates the ranges of concentrations as: PM_{10} (54.5 – 74.5 $\mu g/m^3$), $PM_{2.5}$ (21.6 – 29.0 $\mu g/m^3$), SO_2 (10.3 – 17.9 $\mu g/m^3$) and NO_2 (10.8 – 21.1 $\mu g/m^3$). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.0 $\mu g/m^3$, 0.5 $\mu g/m^3$ and 1.32 $\mu g/m^3$ with respect to PM_{10}, SO_2 and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Similarly, for Ground Water, Surface Water, Soil and Noise monitoring was carried out.

8. The PP reported that the total water requirement is 386.8 KLD of which freshwater requirement of 243.1 KLD will be met from KIADB Water Supply. The total effluent of quantity is 203.1 KLD, out of which industrial effluent of 192 KLD will be treated through MEE of capacity 150

KLD and ETP of capacity 200 KLD and domestic effluent of 11.1 KLD will be sent to STP of 15 KLD capacity.

9. The PP reported that the power requirement after expansion will be 900 KVA which is same as that the existing requirement and will be met from BESCOM (Bangalore Electricity Supply Company Limited). Existing unit has DG sets of capacity 1X250 KVA and 2X125 KVA, additionally DG set of 1X640 KVA will be used as standby during power failure. Stack of height 6 m AGL will be provided as per CPCB norms to the proposed DG sets.

10. Existing unit has boiler with capacities 1X3 TPH (Briquette fired), 6 Lakh kcal/Hr (Briquette fired), 2 X 850 Kg/Hr (Furnace Oil fired) and 1 X 850 Kg/Hr Boiler (Furnace Oil fired). Cyclone separator and dust collectors are provided for the existing boilers for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3. Existing unit has thermic fluid heaters with capacity 3 X 2,00,000 Kcal/hr.

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

S. No	Name of the Gas	Quantity in Kg/Day	Treatment Method	Disposal Method after treatment
1	Hydrogen Chloride	257.42	Scrubbed by using water media	Generated Dil. HCl will be reused within the industry
2	Sulfur dioxide	277.58	Scrubbed by using C.S. Lye solution	Scrubbed solution will be send to MEE along with high TDS effluent
3	Oxygen	25.67	Dispersed into atmosphere	-

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

Sl. No.	Category of HW	Type/Name of HW	Quantity (MT/ Annum)			Disposal Method
			Existing	Proposed	Total	
1.	5.1	Waste oils & Grease/ Used Mineral oil	1.5 KLD	0.8 KLD	2.3 KLD	Agencies authorized by KSPCB
2.	28.1	Process Organic Residues & Waste	1516	1164.4	2680.4	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
3.	20.3	Distillation Residue	0	61.5	61.5	Store in secured manner and hand over to authorized

						cement industry for Co-processing
4.	28.1	In Organic Residue	0	2872	2872	Sent to TSDF
5.	28.2	Spent catalyst	-	1.8	1.8	Store in secured manner and hand over to re-processor and reused
6.	28.3	Spent Carbon	0	13	13	Store in secured manner and hand over to authorized cement industry for Co-processing
7.	28.5	Date expired products	1	1	2	Store in secured manner and hand over to authorized cement industry for Co-processing/ TSDF
8.	33.1	Empty barrels/containers/liners contaminated with hazardous chemicals/wastes	135.4	30	165.4	Stored in secure manner and handed over to KSPCB authorized recycler
9.	35.3	Chemical sludge from wastewater treatment	500	350	850	Store in secured manner and hand over to TSDF
Solid Wastes						
10.	DB3020	Paper Waste	3	2	5	Authorized recyclers
11.	DB1010	Metal Scrap	40	10	50	Authorized recyclers

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 550.97 lakhs (capital) and the Recurring cost (operation and maintenance) will be about ₹ 4.95 lakhs per annum. The industry proposes to allocate ₹ 25 lakhs towards CER.

14. The PP reported that the project, being located in **Jigani Industrial Area (Notification No. CI 195 SPQ 82 dated 11.07.1985), the public hearing is exempted** in accordance with Clause 7(i) (III) Stage (3) (i) (b) of EIA Notification, 2006 and O.M. No. J-11011/321/2016-IA. II(I) dated 27.04.2018.

15. Industry has already developed greenbelt in an area of 1,290.3 sq.m (6.9%), and additional greenbelt area of 6155.9 sq.m will be developed within the plots 84 and 36A & 36, so that total greenbelt area is 7446.2 sq.m (40% of total site area).

16. The PP proposed to set up an Environment Management Cell (EMC) consisting of MD- Sr. manager- Sr. manager (EHS) – Dy manager safety for the functioning of EMC

17. The PP reported that Carbon Sequestration from Greenbelt development in industry is = 1840.9 Tons for 5 Year = 368.18 Tons/Year, by adopting Greenbelt and Afforestation the amount of carbon offset achieved is 368.18 Tons/year.

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

19. The proposed project cost is about Rs. 2.0 Crores with an existing investment of Rs. 123.3 Crores. Total Employment will be 292 persons as direct & 500 persons indirect after expansion

20. **Deliberations by the EAC**:

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

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

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

The EAC inter-alia, deliberated on the, water balance, details of ETP specification, Greenbelt development plan, Damage assessment caused due to not maintaining the 33% of greenbelt area, and advised the PP to submit the following:

- Updated water balance chart showing treated water circulation to cooling tower and MEE condensate properly
- Revised details of ETP specification.
- Revised greenbelt details by considering the 33% minimum at the project site along with the species proposed.

- Damage assessment caused due to not maintaining the 33% of greenbelt area within the project site needs to be calculated.

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

The Member Secretary informed that Ministry has issued a Standard Operating Procedure dated 7th July 2021 bearing the file no. 22-21/2020-IA.III, for identification and handling of violation cases under EIA Notification 2006 in compliance to order of the Hon'ble National Green Tribunal in Appeal No. 34/2020 (WZ) titled Tanaji B. Gambhire Vs Chief Secretary, Government of Maharashtra. This SOP was challenged in the Madurai Bench of the Hon'ble High Court of Madras in the matter W.P.(MD) No. 11757 of 2021 titled Fatima Vs Union of India and was interim stayed vide order dated 15t July 2021. Recently, in the Order dated 9th December 2021 in the matter of Civil Appeal Nos. 7576-7577 of 2021 in Electrosteel Steels Limited Vs Union of India and Ors., the Hon'ble Supreme Court of India has inter-alia observed the following:

"*The interim order passed by the Madras High Court appears to be misconceived. However, this Court is not hearing an appeal from that interim order. The interim stay passed by the Madras High Court can have no application to operation of the Standard Operating Procedure to projects in territories beyond the territorial jurisdiction of Madras High Court. Moreover, final decision may have been taken in accordance with the Orders/ Rules prevailing prior to 7th July, 2021*."

The EAC observed that in this regard, the Ministry issued O.M. number 22-21/2020- IA.III dated 28.1.2022. Further, the instant proposal is of State of Andhra Pradesh and should be dealt as per the provision of SOP dated 7.7.2021 for handling of violation cases. The PP also submitted the a) Damage Assessment Plan, b) Remedial Plan and c) Community Augmentation plan. The details of the same are as follows:

S. No.	Activity	Description	Locations	Rate	Total Quantity No's	Cost in Lakhs		
						Total Cost	Year I	Year II
1	*Ground Water Recharge pits*	*Construction at nearby Villages*	*Varemanchana Halli*	*Rs. 50000/ pits*	*15*	*7,50,000*	*5,00,000*	*2,50,000*
		(3 pits each)	*Mada Patna*					
			Haragadde					
2	*Greenbelt Development*	*Providing avenue Plantation around Lake*	*Vaderamanchana Halli Lake around 1,300m*	*Rs. 1000 / plant*	*1500*	*15,00,000*	*12,50,000*	*2,50,000*

			perimeter					
3	*Energy Conservation*	*Installation of solar street light*	*Varemanchana Halli, Mada Patna, Haragadde*	*Rs. 25,000/ unit*	*50*	*12,50,000*	*9,50,000*	*3,00,000*
4	*Infrastructure Development*	*Construction of Public Toilets 10 per village*	*Mada Patna* *Varemanchana Halli* *Haragadde* *Vadarpalya*	*Rs. 50,000/ toilet.*	*10*	*5,00,000*	*3,00,000*	*2,00,000*
5	*Development of Government School*	*Providing adequate Furniture, Smart Classes*	*Governmanet Higher primary School, Haragadde.*	---	--	*6,25,000*	*4,00,000*	*2,50,000*
					Total	***46,25,000***	***34,00,000***	***12,25,000***

The revised Cost towards Remediation and Natural/community resource augmentation plan is ***Rs. 46,25,000/-*** **(Forty-six lakh twenty-five thousand only)** therefore, the bank guarantee of the same will be made and submitted to CPCB.

The EAC observed that as per Step-3 B (viii), *the project proponent will be required to submit a bank guarantee equivalent to the amount of Remediation Plan and Natural & Community Resource Augmentation Plan with Central / the State Pollution Control Board (depending on whether it is appraised at Ministry or by SEIAA). The quantification of such liability will be recommended by Expert Appraisal Committee and finalized by Regulatory Authority. The bank guarantee shall be deposited prior to the grant of EC and will be released after successful implementation of the Remediation plan and Natural & Community Resource Augmentation Plan.*

The EAC observed that as per para 12 of the SOP dated 7.7.2021, there is a provision of Penalty. The instant proposal falls under category 12(a) (II) and for the compliance of the same, the PP submitted the following penalty amount. The EAC agreed with the same, which shall be remitted by the PP to the fund maintained by the SPCB as per Ministry's O.M. dated 28.07.2022.

M/s. Kumar Organic Products Limited attracts the section 12(b)(ii) in which, for expansion project where operation/production with expanded capacity have commenced, the penalty calculation should be, "1% of the project cost (attributable to the expansion activity) incurred up to the date of the filing of application along with EIA/EMP report plus 0.25% of the total turnover (attributable to the expanded activity/capacity) involved during the period of violation".

With reference to the above, the penalty is calculated by considering Incremental Turn Over and the project Investment. The incremental turnover of the project is Rs. 196.5 crores & the Incremental Project Investment is Rs. 41.5 crores. With respect to the above consideration, the 1% of Incremental Turn Over will be of Rs. 49 Lakhs & 0.25 % of Project investment will be Rs. 41.5 Lakhs. The total payable amount for the penalty will be Rs. 90.5 lakhs.

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

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

The Committee is of the view that recommendation of EAC and grant of EC 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.

21. The EAC, after detailed deliberations**, <u>recommended</u>** the project for the grant of EC, **<u>subject to the compliance of the terms and conditions</u>** 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 in terms of the identified critical pollutants.

(ii). The Unit shall install Continuous Emission Monitoring System (CEMS) (as per CPCB guidelines for relevant parameters) which shall be connected with KSPCB/CPCB server.

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

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

(v). CNG shall be used as a primary fuel in the proposed Expansion.

(vi). The best available technology shall be used.

(vii). The PP shall develop an additional greenbelt over an area of at least 6,786.22 m^2 by planting about 2500 tree 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. 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 PP shall develop Avenue plantation around Vaderamanchana Halli Lake in 1,300 m perimeter through plantation of 1000 trees in two years.

(ix). The PP shall maintain sufficient road space available within the site for existing and proposed and the width of the existing road shall be maintained.

(x). The high TDS trade effluent generated from the industry shall be treated in the Multi Effect Evaporator (MEE) of capacity 50 KLD. The low TDS trade effluent along with domestic sewage shall be treated in the Effluent Treatment Plant (ETP) of 20 KLD. The treated water shall be used for secondary purposes such as cooling tower makeup.

(xi). Continuous monitoring of effluent quality/quantity shall be installed. The CEMS shall be connected to SPCB/CPCB server.

(xii). Rainwater Harvesting system comprising of RCC tanks of capacity 50 KL and 200 KL shall be provided to store the rainwater and the same shall be reused for gardening purpose.

(xiii). As already committed by the PP, Zero Liquid Discharge shall be ensured. The total effluent of quantity is 203.1 KLD, out of which industrial effluent of 192 KLD will be treated through MEE of capacity 150 KLD and ETP of capacity 200 KLD and domestic effluent of 11.1 KLD will be send to septic tank (As per IS:2470 Part-I) followed by multi-grade filter.

(xiv). The domestic sewage of 6 KLD shall be treated in the Combined Effluent Treatment Plant of 20 KLD along with low TDS trade effluent.

(xv). The waste generated from the industry shall be segregated in a scientific manner and stored in designated storage area till it is disposed to KSPCB authorized TSDF.

(xvi). The industry shall strictly follow the Hazardous Waste Management Rules, 2016. The waste generated shall be preferably utilized in co- processing.

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

(xviii). An amount of ₹ 25 lakhs shall be allocated towards CER for Rejuvanation of Konnasandra Lake which is at 0.14 km (SW) from the project site.

(xix). The Budget earmarked towards Remediation plan and Natural and Community Resource Augmentation plan is ₹ 46,25,000/-. The PP is required to submit the bank guarantee for this amount to the CPCB.

(xx). The PP shall spend amount proposed for Remediation plan and Natural and Community Resource Augmentation plan within a span of three years. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of activities carried out etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

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

(xxii). A penalty amount of Rs. 90.5 lakhs shall be remitted by the PP to the fund maintained by the KSPCB as per the Ministry's O.M. dated 28.07.2022.

(xxiii). Approval/permission of the CGWA/SGWA shall be obtained before drawing ground water for the project activities, if applicable. The State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) till the project proponent obtains such permission.

(xxiv). Preventive measures to be taken to control ignition sources in bulk storage area and fire protection system to be established above ground storage tanks. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.

(xxv). 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 MD- Sr. manager- Sr. manager (EHS) – Dy manager safety In addition to this one safety & health officer with suitable qualification and experience shall be engaged within six months 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.

(xxvi). 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 ₹ 550.97 lakhs (Capital cost) and ₹ 4.95 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 previous year

(xxvii). The total water requirement is 386.8 KLD of which freshwater requirement of 243.1 KLD will be met from KIADB Water Supply. 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

(xxviii). 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.

(xxix). 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.

(xxx). The project proponent shall comply with the environment norms for synthetic Organic chemical as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608 (E), dated 21.7.2010 under the provisions of the Environment (Protection) Rules, 1986.

(xxxi). 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.

(xxxii). 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.

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

(xxxiv). 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.

(xxxv). 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.

(xxxvi). 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.

(xxxvii). 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.

(xxxviii). 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.

(xxxix). 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.

(xl). 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.

(xli). 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. 49.15

Expansion of Pesticide Technicals & Intermediates, Speciality Chemicals, Fluorochemicals, Pharma Intermediates, Inorganic Chemicals and Chlorinated Compounds in Existing Unit with Production Capacity from 2844650 MTA (A+B) & 75 MW to 3235770 MTA &75 MW located at Plot No. D-2/1, Village: Suva, GIDC, Dahej-II, Tehsil: Vagra, District: Bharuch by M/s SRF Limited - Consideration of EC

[Proposal No. IA/GJ/IND3/417419/2023; File No. IA-J-11011/129/2021-IA-II(I)]

1. The proposal is for the EC for the Expansion of Pesticide Technicals & Intermediates, Speciality Chemicals, Fluorochemicals, Pharma Intermediates, Inorganic Chemicals and Chlorinated Compounds in Existing Unit with production capacity from 2844650 MTA (A+B) & 75 MW to 3235770 MTA &75 MW located at Plot No. D-2/1, Village: Suva, GIDC, Dahej-II, Tehsil: Vagra, District: Bharuch by M/s SRF Limited.

2. The project/activity is covered under Category 'A' of item 4(d) Chlor – alkali industry, 5(b)-Pesticide Industry and pesticide specific intermediates (excluding formulations), 5 (f)-Synthetic

organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by the Expert Appraisal Committee (EAC).

3. The standard ToR for the preparation of EIA/EMP Report was issued vide letter No. IA-J-11011/129/2021-IA-II(I) dated 16.4.2021. The PP submitted that Unit is located in Notified Industrial Area of GIDC, Dahej -II. Which is Fall in PCPIR. Hence, Public Hearing is exempted. PCPIR has obtained EC vide File no. 21-49/2010-IA-III Dated 14th September, 2017, the Public Hearing is exempted in accordance with Clause 7(i) (III) of EIA Notification, 2006 & O.M. No. J-11011/321/2016-IA. II(I) dated 27.04.2018. The PP applied for Environment Clearance on 10.2.2023 in Common application form and submitted EIA/EMP Report and other documents. The PP reported that it is an Expansion EC. Due to the shortcomings the proposal was referred back to PP on 27.2.2023 and reply for the same has been submitted to PP on 25.3.2023. The PP has submitted the said information/documents and accordingly, the proposal is placed in 49th EAC Meeting held on 3rd,5th-6th April, 2023 wherein the Project Proponent and an accredited Consultant, /s. Aqua-Air Environmental Engineers Pvt. Ltd. (NABET Accreditation No.: NABET/EIA/2023/IA0062 (Rev. 03) Valid Up to 7.10.2023], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the existing land area is 11,81,776.35 m^2, no additional land will be used for proposed expansion project and no R& R is involved in the Project. The details of products are as follows:

S. No.	**List of Product**	**Category as per EIA Notification 2006**	**CAS No.**	**Existing Qty. (MTPA)**	**Additional Qty. (MTPA)**	**Total Qty. (MTPA)**
1	Trifluoro Acetic Acid	5(f) & 5(b)	76-05-1	2000	0	2000
2	Ethyldifluoroacetate	5(f) & 5(b)	454-31-9	25100	9550	34650
3	Ethyltrifluroacetate	5(f) & 5(b)	383-63-1			
4	Ethyltrifluoroacetoacetate	5(f) & 5(b)	372-31-6			
5	Pyrazole Acid	5(b)	176969-34-9			
6	Chloro trichloro Methyl - Cyclopentene	5(b)	72685-38-2			
7	2,3-Dichloro-5-trifluoromethyl-pyridine	5(b)	69045-84-7			
8	Tetrafluorobenzyl Alcohol	5(f) & 5(b)	53072-18-7			
9	Amino crotonate	5(f) & 5(b)	14205-39-1			

10	Trifluoroacetic anhydride	5(f) & 5(b)	407-25-0			
11	Pentafluorobenzoic Acid	5(f) & 5(b)	602-94-8			
12	2-methyl-4-（1,1,1,2,3,3,3-heptafluoro-2-propyl aniline	5(b)	238098-26-5			
13	Fluoromethyl ester	5(f) & 5(b)	453-18-9			
14	Diphenylphenol	5(f) & 5(b)	2432-11-3			
15	Isobutyl Acetophenone	5(f) & 5(b)	38861-78-8			
16	2-Bromo-5-fluorobenzotrifluoride	5(b)	40161-55-5			
17	2,2-Difluroethylamine	5(b)	430-67-1			
18	N[1-{6-Chloro-3-pyridinyl) methyl)-2(1H)-pyridinylidene]-2,2,2, trifluoroacetamide	5(b)	1689566-03-7			
19	(N-(4-fluorophenyl)-2-hydroxy-N-isopropyl-acetamide	5(b)	54046-89-8			
20	(1-(3-Chloropyridine-2-yl)-3-((5-(trifluoromethyl)-2H-tetrazol-2-yl)methyl)-1H pyrozol-5-carboxylic acid)	5(b)	1352319-02-8			
21	Tetrafluoropropene - 1234yf	5(f)	754-12-1			
22	Tetrafluoropropene - 1234ze	5(f)	29118-24-9	0		
23	1,1,2,2-Tetrafluoroethyl Methyl Ether	5(b)	425-88-7	4000	3500	7500
24	Trifluoromethylbenzamide	5(b)	360-64-5	2000	0	2000
25	TrifluoroMethyl-2-EthoxyVinyl Ketone	5(b)	59938-06-6	1000	2000	3000
26	2-(2-Methoxy-ethoxymethyl)-6-trifluoromethyl-nicotinic acid ethyl ester	5(b)	757218-51-2	2000	1000	3000
27	Monomethylhydrazine	5(f) & 5(b)	60-34-4	4000	1000	5000
28	Methyl Hydroxy Pyrazole	5(b)	33641-15-5	100	100	200
29	1-(5-Acetyl-[1,4,5]-Oxadiazepan-4-yl)-ethanone	5(b)	83598-13-4	0	1000	1000
30	4-Methoxycyclohexanone	5(b)	13482-23-0	600	400	1000

31	5-[1-(Methylthio)ethyl]-2-(Trifluoromethyl) Pyridine	5(b)	1005489-34-8	0	1000	1000
32	2,2-Difluoro-1,3-Benzodioxole	5(b)	454-79-5	0	1500	1500
33	[3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl](5-hydroxy-1-methylpyrazol-4-yl)methanone (Topramezone)	5(b)	210631-68-8	500	1000	1500
34	LUFENURON TECH (1-[2,5-Dichloro-4-(1,1,2,3,3,3-hexafluoropropoxy) phenyl]-3-(2,6-difluorobenzoyl)urea)	5(b)	103055-07-8	0	1000	1000
35	BICYCLOPYRINE TECH	5(b)	352010-68-5	0	1500	1500
36	SULFENTRAZONE TECH (N-{2,4-Dichloro-5-[4-(difluoromethyl)-3-methyl-5-oxo-4,5-dihydro-1H-1,2,4-triazol-1-yl]phenyl}methanesulfonamide)	5(b)	122836-35-5	0	1500	1500
37	R&D products	5(f) & 5(b)	-	2000	2500	4500
	Organo Heterocyclic Compounds					
	Aryl/Alkyl/Alicyclic Compounds					
	Elemental Fluorine / Bromine / Chlorine / Iodine and their Products/Derivatives					
	Alkali Metal / Boron / Phosphorous / Sulphur based Product / Derivatives					
38	Parabromofluorobenzene	5(f) & 5(b)	1072-85-1	500	0	500
39	Hexafluoropropylene	5(f) & 5(b)	116-15-4	1000	0	1000
40	Ethyl Difluoroacetoacetate	5(f) & 5(b)	352-24-9	1000	0	1000
41	Difluoromethanesulphonlychloride	5(b)	1512-30-7	1000	0	1000
42	Triflic Acid	5(f) & 5(b)	1493-13-6	1000	0	1000
43	Trifluoromethanesulfonic Anhydride	5(f) & 5(b)	358-23-6	1000	0	1000

44	Trimethylsilyl trifluoromethanesulfonate	5(f) & 5(b)	27607-77-8	520	0	520
45	3-Trifluoromethylacetophenone	5(b)	349-76-8	1000	200	1200
46	2,6-Dichloro-4-(trifluoromethyl) aniline	5(b)	24279-39-8	1000	0	1000
47	Cyanapyrazole	5(b)	31108-57-3	2000	0	2000
48	Trifluoroacetyl chloride	5(f) & 5(b)	354-32-5	1000	0	1000
49	Sulphur Tetrafluoride	5(f) & 5(b)	7783-60-0	500	0	500
50	2- Trifluoromethyl benzoylchloride	5(b)	312-94-7	1000	1000	2000
51	Mefenamic Acid	5(f) & 5(b)	61-68-7	1000	0	1000
52	Hexafluoropropylene oxide	5(f) & 5(b)	428-59-1	500	0	500
53	Pentaflurophenol	5(f)	771-61-9	500	0	500
54	Tri Fluoro acetone	5(f)	421-50-1	500	0	500
55	Methyl tri fluoro acetate	5(f) & 5(b)	431-47-0	500	0	500
56	Chlorodifluoroacetic Anhydride	5(f) & 5(b)	2834-23-3	100	0	100
57	Bromopentafluorobenzene	5(f) & 5(b)	344-04-7	500	0	500
58	4-Chlorobenzotrichloride	5(f) & 5(b)	5216-25-1	600	0	600
59	4-Chlorobenzotrifluoride	5(f) & 5(b)	98-56-6	600	0	600
60	6-Fluoro methyl indole	5(b)	40311-13-5	100	0	100
61	Difluoroethoxy ethanol	5(f) & 5(b)	148992-43-2	200	0	200
62	5-Bromo-2-2-difluoro-1-3-benzodioxole	5(f) & 5(b)	33070-32-5	1000	0	1000
63	Difluorobenzodioxole methyl ester	5(f) & 5(b)	773873-95-3	20	0	20
64	2-Fluoro-5-nitrobenzoic acid	5(f) & 5(b)	7304-32-7	30	0	30
65	5-Chloro-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxaldehyde	5(b)	660845-30-7	500	0	500

66	3-Difluoromethyl-5-fluoro-1-methyl-1H-pyrazole-4-carboxaldehyde	5(b)	1255947-55-5	500	0	500
67	2,5-Dichloro-4-(1,1,2,3,3,3-hexafluoropropoxy)benzenamine	5(f) & 5(b)	103015-84-5	500	100	600
68	2,4,5-Trifluorophenyl acetic acid	5(f) & 5(b)	209995-38-0	50	0	50
69	3-Aminobenzotrifluoride	5(f) & 5(b)	98-16-8	1000	0	1000
70	2,4-Dichloro-3,5-dinitrobenzotrifluoride	5(b)	29091-09-6	1000	0	1000
71	3-phenoxy benzaldehyde	5(f) & 5(b)	39515-51-0	4000	0	4000
72	3-phenoxy toluene	5(f) & 5(b)	3586-14-9	200	0	200
73	Methyl-2- Fluoroacrylate	5(f) & 5(b)	2343-89-7	700	0	700
74	Lithium tetrakis (pentafluorophenyl) borate	5(f)	371162-53-7	100	0	100
75	2-fluoro-5-bromobenzonitrile	5(f) & 5(b)	179897-89-3	50	0	50
76	Ethyl-Trifluoropyruvate	5(f) & 5(b)	13081-18-0	200	0	200
77	Isoflurane	5(f) & 5(b)	26675-46-7	250	0	250
78	Desflurane	5(f) & 5(b)	57041-67-5	100	0	100
79	Sevoflurane	5(f) & 5(b)	28523-86-6	200	0	200
80	Trichloroacetyl chloride	5(f) & 5(b)	76-02-8	2000	0	2000
81	2,2,2-Trifluoroacetamide In BETA Picoline (50% Solution)	5(f) & 5(b)	354-38-1	0	400	400
82	Cis- 3-(2-chloro-3,3,3-trifluoro-1-en-1-yl) 2,2-dimethylcyclopropane carboxylic acid (Lambda Cyhalothric acid)	5(b)	72748-35-7	3500	1500	5000
83	2-(Methyl Sulfonyl)-5-(Trifluoromethyl)- 1,3,4-Thiadiazole	5(b)	27603-25-4	600	-100	500
84	4, 6-Dichloro-5-Fluoropyrimidine	5(b)	213265-83-9	0	1000	1000
85	2,3, Dichloropyridine	5(b)	2402-77-9	2000	0	2000

86	5-Chloro-2,3, Difluoropyridine	5(b)	89402-43-7	600	0	600
87	2-Amino-3-chloro-5-(trifluoromethyl) pyridine	5(b)	79456-26-1	600	0	600
88	Hydrazine Hydrate	5(b)	10217-52-4	3500	0	3500
89	1,3, Benzodioxole	5(b)	274-09-9	500	0	500
90	1-(3,5-Dichloro-4-fluoro-phenyl)-2,2,2-Trifluoro-ethanone	5(b)	1190865-44-1	0	500	500
91	Chlorinated Compound					
	Trichloroethylene	5(f)	79-01-6	150000	150000	300000
	Perchloroethylene	5(f)	127-18-4			
	Methyl Chloride	5(f)	74-87-3			
	Methylene dichloride	5(f)	75-09-2			
	Chloroform	5(f)	67-66-3			
	Carbon tetrachloride	5(f)	56-23-5			
92	Caustic Chlorine Plant					
	Chlorine	4(d)	7782-50-5	72000	0	72000
	Caustic lye 47.5 %	4(d)	1310-73-2	187200	36	187236
	Hydrochloric Acid (30-33%)	4(d)	7647-01-0	21600	0	21600
	Hydrogen	4(d)	1333-74-0	2016	0	2016
93	Anhydrous Hydrofluoric acid	5(f)	7664-39-3	80000	0	80000
94	Chlorotrifluoroethane (HCFC 133a)	5(f)	075-88-7	500	0	500
95	HFC Refrigerant					
I	1,1,1,2 Tetrafluroethane (HFC 134a)	5(f)	811-97-2	75000	0	75000
ii	Pentafluoroethane (HFC 125)	5(f)	354-33-6			
iii	Difluoromethane (HFC - 32)	5(f)	75-10-5			
iv	1,1 difluoroethane (HFC - 152a)	5(f)	75-37-6			
v	Refrigerant blend of Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) (R410A)	5(f)	75-10-5 + 354-33-6			

vi	Refrigerant blend of Pentafluoroethane (HFC-125) + 1,1,1-Trifluoroethane (R143a) + 1,1,1,2 Tetrafluroethane (HFC 134a) (R404A)	5(f)	354-33-6 +420-46-2 + 811-97-2			
vii	Refrigerant blend of Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) + 1,1,1,2 Tetrafluroethane (HFC 134a) (R407C)	5(f)	75-10-5 + 354-33-6 + 811-97-2			
viii	Blend of 1,1-Difluoroethane (HFC-152a) + 1,1,1,2 Tetrafluroethane (HFC-134a)	5(f)	75-37-6 + 811-97-2			
Ix	HFA-227ea	5(f)	431-89-0			
96	Butane (R600a)	5(f)	106-97-8	1000	5723	6723
97	Propane (R290)	5(f)	74-98-6	1000	19637	20637
98	Blend of 1-Chloro-1,1-difluoroethane (R142b) + Chlorodifluoromethane (R22)	5(f)	75-68-3 + 75-45-6	500	0	500
99	Blend of 1,1,1,2 Tetrafluroethane (R134a) + Di Methyl Ether (DME)	5(f)	811-97-2 + 115-10-6	500	0	500
100	Hydrofluoric acid (20-70%)	5(f)	7664-39-3	43285	322	43607
101	Anhydrous Hydrochloric Acid	5(f)	7647-01-0	1500	13260	14760
102	Sulphuric acid	5(f)	7664-93-9	100000	0	100000
103	Dicalcium Phosphate	5(f)	7757-93-9	50000	0	50000
104	Tetrahydrofuran	5(f)	77392-70-2	20000	0	20000
105	Polytetrafluoroethyelene	5(f)	9002-84-0	10000	0	10000
106	Bulk Chromia	5(f)	1308-38-9	100	0	100
107	Iso propyl alcohol	5(f)	8013-70-5	50000	0	50000
108	Calcium Chloride	5(f)	10043-52-4	50000	232130	282130
109	Chlorodifluoromethane (R22)	5(f)	75-45-6	25000	0	25000

Total (A)				1025821	454258	1480079
110	Ammonia solution (10 - 25%)	5(f)	7664-41-7	7914	3006	10920
111	Gypsum (CaSO4)	5(f)	10101-41-4	324800	-15120	309680
112	Hydrochloric acid (15 - 33%)	5(f)	7647-01-0	1119369	-53861	106550 8
113	Hydrofluorosilic acid (15 - 40%)	5(f)	16961-83-4	47998	-39998	8000
114	Hydrogen bromide Solution (40-50%)	5(f)	10035-10-6	5691	954	6645
115	Phosphoric acid (25 - 75%)	5(f)	7664-38-2	2449	-5	2444
116	Sodium bromide	5(f)	7647-15-6	30	13037	13067
117	Sodium hypo chlorite	5(f)	7681-52-9	155867	-27177	128690
118	Sulphuric acid (70%- 95%)	5(f)	7664-93-9	140329	49967	190296
119	Succinimide (C4H5NO2)	5(f)	123-56-8	31	0	31
120	Sodium Methyl Sulphate	5(f)	512-42-5	0	10000	10000
121	Hexafluoropropylene	5(f)	116-15-4	2500	0	2500
122	Ammonium Nitrate Solution	5(f)	6484-52-2	1871	0	1871
123	Ethanol	5(f)	64-17-5	684	1687	2371
124	Ethyl acetate & Ethanol	5(f)	141-78-6 & 64-17-5	9296	-8011	1285
125	Acetic Acid	5(f)	64-19-7	0	2385	2385
126	Captive Power Plant	1(d)	--	75 MW	0	75 MW
Total (B)				1818829	-63138	1755691
Total (A) + (B)				2844650 & 75 MW	391120	3235770 & 75 MW

Product No. 110 to 125 were considered as hazardous waste as per EC vide letter no. SEIAA/GUJ/EC/5(f)/1538/2020 dated 15-12-2020.

List of By-Product

Sr. No.	List of By Product	CAS No.	Existing Qty. (MTPA)	Additional Qty. (MTPA)	Total Proposed Qty. (MTPA)
1	2-methyl-4-（1,1,1,2,3,3,3-heptafluoro-2-propyl aniline & Toluene	-	0	625	625
2	Ammonium chloride	12125-02-9	0	5582	5582
3	Dicyclopentadyene & Chlorobenzene	-	0	360	360
4	Diethylether & Toluene	-	0	2535	2535
5	Dimethylformamide	68-12-2	0	9246	9246
6	Ethyldifluoroacetate & Methyldifluoroacetate	-	0	44	44
7	Ethyldifluoroacetate & Polyldifluoroacetate	-	0	2	2
8	Ethyl acetate, Methylene Chloride, Hexane & Toluene	-	0	11030	11030
9	Phosphorus trichloride	10025-87-3	0	1837	1837
10	Potassium fluoride & Potassium bromide	-	0	1020	1020
11	Potassium fluoride & Potassium chloride	-	0	1704	1704
12	Potassium fluoride & Potassium sulphate	-	0	1288	1288
13	Sodium fluoride	7681-49-4	0	245	245
14	Sodium sulphate	7757-82-6	0	15	15
15	Sodium Sulphite	7757-83-7	0	700	700
16	Tert butanol	75-65-0	0	31270	31270
17	Toluene	108-88-3	0	4957	4957
18	Zinc fluoride & Zinc oxide cake	-	0	1421	1421
19	Dimethyl formamide, Methylene Chloride, n-butanol	-	0	11663	11663
20	Diisopropyl Alcohol	100-37-8	0	7267	7267
21	Pentane	109-66-0	0	270	270
22	Ethers	60-29-7	0	7000	7000
23	Sodium Carbonate	497-19-8	0	80	80
	Total		0	100161	100161

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 Ministry (SEIAA Gandhinagar) had issued EC earlier vide letter no. SEIAA/GUJ/EC/5(f)/1538/2020 dated 15/12/2020 to the existing project for Synthetic Organic Chemicals in favour of M/s. SRF Limited

7. The PP reported that the Certified EC Compliance Report from IRO- Gandhinagar has been obtained vide file no. J-11/22-2023-IROGNR Dated 15/03/2023. Out of total 122 conditions, it may be seen that 83 are compiled 7 are partly complied, 13 are agreed to comply by the Project proponent 5 are noted by the unit, 1 condition is not applicable to the unit whereas 14 conditions can't be ascertained. Action taken report for the non – compliances and partially complied conditions has been submitted vide letter dated 20.3.2023.

8. The PP reported that there are no National Parks, Wildlife Sanctuaries, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. River Narmada is flowing at a distance of 1.8 km in South direction. The PP reported that there are six Schedule-I species and the conservation plan has been prepared and submitted to Deputy Conservator of Forests, Bharuch.

9. The PP reported that the **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} (74.54 – 78.04 μg/m^3), $PM_{2.5}$ (43.45 - 46.69 μg/m^3), SO_2 (16.55 – 17.82 μg/m^3) and NO_2 (17.45 – 19.08 μg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.39 μg/m^3, 4.22 μg/m^3 and 1.50 μg/m^3 with respect to PM_{10}, SO_2 and NO_2. 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 – 8.09), Total Dissolved Solids (248 - 2086 mg/l), Total Hardness (116.5 – 622.8 mg/l), Chlorides (15.02 – 695.3 mg/l), Fluoride (<0.05 - <0.05 mg/l) and Zinc (<0.05 - <0.05 mg/l). **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), Dissolved Oxygen (6.49 – 6.96 mg/l), Chemical Oxygen Demand (9.25 – 21.76 mg/l), Bio-Chemical Oxygen Demand (1.81 – 5.53 mg/l). 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 – 8.94), Nitrogen (934.2 – 2691.9 mg/kg), Phosphorus (22.47 – 43.15 mg/kg), Potassium (30.9 – 145.9 mg/kg) and Electric Conductivity (0.161 – 0.385 mS/cm). **Noise level** monitoring was carried out at 8 Residential locations, 5 Industrial locations during October 2020 to December 2020. The baseline data indicates the ranges of concentrations for Industrial Location Leq (Day) (63.1 – 69.5 dB) A)) and Leq (Night) (61.9 – 67.2 dB(A)). Residential Location Leq (Day) (50.2 – 67.9 dB) A)) and Leq (Night) (41.2 – 64.7 dB(A)).

10. The PP reported that Total water requirement is 43330 m^3/day of which fresh water requirement of 21521 m^3/day will be met from GIDC Water Supply, rest 21809 m^3/day water will be recycled water. Effluent of 30113 m^3/day quantity will be treated as per below treatment description The process industrial effluent of quantity @ 6681 m^3/day shall be treated in well-designed effluent treatment plant. It includes primary, secondary and tertiary treatment

facilities and multi effect evaporated plant (MEE) followed by agitated thin film dryer. 13051 m^3/day of steam condensate will be collected in separate collection tank and reused in cooling tower/process. 9731 m^3/day of industrial effluent from softener/ DM Plant reject + Boiler Blow down + Cooling tower Blow down (including Captive Power Plant) shall be sent to separate ETP (UF&RO including primary treatment). After treatment, 8758 m^3/day the treated shall be reused in cooling tower/process and 973 m^3/day RO reject after confirming the GPCB discharge norms shall be sent for disposal in to GIDC sewer line – Dahej pipeline / Common disposal system up to the sea. Total 7654 m^3/day treated (6681 m^3/day treated industrial effluent + 973 m^3/day RO reject after confirming the GPCB standard) shall be sent for disposal in to GIDC sewer line – Dahej pipeline / Common disposal system up to the sea for final disposal at NIO designated points. 650 m^3/day of sewage shall be treated separately to confirm the GPCB standard shall be reuse in development of greenbelt / plantation within premises and in monsoon season it shall be reuse in cooling tower/process. The plant is not based on the total zero liquid discharge system.

11. The PP reported that Power requirement after expansion will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has DG sets (600 KVA (2 Nos.), 1010 KVA (2 No.) & 4200 KVA (3 Nos.)) Capacity, additionally (1500 KVA (19 Nos.), 910 KVA (10 Nos.), 750 KVA (6 Nos.) DG set will be used as standby during power failure. Stack (height 11 m & 30 m) is provided as per CPCB norms to the DG sets. (After expansion 3 No of 4200 KVA of DG set will be removed. Existing unit has 1 No. of 17 TPH Boiler, 2 No. of 30 TPH Boiler, 2 No. of 35 TPH Boiler, 1 No. of 60 TPH Boiler, 1 No. of 175 TPH Boiler, 1 No. of 82 TPH Boiler, 1 No. of 15 TPH Boiler, 1 No. of 16 TPH Boiler, 33 Nos. of Heater, 2 Nos. of Plant Drying System, 10 Nos. of Dust Collectors. Additionally, 2 Nos. of Plant Heater, 1 No. of Plant Drying System and 1 Nos. of natural Gas Furnace Stack will be installed. Adequate stack height, Efficient Burner and Cyclone Separator / Bag Filter with stack height of 40 m, 46 m & 51 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the proposed boilers.

12. **Details of Process Emissions Generation and Its Management**: **Flue Gas Emission**

Sr. No.	**Stack Attached To**	**Stack Height (Meter)**	**Type of Fuel**	**Qty. (kg/hour**	**APCM**	**Parameter & Permissible Limit**
Existing Stack						
1	Boiler 17 TPH (1 No.)	53	LSHS	1450	--	PM - 150 mg/Nm^3 SO_2 – 100 ppm NO_x – 50 ppm
2	Boiler 30 TPH (1 No.)	63	LSHS	2560	--	
3	Boiler 30 TPH (1 No.)	63	LSHS	2560	--	
4	Boiler 35 TPH (1 No.)	94 (Common Stack)	Coal	25000	Electrostatic Precipitator	
5	Boiler 35 TPH (1 No.)					
6	Boiler 60 TPH (1 No.)					
7	Boiler 175 TPH (1 No.)	106	Coal/Bio fuel	44500	Electrostatic Precipitator	

8	Boiler 82 TPH (1 No.)	86	Coal/Bio fuel	22900	Electrostatic Precipitator	
9	Boiler 15 TPH (1 No.)	40	LSHS	1280	--	
10	Boiler 16 TPH (1 No.)	40	LSHS	1370	--	
11	DG Set 500 KW (600 kVA) (1 No.)	11	HSD	125	--	
12	DG Set 500 KW (600 kVA) (1 No.)	11	HSD	125	--	
13	DG Set 840 KW (1010 kVA) (1 No.)	30	HSD	396	--	
14	DG Set 840 KW (1010 kVA) (1 No.)	30	HSD	396	--	
15	DG Set 4200 kVA (1 No.)	30	HSD	1250	--	
16	DG Set 4200 kVA (1 No.)	30	HSD	1250	--	
17	DG Set 4200 kVA (1 No.)	30	HSD	1250	--	
18	Trichloroethylene/ Perchloroethylene Heater-1 (1 No.)	50	LSHS/ HSD/ NG	250	Efficient Burner	
19	Trichloroethylene/ Perchloroethylene Heater-2 (1 No.)	50	LSHS/ HSD/ NG	250	Efficient Burner	
20	Anhydrous Hydrofluoric acid-1 Plant Heater (1 No.)	46	LSHS/ HSD/ NG	250	Efficient Burner	
21	Anhydrous Hydrofluoric acid-1 Plant Drying System (1 No.)	35	LSHS/ HSD/ NG	833	Cyclone Separator / Bag Filter	
22	Anhydrous Hydrofluoric acid-2 Plant Heater (1 No.)	46	LSHS/ HSD/ NG	250	Efficient Burner	
23	Anhydrous Hydrofluoric acid-2 Plant Drying System (1 No.)	40	LSHS/ HSD/ NG	833	Efficient Burner	
24	1,1,1,2 Tetrafluroethane Heater (1 No.)	51	LSHS/ HSD/ NG	250	Efficient Burner	
25	Difluoromethane Plant Heater (1 No.)	51	LSHS/ HSD/ NG	250	Efficient Burner	
26	Plant Heaters (27 Nos.)	30 each	LSHS/ HSD/ NG	8500	Efficient Burner	
27	Dust Collectors (CPP) (1 No.)	12	-	-	Bag Filter	
28	Dust Collectors (9 Nos.)	12 each	-	-	Bag Filter	
Proposed Stack						
29	DG Sets 1500 KVA (19 Nos.)	30	HSD	588	Adequate Stack Height	PM - 150 mg/Nm^3 SO_2 – 100 ppm NO_x – 50 ppm

30	DG Sets 910 KVA (10 Nos.)	11 each	HSD	357	Adequate Stack Height	
31	DG Sets 750 KVA (6 Nos.)	11 each	HSD	295	Adequate Stack Height	
32	Difluoromethane-2 Plant Heater	51	LSHS/ HSD/ NG	25	Efficient Burner	
33	Anhydrous Hydrofluoric acid-3 Plant Heater	46	LSHS/ HSD/ NG	25	Efficient Burner	
34	Anhydrous Hydrofluoric acid-3 Plant Drying System	40	LSHS/ HSD/ NG	833	Cyclone Separator / Bag Filter	
35	Thermal Oxidizer-1 (1 Nos.)	40	HSD/NG	1 KLD/ 203 Nm3/day	Quencher + Water Absorber + Alkali Scrubber	PM - 150 mg/Nm^3 SO_2 - 200 ppm NO_x (NO and NO_2) - 400 mg/Nm^3 HCl - 50 mg/Nm^3 HF - 4 mg/Nm^3 TOC - 20 mg/Nm^3 CO - 100 mg/Nm^3
36	Thermal Oxidizer-2 (1 Nos.)	40	HSD/NG	1 KLD/204 Nm3/day	Quencher + Water Absorber + Alkali Scrubber + Particulate Filtration	
37	Tetrafluoroethylene Natural Gas Furnace Stack (2 Nos.)	40	NG	700 Nm3/hr	Adequate Stack Height	

NOTE: - After expansion 3 Nos. of 4200 KVA of D.G Set will be removed

Process Gas Emission

Stack No.	Stack Attached to	Air Pollution Control Measure	Stack Height in Meter	Stack Diameter in Meter	Air Emission	
					Pollutant	Concentration
Existing Process Stack						
1	AHF Plant Central Absorption System (Anhydrous Hydrofluoric acid)	Continuous Water Circulation	36.70	0.15	HF	6 mg/Nm3
2	TCE/PCE Plant Central Absorption System	Continuous Water Circulation	18.20	0.08	HCl	20 mg/Nm3
3	TCE/PCE Plant Chlorine Shed Central Absorption System	Continuous Water + Alkali Circulation	10.50	0.15	Cl2	9 mg/Nm3
4	HCl Tank farm TCE/PCE Plant	Continuous Water Circulation	11.70	0.10	HCl	20 mg/Nm3

5	1,1,1,2 Tetrafluroethane Plant Central Absorption System(HFC 134a)	Continuous Water Circulation	42.10	0.20	HCL	20 mg/Nm3
6	1,1,1,2 Tetrafluroethane Plant Central Absorption System(HFC 134a)	Continuous Water Circulation	42.10	0.40	HF	6 mg/Nm3
7	HCl Tank farm F134a Plant	Continuous Water Circulation	11.38	0.25	HCl	20 mg/Nm3
8	DHF Central Absorption System F134a Plant	Continuous Water Circulation	10.00	0.20	HF	6 mg/Nm3
9	Difluoromethane (HFC - 32) Central Absorption System	Continuous Water Circulation + KOH	42.75	0.25	HF HCl	6 mg/Nm3 20 mg/Nm3
10	Pentafluoroethane (HFC 125) Central Absorption System	Continuous Water Circulation	46.50	0.25	HF HCL	6 mg/Nm3 20 mg/Nm3
11	Chloromethanes Plant Central Absorption System	Continuous Water Circulation	19.60	0.25	HCl	20 mg/Nm3
12	Chloromethanes Plant Chlorine Shed Central Absorption System	Continuous Water + Alkali Circulation	11.00	0.25	Cl2	9 mg/Nm3
13	Caustic Chlorine Plant Central Absorption System	Alkali Circulation	30	0.3	Cl2	9 mg/Nm3
14	Caustic Chlorine Plant Central Absorption System	Continuous Water Circulation	30	0.3	HCl	20 mg/Nm3
15	Chlorotrifluoroethane (HCFC 133a) Central Absorption System	Continuous Water Circulation	30	0.3	HCl HF	20 mg/Nm3 6 mg/nm3
16	MPP-1 Plant Central Absorption System	Continuous Water Circulation	30	0.1	Br2	-
17	MPP-1 Plant Central Absorption System	Continuous Water Circulation	30	0.1	HCL	20 mg/Nm3
18	MPP-1 Plant Central Absorption System	Alkali Circulation	30	0.1	Cl2	9 mg/Nm3
19	MPP-1 Plant Central Absorption System	Continuous Water Circulation	30	0.1	NH3	175 mg/Nm3

20	Trifluoro Acetic Acid Central Absorption System	Continuous Water Circulation	30	0.2	HF HCL	6 mg/Nm3 20 mg/Nm3
21	Parabromopentafluorobenzene	Continuous Water Circulation	26	0.1	Br2	2 mg/Nm3
22	Ethyldifluoroacetate Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HF HCL	6 mg/Nm3 20 mg/Nm3
23	Ethyltrifluoroacetoacetate Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/Nm3
24	Amino crotonate Central Absorption System	Continuous Water Circulation	30	0.15	NH3	175 mg/Nm3
25	Pentafluorobenzoic Acid Central Absorption System	Water and Alkali Circulation	30	0.1	HCl	20 mg/Nm3
26	Monomethyl hydrazine Central Absorption System	Water Circulation	30	0.1	HCl	20 mg/Nm3
27	Pyrazole Acid Plant Central Absorption System	Continuous Water Circulation	35	0.1	HCl Cl2	20 mg/Nm3 9 mg/Nm3
28	Bromine storage central Absorption System	Water and Alkali Circulation	25	0.15	Br2	02 mg/Nm3
29	2-methyl-4-（1,1,1,2,3,3,3-heptafluoro-2-propyl aniline Central Absorption System	Water and Alkali Circulation	25	0.15	HCl	20 mg/Nm3
30	Tetrafluoropropene - 1234yf Central Absorption System	Continuous Water Circulation	30	0.3	HF HCL	6 mg/Nm3 20 mg/Nm3
31	Tetrafluoropropene - 1234yf Central Absorption System	Continuous Water + Alkali Circulation	30	0.3	Cl2	9 mg/Nm3
32	Isobutyl Acetophenone Central Absorption System	Continuous Water Circulation	30	0.3	HF	6 mg/Nm3
33	2-Bromo-5-fluorobenzotrifluoride Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl HF	20 mg/Nm3 2 mg/Nm3

34	1,1,2,2-Tetrafluoroethyl Methyl Ether Central Absorption System & Hexafluoropropylene Central Absorption System	Continuous Water Circulation	24	0.15	HCl	20 mg/Nm3
35	HCl tank farm	Continuous Water Circulation	30	0.15	HCl	20 mg/Nm3
36	Difluoromethanesulphonlychloride Central Absorption System	Continuous Water + Alkali Circulation	30	0.3	HCl Cl2	20 mg/Nm3 9 mg/Nm3
37	Triflic Acid Central Absorption System	Continuous Water Circulation	30	0.3	HF	6 mg/Nm3
38	Trimethylsilyl trifluoromethanesulfonate Central Absorption System	Continuous Water Circulation	30	0.3	HCl	20 mg/Nm3
39	2,6-Dichloro-4-(trifluoromethyl) aniline Central Absorption System	Continuous Water + Alkali Circulation	30	0.3	HCl Cl2	20 mg/Nm3 9 mg/Nm3
40	2,6-Dichloro-4-(trifluoromethyl) aniline Central Absorption System	Continuous Water Circulation	30	0.3	NH3	175 mg/Nm3
41	Cyanapyrazole Central Absorption System	Continuous Water + Alkali Circulation	30	0.3	HCl Cl2	20 mg/Nm3 9 mg/Nm3
42	Cyanapyrazole Central Absorption System	Continuous Water Circulation	30	0.3	NH3	175 mg/Nm3
43	Trifluoromethylbenzamide Central Absorption System	Water and Alkali Circulation	32	0.15	HCl Cl2	20 mg/Nm3 9 mg/Nm3
44	Trifluoroacetyl chloride Central Absorption System	Continuous Water + Alkali Circulation	30	0.3	HF HCL Cl2	6 mg/Nm3 20 mg/Nm3 9 mg/Nm3
45	Sulphur Tetrafluoride Central Absorption System	Continuous Water Circulation	30	0.3	HF	6 mg/Nm3
46	2- Trifluoromethyl benzoylchloride Central Absorption System	Continuous Water + Alkali Circulation	30	0.3	HCl Cl2	20 mg/Nm3 9 mg/Nm3

47	[3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl](5-hydroxy-1-methylpyrazol-4-yl)methanone/ Methyl Hydroxy Pyrazole Central Absorption System	Continuous Water + Alkali Circulation	42	0.15	HCl Cl2	20 mg/Nm3 9 mg/Nm3
48	Flare Stack	-	30	0.2	-	-
49	Methyl tri fluoro acetate Central Absorption System	Continuous Water Circulation	30	0.3	HF	6 mg/Nm3
50	Chlorodifluoroacetic Anhydride Central Absorption System	Continuous Water Circulation	30	0.3	HF	6 mg/Nm3
51	Bromopentafluorobenzene Central Absorption System	Continuous Water + Alkali Circulation	30	0.15	Br2	2 mg/Nm3
52	4-Chlorobenzotrichloride Central Absorption System	Continuous Water + Alkali Circulation	30	0.3	HCl Cl2	20 mg/Nm3 9 mg/Nm3
53	4-Chlorobenzotrifluoride Central Absorption System	Continuous Water + Alkali Circulation	30	0.3	HF HCL Cl2	6 mg/Nm3 20 mg/Nm3 9 mg/Nm3
54	6-Fluoro methyl indole Central Absorption System	Continuous Water Circulation	30	0.3	HCl	20 mg/Nm3
55	5-Bromo-2-2-difluoro-1-3-benzodioxide Central Absorption System	Continuous Water + Alkali Circulation	30	0.3	HF HCL Br2	6 mg/Nm3 20 mg/Nm3 2 mg/Nm3
56	3-Aminobenzotrifluoride Central Absorption System	Continuous Water Circulation	30	0.3	HCl HF	20 mg/Nm3 6 mg/Nm3
57	3-Phenoxy benzaldehyde Central Absorption System	Continuous Water Circulation	30	0.3	HCl	20 mg/Nm3
58	Methyl-2- Fluoroacrylate Central Absorption System	Continuous Water Circulation	30	0.3	HF	6 mg/Nm3
59	Desflurane Central Absorption System	Continuous Water Circulation	30	0.3	HF HCl	6 mg/Nm3 20 mg/Nm3

60	Sevoflurane Central Absorption System	Continuous Water Circulation	30	0.3	HF	6 mg/Nm3
61	Trichloroacetyl chloride Central Absorption System	Continuous Water + Alkali Circulation	30	0.3	HCl Cl2	20 mg/Nm3 9 mg/Nm3
62	Laboratory (4 Nos. absorption system)	Water and Alkali Circulation	20	0.3	Un known	-
63	Tank Farm (8 Nos. absorption system)	Water and Alkali Circulation	30	0.3	Un known	-
64	Sulphuric Acid Plant Central Absorption System	Continuous Water + Alkali Circulation	30.00	0.15	SO2	40 mg/Nm3
65	Polytetrafluoroethylene (PTFE) plant Central Absorption System	Continuous Water + Alkali Circulation	30.00	0.15	SO2 HCl	40 mg/Nm3 20 mg/Nm3
66	Bulk Cromia Plant Central Absorption System	Continuous Water + Alkali Circulation	30.00	0.15	NH3	175 mg/Nm3
67	Isopropyl alcohol plant Central Absorption System	Continuous Water + Alkali Circulation	30.00	0.15	SO2	40 mg/Nm3
68	CaCl2 plant Central Absorption System (10 Nos.)	Continuous Water + Sodium Carbonate Circulation	30 each	0.15 each	CO2 HCl	-- 20 mg/Nm3
69	Chlorodifluoromethane (R22) Plant Central Absorption System	Continuous Water Circulation	30.00	0.15	HF HCl	6 mg/Nm3 20 mg/Nm3
Proposed Process Stack						
70	Flare Stack (2 Nos.)	-	30	0.2	-	-
71	Gypsum Scrubbing System	N.A	27.50	0.30	SO2 HF	40 mg/Nm3 6 mg/Nm3
72	AHF Plant Central Absorption System (Anhydrous Hydrofluoric acid)	Continuous Water Circulation	39.50	0.15	HF	6 mg/Nm3

73	Gypsum Scrubbing System	N.A	23.70	0.30	SO2 HF	40 mg/Nm3 6 mg/Nm3
74	AHF Plant Central Absorption System (Anhydrous Hydrofluoric acid)	Continuous Water Circulation	39.50	0.15	HF	6 mg/Nm3
75	Gypsum Scrubbing System	N.A	23.70	0.30	SO2	40 mg/Nm3
76	Chloromethanes Plant Central Absorption System	Continuous Water Circulation	19.60	0.25	HCl	20 mg/Nm3
77	MPP-2 Plant Central Absorption System	Water and Alkali Circulation	36	0.15	Br2	9 mg/Nm3
78	MPP-2 Plant Central Absorption System	Continuous Water Circulation	36	0.15	HCl Cl2	20 mg/Nm3 9 mg/Nm3
79	MPP-2 Plant Central Absorption System	Continuous Water Circulation	36	0.15	HF	6 mg/Nm3
80	MPP-2 Plant Central Absorption System	Continuous Water Circulation	36	0.15	NH3	175 mg/Nm3
81	MPP-2 Plant Central Absorption System	Continuous Water Circulation	36	0.15	NOx	40 mg/Nm3
82	MPP-3 Plant Central Absorption System	Water and Alkali Circulation	36	0.15	HF HCl	6 mg/Nm3 20 mg/Nm3
83	MPP-3 Plant Central Absorption System	Water and Alkali Circulation	36	0.15	Br2	2 mg/Nm3
84	MPP-3 Plant Central Absorption System	Water and Alkali Circulation	36	0.15	H2S	-
85	MPP-3 Plant Central Absorption System	Alkali Circulation	36	0.15	Cl2	9 mg/Nm3
86	MPP-3 Plant Central Absorption System	Continuous Water Circulation	36	0.15	NH3	175 mg/Nm3
87	Trifluoro Acetic Acid Central Absorption System	Continuous Water Circulation	30	0.1	HF	6 mg/Nm3
88	Pyrazole Acid Plant Central Absorption System (2 nos.)	Continuous Water Circulation	35	0.08	NH3	175 mg/Nm3

89	Pyrazole Acid Plant Central Absorption System	Continuous Water Circulation	35	0.1	HCl	20 mg/Nm3
90	Trifluoromethylbenzamide Central Absorption System	Continuous Water Circulation	32	0.1	HF HCL	06 mg/Nm3 20 mg/Nm3
91	Trifluoromethylbenzamide Central Absorption System	Continuous Water Circulation	30	0.1	NH3	175 mg/Nm3
92	[3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-o-tolyl](5-hydroxy-1-methylpyrazol-4-yl)methanone Central Absorption System	Alkali Circulation	42	0.15	NOx	40 mg/Nm3
93	2-(2-Methoxy-ethoxymethyl)-6-trifluoromethyl-nicotinic acid ethyl ester Central Absorption System	Continuous Water Circulation	36	0.35	NH3	175 mg/Nm3
94	2-(2-Methoxy-ethoxymethyl)-6-trifluoromethyl-nicotinic acid ethyl ester Central Absorption System	Continuous Water Circulation	36	0.35	HF HCl	6 mg/Nm3 20 mg/Nm3
95	Pentaflurophenol Central Absorption System	Continuous Water Circulation	37	0.15	NH3	175 mg/Nm3
96	2,2-Difluroethylamine Central Absorption System	Continuous Water Circulation	37	0.15	NH3	175 mg/Nm3
97	Ethyldifluoro acetoacetate Central Absorption System	Continuous Water Circulation	37	0.15	HCl	20 mg/Nm3
98	2,3-Dichloro-5-trifluoromethyl-pyridine	Continuous Water + Alkali Circulation	7	0.15	Cl2	09 mg/Nm3
99	2,3-Dichloro-5-trifluoromethyl-pyridine	Continuous Water Circulation	6	0.15	HF HCL	06 mg/Nm3 20 mg/Nm3
100	PP-1 Central Absorption System	Continuous Water Circulation	30	0.15	NH3	175 mg/Nm3
101	PP-1 Central Absorption System	Continuous Water Circulation	30	0.15	HF	06 mg/Nm3
102	PP-1 Central Absorption System	Continuous Water and	30	0.15	HCl Cl2	20 mg/Nm3 09 mg/Nm3

		Alkali Circulation				
103	5-[1-(methylthio)ethyl]-2-(trifluoromethyl) pyridine/1-(5-acetyl-[1,4,5] oxadiazepan-4-yl)-ethanone Plant Central Absorption System	Continuous Water and Alkali Circulation	30	0.15	SO2	40 mg/Nm3
104	5-[1-(methylthio)ethyl]-2-(trifluoromethyl) pyridine/1-(5-acetyl-[1,4,5] oxadiazepan-4-yl)-ethanone Plant Central Absorption System	Continuous Water Circulation	30	0.15	NH3	175 mg/Nm3
105	5-[1-(methylthio)ethyl]-2-(trifluoromethyl) pyridine/1-(5-acetyl-[1,4,5] oxadiazepan-4-yl)-ethanone Plant Central Absorption System	Continuous Water and Alkali Circulation	30	0.15	SO2	40 mg/Nm3
106	Raw material tankfarm Central Absorption System - 1	Continuous Water and Alkali Circulation	30	0.15	SO2	40 mg/Nm3
107	Acid tank farm	Continuous Water Circulation	30	0.15	HCl	20 mg/Nm3
108	5-[1-(methylthio)ethyl]-2-(trifluoromethyl) pyridine/1-(5-acetyl-[1,4,5] oxadiazepan-4-yl)-ethanone Plant Central Absorption System	Continuous Water and Alkali Circulation	30	0.15	NH3	175 mg/Nm3
109	Difluoromethane (HFC - 32) Central Absorption System	Continuous Water Circulation + KOH	44.00	0.25	HF HCL	6 mg/Nm3 20 mg/Nm3
110	MPP-4 Plant Central Absorption System	Continuous Water + Alkali Circulation	46	0.15	Br2	2 mg/Nm3
111	MPP-4 Plant Central Absorption System	Continuous Water Circulation	46	0.15	NH3	175 mg/Nm3
112	MPP-4 Plant Central Absorption System	Continuous Water Circulation	46	0.15	HF	06 mg/Nm3

113	MPP-4 Plant Central Absorption System	Continuous Water Circulation	46	0.15	HCl Cl2	20 mg/Nm3 09 mg/Nm3
114	MPP-4 Plant Central Absorption System	Continuous Water + Alkali Circulation	46	0.15	NOx	40 mg/Nm3
115	MPP-4 Plant Central Absorption System	Continuous Alkali Circulation	46	0.15	SO2	40 mg/Nm3
116	PIP-1 Plant Central Absorption System	Continuous Water + Alkali Circulation	46	0.15	Br2	2 mg/Nm3
117	PIP-1 Plant Central Absorption System	Continuous Water Circulation	46	0.15	NH3	175 mg/Nm3
118	PIP-1 Plant Central Absorption System	Continuous Water Circulation	46	0.15	HF	06 mg/Nm3
119	PIP-1 Plant Central Absorption System	Continuous Water + Alkali Circulation	46	0.15	HCl Cl2	20 mg/Nm3 09 mg/Nm3
120	PIP-1 Plant Central Absorption System	Continuous Water + Alkali Circulation	46	0.15	NOx	40 mg/Nm3
121	PIP-1 Plant Central Absorption System	Continuous Water + Alkali Circulation	46	0.15	SO2	40 mg/Nm3
122	1-(3-chloropyridin-2yl)-3-[[5-(trifluoromethyl)-2h tetrazol-2yl]methyl]-1h-pyrazole-5-carboxylic acid Plant Central Absorption system - 1	Continuous Water + Alkali Circulation	44	0.15	HCL	20 mg/Nm3
123	1-(3-chloropyridin-2yl)-3-[[5-(trifluoromethyl)-2h tetrazol-2yl]methyl]-1h-pyrazole-5-carboxylic acid Plant Central Absorption system - 2	Continuous Water + Alkali Circulation	44	0.15	HCl	20 mg/Nm3
124	1-(3-chloropyridin-2yl)-3-[[5-(trifluoromethyl)-2h tetrazol-2yl]methyl]-1h-pyrazole-5-	Continuous Water +	44	0.15	HCl SO2	20 mg/Nm3 40 mg/Nm3

	carboxylic acid Plant Central Absorption system	Alkali Circulation				
125	2,2 -Difluro 1,3 Benzodioxole/4-methoxy cyclohexanone Plant Central Absorption system	Continuous Water + Alkali Circulation	44	0.15	HCl Cl2 HF	20 mg/Nm3 09 mg/Nm3 06 mg/Nm3
126	Reactor/Vessel Central Absorption system (2 nos.)	Continuous Water + Alkali Circulation	44	0.15	HCl Cl2	20 mg/Nm3 09 mg/Nm3
127	2-Bromo-5-fluorobenzotrifluoride Plant Central Absorption system	Continuous Alkali Circulation	46	0.15	Br2	02 mg/Nm3
128	2-Bromo-5-fluorobenzotrifluoride Plant Central Absorption system	Continuous Water Circulation	46	0.15	HF	06 mg/Nm3
129	2-Bromo-5-fluorobenzotrifluoride Plant Central Absorption system	Continuous Water Circulation	46	0.15	HCl	20 mg/Nm3
130	1-(3,5-dichloro-4-fluoro-phenyl)-2,2,2-trifluoro-ethanone Plant Central Absorption system	Continuous Alkali Circulation	43	0.15	HF NOX HCl	06 mg/Nm3 40 mg/Nm3 20 mg/Nm3
131	1-(3,5-dichloro-4-fluoro-phenyl)-2,2,2-trifluoro-ethanone Plant Central Absorption system	Continuous Water + Alkali Circulation	43	0.15	Cl2 Nox HCl	09 mg/Nm3 40 mg/Nm3 20 mg/Nm3
132	1-(3,5-dichloro-4-fluoro-phenyl)-2,2,2-trifluoro-ethanone Plant Central Absorption system	Continuous Alkali Circulation	43	0.15	SO2	40 mg/Nm3
133	Raw material tankfarm Central Absorption System – 2	Continuous Water and Alkali Circulation	30	0.15	NOx	40 mg/Nm3
134	Tetrafluoroethylene plant Vent System	Continuous Water + Alkali Circulation	55	0.4	SO2 HCl	40 mg/Nm3 20 mg/Nm3
135	Tetrafluoroethylene Plant Tank farm Central Absorption System	Continuous Water + Sodium Carbonate Circulation	30	0.2	HCl	20 mg/Nm3
136	Difluoromethane (HFC - 32) Caustic Sparger Vent	Continuous Caustic Circulation	44.00	0.30	HF HCl	6 mg/Nm3 20 mg/Nm3

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

24 Categories of Hazardous/Solid Wastes will be generated from this Unit.

Sr. No.	Name of Hazardous and Other Waste	Category as per Haz. Waste Rule 2016	Source of Generation	Existing	Additional	Total	Mode of disposal
				MT/Annum			
1	Chemical sludge from waste water treatment	35.3	ETP Process	10784	4779	15563	Generation, Collection, Storage, Transportation, disposal at Common Secured Landfill Site / Send to Pre-processing facility / Co-processing to Cement Industries.
2	Chemical sludge from waste water treatment (MEE / ATFD Salt)	35.3	MEE / ATFD Process	73858	86742	160600	Generation, Collection, Storage, Transportation, disposal at Common Secured Landfill Site / Send to Pre-processing facility / Co-processing to Cement Industries.
3	Spent Oil	5.1	Lubrication of Plant Machinery / Equipment	1800	0	1800	Generation, Collection, Storage, Transportation, sell to registered re-refiners / recycler / send for pre-processing / send for co-processing at

							cement industries / disposed at CHWIF
4	Wastes or residues containing oil	5.2	Cleaning of Plant Machinery / Equipment	0	50	50	Generation, Collection, Storage, Transportation, send for pre-processing / send for co-processing at cement industries / disposal at CHWIF.
5	Discarded containers / barrels / liners used for hazardous wastes/chemicals	33.1	Raw Material	14741	4422	19163	Generation, Collection, Storage, Transportation and sell to authorized decontamination facility / common secured landfill site / send to pre-processing / send to co-processing at cement industries / or to the recycler after decontamination / after shredding, crushing, compacting and sell to authorizer recycler.
			Raw Material	190	57	247	
6	Contaminated Cotton Rags or other cleaning materials	33.2	Process	50	0	50	Generation, Collection, Storage, Transportation, send for pre-processing / send for co-processing at cement industries /

							disposal at CHWIF.
7	Spent Catalyst	36.2	Process	7902	-461	7441	Generation, Collection, Storage, Transportation and send to pre-processing / send to co-processing at cement industries / disposal at CHWIF / disposal at common secured landfill site.
8	Spent Carbon	36.2	Process	1212	-386	826	Generation, Collection, Storage, Transportation and send to pre-processing / send to co-processing at cement industries / disposal at CHWIF
9	Off- Specification Product	36.1	Process	600	0	600	Generation, Collection, Storage, Transportation and send to pre-processing / send to co-processing at cement industries / disposal at CHWIF / disposal at common secured landfill site.
10	Any process or distillation residue	36.1	Process	33130	14449	47579	Generation, Collection, Storage, Transportation

							and send for pre-processing / send for co-processing at cement industries / disposal at CHWIF / disposal at common secured landfill site.
11	Spent Solvent	20.2	Process	90892	239056	329948	Generation, Collection, Storage, Transportation, on site recovery / sell to authorized unit having Rule-9 permission / Job Work with offsite unit / off-site recovery / send for pre-processing / send for co-processing at cement industries / disposal at CHWIF.
12	Inorganic Salt	36.1	Process	18602	0	18602	Generation, Collection, Storage, Transportation, disposal at Common Secured Landfill Site / Send for Pre-processing facility / send for Co-processing to Cement Industries.
13	Mix of trichloroethylene & Perchloroethylene	20.2	Process	56975	-47347	9628	Generation, Collection, Storage, Transportation, on site recovery / sell

							to authorized unit having Rule-9 permission / Job Work with off-site unit / off-site recovery / send for pre-processing / send for co-processing at cement industries / disposal at CHWIF.
14	Brine Sludge	16.3	Caustic Chlorine Plant	5500	0	5500	Generation, Collection, Storage, Transportation, disposal at Common Secured Landfill Site / send for Pre-processing facility / send for Co-processing to Cement Industries.
15	Fluoroform (R23)	28.1	Process	400	-300	100	Generation, Collection, Storage, Transportation, disposal to Common incineration or in-house Thermal Oxidizer.
16	Fly Ash	-	CPP	108000	0	108000	Sold to Brick, Tile & Cement Manufacturer as per Fly Ash Notification
17	Ammonium Salt	A10	Process	5811	0	5811	Collection, storage, transportation, Sell to Actual users / Sent to disposal at TSDF.

18	Potassium Salt	B-36	Process	5061	0	5061	Collection, storage, transportation, Sell to Actual users / Sent to disposal at TSDF.
19	Sodium Salt	B-36	Process	4402	2323	6725	Collection, storage, transportation, Sell to Actual users / Sent to disposal at TSDF.
20	Zinc Compound	6.1	Process	787	0	787	Collection, storage, transportation, Sell to Actual users / Sent to disposal at TSDF.
21	R&D Products Waste	--	Process	0	50000	50000	Generation, Collection, Storage, Transportation, on site recovery / sell to authorized unit (actual users) having Rule-9 permission / Job Work with off-site unit / off-site recovery / send for pre-processing / send for co-processing at cement industries / disposal at CHWIF / disposal at common secured landfill site.
22	CuCl Cake	8.2	Process	52	188	240	Generation, Collection, Storage, Transportation and send for pre-processing / send

							for co-processing at cement industries / disposal at CHWIF.
23	Calcium Fluoride	B-10	Process	18502	-894	17608	Generation, Collection, Storage, Transportation, disposal at Common Secured Landfill Site / Send to Pre-processing facility.
24	Aluminium Trifluoride	C2/A72	Process	2000	0	2000	Generation, Collection, Storage, Transportation, disposal at Common Secured Landfill Site / Send to Pre-processing facility / Co-processing to Cement Industries.

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ . 236.49 Crore (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 84.73 Crore per annum. Industry proposes to allocate Rs. 318 Lakhs towards CER for Education, Skill development, Health, Infrastructure development of villages, Environment & sustainability.

15. The PP reported that the Industry has already developed greenbelt in an area of 31.8% i.e. 3,76,450 m^2 (2,36,450 sq. mt. (20%) within premises + 1,40,000 sq.mt. (11.8%) an adjacent alternative land given by GIDC) out of 4,36,865 m^2, remaining 60,415 sq.mt (5.1%) green belt will be developed by Mar-24. Total Greenbelt will be 37%.

16. The PP proposed to set up an Environment Management Cell (EMC) by engaging Managing Director- Head of works- Plant manager- Head Environment for the functioning of EMC.

17. The PP submitted the carbon footprint in the revised Presentation.

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

19. The estimated project cost is Rs. 7245.14Crores including existing investment of Rs 5976.44 crores. Total Employment will be 2500 persons as direct & 800 persons as indirect after expansion.

20. **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 EC 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 certified compliance of the existing EC and the Action taken report for the noncompliance and partially compliance conditions, fuel, Number of trees, water consumption, action plan of the carbon footprint and advised the PP to submit the following:

- Submitted the copy of the updated action taken report of CCR for partially complied and for ascertained conditions.
- Undertaking on alternative fuel.
- Total number of trees with survival rate and capital cost.
- Water consumption details incorporating losses, process usage.
- Updated EC presentation with action plan of carbon footprint.

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 EC.

The EAC is of the view that its recommendation and grant of EC 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.

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

(i) The PP shall develop an additional greenbelt over an area of at least 2,34,450 m^2 (20% within the premises + 1,40,00 m^2 (11.8%) by planting 1,17,000 trees at an adjacent alternative land given by GIDC, remaining 60,415 (5.1%) greenbelt will be developed by march 2024 and rest *within one 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 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 expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

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

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 236.49 Crore (Capital cost) and ₹ 84.73 Crore per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iv) The Total water requirement is 43330 m^3/day of which fresh water requirement of 21521 m^3/day will be met from GIDC Water Supply, rest 21809 m^3/day water will be recycled water. 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.

(v) The plant is not based on the total zero liquid discharge system. 9731 m^3/day of industrial effluent from softener/ DM Plant reject + Boiler Blow down + Cooling tower Blow down (including Captive Power Plant) shall be sent to separate ETP (UF&RO including primary treatment). After treatment, 8758 m^3/day the treated shall be reused in cooling tower/process and 973 m^3/day RO reject after confirming the GPCB discharge norms shall be sent for disposal in to GIDC sewer line – Dahej pipeline / Common disposal system up to the sea. Total 7654 m^3/day treated (6681 m^3/day treated industrial effluent + 973 m^3/day RO reject after confirming the GPCB standard) shall be sent for disposal in to GIDC sewer line – Dahej pipeline / Common disposal system up to the sea for final disposal at NIO designated points. 650 m^3/day of sewage shall be treated separately to confirm the GPCB standard shall be reuse in development of greenbelt / plantation within premises and in monsoon season it shall be reuse in cooling tower/process.

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

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

(viii) The PP shall use biofuel along with a reduction of coal by 25% to 35% over the period of 4 to 5 years, PP shall also use 30 MW renewable energy (hybrid power- solar/wind).

(ix) 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 21.7.2010 under the provisions of the Environment (Protection) Rules, 1986.

(x) The project proponent shall comply with the environment norms for Pesticide Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 446(E), dated 13.6.2011 under the provisions of the Environment (Protection) Rules, 1986.

(xi) 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.

(xii) 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.

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

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

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

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

(xvii) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xviii) The 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. 49.16

Regularization of Existing Thermosetting Moulding Powder Manufacturing Unit with Production Capacity of 2250 TPM located at G1/1210 C, Rampur Mundana, RIICO Industrial Area, Bhiwadi, Alwar, Rajasthan by M/s Shree Polymer - Consideration of ToR (Under violation category)

[Proposal No. IA/RJ/IND3/421537/2023, File No. IA-J-11011/113/2023-IA-II(I)]

1. The proposal is for the ToR for preparation of EIA/EMP (**under violation category**) for Regularization of existing Thermosetting Moulding Powder Manufacturing Unit of production capacity 2250 TPM located at G1/1210 C, Rampur Mundana, RIICO Industrial Area, Bhiwadi, Alwar, Rajasthan by M/s Shree Polymer. **The PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the CPCB.**

2. The project/activity is covered under Category 'B' of item 5 (f)-Synthetic organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). However, due to the applicability of general conditions i.e. interstate boundary (Rajasthan –Haryana) at a distance of 0.554 kms towards from the project site and located in CPA, it requires appraisal at Central Level by the Expert Appraisal Committee (EAC).

3. The PP applied for the ToR vide proposal number No. **IA/RJ/IND3/421537/2023** dated 18 .3.2023. The proposal is now placed in 49th EAC Meeting held on 3rd & 5th – 6th April, 2023,, wherein the PP and an accredited Consultant, M/s. Gaurang Environmental Solutions Private Limited [Accreditation number –NABET/EIA/2023/RA 0192 (Rev.02), Valid up to 7.12.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

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

S. No.	**Product**	**Total**
1.	Thermosetting Moulding Powder	2250 MT/Annum

5. The PP reported that the existing land area is 1000 sq. m. and no R&R is involved in the Project.

6. The PP reported that in the matter of O.A. 298/2021, Vineet Nagar vs. CGWA & Ors., Hon'ble NGT vide its order passed on 21.12.2021 directed that all units manufacturing formaldehyde and its different resins (including melamine formaldehyde, urea formaldehyde & phenol formaldehyde) without requisite EC as per EIA Notification dated 14.09.2006 will be governed by the requirement of such EC. Therefore, we understand that the project is in violation of EIA Notification, 2006.

7. The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Indori Nala 4.8 km towards NNE.

8. The PP reported that the Total water requirement is 5.0 m^3/day of which fresh water requirement of 3.2 m^3/day will be met from ground water. Domestic Effluent of 0.4 KLD quantity will be treated in STP based on Automatic Control Airlift Cross flow MBR & treated water to the tune of 0.3 KLD will be utilized for greenbelt development & plantation. The plant will be based on Zero Liquid discharge system.

9. The PP reported that the Power requirement is 300 KW and will be met from State power Distribution Corporation limited (JVVNL). Existing unit has DG set of 125 KVA used as standby during power failure. Stack (height) will be provided as per CPCB norms to the D.G set.

10. The PP reported that the project, being in notified industrial area i.e., RIICO Industrial Area, Bhiwadi, vide Notification No. Va.4 (80) Udhyog/189 dated 16.4.1991, is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

11. Approx. 400 sq.m area will be under Greenbelt development at plant (20% inside and 20% outside the boundary). Native plant species will be selected for plantation programme. Greenbelt will be developed as per CPCB guidelines.

12. The estimated project cost after expansion is Rs. 296.76 lakhs. The PP reported that total Total Employment will be 10 persons.

13. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the Greenbelt development plan, layout and the action plan proposed by the PP being located in CPA and advised the PP to submit the detailed Greenbelt Development Plan with revised layout. The PP submitted the same and the EAC found it to be satisfactory.

14. After detailed deliberations, the EAC **recommended** the project for grant of ToR (**Standard ToR [Annexure-II]** and **additional ToR as mentioned below)**, **without public hearing** as per the provisions of the EIA Notification, 2006 and as per O.M. No. 22-23/2018-IA.III dated 05.07.2022.

(i). The PP shall follow the Standard Operating Procedure (SoP) issued by the Ministry on 07.07.2021 for handling of violation cases under EIA Notification, 2006.

(ii). The PP shall complete the impact assessment studies & submit Environmental Impact Assessment (EIA) report & Environmental Management Plan (EMP) (Damage Assessment, Remedial Plan and Community Augmentation Plan) in a time bound manner.

(iii). Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR).

(iv). The EMP shall comprise of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.

(v). The remediation plan and the natural and community resource augmentation plan shall be prepared as an independent chapter (13) in the EIA report by the accredited consultants.

(vi). The budget for the remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be adequate and shall be used for completing the plans within three years.

(vii). The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.

(viii). The penalty amount shall be calculated as per provision of SOP dated 07.07.2021 (i.e. 1% of the total project cost incurred up to the date of filing of application along with EIA/EMP report PLUS 0.25% of the total turnover during the period of violation) with supporting documents. In addition to this, actual production vis-a-vis CTO capacity financial year wise in a tabular format with supporting documents.

(ix). The State Government/SPCB shall take action against the project proponent under the provisions of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC

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

(xi). The PP needs to submit the action plan with respect to mitigation measures for CPA mentioned in the Ministry's OMs dated 31.10.2019.

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

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

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

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

(xvi). Activity-wise, a time bound action plan along with budgetary provisions for occupational health & surveillance, environment management plan, and green belt development plans shall be prepared and submitted.

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

(xviii). Action Plan for the management of hazardous waste and provision for its utilization in co-processing if applicable shall be prepared and submitted.

(xix). Provision for reuse/recycle of treated wastewater, wherever feasible shall be made. The PP shall explore the possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. A detailed water harvesting plan also needs to be prepared and submitted. Provision for Zero Liquid Discharge whenever techno-economically feasible shall be included. The PP shall make necessary provisions for continuous monitoring of the effluent quality/quantity.

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

(xxi). The PP should develop Greenbelt over an area of 400 m^2 (within the industrial area) and shall be completed within 1 year, accordingly plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Approx. 165 number of plant species (115- inside the project site and 50- along the roadside) have to be planted considering 80% survival rate and with a spacing of 2 m x 2 m.

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

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

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

(xxv). The action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.

(xxvi). Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.

(xxvii). The PP shall prepare a detailed rain water harvesting plan so as to ensure that unit will become water positive i.e. able to recharge the quantity equivalent to fresh water requirement of the plant or use only re-charged/restored water as a fresh water requirement.

(xxviii). Detailed solvent recovery/solvent management plan

(xxix). Detailed Volatile Organic Compounds (VOCs)/Fugitive emissions control plan

Agenda No. 49.17

Regularization of Existing Formaldehyde Powder/Resin (Melamine & Urea) Manufacturing Unit of Production Capacity 4950 MT/Annum located at RIICO Industrial Area, Bhiwadi, Alwar (Rajasthan) by M/s Vechem Aminoplast. consideration of ToR (under violation category)

[Proposal No. [IA/RJ/IND3/421512/2023, File No. IA-J-11011/111/2023-IA-II(I)]

1. The proposal is for the ToR for preparation of EIA/EMP (under violation category) for regularization of Existing Formaldehyde Powder/Resin (Melamine & Urea) Manufacturing Unit of production capacity 4950 MT/Annum located at RIICO Industrial Area, Bhiwadi, Alwar (Raj) by M/s Vechem Aminoplast. **The PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the CPCB.**

2. The project/activity is covered under Category 'B' of item 5 (f)-Synthetic organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). However, due to the applicability of general conditions i.e. interstate boundary (Rajasthan –Haryana) at a distance of 0.482 kms from the project site) and located in CPA, it requires appraisal at Central Level by the Expert Appraisal Committee (EAC).

3. The PP applied for the ToR vide proposal number No. **IA/RJ/IND3/421512/2023** dated 16 .3.2023. The proposal is now placed in 49th EAC Meeting held on 3rd & 5th – 6th April, 2023, wherein the PP and an accredited Consultant, M/s. Gaurang Environmental Solutions Private Limited [Accreditation number – NABET/EIA/2023/RA 0192 (Rev.02), Valid up to 7.12.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

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

S. No.	Product	Total
1.	Urea Formaldehyde & Melamine Formaldehyde Moulding Powder/Resin	4950

5. The PP reported that the existing land area is 2000 sq. m. and no R&R is involved in the Project.

6. The unit has obtained Consent to Operate from RSPCB vide letter no F(Tech)/Alwar(Tijara)/6419(1)/2019-2020/432-433 dated 04.07.2019 valid from 04/07/2019 to 30/06/2023.

7. The PP reported that in the matter of O.A. 298/2021, Vineet Nagar vs. CGWA & Ors., Hon'ble NGT vide its order passed on 21.12.2021 directed that all units manufacturing formaldehyde and

its different resins (including melamine formaldehyde, urea formaldehyde & phenol formaldehyde) without requisite EC as per EIA Notification dated 14.09.2006 will be governed by the requirement of such EC. Therefore, we understand that the project is in violation of EIA Notification, 2006.

8. The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Indori Nala 4.5 km towards NE.

9. The PP reported that the total water requirement for the project is 5 KLD, out of which 0.5 KLD water is required for the domestic purpose and 4.5 KLD used for landscaping, scrubbing and cooling purpose. Approx. 0.8 KLD wastewater is being/will be generated from the domestic use which is being/will be disposed through septic tank followed by soak pit.

10. The PP reported that the Power requirement is 680 KW and will be met from State Power Distribution Corporation limited (JVVNL). Existing unit has 2 DG set of 125 KVA used as standby during power failure. Stack (height) will be provided as per CPCB norms to the D.G set.

11. The PP reported that the project, being in notified industrial area i.e., RIICO Industrial Area, Bhiwadi, vide Notification No. Va.4 (80)Udhyog/189 dated 16.4.1991, is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

12. Greenbelt/plantation will be done in about 800 sq. m area (Inside premises: 400 sq. m. and outside premises: 400 sq. m.). Increasing vegetation in the form of greenbelt is one of the preferred methods to mitigate air pollution.

13. The estimated project cost after expansion is Rs. 221.00 lakhs. The PP reported that Total Employment will be 18 persons.

14. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the Greenbelt development plan, layout and the action plan proposed by the PP being located in CPA and advised the PP to submit the detailed Greenbelt Development Plan with revised layout. The PP submitted the same and the EAC found it to be satisfactory.

15. After detailed deliberations, the EAC **recommended** the project for grant of ToR (**Standard ToR [Annexure-II]** and **additional ToR as mentioned below)**, **without public hearing** as per the provisions of the EIA Notification, 2006 and as per O.M. No. 22-23/2018-IA.III dated 05.07.2022.

(i). The PP shall follow the Standard Operating Procedure (SoP) issued by the Ministry on 07.07.2021 for handling of violation cases under EIA Notification, 2006.

(ii). The PP shall complete the impact assessment studies & submit Environmental Impact Assessment (EIA) report & Environmental Management Plan (EMP) (Damage Assessment, Remedial Plan and Community Augmentation Plan) in a time bound manner.

(iii). Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR).

(iv). The EMP shall comprise of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.

(v). The remediation plan and the natural and community resource augmentation plan shall be prepared as an independent chapter (13) in the EIA report by the accredited consultants.

(vi). The budget for the remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be adequate and shall be used for completing the plans within three years.

(vii). The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.

(viii). The penalty amount shall be calculated as per provision of SOP dated 07.07.2021 (i.e. 1% of the total project cost incurred up to the date of filing of application along with EIA/EMP report PLUS 0.25% of the total turnover during the period of violation) with supporting documents. In addition to this, actual production vis-a-vis CTO capacity financial year wise in a tabular format with supporting documents.

(ix). The State Government/SPCB shall take action against the project proponent under the provisions of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC

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

(xi). The PP needs to submit the action plan with respect to mitigation measures for CPA mentioned in the Ministry's OMs dated 31.10.2019.

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

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

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

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

(xvi). Activity-wise, a time bound action plan along with budgetary provisions for occupational health & surveillance, environment management plan, and green belt development plans shall be prepared and submitted.

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

(xviii). Action Plan for the management of hazardous waste and provision for its utilization in co-processing if applicable shall be prepared and submitted.

(xix). Provision for reuse/recycle of treated wastewater, wherever feasible shall be made. The PP shall explore the possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. A detailed water harvesting plan also needs to be prepared and submitted. Provision for Zero Liquid Discharge whenever techno-economically feasible shall be included. The PP shall make necessary provisions for continuous monitoring of the effluent quality/quantity.

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

(xxi). The PP should develop Greenbelt over an area of 800 m^2 (within the industrial area) and shall be completed within 1 year, accordingly plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Approx. 235 number of plant species (120- inside the project site and 115-outside the project boundary) have to be planted considering 80% survival rate and with a spacing of 2 m x 2 m.

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

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

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

(xxv). The action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.

(xxvi). Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.

(xxvii). The PP shall prepare a detailed rain water harvesting plan so as to ensure that unit will become water positive i.e. able to recharge the quantity equivalent to fresh water requirement of the plant or use only re-charged/restored water as a fresh water requirement.

(xxviii). Detailed solvent recovery/solvent management plan

(xxix). Detailed Volatile Organic Compounds (VOCs)/Fugitive emissions control plan

Agenda No. 49.18

Regularization of Existing Thermosetting Moulding Powder (Melamine-Formaldehyde (M-F) and Urea-Formaldehyde (U-F)) of Production Capacity 2800 MTA located at RIICO Industrial Area, Chopanki-Bhiwadi, Alwar (Rajasthan) by M/s Vinayak Industries - Consideration of ToR (under violation category)

[Proposal No. [IA/RJ/IND3/417408/2023, File No. IA-J-11011/110/2023-IA-II(I)]

1. The proposal is for the ToR for preparation of EIA/EMP **(under violation category)** for Regularization of existing Thermosetting Moulding Powder (Melamine-formaldehyde (M-F) and Urea-formaldehyde (U-F)) of production capacity 2800 MTA located at RIICO Industrial Area, Chopanki-Bhiwadi, Alwar (Rajasthan) by M/s Vinayak Industries. **The PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the CPCB.**

2. The project/activity is covered under Category 'B' of item 5 (f)-Synthetic organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). However, due to the applicability of general conditions i.e. interstate boundary (Rajasthan –Haryana) at a distance of 3.8 kms from the project site) and located in CPA, it requires appraisal at Central Level by the Expert Appraisal Committee (EAC).

3. The PP applied for the ToR vide proposal number No. **IA/RJ/IND3/417408/2023** dated 16 .3.2023. The proposal is now placed in 49th EAC Meeting held on 3rd & 5th – 6th April, 2023, wherein the PP and an accredited Consultant, M/s. Gaurang Environmental Solutions Private Limited [Accreditation number – NABET/EIA/2023/RA 0192 (Rev.02), Valid up to 7.12.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

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

S. No.	Product	Total
1.	Thermosetting Moulding Powder (Melamine-formaldehyde (M-F) and Urea-formaldehyde (U-F))–	2400 TPA

5. The PP reported that the existing land area is 2000 sq. m. and no R&R is involved in the Project.

6. The PP reported that in the matter of O.A. 298/2021, Vineet Nagar vs. CGWA & Ors., Hon'ble NGT vide its order passed on 21.12.2021 directed that all units manufacturing formaldehyde and its different resins (including melamine formaldehyde, urea formaldehyde & phenol formaldehyde) without requisite EC as per EIA Notification dated 14.09.2006 will be governed by the requirement of such EC. Therefore, we understand that the project is in violation of EIA Notification, 2006.

7. The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Indori Nala 5.4 km towards NE.

8. The PP reported that the Total water requirement will be 5.0 m^3/day out of which fresh water requirement will be 3.8 m^3/day will be met from ground water. Domestic Effluent of 0.4 KLD quantity will be treated into Modular STP based on Automatic Control Airlift Cross flow MBR Technology (1 KLD). The plant will be based on Zero Liquid discharge system.

9. The PP reported that the Power requirement is 250 KW and will be met from State Power Distribution Corporation limited (JVVNL). One DG set of 125 kVA will be used as standby during power failure. Stack (3.5 m height) will be provided as per CPCB norms to the proposed D.G set. The unit has 4 Lac kilo Calorie/Hr (1 no.) biomass briquettes/PNG fired Thermic Fluid Heater. multi Cyclone separator followed by Wet Scrubber with stack of height as per CPCB Guidelines will be installed for controlling the particulate emissions within the statutory limit

10. The PP reported that the project, being in notified industrial area i.e., RIICO Industrial Area, Bhiwadi, vide Notification No.Pa.4{23} Uo/1/93dated14.9.1994, is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

11. The tree plantation will be completed within 1 year and approx. 800 sq.m area (40%) will be provided for Greenbelt development within the plant premises (maximum) and within the Industrial Area in consultation with RIICO Limited.

12. The estimated project cost after expansion is Rs.163.31 lakhs. The PP reported that total Employment will be 10 persons.

13. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the Greenbelt development plan, layout and the action plan proposed by the PP being located in CPA and advised the PP to submit the detailed Greenbelt Development Plan with revised layout. The PP submitted the same and the EAC found it to be satisfactory.

14. After detailed deliberations, the EAC **recommended** the project for grant of ToR (**Standard ToR [Annexure-II]** and **additional ToR as mentioned below)**, **without public hearing** as per the provisions of the EIA Notification, 2006 and as per O.M. No. 22-23/2018-IA.III dated 05.07.2022.

(i). The PP shall follow the Standard Operating Procedure (SoP) issued by the Ministry on 07.07.2021 for handling of violation cases under EIA Notification, 2006.

(ii). The PP shall complete the impact assessment studies & submit Environmental Impact Assessment (EIA) report & Environmental Management Plan (EMP) (Damage Assessment, Remedial Plan and Community Augmentation Plan) in a time bound manner.

(iii). Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR).

(iv). The EMP shall comprise of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.

(v). The remediation plan and the natural and community resource augmentation plan shall be prepared as an independent chapter (13) in the EIA report by the accredited consultants.

(vi). The budget for the remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be adequate and shall be used for completing the plans within three years.

(vii). The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.

(viii). The penalty amount shall be calculated as per provision of SOP dated 07.07.2021 (i.e. 1% of the total project cost incurred up to the date of filing of application along with EIA/EMP report PLUS 0.25% of the total turnover during the period of violation) with supporting

documents. In addition to this, actual production vis-a-vis CTO capacity financial year wise in a tabular format with supporting documents.

(ix). The State Government/SPCB shall take action against the project proponent under the provisions of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC

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

(xi). The PP needs to submit the action plan with respect to mitigation measures for CPA mentioned in the Ministry's OMs dated 31.10.2019.

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

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

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

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

(xvi). Activity-wise, a time bound action plan along with budgetary provisions for occupational health & surveillance, environment management plan, and green belt development plans shall be prepared and submitted.

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

(xviii). Action Plan for the management of hazardous waste and provision for its utilization in co-processing if applicable shall be prepared and submitted.

(xix). Provision for reuse/recycle of treated wastewater, wherever feasible shall be made. The PP shall explore the possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. A detailed water harvesting plan also needs to be prepared and submitted. Provision for Zero Liquid Discharge whenever techno-economically feasible shall be included. The PP shall make necessary provisions for continuous monitoring of the effluent quality/quantity.

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

(xxi). The PP should develop Greenbelt over an area of 800 m^2 (within the industrial area) and shall be completed within 1 year, accordingly plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Approx. 247 number of plant species (157- inside the project site and 90 -outside the project boundary) have to be planted considering 80% survival rate and with a spacing of 2 m x 2 m.

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

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

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

(xxv). The action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.

(xxvi). Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.

(xxvii). The PP shall prepare a detailed rain water harvesting plan so as to ensure that unit will become water positive i.e. able to recharge the quantity equivalent to fresh water requirement of the plant or use only re-charged/restored water as a fresh water requirement.

(xxviii). Detailed solvent recovery/solvent management plan

(xxix). Detailed Volatile Organic Compounds (VOCs)/Fugitive emissions control plan

Agenda No. 49.19

Expansion of Agrochemicals, Synthetic Organic Chemicals & their Intermediates Manufacturing Plant and Captive Co-Generation Power Plant and Installation of Chlor-Alkali Manufacturing Plant of Production Capacity 32487.8 TPA for Products & Intermediates, 15480.0 TPA for Non-EC products (Pesticide formulations) & 147410.9 TPA for Byproducts/Co-products to 89190.0 TPA, 27480.0 TPA & 841019.2 TPA located at Plot B-1/6, B-1/7, D-1/2, OS-8 & F-1/1 MIDC, Lote Parshuram, Taluka Khed, District Ratnagiri, Maharashtra by Gharda Chemicals Limited - Consideration of ToR

[Proposal No. [IA/MH/IND3/421210/2023; File No. J-11011/09/2016-IA-II(I)]

1. The proposal is for the issue of ToR for preparation of EIA/EMP for Expansion of Agrochemicals, Synthetic Organic Chemicals & their Intermediates manufacturing plant and Captive Co-Generation Power Plant and installation of Chlor-alkali manufacturing plant of production capacity with capacity 32487.8 TPA for Products & Intermediates, 15480.0 TPA for Non-EC products (Pesticide formulations) & 147410.9 TPA for Byproducts/Co-products to 89190.0 TPA, 27480.0 TPA & 841019.2 TPA located at Plot B-1/6, B-1/7, D-1/2, OS-8 & F-1/1 MIDC, Lote Parshuram, Taluka Khed, District Ratnagiri, Maharashtra by Gharda Chemicals Limited. The PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the CPCB.

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic Organic Chemicals & their intermediates manufacturing plant (Unit 1 & 4) which are listed under Activity 5(b) and 5(f), Captive Cogeneration Power Plant (Unit 3) listed under activity 1(d) and Chlor-alkali manufacturing plant listed under activity 4(d). The project falls under Category 'A' as any project falling under activity 5(b) is considered under Category 'A' only as per the EIA Notification 2006 and its subsequent amendments.

3. The PP applied for the ToR vide proposal number No. **IA/MH/IND3/421210/2023** dated11.3.2023. The proposal is now placed in 49th EAC Meeting held on 3rd & 5th -6th April 2023, wherein the PP and an accredited Consultant, Perfact Enviro Solutions Pvt Ltd. [NABET certificate no. NABET/EIA/1922/SA 0143 validity:1.6.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

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

Product No.	**Name of Product**	**Details**	**CAS No.**	**Category**	**End Use**	**Existing (TPA)**	**Capacity as per business as usual scenario**	
							Proposed (TPA)	**Total (TPA)**
1A	**Bispyribac Sodium**	Product	125401-92-5	5b	Herbicide	0	250	250
1B	**Metolachlor & Intermediates**	Product	51218-45-2	5b	Herbicide	0	250	
1B-i	**(2-Methyl-6-Ethylphenyl)-(2-Methoxy-1-Methyl Ethylidine) Amine**	Intermediate	118604-68-5	5b	Used as herbicide intermediates			
1B-ii	**(2-Methyl-6-Ethyl Phenyl)-(2-Methoxy-1-**	Intermediate	51219-00-2	5b				

	Methyl-Ethyl) Amine							
1C	**Metamitron**	Product	41394-05-2	5b	Herbicide	25	225	
1(BP)-i	Hydrochloric Acid	Co-product	7647-01-0	Non-Ec	Chemical	0	120.8	120.8
1(BP)-ii	Sodium Carbonate	Co-product	497-19-8	Non-Ec	Chemical	0	753.4	753.4
1(BP)-iii	Ammonium Hydroxide	Co-product	1336-21-6	Non-Ec	Chemical	14.3	128.6	142.9
2A	**Metazachlor & Intermediates**	Product	671-29-08	5b	Herbicide	11	2989	3000
2A-i	Azomethane	Intermediate	503-28-6	5f	Chemical			
2A-ii	Chloromethyl Acetanilide	Intermediate	1131-01-7	5f				
2B	**Diuron And Its Intermediates**	Product	330-54-1	5b	Herbicide	108	2892	
2B-i	N Methyl-N-(3,4 Dichloro) Phenyl Carbamate	Intermediate	1918-18-9	5b	Used as herbicide intermediates and also in other chemical industries			
2C	**Aclonifen & Intermediates**	Product	74070-46-5	5b	Herbicide	0	3000	
2C-i	A. 2,3,4-Trichloro Nitro Benzene	Intermediate	17700-09-3	5f	Used as herbicide intermediates and also in other chemical industries			
2C-ii	B. 2,3-Dichloro-6-Nitro Aniline (Dicona)	Intermediate	65078-77-5	5f				

2D	**Cyprosulfamide & Intermediates**	Product	221667-31-8	5b	Herbicide	0	3000	
2D-i	P-Toluene Sulfonyl Chloride	Intermediate	98-59-9	5b	Used as herbicide intermediates and also in other chemical industries			
2D-ii	P-Toluene Sulfonamide	Intermediate	70-55-3	5b				
2D-iii	P-Carboxy-Benzene Sulfonamide	Intermediate	138-41-0	5b				
2D-iv	D. Amid Chloride	Intermediate	816431-72-8	5b				
2E	**Anilophos & Intermediates**	Product	64246-01-0	5b	Herbicide	700	2300	
2E-i	**Anilide**	Intermediate	84012-61-3	5b	Used as herbicide intermediates			
2E-ii	**Ammonium DMTA**	Intermediate	1066-97-3	5b				
2F	**Imazethapyr**	Product	81335-77-5	5b	Herbicide	25	2975	
2G	**Glufosinate Ammonium**	Product	77182-82-2	5b	Herbicide	0	3000	
2H	**Pyroxsulam**	Product	422556-08-9	5b	Herbicide	0	3000	
2I	**Oryzalin**	Product	19044-88-3	5b	Herbicide	17	2983	
2I-i	**4-Chloro-3,5-Dinitrobenzene Sulfonic Acid**	Intermediate	88-91-5	5b	Used as herbicide intermediates			
2I-ii	**3,5-Dinitro-4-(N,N-Di N-Propyl Amine)Benzene Sodium Sulfonate**	Intermediate	515-42-4	5b				
2(BP)-i	**Hydrochloric Acid**	Co-product	7647-01-0	Non-Ec	Chemical	328.42	4470.3	4798.71
2(BP)-ii	**Methanol**	Co-product	67-56-1	5f	Other chemical industries	20.151	420.8	441

2(BP)-iii	**Ammonium Chloride**	Co-product	7446-70-0	Non-EC	Chemical	0	709.5	709.464
2(BP)-iv	**Potassium Chloride**	Co-product	7447-40-7	Non-Ec	Chemical	0	1327.1	1327.131
2(BP)-v	**Sulfur Dioxide Compressed**	Co-product	`9-5-7446	Non-EC	Chemical	0	1885.6	1885.59
2(BP)-vi	**Manganese Dioxide**	Co-product	19766 7-28-0	Non-EC	Chemical	0	1551.0	1551.006
2(BP)-vii	**Sodium Sufide/Sodium Hydrosulfide**	Co-product	1313-82-2	Non-EC	Chemical	157.5	517.5	675
2(BP)-viii	**Diethyl-5-Ethyl-Pyridine-2,3-Dicarboxylic Acid (Diacid)**	Co-product	10515 1-39-1	5f	Chemical	5.9	702.1	708
2(BP)-ix	**Ethanol**	Co-product	64-17-5	5f	Chemical	11.15	1326.9	1338
3A	**Bromoxynil Octanoate & Intermediates**	Product	1689-99-2	5b	Herbicide	0	36000	36000
3A-i	P-Hydroxy Benzonitrile	Intermediate	767-00-0	5f	Used as herbicide intermediates and also in other chemical industries			
3A-ii	2,6-Dibromo-4-Cyano-Phenol	Intermediate	1689-84-5	5f				
3A-iii	Octanoyl Chloride	Intermediate	111-64-8	5f				
3B	**Dicamba & Intermedites**	Product	1918-00-9	5b	Herbicide	7,000	29000	
3B-i	**Mcb**	Intermediate	108-90-7	5f	Used as herbicide intermediates and also in other chemical			
3B-ii	**Pdcb**	Intermediate	106-46-7	5f				
3B-iii	**2,5 Dcnb**	Intermediate	89-61-2	5f				
3B-iv	**2,5 Dca**	Intermediate	608-27-5	5f				
3B-v	**Dcp**	Intermediate	120-83-2	5f				

3B-vi	**Dcsa K2 Salt**	Intermediate	68938-80-7	5f	industries			
3B-vii	**Methyl Chloride**	Intermediate	74-87-3	5f				
3B-viii	**Dicamba Ester**	Intermediate	6597-78-0	5b	Used as herbicide intermediate			
3C	**Bromoxynil Heptanoate & Intermediates**	Product	56634-95-8	5b	Herbicide	0	36000	
3C-i	P-Hydroxy Benzonitrile	Intermediate	767-00-0	5f	Used as herbicide intermediates and also in other chemical industries			
3C-ii	2,6-Dibromo-4-Cyano-Phenol	Intermediate	1689-84-5	5f				
3C-iii	Heptanoyl Chloride	Intermediate	111-64-8	5f				
3D	**Triclopyr Acid Butotyl Ester R1 And Its Intermediates**	Product	64700-56-7	5b	Herbicide	2,000	34000	
3D-i	**Tcac**	Intermediate	76-02-8	5f	Chemical			
3D-ii	3,5,6 Trichloro Pyridinol Sodium Salt (Natcpol)	Intermediate	37439-34-2	5b	Used as herbicide intermediates and also in other chemical industries			
3D-iii	Triclopyr Acid Methyl Ester	Intermediate	60825-26-5	5b				
3D-iv	3,5,6-Trichloro-2-Pyridinyloxy Acetic Acid (Triclopyr Acid)	Intermediate	55335-06-3	5b				
3E	**Triclopyr Acid Butotyl Ester R2 And Its Intermediates**	Product	64700-56-7	5b	Herbicide			

3E-i	**Tcac**	Intermediate	76-02-8	5f	Chemical			
3E-ii	3,5,6 Trichloro Pyridinol Sodium Salt (Natcpol)	Intermediate	37439-34-2	5b	Used as herbicide intermediates and also in other chemical industries			
3E-iii	Mca Bc Ester	Intermediate	5330-17-6	5b				
3F	**Sulfentrazone And Its Intermediates**	Product	122836-35-5	5b	Herbicide	0	36000	
3F-i	5-Methyl-2-Phenyl-2,4-Dihydro-[1,2,4]-Triazol-3-One (PT)	Intermediate	22863-24-7	5f	Used as herbicide intermediates and also in other chemical industries			
3F-ii	4-Difluoromethyl-5-Methyl-2-Phenyl-2,4-Dihydro-[1,2,4]-Triazol-3-One (DFMPT)	Intermediate	133840-80-9	5b				
3F-iii	4-Difluoromethyl-5-Methyl-2-(2,4-Dichlorophenyl)-2,4-Dihydro-[1,2,4]-Triazol-3-One (DCPT)	Intermediate	111992-16-6	5b				
3F-iv	4-Difluoromethyl-5-Methyl-2-(2,4-Dichloro-5-Nitrophenyl)-2,4-Dihydro-[1,2,4]-Triazol-3-One (DCNPT)	Intermediate	111992-17-7	5b				
3F-v	4-Difluoromethyl-5-Methyl-2-(5-Amino-2,4-Dichlorophenyl)-2,4-Dihydro-[1,2,4]-Triazol-3-One (ADCPT)	Intermediate	111992-18-8	5b				

3G	**Pinoxaden And Its Intermediates (Route 1)**	Product	243973-20-8	5b	Herbicide	0	36000	
3G-i	2,6-Diethyl -4-Methyl Bromo-Benzene	Intermediate	314084-61-2	5f	Used as herbicide intermediates and also in other chemical industries			
3G-ii	1-(2,6-Diethyl -4-Methyl Phenyl)-Malononitrile	Intermediate	314020-53-6	5f				
3G-iii	1-(2,6-Diethyl-4-Methyl-Phenyl)-Malonamide	Intermediate	314020-40-1	5b				
3G-iv	N,N'-Diacetylhydrazine (DAH)	Intermediate	3148-73-0	5f				
3G-v	2,2'-Dichlorodiethyl Ether (DCDEE)	Intermediate	111-44-4	5b				
3G-vi	4,5-Diacetyl-1,4,5-Hexahydro-Oxadiazepine (DAODAP)	Intermediate	83598-13-4	5b				
3G-vii	Hexahydro-1,4,5-Oxadiazepine Hcl (OXA.Hcl)	Intermediate	405281-14-3	5b				
3G-viii	Pyrazole-Oxadiazepine	Intermediate	314020-44-5	5b				
3H	**Pinoxaden And Its Intermediates (Route 2)**	Product	243973-20-8	5b	Herbicide	0	36000	
3H-i	Heptylene-4-Malononitrile	Intermediate	33296-20-7	5f	Used as herbicide intermediates and also in other chemical industries			
3H-ii	2-(2,6-Diethyl -4-Methyl Phenyl)_-Malononitrile	Intermediate	314020-53-6	5f				
3H-iii	1-(2,6-Diethyl-4-Methyl-Phenyl)-Malonamide	Intermediate	314020-40-1	5b				
3H-iv	N,N'-Diacetylhydrazine (DAH)	Intermediate	3148-73-0	5f				

3H-v	2,2'-Dichlorodiethyl Ether (DCDEE)	Intermediate	111-44-4	5b				
3H-vi	4,5-Diacetyl-1,4,5-Hexahydro-Oxadiazepine (DAODAP)	Intermediate	83598-13-4	5b				
3H-vii	Hexahydro-1,4,5-Oxadiazepine Hcl (OXA.Hcl)	Intermediate	405281-14-3	5b				
3H-viii	Pyrazole-Oxadiazepine	Intermediate	314020-44-5	5b				
3(BP)-i	Ammonium Hydroxide	Co-product	1336-21-6	Non-Ec	Chemical	420	11438.4	11858.4
3(BP)-ii	Sulfur Dioxide Gas (Compressed)	Co-product	7446-09-5	Non-EC	Chemical	0	7401.1	7401.132
3(BP)-iii	Hydrochloric Acid 30%	Co-product	7647-01-0	Non-Ec	Chemical	28323	46629.0	74952
3(BP)-iv	Mdcb	Co-product	541-73-1	5f	Chemical	77	319.0	396
3(BP)-v	Odcb	Co-product	95-50-1	5f	Chemical	2128	8816.0	10944
3(BP)-vi	Tcb	Co-product	120-82-1	5f	Chemical	84	348.0	432
3(BP)-vii	Potassium Chloride	Co-product	7447-40-7	Non-Ec	Chemical	6230	25810.0	32040
3(BP)-viii	2,6-De-4-Me-Phenol	Co-product	128-37-0	5f	Chemical	0	8199.8	8199.792
3(BP)-ix	Bromine	Co-product	7726-95-6	Non-Ec	Chemical	0	23077.5	23077.548
3(BP)-x	Methyl Acetate	Co-product	79-20-9	5f	Chemical	0	16852.7	16852.68
3(BP)-xi	Sodium Bisulfite	Co-product	7631-90-5	Non-Ec	Chemical	4334	37498.0	41832
3(BP)-xii	Sodium Carbonate	Co-product	497-19-8	Non-Ec	Chemical	0	28116.0	28116
3(BP)-xiii	Ammonium Chloride	Co-product	7446-70-0	Non-EC	Chemical	0	11579.7	11579.652
4A	**Sulcotrione And Its Intermediates**	Product	99105-77-8	5b	Herbicide	0	3000	3000
4A-i	4-Methyl Sulfonyl Toluene (MST)	Intermediate	3185-99-7	5f	Used as herbicid			

4A-ii	2-Chloro-4-Methyl Sulfonyl Toluene (CMST)	Interme diate	1671-18-7	5f	e interme diates and also in other chemica l industrie s			
4A-iii	2-Chloro-4-Methyl Sulfonyl Benzoic Acid (Cmsba)	Interme diate	53250-83-2	5f				
4A-iv	2 Chloro-4-Methyl Sulfonyl Benzoic Acid Chloride (Cmsbac)	Interme diate	106904-10-3	5f				
4A-v	1,3-Cyclohexanedione (1,3 Chd)	Interme diate	504-02-9	5f				
4A-vi	Sulcotrione Ester	Interme diate	114911-83-0	5f				
4B	**Clodinafop Propargyl & Intermediates**	Product	105512-06-9	5b	Herbicid e	0	3000	
4B-i	Fpdpa Preparation	Interme diate	114420-56-3	114420-56-3	Used as herbicid e interme diates and also in other chemica l industrie s			
4B-ii	Fpdpac Preparation	Interme diate	101053-90-1	101053-90-1				
4C	**OR Mesotrione And Its Intermediates (MCB Route)**	Product	104206-82-8	5b	Herbicid e	12	2988	
4C-i	4-Chloro Benzene Sulfonyl Chloride (MCB Sulfonyl Chloride)	Interme diate	98-60-2	5f	Used as herbicid e interme diates and also in other chemica l industrie s			
4C-ii	1-Chloro-4-(Methyl Sulfonyl) Benzene	Interme diate	98-57-7	5f				
4C-iii	1-Chloro-2-Nitro4-(Methyl Sulfonyl) Benzene (Chloro NMSB)	Interme diate	97-07-4	5f				

4C-iv	Methyl-2-Cyano-2-(4-(Methyl Sulfonyl)-2-Nitrophenyl) Acetate Cyano NMSB)	Intermediate	1939104-66-1	5b				
4C-v	2-Nitro-4-Methyl Sulfonyl Benzoic Acid (NMSBA)	Intermediate	110964-79-9	5b				
4C-vi	2-Nitro-4-Methyl Sulfonyl Benzoyl Chloride (Nmsbac)	Intermediate	110964-80-2	5b				
4C-vii	1,3-Cyclohexane Dione -Sodium Salt (1,3-CHD -Na Salt)	Intermediate	504-02-9	5f				
4C-viii	3-(4'-Methylsulfonyl-2'-Nitro-Benzoyloxy)-2-Cyclohexene-1-One (Mesotrione Enol Ester)	Intermediate	226944-49-6	5b				
4D	**Mesotrione And Its Intermediates (TSC Route)**	Product	104206-82-8	5b	Herbicide	13	2987	
4D-i	4-Methyl Sulfonyl Toluene (MST)	Intermediate	3185-99-7	5f	Used as herbicide intermediates and also in other chemical industries			
4D-ii	2-Nitro-4-Methyl Sulfonyl Toluene (NMST)	Intermediate	1671-49-4	5f				
4D-iii	2-Nitro-4-Methyl Sulfonyl Benzoic Acid (NMSBA)	Intermediate	110964-79-9	5f				
4D-iv	2-Nitro -4-(Methyl Sulfony) Benzoyl Chloride (Nmsbac)	Intermediate	110964-80-2	5f				
4D-v	1,3-Cyclohexane Dione -Sodium Salt(1,3-CHD -Na Salt)	Intermediate	504-02-9	5f				
4D-vi	3-(4'-Methylsulfonyl-2'-Nitro-Benzoyloxy)-2-Cyclohexene-1-	Intermediate	226944-49-6	5b				

	One (Mesotrione Enol Ester)							
4(BP)-i	Sulfur Dioxide	Co-product	7446-09-5	Non-EC	Other chemical industries	12	786.1	798
4(BP)-ii	Sodium Bisulfite	Co-product	7631-90-5	Non-EC	Other chemical industries	0	4083.0	4083
4(BP)-iii	Hydrochloric Acid	Co-product	7647-01-0	Non-EC	Chemical	62	5948.4	6011
4(BP)-iv	Ammonium Nitrate	Co-product	6484-52-2	Non-EC	Chemical	43	2536.6	2580
4(BP)-v	Nitric Acid	Co-product	7697-37-2	Non-EC	Chemical	24	2859.0	2883
4(BP)-vi	Sodium Carbonate	Co-product	497-19-8	Non-EC	Chemical	84	10048.6	10133
4(BP)-vii	Sodium Bicarbonate	Co-product	144-55-8	Non-EC	Chemical	586	48099.8	48686
4(BP)-viii	Methanol	Co-product	67-56-1	5f	Other Chemical Industries	7	405.4	412
5A	**Penoxsulam & It's Intermediate**	Product	219714-96-2	5b	Herbicide	0	1,000	1,000
5A-i	Methyl 3-Hydroxy-2-Methoxyacrylate Sodium Salt	Intermediate	(104151-54-4)	5f	Used as herbicide intermediates and also in other chemical industries			
5A-ii	2,5-Dimethoxy-4-Hydroxy Pyrimidine	Intermediate	(370103-23-4)	5f				
5A-iii	2,5-Dimethoxy-4-Chloropyrimidine	Intermediate	(370125-25-6)	5f				
5A-iv	4-Hydrazino-2,5-Dimethoxypyrimidine	Intermediate	(381666-22-4)	5f				

5A-v	3-Amino-5,8-Dimethoxy[1,2,4]Triazolo[4,3-C]Pyrimidine	Intermediate	(381666-24-6)	5f				
5A-vi	5,8-Dimethoxy[1,2,4]Triazolo[4,3-C]Pyrimidin-2-Amine Int-A	Intermediate	219715-62-5	5b				
5A-vii	4-Nitro-2-Chloro Benzotrifluoride	Intermediate	777-37-7	5f				
5A-viii	4-Nitro-2-(Trifluoromethyl) Aniline	Intermediate	121-01-7	5f				
5A-ix	2-Bromo-4-Nitro-6-(Trifluoromethyl) Aniline	Intermediate	400-66-8	5f				
5A-x	N-(2-Bromo-4-Nitro-6-(Trifluoromethyl) Phenyl Acetamide	Intermediate	85977-20-4	5f				
5A-xi	N-(2-Fluoro-4-Nitro-6-(Trifluoromethyl) Phenyl Acetamide	Intermediate	88288-14-6	5f				
5A-xii	N-(4-Amino-2-Fluoro-6-(Trifluoromethyl) Phenyl Acetamide	Intermediate	88288-08-8	5f				
5A-xiii	N-(2-Fluoro-6-(Trifluoromethyl) Phenyl Acetamide	Intermediate	88288-08-8	5f				
5A-xiv	2-Fluoro-6-(Trifluoromethyl) Aniline	Intermediate	144851-61-6	5f				
5A-xv	2-Fluoro-6-(Trifluoromethyl) Benzene Sulfonic Acid	Intermediate	NA	5f				
5A-xvi	2-Fluoro-6-(Trifluoromethyl) Benzene Sulfonyl Chloride Int-B	Intermediate	405264-04-2	5b				

5B	**Tembotrione And Its Intermediates**	Product	335104-84-2	5b	Herbicide	0	1000	
5B-i	Methane Thiol	Intermediate	74-93-1	5f	Used as herbicide intermediates and also in other chemical industries			
5B-ii	3-Chloro-2-Methyl Phenyl Methyl Sulphide (CMTT)	Intermediate	82961-52-2	5f				
5B-iii	2-Chloro-3-Methyl-4-Methylthio Acetophenone (Acyl CMTT)	Intermediate	181997-71-7	5f				
5B-iv	2-Chloro-3-Methyl -4-Methyl Sulfonyl Acetophenone	Intermediate	181997-72-8	5b				
5B-v	2-Chloro-3-Methyl -4-Methyl Sulfonyl Benzoic Acid (CMMSBA)	Intermediate	106904-09-0	5b				
5B-vi	2-Chloro-3-Methyl -4-Methyl Sulfonyl Benzoic Acid Methyl Ester (CMMSBA Ester)	Intermediate	120100-04-1	5b				
5B-vii	Methyl-(2-Chloro-3-Bromomethyl-4-Methyl Sulfonyl Benzoate (Cbrmmsba Ester)	Intermediate	120100-44-9	5b				
5B-viii	2-Chloro-4-(Methylsulfonyl)-3-[(2,2,2-Trifluoroethoxy)Methyl] Benzoic Acid (CTFEMMSBA)	Intermediate	120100-77-8	5b				
5B-ix	2-Chloro-4-(Methylsulfonyl)-3-[(2,2,2-Trifluoroethoxy)Methyl] Benzoyl Chloride (Ctfemmsbac)	Intermediate	111872 9-23-9	5b				

5B-x	1,3-Cyclohexane Dione -Sodium Salt (1,3-CHD -Na Salt)	Intermediate	504-02-9	5f				
5B-xi	3-Oxo-Cyclo Hexyl-2-Chloro-4-(Methyl Sulfonyl)-3-((2,2,2-Trifluoro Ethoxy)Methyl) Benzoate (Tembotrione Enol Ester)	Intermediate	263401-21-4	5f				
5C	**Sulfosulfuron & Intermediates**	Product	141776-32-1	5b	Herbicide	0	1000	
5C-i	Ipg Preparation	Intermediate	126202-06-0	5b	Used as herbicide intermediates and also in other chemical industries			
5C-ii	Cip Preparation	Intermediate	01-05-3999	5b				
5C-iii	Cipsa Preparation	Intermediate	112566-17-3	5b				
5C-iv	Eips Preparation	Intermediate	112583-03-6	5b				
5C-v	Eipso2 Preparation	Intermediate	141776-47-8	5b				
5C-vi	Carbamate Preparation	Intermediate	302-11-4	5b				
5(BP)-i	Acetic Acid	Co-product	64-19-7	5f	Other chemical industries	0	226.4	226
5(BP)-ii	Potassium Bromide	Co-product	7758-02-03	Non-EC		0	462.9	463
5(BP)-iii	Methanol	Co-product	67-56-1	5f	Other chemical industries	0	546.9	547

5(BP)-iv	Aluminum Chloride 25%	Co-product	7446-70-0	Non-EC	Chemical	0	3867.4	3867
5(BP)-v	Chloroform	Co-product	67-66-3	5f	Chemical	0	693.6	694
5(BP)-vi	Sulfur Dioxide Gas (Compressed)	Co-product	7446-09-5	Non-EC	Chemical	0	215.9	216
5(BP)-vii	Sodium Bromide	Co-product	7647-15-6	Non-EC	Chemical	0	418.5	419
5(BP)-viii	Sodium Carbonate	Co-product	497-19-8	Non-EC	Chemical	0	2539.0	2539
5(BP)-ix	Hydrochloric Acid	Co-product	7647-01-0	Non-EC	Chemical	0	2042.4	2042
6A	**Thiophanate Methyl**	Product	23564-05-8	5b	Fungicide	50	950	1000
6B	**Propiconazole & Intermediates**	Product	23564-05-8	5b	Fungicide	25	975	
6B-i	**2-(2,4-Dichlorophenyl)-2-Methyl-4-N-Propyl-1,3-Dioxolane (Ketal)**	Intermediate	83833-32-3	5b	Used as Fungicide intermediates and also in other chemical industries			
6B-ii	**2-(2,4-Dichlorophenyl)-2-Bromomethyl-4-N-Propyl-1,3-Dioxolane**	Intermediate	60207-89-8	5b				
6C	**Hexaconazole**	Product	79983-71-4	5b	Fungicide	0	1000	
6C-i	**Valeryl Chloride**	Intermediate	638-29-9	5f	Chemical			
6C-ii	**Valerophenone**	Intermediate	61023-66-3	5f	Chemical			
6C-iii	**Oxirane**	Intermediate	88374-07-6	5b	Used as Fungicide intermediates			
6D	**Metalaxyl And Its Intermediates**	Product	57837-19-1	5b	Fungicide	0	1000	
6D-i	Methoxy Acetyl Chloride	Intermediate	38870-89-2	5f	Used as Fungicide intermediates			
6D-ii	Methyl (2,6-Dimethyl	Intermediate	52888-49-0	5b				

	Phenylamino) Propanoate (Alaninate)				diates and also in other chemical industries			
6(BP)-i	Sodium Bisulfite 30%	Co-product	7631-90-5	Non-EC	Chemical	0	1535.0	1535
6(BP)-ii	Hydrochloric Acid 30%	Co-product	7647-01-0	Non-EC	Chemical	0	523.0	523
6(BP)-iii	Aluminium Chloride	Co-product	7446-70-0	Non-EC	Chemical	0	4276.0	4276
6(BP)-iv	Sodium Sulfite Solution	Co-product	7757-83-7	Non-EC	Chemical	0	1312.0	1312
6(BP)-v	Calcium Chloride Brine (35%)	Co-product	10043-52-4	Non-EC	Chemical	0	789.0	789
7A	**Chloronil & Intermeiates**	Product	118-75-2	5b	Fungicide	0	1000	1000
7A-i	**Trichlorophenol**	Intermediate	88-06-2	5f	Chemical			
7B	**Tricyclazol & Intermediates**	Product	41814-78-2	5b	Fungicide	0	1000	
7C	**Azoxystrobin And Its Intermediates**	Product	131860-33-8	5b	Fungicide	25	975	
7C-i	3-Methoxymethylene Benzofuran-2(3H)-One (MMB)	Intermediate	40800-90-6	5b	Used as Fungicide intermediates and also in other chemical industries			
7C-ii	Methyl 2-(2-Hydroxyphenyl)-3,3-Dimethoxy Propanoate (MMB Inter)	Intermediate	175971-61-6	5b				
7C-iii	2-((6-Chloropyrimidin-4-Yl)Oxy) Benzonitrile (CPOB)	Intermediate	913846-53-4	5b				
7C-iv	Dimethoxy Azoxystrobin	Intermediate	NA	5b				
7(BP)-i	Sodium Bisulfite 25%	Co-product	7631-90-5	Non-EC	Chemical	0	1631.0	1631

7(BP)-ii	Hydrochloric Acid 30%	Co-product	7647-01-0	Non-EC	Chemical	0	1007.0	1007
7(BP)-iii	Calcium Chloride Brine (35%)	Co-product	10043-52-4	Non-EC	Chemical	0	1313.0	1313
7(BP)-iv	Acetic Acid	Co-product	64-19-7	5f	Chemical	15	603.2	619
7(BP)-v	Methyl Acetate	Co-product	79-20-9	5f	Chemical	19	744.3	763
7(BP)-vi	Sodium Carbonate	Co-product	497-19-8	Non-EC	Chemical	84	3288.7	3373
7(BP)-vii	Sodium Acetate	Co-product	127-09-3	5f	Chemical	6	246.1	252
7(BP)-viii	Potassium Chloride	Co-product	7447-40-7	Non-EC	Chemical	21	812.8	834
8A	**Pyraclostrobin And Its Intermediates**	Product	175013-18-0	5b	Fungicide	25	975	1000
8A-i	Sodium Salt Of 1-(4-Chlorophenyl)-3-Hydroxypyrazole	Intermediate	76205-19-1	5b	Used as Fungicide intermediates and also in other chemical industries			
8A-ii	1-(4-Chlorophenyl)-3-[2-(Nitrophenyl)-Methoxy]-1H-Pyrazole (PNBE)	Intermediate	220368-29-6	5b				
8A-iii	Methyln-Hydroxy-N-(2-{[1-(4-Chlorophenyl)-1H-Pyrazol-3-Yl] Oxymethyl} Phenyl) Carbamate (PHABEC)	Intermediate	NA	5b				
8B	**Trifloxystrobin And Its Intermediates**	Product	141517-21-7	5b	Fungicide	0	1000	
8B-i	3-Bromo Benzotrifluoride	Intermediate	401-78-5	5f	Used as Fungicide intermediates and also in other chemical			
8B-ii	3-Trifluoromethyl Acetophenone	Intermediate	349-76-8	5f				
8B-iii	3-Trifluoromethyl Acetophenone Oxime	Intermediate	99705-50-7	5f				

8B-iv	Methyl -2-Oxo-2-(O-Tolyl) Acetate	Intermediate	34966-54-6	5f	industries			
8B-v	Methyl-2-(2'-Bromoethylphenyl)-2-Oxoacetate	Intermediate	126534-57-4	5b				
8B-vi	Methyl (E)-2-Oxo-2-(2- ((((1-(3 (Trifluoromethyl) Phenyl) Ethylidene) Amino) Oxy) Methyl) Phenyl) Acetate	Intermediate	141493-05-2	5b				
8B-vii	Methyl(Z)-2-(Hydroxyimino)-2-(2-(((((E)-1-(3 (Trifluoromethyl) Phenyl) Ethylidene)Amino) Oxy) Methyl)Phenyl Acetate (Oxime Product)	Intermediate	NA	5b				
8(BP)-i	Sodium Bicarbonate 30%	Co-product	144-55-8	Non-EC	Chemical	28	1081.7	1109
8(BP)-ii	Calcium Chloride 30%	Co-product	10043-52-4	Non-EC	Chemical	0	3465.2	3465
8(BP)-iii	Calcium Fluoride	Co-product	7782-41-4	Non-EC	Chemical	0	130.6	131
8(BP)-iv	Hydrogen Bromide 30%	Co-product	10035-10-6	Non-EC	Chemical	0	2723.2	2723
8(BP)-v	Benzotrifluoride (BTF)	Co-product	98-08-8	5f	Chemical	0	104.8	105
8(BP)-vi	Hydrochloric Acid 30%	Co-product	7647-01-0	Non-EC	Chemical	0	1860.2	1860
8(BP)-vii	Magnesium Sulfate	Co-product	7487-88-9	Non-EC	Chemical	0	1098.0	1098
8(BP)-viii	Bromine	Co-product	7726-95-6	Non-EC	Chemical	0	447.2	447
8(BP)-ix	Methanol	Co-product	67-56-1	5f	Chemical	0	160.0	160
8(BP)-x	Succinimide	Co-product	123-56-8	5f	Chemical	0	332.5	332
9A	**Temephos**	Product	3383-96-8	5b	Insecticide	108	892.0	1,000

9A-i	**Dimethyl Thiophosphoryl Chloride (Dmtc)**	Intermediate	2524-03-0	5f	Chemical			
9B	**Diflubenzuron And Its Intermediates**	Product	35367-38-5	5b	Insecticide	108	892	
9B-i	2,6-Difluorobenzamide (2,6-Dfba)	Intermediate	18063-03-1	5f	Used as Insecticide intermediates and also in other chemical industries			
9C	**Diafenthiuron & Its Intermediates**	Product	80060-09-9	5b	Insecticide	25	975	
9C-i	1-(2,6-Disisopropyl-4-Phenoxyphenyl) (Thiourea)	Intermediate	135252-10-7	5f	Used as Insecticide intermediates and also in other chemical industries			
9C-ii	4-Phenoxy-2 ,6-Diisopropylaniline Isothiocyanate	Intermediate	80058-93-1	5f				
9C-iii	2,6-Difluorobenzamide (2,6-Dfba)	Intermediate	18063-03-1	5f				
9D	**Acephate**	Product	30560-19-1	5b	Insecticide	48	952	
9D-i	**Intermediate 1**	Intermediate	10265-92-6	5b	Used as Insecticide intermediates and also in other chemical industries			
9E	**Thiamethoxam**	Product	153719-23-4	5b	Insecticide	0	1,000	

9(BP)-i	Hydrogen Bromide	Co-product	10035-10-6	Non-EC	Chemical	7.235325	282.2	289.4
9(BP)-ii	Potassium Bromide	Co-product	7758-02-03	Non-EC	Chemical	9.885925	385.6	395.4
9(BP)-iii	Hydrochloric Acid	Co-product	7647-01-0	Non-Ec	Chemical	40	793.3	833.3
9(BP)-iv	Ammonium Hydroxide 10%	Co-product	1336-21-6	Non-Ec	Chemical	6.774857143	134.4	141.1
9(BP)-v	Acetic Acid	Co-product	64-19-7	5f	Chemical	21.744	431.3	453.0
10A	**Cartap Hydrochloride And Its Intermediates**	Product	15263-52-2	5b	Insecticide	108	17892	18000
10A-i	N,N-Dimethyl Allyl Amine	Intermediate	2155-94-4	5f	Used as Insecticide intermediates and also in other chemical industries			
10A-ii	2,3-Dichloro-N,N-Dimethyl Propyl Amine Hydrochloride (DCDMPA.Hcl)	Intermediate	50786-84-1	5f	Chemical			
10A-iii	2-N,N-Dimethylanino-1-Sodium-3-Thiosulphate Propane (Monosultap)	Intermediate	29547-00-0	5b	Insectcide Intermediate			
10B	**Chloropyriphos Methyl**	Product	5598-13-0	5b	Insecticide	400	17600	
10C	**Triazophos**	Product	24017-47-8	5b	Insecticide	0	18000	
10D	**Carbendazim**	Product	10605-21-7	5b	Insecticide	0	18000	
10D-i	**Ortho Nitro Aniline**	Intermediate	88-74-4	5b	Used as insecticide and			

					other chemical intermediate			
10D-ii	**Opda**	Intermediate	95-54-5	5f	Chemical			
10D-iii	**Cmc**	Intermediate	21729-98-6	5b	Used as insecticide and other chemical intermediate			
10E	**Buprofezin**	Product	69327-76-0	5b	Insecticide	0	18000	
10F	**Imidacloprid And Its Intermediates**	Product	138261-41-3	5b	Insecticide	0	18000	
10F-i	Nitro Guanidine	Intermediate	556-88-7	5f	Used as Insecticide intermediates and also in other chemical industries			
10F-ii	N-(Nitro-Imono) Imidazolidine (NIIMDA)	Intermediate	5465-96-3	5f				
10F-iii	2-Chloro-5-Methyl Pyridine (Cmp)	Intermediate	18368-64-4	5f				
10F-iv	2-Chloro-5-Chloromethyl Pyridine (CCMP)	Intermediate	70258-18-3	5f				
10G	**Profenophos & Intermediates**	Product	41198-08-7	5b	Insecticide	0	18000	
10G-i	**Bcp:Detc**	Intermediate	3964-56-5	5f	Chemical			
10G-ii	**Pc -1**	Intermediate	60731-55-7	5f	Chemical			
10H	**Chlorpyriphos & Intermediate**	Product	2921-88-2	5b	Insecticide	13,000	5000	
10H-i	**Tcac**	Intermediate	76-02-8	5f	Chemical			
10H-ii	**Natcpol**	Intermediate	37439-34-2	5b	Used as Insecticide			

					intermediates and also in other chemical industries			
10(BP)-i	Methyl Chloride	Co-product	74-87-3	5f	Herbicide intermediate and also in other chemical industries.	48.6	8051.4	8100.0
10(BP)-ii	Bisultap	Co-product	52207-48-4	5f	Chemical	92.1	15255.1	15347.2
10(BP)-iii	Ammonium Sulphate	Co-product	7783-20-2	Non-EC	Chemical	0.0	12384.0	12384.0
10(BP)-iv	Dimethyl Amine	Co-product	124-40-3	5f	Chemical	0.0	12829.1	12829.1
10(BP)-v	Benzyl Chloride	Co-product	100-44-7	5f	Chemical	0.0	11540.3	11540.3
10(BP)-vi	Acetic Acid	Co-product	64-19-7	5f	Other chemical industries	0.0	6838.3	6838.3
10(BP)-vii	Hydrochloric Acid	Co-product	7647-01-0	Non-Ec	Chemical	40820.0	15700.0	56520.0
10(BP)-viii	Sodium Bisulfite	Co-product	7631-90-5	Non-EC	Chemical	12870.0	4950.0	17820.0
10(BP)-ix	Ammonium Hydroxide	Co-product	1336-21-6	Non-Ec	Chemical	1248.0	480.0	1728.0
11A	**Clothianidin And Its Intermediates**	Product	210880-92-5	5b	Insecticide	0	1,200	1,200
11A-i	2,3 Dichloropropene (2,3-Dcp)	Intermediate	78-88-6	5f	Used as Insecticide			

11A-ii	2-Chloroallyl Isothiocyanate	Intermediate	14214-31-4	5f	intermediates and also in other chemical industries			
11A-iii	2-Chloro-5-Chloromethylthiazole (CCMT)	Intermediate	105827-91-6	5f				
11A-iv	Nitro Guanidine	Intermediate	556-88-7	5f				
11A-v	N-Methyl-N'-Nitro Guanidine	Intermediate	4245-76-5	5f				
11A-vi	1,5-Dimethyl-2-Nitroiminohexahydro-1,3,5-Triazine (DMNITCH)	Intermediate	136516-16-0	5f				
11A-vii	1-(2-Chloro-5-Thiazolylmethyl)-3,5-Dimethyl-2-Nitroimino-Hexahydro-1,3,5-Triazine (DMNITCH + CCMT)	Intermediate	NA	5f				
11B	**Acetamiprid And Its Intermediates**	Product	135410-20-7	5b	Insecticide	0	1,200	
11B-i	A) Dry Hcl Gas	Intermediate	7647-01-0	5f	Used as Insecticide intermediates and also in other chemical industries			
11B-ii	B) Methyl-N-Cyano Acetamide (NCMA)	Intermediate	5652-84-6	5f				
11B-iii	C) 2-Chloro-5(Methylaminomethyl)Pyridine (CMPMA)	Intermediate	120739-62-0	5f				
11C	**Quinalphos & Intermediates**	Product	13593-03-8	5b	Insecticide	0	1,200	
11C-i	**Na-MCA Solution**	Intermediate	6926-62-3	5b	Insecticide Intermediate			
11C-ii	**DQ Mass**	Intermediate	59564-59-9	5b				
11C-iii	**Na-2-HQ Mass**	Intermediate	57381-25-6	5b				

11C-iv	**2-Hq**	Intermediate	1196-57-2	5b				
11C-v	**QP Mass**	Intermediate	NA	5b				
11(BP)-i	Hydrochloric Acid 30%	Co-product	7647-01-0	Non-Ec	Chemical	0	3360.8	3360.8
11(BP)-ii	Sulfur Dioxide Gas (Compressed)	Co-product	7446-09-5	Non-EC	Chemical	0	689.5	689.5
11(BP)-iii	Sodium Carbonate	Co-product	497-19-8	Non-EC	Chemical	0	7713.6	7713.6
11(BP)-iv	Ammonia Solution 20%	Co-product	921-933-8	Non-EC	Chemical	0	551.4	551.4
11(BP)-v	Potassium Chloride 25%	Co-product	7447-40-7	Non-Ec	Chemical	0	8032.0	8032.0
11(BP)-vi	N,N- Bis (Dichloromethyl) Methyl Amine	Co-product	51-75-2	5f	Chemical	0	614.4	614.4
11(BP)-vii	Methanol	Co-product	67-56-1	Non-EC	Other Chemical Industries	0	1833.7	1833.7
12A	**Ethiprole R1 & It's Intermediate Or**	Product	121587-01-9	5b	Insecticide	0	2,500	2,500
12A-i	Diethyl Disulfide	Intermediate	110-81-6	5f	Used as Insecticide intermediates and also in other chemical industries			
12A-ii	Ethyl Thiopyrazole	Intermediate	120068-56-6	5f				
12B	**Ethiprole R2 & It's Intermediate Or**	Product	121587-01-9	5b	Insecticide	0	2,500	
12B-i	Diethyl Disulfide	Intermediate	110-81-6	5f	Used as Insecticide intermediates			
12B-ii	Ethyl Thiopyrazole	Intermediate	120068-56-6	5f				

					and also in other chemical industries			
12C	**Ethiprole R3 & It's Intermediate**	Product	121587-01-9	5b	Insecticide	0	2,500	
12C-i	Apr Disulphide	Intermediate	130755-46-3	5f	Used as Insecticide intermediates and also in other chemical industries			
12C-ii	Ethyl Thiopyrazole	Intermediate	120068-56-6	5f				
12D	**Cyantraniliprole & It's Intermediate**	Product	736994-63-1	5b	Insecticide	0	2,500	
12D-i	Diisopropyl Maleate	Intermediate	108-31-6	5f	Used as Insecticide intermediates and also in other chemical industries			
12D-ii	3-Chloro-2-Hydrazinopyridine (Chpy)	Intermediate	22841-92-5	5f				
12D-iii	Isopropyl 2-(3-Chloropyridin-2-Yl)-5-Oxo-Pyrazolidine-3-Carboxylate (DHPE)	Intermediate	1055071-81-2	5f				
12D-iv	Preparation Of Isopropyl 3-Bromo-1-(3-Chloro-2-Pyridinyl)-4,5-Dihydro-1H-Pyrazole-5-Carboxylate (Dhbrpy)	Intermediate	1055072-00-8	5f				
12D-v	Isopropyl 3-Bromo-1-(3-Chloro-2-Pyridinyl)-1H-	Intermediate	1045077-27-7	5f				

	Pyrazole-5-Carboxylate (BPE)							
12Dvi	Preparation Of 3-Bromo-1-(3-Chloro-2-Pyridinyl)-1H-Pyrazole-5-Carboxylic Acid (Inter-B)	Intermediate	500011-86-9	5f				
12D-vii	8-Methylisatoic Anhydride	Intermediate	66176-17-8	5f				
12D-viii	2-Amino-N,3-Dimethylbenzamide (Admbz)	Intermediate	870997-57-2	5f				
12E	**Fipronil And Its Intermediates**	Product	120068-37-3	5b	Insecticide	1,900	600	
12E-i	Trichloro Methyl Sulfenyl Chloride	Intermediate	594-42-3	5f	Used as Fungicide intermediates and also in other chemical industries			
12E-ii	Thiophosgene	Intermediate	463-71-8	5f				
12E-iii	Ortho-Chloro Benzyl Trifluoromethyl Sulfide (OCBTMS)	Intermediate	251926-48-4	5f				
12E-iv	Trifluoromethyl Sulfinyl Chloride (CF3SOCl)	Intermediate	20621-29-8	5f				
12E-v	Aminopyrazole	Intermediate	120068-79-3	5f				
12(BP)-i	Ethiprole Sulfone	Co-product	120068-68-0	5f	Chemical	0	67.5	67.5
12(BP)-ii	Potassium Bisulfate	Co-product	7646-93-7	Non-Ec	Chemical	0	1745.5	1745.5
12(BP)-iii	Bromine	Co-product	7726-95-6	Non-Ec	Chemical	0	2120.4	2120.4
12(BP)-iv	Ipa	Co-product	67-63-0	5f	Chemical	0	385.0	385.0
12(BP)-v	Ammonium Chloride	Co-product	12125-02-9	Non-EC	Chemical	638.4	201.6	840.0
12(BP)-vi	Hydrochloric Acid	Co-product	7647-01-0	Non-Ec	Inorganic	12747.1	4025.4	16772.5

12(BP)-vii	Sodium Carbonate	Co-product	497-19-8	Non-EC	Chemical	0	3875.0	3875.0
12(BP)-viii	**Potassium Chloride**	Co-product	7447-40-7	Non-Ec	Chemical	4599.9	1452.6	6052.5
13A	**Indoxacarb & Intermediates**	Product	173584-44-6	5b	Insecticide	230	770	1,000
13A-i	**Bcpac**	Intermediate	625-36-5	5f	Chemical			
13A-ii	**5 - Ci**	Intermediate	42348-86-7	5f	Chemical			
13A-iii	**5 - Cie**	Intermediate	65738-56-9	5f	Chemical			
13A-iv	**5-Cihe**	Intermediate	144172-24-7	5f	Chemical			
13A-v	**Urea Derivative**	Intermediate	144172-25-8	5f	Chemical			
13A-vi	**Oxadizine**	Intermediate	200568-74-7	5f	Chemical			
13B	**Chlorantraniliprole R1 And Its Intermediates**	Product	500008-45-7	5b	Insecticide	0	1,000	
13B-i	2,3-Dichloropyridine (Dcp)	Intermediate	2402-77-9	5f	Used as Insecticide intermediates and also in other chemical industries			
13B-ii	3-Chloro-2-Hydrazinopyridine (CHP)	Intermediate	22841-92-5	5f				
13B-iii	Ethyl2-(3-Chloropyridin-2-Yl)-5-Oxo-Pyrazolidine-3-Carboxylate (Dhpy)	Intermediate	500011-88-1	5b				
13B-iv	Ethyl3-Bromo-1-(3-Chloro-2-Pyridinyl)-4,5-Dihydro-1H-Pyrazole-5-Carboxylate (Dhbrpy)	Intermediate	500011-91-6	5b				

13B-v	Ethyl 3-Bromo-1-(3-Chloro-2-Pyridinyl)-1H-Pyrazole-5-Carboxylate (Brpy)	Intermediate	500011-92-7	5b				
13B-vi	3-Bromo-1-(3-Chloro-2-Pyridinyl)-1H-Pyrazole-5-Carboxylic Acid (Intermediate-B)	Intermediate	500011-86-9	5b				
13B-vii	2-Hydroxyimino-N-O-Tolyl-Acetamide (Isonitroso)	Intermediate	1132-03-2	5b				
13B-viii	7-Methylisatin /7-Methylindole-2,3-Dione	Intermediate	1127-59-9	5f				
13B-ix	5-Chloro-7-Methylisatin/5-Chloro-7-Methylindole-2,3-Dione	Intermediate	14389-06-1	5b				
13B-x	6-Chloro-8-Methylisatoic Anhydride/6-Chloro-8-Methyl-1 H-Benzo[D][1,3]Oxazine-2,4-Dione	Intermediate	120374-68-7	5f				
13C	**Chlorantraniliprole R2 And Its Intermediates**	Product	500008-45-7	5b	Insecticide			
13C-i	3-Chloro-2-Hydrazinopyridine (CHP)	Intermediate	22841-92-5	5f	Used as Insecticide intermediates and also in other chemical industries			
13C-ii	Ethyl 2-(3-Chloropyridin-2-Yl)-5-Oxo-Pyrazolidine-3-Carboxylate (Dhpy)	Intermediate	500011-88-1	5b				
13C-iii	Ethyl 3-Bromo-1-(3-Chloro-2-Pyridinyl)-4,5-Dihydro-1H-	Intermediate	500011-91-6	5b				

	Pyrazole-5-Carboxylate (Dhbrpy)							
13C-iv	Ethyl 3-Bromo-1-(3-Chloro-2-Pyridinyl)-1H-Pyrazole-5-Carboxylate (Brpy)	Intermediate	500011-92-7	5b				
13C-v	3-Bromo-1-(3-Chloro-2-Pyridinyl)-1H-Pyrazole-5-Carboxylic Acid (Inter-B)	Intermediate	500011-86-9	5b				
13C-vi	Isonitroso	Intermediate	1132-03-2	5b				
13C-vii	7-Methylisatin	Intermediate	1127-59-9	5b				
13C-viii	5-Chloro-7-Methylisatin (5-Chloro-7-Methylindole-2,3-Dione)	Intermediate	14389-06-1	5b				
13C-ix	2-Amino-5-Chloro-3-Methylbenzoic Acid (ACMBA)	Intermediate	20776-67-4	5b				
13D	**Tetrachlorantraniliprole**	Product	1104384-14-6	5b	Insecticide	0	1,000	
13(BP)-i	Sodium Bisulfite	Co-product	7631-90-5	Non-EC	Chemical	1069.5	3580.5	4650.0
13(BP)-ii	Aluminium Chloride	Co-product	7446-70-0	Non-EC	Chemical	5667.0	18972.0	24639.0
13(BP)-iii	Methanol	Co-product	67-56-1	5f	Chemical	97.8	327.3	425.0
13(BP)-iv	Sodium Carbonate	Co-product	497-19-8	Non-EC	Chemical	0	8275.0	8275.0
13(BP)-v	Ethanol	Co-product	64-17-5	5f	Chemical	0	489.4	489.4
13(BP)-vi	Phosphoric Acid 85%	Co-product	7664-38-2	Non-Ec	Chemical	0	110.3	110.3
13(BP)-vii	Potassium Bisulfate	Co-product	7646-93-7	Non-Ec	Chemical	0	763.6	763.6

13(BP)-viii	Potassium Phenoxide	Co-product	100-67-4	5f	Chemical	366.85	1228.2	1595.0
13(BP)-ix	Ammonium Sulfate	Co-product	7783-20-2	Non-EC	Chemical	0	777.0	777.0
13(BP)-x	Hydrochloric Acid	Co-product	7647-01-0	Non-Ec	Chemical	41.4	3043.6	3085.0
13(BP)-xi	Methane Sulfonyl Chloride	Co-product	124-63-0	5f	Chemical	0	445.3	445.3
13(BP)-xii	Sulfur Dioxide Gas (Compressed)	Co-product	7446-09-5	Non-EC	Chemical	0	1623.0	1623.0
14A	**Deltamethrin And Its Intermediates**	Product	52918-63-5	5b	Pyrethroid	300	1,700	2,000
14A-i	**Rrcma**	Intermediate	55667-40-8	5b	Used as Pyrethroid intermediates and also in other chemical industries			
14A-ii	**Hbr**	Intermediate	10035-10-6	Non-EC				
14A-iii	**Dbcma**	Intermediate	63597-73-9	5b				
14A-iv	**DB Ester**	Intermediate	61775-87-9	5b				
14A-v	**Dbcmac**	Intermediate	55710-82-2	5b				
14B	**Bifenthrin**	Product	82657-04-3	5b	Pyrethroid	0	2,000	
14B-i	Bifenthrin Chloride	Intermediate	84541-46-8	5b	Pirethorid Intermediate			
14C	**Lambda Cyhalothrin And Its Intermediates**	Product	91465-08-6	5b	Pyrethroid	0	2,000	
14C-i	3-(2 Chloro 3 Trifluoro Propenyl -2, 2- Dimethyl Cyclopropane Carbonyl Chloride (Chac)	Intermediate	393870-46-7	5b	Used as Insecticide intermediates and also in other chemical industries			

14D	**Permethrin And Its Intermediates**	Product	52645-53-1	5b	Pyrethroid	300	1700	
14D-i	Tetrachloro Butyronitrile (Tbn)	Intermediate	41797-95-9	5f	Used as Insecticide intermediates and also in other chemical industries			
14D-ii	Tetrachloro Butyric Acid (Tba)	Intermediate	4387-77-3	5f				
14D-iii	Tetrachloro Butyric Acid Chloride (Tbac)	Intermediate	68121-36-8	5f				
14D-iv	2 Chlorobutanone (2-Cb)	Intermediate	68697-08-5	5f				
14D-v	Cypermethric Acid (Cma)	Intermediate	59042-49-8	5b				
14D-vi	Cypermethric Acid Chloride (Cmac)	Intermediate	52314-67-7	5b				
14E	**Fenvalerate**	Product	51630-58-1	5b	Used as Insecticide	0	2000	
14(BP)-i	**Bromine**	Co-product	7726-95-6	Non-EC	Chemical	257	1455	1712
14(BP)-ii	**Aluminium Chloride**	Co-product	12125-02-9	Non-EC	Chemical	542	3073.6	3616
14(BP)-iii	**Sodium Bisulfite 30%**	Co-product	7631-90-5	Non-EC	Chemical	241	1366.8	1608
14(BP)-iv	**Sulfur Dioxide Gas (Compressed)**	Co-product	7446-09-5	Non-EC	Chemical	0	321.4	321
14(BP)-v	**Bromobenzene**	Co-product	108-86-1	5f	Chemical	967	5477.4	6444
14(BP)-vi	**Dibromobenzene**	Co-product	583-53-9	5f	Chemical	161	909.5	1070
14(BP)-vii	**Hydrochloric Acid 30%**	Co-product	7647-01-0	Non-EC	Chemical	97	550.8	648
15A	**Alphamethrin And Its Intermediates**	Product	67375-30-80	5b	Pyrethroid	880	120	1000
15A-i	Tetrachloro Butyronitrile (Tbn)	Intermediate	41797-95-9	5f	Used as Pyrethroid interme			
15A-ii	Tetrachloro Butyric Acid (Tba)	Intermediate	4387-77-3	5f				

15-iii	Tetrachloro Butyric Acid Chloride (Tbac)	Interme diate	68121 -36-8	5f	diates and also in other chemica l industrie s			
15A-iv	2 Chlorobutanone (2-Cb)	Interme diate	68697 -08-5	5f				
15A-v	Cypermethric Acid (Cma)	Interme diate	59042 -49-8	5b				
15A-vi	Cypermethric Acid Chloride (Cmac)	Interme diate	52314 -67-7	5b				
15A-vii	Cypermethri n	Interme diate	52315 -07-8	5b				
15B	**Cypermethrin And Its Intermediates**	Product	52315 -07-8	5b	Pyrethro id	880	120	
15B-i	Tetrachloro Butyronitrile (Tbn)	Interme diate	41797 -95-9	5f	Used as Insectici de interme diates and also in other chemica l industrie s			
15B-ii	Tetrachloro Butyric Acid (Tba)	Interme diate	4387-77-3	5f				
15B-iii	Tetrachloro Butyric Acid Chloride (Tbac)	Interme diate	68121 -36-8	5f				
15B-iv	2 Chlorobutanone (2-Cb)	Interme diate	68697 -08-5	5f				
15B-v	Cypermethric Acid (Cma)	Interme diate	59042 -49-8	5b				
15B-vi	Cypermethri c Acid Chloride (Cmac)	Interme diate	52314 -67-7	5b				
15(BP)-i	Ammonium Chloride 11%	Co-product	12125 -02-9	Non-EC	Chemic al	5251	-1635.1	3616
15(BP)-ii	Sodium Bisulfite 30%	Co-product	7631-90-5	Non-EC	Chemic al	2583	-804.4	1779
15(BP)-iii	Sulfur Dioxide Gas (Compressed)	Co-product	7446 - 09 - 5	Non-EC	Chemic al	479	-149.1	330
15(BP)-iv	Hydrochloric Acid 30%	Co-product	7647-01-0	Non-EC	Chemic al	2085	-649.6	1435
16A	**Pyriproxyfen**	Product	95737 -68-1	5b	Insectici de	40.8	459.2	500

16B	**Mepiquat Chloride**	Product	24307-26-4	5b	Growth Regulator	50	450	
17A	**3,5,6 Trichloro Pyridinol Sodium Salt (Natcpol)**	Product	37439-34-2	5f	Synthetic Organic Chemical intermediates	1000	4,500	5,500
17A-i	**Tcac**	Intermediate	76-02-8	5f				
17B	**R,R-Sodium Salt Of Cypermethric Acid (Na-CMA)**	Product	128241-41-8	5f	Used as pesticide intermediates and also in other chemical industries	0	5,500	
17B-i	**Tetra Chloro Butyro Nitrile**	Intermediate	41797-95-9	5f				
17B-ii	**Tetra Chloro Butyric Acid**	Intermediate	4387-77-3	5f				
17B-iii	**Tetra Chloro Butyric Acid Chloride**	Intermediate	68121-36-8	5f				
17B-iv	**2-Chloro Butanone**	Intermediate	68697-08-5	5f				
17B-v	**Cypermethric Acid**	Intermediate	59042-49-8	5b				
17C	**5-Chloro Indanone Ester (5-Cie)**	Product	65738-56-9	5f		5	5,495	
17C-i	**5-Ci**	Intermediate	42348-86-7	5f	Chemical			
17(BP)-i	Ammonium Chloride	Co-product	12125-02-9	Non-EC	Chemical	0	8971.3	8971.3
17(BP)-ii	Sulfur Dioxide Gas (Compressed)	Co-product	7446-09-5	Non-EC	Chemical	0	482.4	482.4
17(BP)-iii	Hydrochloric Acid	Co-product	7647-01-0	Non-EC	Chemical	3793.5	15505.4	19298.9
17(BP)-iv	Sodium Bisulfite	Co-product	7631-90-5	Non-EC	Chemical	1048.6	15059.8	16108.5
17(BP)-v	Aluminium Chloride	Co-product	7446-70-0	Non-EC	Chemical	14.2	15617.3	15631.5
17(BP)-vi	Ammonium Hydroxide	Co-product	1336-21-6	Non-EC	Chemical	126.0	20642.0	20768.0
17(BP)-vii	**Methanol**	Co-product	67-56-1	5f	Other chemical	1.5	1638.1	1639.6

					industries			
18A	**5-Chloro Indanone (5-Ci)**	Product	42348-86-7	5f	Used as Insecticide intermediates and also in other chemical industries	5	3995	4000
18B	**Aminopyrazole (APR)**	Product	120068-79-3	5f		80	3920	
18C	**2,5-Dichlorophenol (Dcp)**	Product	[583-78-8]	5f		860	3140	
18D	**Andpa**	Product	15299-99-7	5f	Chemical	25	3975	
18(BP)-i	Hydrochloric Acid	Co-product	7647-01-0	Non-EC	Chemical	20.5	16357.1	16377.6
18(BP)-ii	Sodium Bisulfite	Co-product	7631-90-5	Non-EC	Chemical	17.1	13653.0	13670.1
18(BP)-iii	Aluminium Chloride	Co-product	7446-70-0	Non-EC	Chemical	16.6	13248.7	13265.3
18(BP)-iv	Sulfur Dioxide Gas (Compressed)	Co-product	7446-09-5	Non-EC	Chemical	0.6	492.9	493.5
19A	**Rr Cypermethric Acid (Rrcma)**	Product	55667-40-8	5f	Used as pesticide intermediates and also in other chemical industries	440	1060.0	1500.0
19B	**2,3 Dichloro Aniline (Dca)**	Product	608-27-5	5f		0	1500.0	
19B-i	Mcb	Intermediate	608-27-5	5f	Chemical			
19B-ii	Odcb	Intermediate	95-50-1	5f	Chemical			
19B-iii	3, 4 Dichloro Nitro Benzene	Intermediate	99-54-7	5f	Chemical			
19C	**Cypermethric Acid Chloride (CMAC) & Its Cis & Trans Isomers**	Product	Cis: 68539-75-3	5b	Pesticide Intermediate	440	1060	

			Trans : 61914 -47-4					
19C-i	Tetra Chloro Butyro Nitrile	Intermediate	41797 -95-9	5f	Used as Pyrethroid intermediates and also in other chemical industries			
19C-ii	Tetra Chloro Butyric Acid	Intermediate	4387-77-3	5f				
19C-iii	Tetra Chloro Butyric Acid	Intermediate	68121 -36-8	5f				
19C-iv	2-Chloro Butanone	Intermediate	68697 -08-5	5f				
19C-v	Cypermethric Acid	Intermediate	59042 -49-8	5b				
19D	**5-Amino Salicylic Acid (5-ASA)**	Product	89-57-6	5f	Chemical	96	1404	
19(BP)-i	Hydrochloric Acid (30%)	Co-product	"7647 -01-0	Non-EC	Chemical	734	10407 .1	11141
19(BP)-ii	Para Dichloro Benzene	Co-product	106-46-7	5f	Chemical	0	4947. 3	4947
19(BP)-iii	Meta Dichloro Benzene	Co-product	541-73-1	5f	Chemical	0	59.4	59
19(BP)-iv	Trichloro Benzene	Co-product	120-82-1	5f	Chemical	0	64.3	64
19(BP)-v	2,5 Dichloro Nitro Benzene	Co-product	89-61-2	5f	Chemical	0	245.4	245
19(BP)-vi	Ammonium Chloride 11%	Co-product	12125 -02-9	Non-EC	Chemical	1848	4451. 8	6300
19(BP)-vii	Sodium Bisulfite 30%	Co-product	7631-90-5	Non-EC	Chemical	909	2189. 7	3099
19(BP)-viii	Sulfur Dioxide Gas (Compressed)	Co-product	7446 - 09 - 5	Non-EC	Chemical	168	405.8	574
20A	**Oxalic Acid**	Product	144-62-7	5f	Chemical	44	956	1000
20B	**Glyoxalic Acid**	Product	298-12-4	5f	Chemical	44	956	
20B-i	**Oxalic Acid**	Intermediate	144-62-7	5f	Chemical			
20C	**Ethyl Chloride**	Product	75-00-3	5f	Chemical	47	953	
20(BP)-i	**Oxygen (Compressed)**	Co-product	7782-44-7	Non-EC	Chemical	11	240.9	252

21A	**Mpba**	Product	13826-35-2	5f	Chemical	5	995	1000
21B	**Polymer : PMMA**	Product	9011-14-7	5f	Polymer & intermediate	75	925	
21C	**Co- Polymer Of Acrylonitrile**	Product	9003-18-3	5f	Polymer & intermediate	75	925	
21D	**Poly Ether Sulfone (Pes)**	Product	25608-63-3	5f	Polymer & intermediate	127	873	
21E	**Poly Sulfone**	Product	25667-42-10	5f	Polymer & intermediate	127	873	
21 (BP) -i	**Sodium Carbonate**	Co-product	497-19-8	Non-EC	Chemical	157	1080	1237
22A	**Poly Ether Nitrile**	Product	113506-36-8	5f	Polymer & intermediate	90	150	240
22B	**Poly Aryl Ketone (PAEK) Acid**	Product	88049-73-4	5f	Polymer & intermediate	60	180	
22B-i	**CMDPE (4-Chloro-4'-Methyl Diphenyl Ether)**	Intermediate	7005-72-3	5f	Polymer & intermediate			
22B-ii	**MPPB(4-Methyl-4'phenoxyphenxoy Benzene)**	Intermediate	24038-82-2	5f	Polymer & intermediate			
22C	**Poly Ether Ketone - PEK & Its Monomer & Polymer**	Product	27380-27-4	5f	Polymer & intermediate	90	150	
22C-i	**Pcbc**	Intermediate	104 83 6	5f	Polymer & intermediate			

22C-ii	**Pchb**	Intermediate	42019-78-3	5f	Polymer & intermediate			
22(BP)-i	**Oxygen (Compressed)**	Co-product	7782-44-7	Non-EC	Chemical	9.9	29.7	40
23A	**Vanillin**	Product	121-33-5	5f	Chemical	300	200	500
23A-i	**Oxalic Acid**	Intermediate	6153-56-6	5f	Chemical			
23A-ii	**Goa (100%)**	Intermediate	298-12-4	5f	Chemical			
23A-iii	**Intermediate-1 : GUA**	Intermediate	90-05-1	5f	Chemical			
23A-iv	**Mhpga**	Intermediate	55-10-7	5f	Chemical			
23B	**Phase Transfer Catalyst (Ptc)**	Product	63393-96-4	5f	Chemical	29	471	
23C	**Pyrazol**	Product	288-13-1	5b	Pesticide intermediate	10	490	
23(BP)-i	Oxygen (Compressed)	Co-product	7782-44-7	Non-EC	Chemical	53.9	35.9	90
23(BP)-ii	Sodium Bicarbonate	Co-product	144-55-8	Non-EC	Chemical	790.9	527.3	1318
23(BP)-iii	Ammonium Sulfate	Co-product	7783-20-2	Non-EC	Chemical	13.1	641.9	655
23(BP)-iv	Sodium Bisulfite	Co-product	7631-90-5	Non-EC	Chemical	80.3	3934.7	4015
23(BP)-v	Sodium Sulfite	Co-product	7757-83-7	Non-EC	Chemical	19.5	955.5	975
24	**Potassium Hydroxide**	Product	1310-58-3	4(d)	Chemical	0.0	18000.0	18000.0
24(BP)-i	Chlorine	Co-product	7782-50-5	Non-EC	Chemical	0.0	11574.0	11574.0
24(BP)-ii	Hydrogen	Co-product	1333-74-0	Non-EC	Chemical	0.0	324.0	324.0
25	**Calcium Sulfate**	Product	7778-18-9	Non-EC	Chemical	7500.0	0.0	7500.0
26	**Thionyl Chloride**	Product	`9-7-7719	Non-EC	Chemical	1000.0	0.0	1000.0
26 (BP)-i	**Sodium Hypochlorite**	Co-product	7681-52-9	Non-EC	Chemical	1396.0	0.0	1396.0

27	**Dicalcium Phosphate**	Product	7757-93-9	Non-EC	Chemical	1000.0	0.0	1000.0
28	**Potassium Sulfate**	Product	7778-80-5	Non-EC	Chemical	1000.0	0.0	1000.0
29	**Potassium Carbonate**	Product	584-08-7	Non-EC	Chemical	1000.0	0.0	1000.0
30	**Potassium Bicarbonate**	Product	298-14-6	Non-EC	Chemical	3000.0	0.0	3000.0
31	**Sodium Bromide**	Product	7647-15-6	Non-EC	Chemical	1000.0	0.0	1000.0
32	**Potassium Bromide**	Product	`7758-02-3	Non-EC	Chemical	3000.0	0.0	3000.0
33	**Sodium Sulfite**	Product	7757-83-7	Non-EC	Chemical	7500.0	0.0	7500.0
34	**Sodium Bisulfite**	Product	7631-90-5	Non-EC	Chemical	2000.0	0.0	2000.0
35	**Potassium Sulfate**	Product	7778-80-5	Non-EC	Chemical	2000	**0.0**	**2000.0**
36	**Potassium Bicarbonate**	Product	298-14-6	Non-EC	Chemical	1000	**0.0**	**1000.0**
37	**Potassium Chloride**	Product	7447-40-7	Non-EC	Chemical	12000	**0.0**	**12000.0**
38	**Amid Chloride (Purification)**	Product	816431-72-8	Non-EC	Chemical	5000	**0.0**	**5000.0**
39	**Chlorantraniliprole (Purification)**	Product	500008-45-7	Non-EC	Herbicide	1200	**0.0**	**1200.0**
40	**Bromoxynil Heptanoate (Purification)**	Product	56634-95-8	Non-EC	Herbicide	1200	**0.0**	**1200.0**
41	**Bromoxynil Octanoate (Purification)**	Product	1689-99-2	Non-EC	Herbicide	1200	**0.0**	**1200.0**
42	**Pesticide Liquid & Solid Formulations (Formulations From Own Technical Products Or By Procuring Technical Products From Outside)**	Product	NA	Non-EC	Pesticide Formulations	15480.0	12000.0	27480.0
43	**Products from R&D Activities**	Product	NA	NA	Pesticides & its	0.0	2000.0	2000.0

					interme diates			

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

6. The PP reported that. EC for the existing unit-1 & 4 was not applicable as the project was commissioned in 1987 i.e. before the introduction of the EIA Notification dated 27th Jan 1994, EIA Notification dated 14th Sept 2006 & its amendments. EC for the existing unit-3 was not applicable because the project do not attract the provisions EIA Notification dated 14th Sept 2006 & its amendments as the plant was commissioned in 2007 with capacity of the plant is of 4 MW for coal based fuel and additional 2.4 MW based on waste heat recovery fuel along with N2 & CO2 gas recovery as 55,468.8 TPA & 15,120 TPA resp., while EC is applicable for plant capacity >5 MW for coal based fuel & completely exempted for power generation from waste heat recovery fuel

7. The PP reported that the latest CTO for **Unit 1 and 4** vide letter no. Format 1.0/CAC/UAN No. 0000092566/ CR- 2009000532 dated 09.09.2020 valid upto 31.07.2025 has been granted. The latest CTO for **Unit 3** vide letter no. Format 1.0/CC/UAN No. 0000114907/CO-2108000721 dated 11.08.2021 valid upto 31.12.2023 was granted. This unit also has CTE for manufacturing of Inorganic Chemicals granted vide letter No. Format 1.0/CAC/UAN No.0000080212/ CE-2008000936 dated 26.08.2020 and valid up to 25.08.2025. The CTE for **Unit 7** vide letter no. Format 1.0/RO/UAN No. 0000162062/CE/2303000540 dated 08.03.2023 valid upto 07.03.2028 was granted for manufacturing inorganic chemicals & purification of chemicals.

8. The PP reported that the Existing land area is 2,01,935 sq.m and after expansion will be increased to 2,20,640.97 sq.m.

9. The PP reported that the proposal does not involve Approval/Clearance under Forest (Conservation) Act,1980, Wildlife (Protection) Act,1972 and C.R.Z notification, 2011 as amended. There is no forest, Eco sensitive areas/National Park/Wildlife Sanctuary in 10 km radius of the site. The project doesn't fall within the CRZ boundaries. Lavel dam (2.21 km NNE) and Vashishti River (4.5 km SW).

10. The PP reported that the for Unit 1,4 &7, the total water requirement for existing unit is 3874 KLD out of which fresh water of 1997 KLD will be sourced from MIDC, 78 KLD treated from STP, 1550 KLD recycled condensate, 56 KLD rainwater, 38 KLD recovered water from process and 155 KLD treated water from RO. After expansion, the total water requirement is 7814 KLD out of which fresh water of 3612 KLD will be sourced from MIDC, 83 KLD treated from STP, 2051 KLD recycled condensate, 56 KLD rainwater, 240 KLD recovered water from process and 1772 KLD treated water from MEE and RO. For Unit 3, the total water requirement for existing unit is 2982 KLD out of which fresh water of 2690 KLD will be sourced from MIDC, 28 KLD recycled condensate, 23 KLD rainwater and 241 KLD treated water from RO & SEE. After expansion the total water requirement is 5155 KLD out of which fresh water of 3219 KLD will be sourced from MIDC, 1416 KLD recycled condensate, 23 KLD rainwater and 497 KLD treated water from RO & SEE. For Unit 1, 4 & 7 existing, total effluent generation is 1328 KLD and after expansion shall be increased to 3520 KLD. Effluent generation from scrubbing water, process High COD High TDS stream & RO reject is

treated in MEE of capacity 612 KLD and after expansion shall be treated in MEE of capacity 2400 KLD. MEE concentrate is sent to ATFD in existing and the same shall be followed after expansion. In existing MEE, condensate is completely sent to ETP for further treatment and after expansion MEE condensate is reused partially and rest is sent to ETP for further treatment. In existing R&D effluent, vessel cleaning, condensate recycled from cogen boiler of unit 3, low COD low TDS stream from process, MEE condensate is treated in ETP of capacity 1200 KLD followed by discharge of 1043 KLD to CETP and after expansion shall be treated in ETP of capacity 3000 KLD followed by partial discharge of 1500 KLD to CETP & rest to be further treated in RO. In existing CT blowdown is treated in RO of capacity 1340 KLD and after expansion shall be treated along with partial ETP treated water in RO of capacity 2000 KLD. RO permeate is reused & RO reject is sent to MEE both in existing & after expansion. Domestic wastewater is treated in STP of 250 KLD both in existing & after expansion. For Unit 3 existing, total effluent generation is 251 KLD and after expansion shall be increased to 515 KLD. In the existing process, High COD high TDS & RO Reject is treated in SEE of capacity 30 KLD and after expansion shall be treated in SEE of capacity 60 KLD. SEE concentrate is sent to the Nutsche filter & SEE condensate is reused in existing and the same shall be followed after expansion. In existing cogen boiler blowdown & CT blowdown is treated in ETP (primary treatment) of capacity 300 KLD and after expansion 520 KLD. ETP treated water is further treated in RO of 240 KLD capacity and after expansion 600 KLD capacity. RO permeate is reused & RO reject is sent to SEE both in existing & after expansion. Domestic wastewater is treated in septic tank followed by a soak pit in existing & after expansion it will be treated within STP of Unit 1 and 4.

11. The connected load after expansion of 55.6 MW out of which 37.3 MW is existing and 18.3 MW proposed which will be met by Maharashtra State Electricity Transmission Company Limited (MSEDCL) & in house Cogeneration Power Plant of 4 MW based on coal & additional 2.4 MW based on waste heat recovery which after expansion will be increased to 11 MW and 6.4 MW resp. After expansion there will be 11 DG Sets: 1510 X 6 Nos. + 1250 X 5 Nos. with maximum stack height of approx. 7 m above roof level as per CPCB norms has been provided. In existing unit 1 & 4, an incinerator of 1.35 x 10^6 Kcal/Hr will be replaced with a new incinerator of 4.5 x 10^6 Kcal/ Hr capacity and will be installed with APCS spray cooler & venturi scrubber with stack height of 40 m above ground level. R&D boiler & Hot oil unit with stack height of 16 m above ground level has been provided and will remain the same after expansion. Thermic fluid heater with stack height of 28.4 m above ground level has been provided and the same will remain after expansion. Existing Unit 3 has 40 & 46 TPH coal based boilers along with Dust Collector followed by ESP and stack height of 65 m above ground level installed for controlling the particulate emissions within the statutory limit of 50 mg/Nm3. Additionally, 90 TPH boiler with agro briquette blended with imported coal in 1:10 ratio, subject to availability or imported coal as fuel will be installed for the proposed expansion. Dust collector followed by ESP with a stack of height of 78 m will be installed for controlling the particulate emissions within the statutory limit of 30 mg/Nm3.

12. The PP reported that the project, being in **notified industrial area MIDC (Notification No. IDC 2173/15137-IND-I (B) dated 27.2.1974), is exempted from the public hearing** as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

13. PP develop a total 97,519.82 sq.m green area (i.e. 44.2% of total plot area after expansion) comprising 21.6% (47,648.09 sq.m.) of total plot area inside the plot premises and 22.6 (49,871.73

sq.m.) % of total plot area within MIDC. Out of this 97,519.82 sq.m total green area, 57,293.93 sq.m (i.e. 25.9% of total plot area) is already developed & rest 40,225.89 sq.m (i.e. 18.23 % of total plot area) is yet to be developed. Total 24,380 no. of trees are required to be planted considering 2500 trees per ha of green area. Out of which 8,861 no. of trees are already planted and 15,519 no. of trees, i.e. 19,399 no. of saplings to be planted considering 80% survival rate.

14. The estimated project cost is Rs. 2004.05 Crores including existing investment of Rs. 1535.05 Cr. and Proposed- Rs. 469 Crore.The PP reported that the total Existing Employment is 2,083 persons (Unit 1,4 &7 : 2001 and unit 3 : 82) as direct & indirect and after expansion will increase to 2,216 (Unit 1,4 &7 : 2096 and unit 3 : 120). Industry proposes to allocate Rs. 259 Crores towards CER.

15. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the Greenbelt development, increasing efficiency of use of waste heat and renewable energy utilization, Fuel consumption and sewage treatment and advised the PP to submit the following:

- Undertaking on Green belt development programme.
- Undertaking on increasing efficiency of use of waste heat and renewable energy utilization.
- Undertaking with regard to fuel consumption
- Undertaking with regard to treatment of sewage generated at Unit 3

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

16. After detailed deliberations, the EAC **recommended** the project for grant of ToR (**Standard ToR [Annexure-II]** and **additional ToR as mentioned below)**, **without public hearing** as per the provisions of the EIA Notification, 2006 and as per O.M. No. 22-23/2018-IA.III dated 05.07.2022.

(i) The PP shall develop Greenbelt over an area of 97,519.82 m^2 (44.2%), 47,648.09 (22.6%) accordingly plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Approx. 24,380 number of plantations have to be planted considering 80% survival rate and with a spacing of 2 m x 2 m.

(ii) The PP shall install an additional 4 MW WHRB, hence total capacity of WHRB shall be 6.4 MW after expansion.

(iii) The PP shall remove FO as a fuel after expansion and change to Light Diesel Oil (LDO) for all such operations

(iv) The PP shall increase the agro briquette blending with coal in 1:10 ratio for boilers subject to availability of agro briquettes in the area.

(v) The Sewage generated at Unit 3 shall be transferred to the existing STP located at Unit 1. Treated sewage shall be used for gardening.

Agenda No. 49.20

Proposed Expansion in Dyes and Pigments Manufacturing Unit of Production Capacity 10.6 MT/Month located at Plot No.: 729, Ankleshwar GIDC Estate, Tal: Ankleshwar, Dist: Bharuch, Gujarat by M/S. Shree Ambe Colour Chem- consideration of ToR

[Proposal No. [IA/GJ/IND3/422087/2023, File No. IA-J-11011/114/2023-IA-II(I)]

1. The proposal is for the issue of ToR for preparation of EIA/EMP for Proposed Expansion in Dyes and Pigments Manufacturing Unit of production capacity 10.6 MT/Month located at Plot No.: 729, Ankleshwar GIDC Estate, Tal: Ankleshwar, Dist: Bharuch, Gujarat by M/S. Shree Ambe Colour Chem. The **PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the CPCB.**

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry. 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 No. IA/GJ/IND3/422087/2023 dated 16.3.2023. The proposal is now placed in 49th EAC Meeting held on 3th & 5th & 6th April, 2023, wherein the PP and an accredited Consultant, [M/s. Ecogreen Enviro Services [Accreditation number NABET/EIA/2124/SA 0185, Valid up to 24.12.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

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

Sr. no.	Name of the Products	CAS No.	Quantity MT/Month			End-use of the products *
			Existing	Proposed	Total	
1	Orange H2R	12225-85-3	2.6	--	2.6	Textile Dyeing & Printing
2	Golden Yellow HR (Reactive)	605-69-6	1.0	--	1.0	Textile Dyeing & Printing
3	Benzidine Yellow – 13G (Pigment Yellow) **& OR**	6358-85-6	7.0	--	7.0	Plastic, Ink/Paint, Rubber industries
4	Benzidine Orange (Pigment Orange) **& OR**	3520-72-7				
5	Lake Red C (Pigment) **& OR**	01-02-5160				

6	Pigment Blue 60 **& OR**	81-77-6	0.0			
		Total	**10.6**	**--**	**10.6**	

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

6. The PP reported that the proposed project area is 1000.0 m^2 , no land will be used for proposed expansion and no R&R is involved in the Project.

7. The PP reported that the proposal does not involve Approval/Clearance under Forest (Conservation) Act,1980, Wildlife (Protection) Act,1972 and C.R.Z notification, 2011 as amended. There is no forest, Eco sensitive areas/National Park/Wildlife Sanctuary in 10 km radius of the site. The project doesn't fall within the CRZ boundaries.

8. The PP reported that the total water requirement is 5.7 m^3/day of which reuse of 1.0 m^3/day domestic treated water in gardening. Thus, fresh water requirement of 4.7 m3/day will be met from GIDC, Ankleshwar. Effluent/Industrial wastewater of 2.6 m^3/day quantity will be treated through in-house ETP (Primary treatment) and treated water will be sent to CETP of Enviro Technology Limited (ETL) for further treatment and final disposal. Sewage/Domestic wastewater of 1.0 KLD will be treated in septic tank with filtration system and after treatment it will be reused for gardening purpose within premises.

9. Total power requirement will be 250 KVA. Power supply shall be taken from Dakshin Gujarat Vij company limited. Existing unit has 0.5 TPH Natural gas fired Boiler and 1 Lacs KCal/Hr Natural gas fired Hot Air Generator. Adequate stack of height of 30 m will be installed instead of existing 12 m stack height for controlling the particulate emissions within the statutory limit of 120 mg/Nm^3 for the existing boiler and Hot Air Generator as per CPA notification. Additional utilities/flue gas stack will not require.

10. The PP reported that the project, being in notified industrial area **GIDC Bharuch (Notification dated** 19.9.85 is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

11. Industry has already developed greenbelt in an area of 17 % i.e., 170 m^2 and will develop greenbelt in an area of 25 % i.e., 250 m^2. Thus, total greenbelt after proposed expansion will be **42 % i.e., 420 m^2 (Inside Premises: 380 m^2, Outside Premises at GIDC: 40 m^2)** out of total area of the project as per CPA notification.

12. The estimated project cost is Rs. 244.76 Lakhs. The PP reported The plant has employment of approximately 18 full time persons. Industry proposes to allocate Rs. 5.0 Lakh towards CER.

13. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the Greenbelt development plan, Project Cost, Environment Management Plan (EMP) & CER Cost w.r.t revised Greenbelt Development Plan, carbon footprint,

Water Footprint, Alternative site analysis along with Cost Benefit Analysis hazardous waste and advised the PP to submit the following.

- Revised Greenbelt Development Plan (w.r.t 2500 trees per hectare, additional tress as per 80% survival rate) with total number of trees & revised Greenbelt Development Cost.
- Revised Project Cost, revised Environment Management Plan (EMP) & revised CER Cost w.r.t revised Greenbelt Development Plan.
- Undertaking stating the Greenbelt Development within Plant Premises and or outside plant premises within estate
- Submit following studies along with the EIA Report, viz. Carbon Footprint, Water Footprint, Alternative site analysis along with Cost Benefit Analysis.
- Revised Hazardous Waste Matrix Table showing bifurcation of Spent Sulphuric Acid reuse within premises and sent outside premises for recover and reuse under rule-9.

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

14. After detailed deliberations, the EAC **recommended** the project for grant of ToR (**Standard ToR [Annexure-II]** and **additional ToR as mentioned below)**, **without public hearing** as per the provisions of the EIA Notification, 2006 and as per O.M. No. 22-23/2018-IA.III dated 05.07.2022.

(i). The PP shall follow the Standard Operating Procedure (SoP) issued by the Ministry on 07.07.2021 for handling of violation cases under EIA Notification, 2006.

(ii). The PP shall complete the impact assessment studies & submit Environmental Impact Assessment (EIA) report & Environmental Management Plan (EMP) (Damage Assessment, Remedial Plan and Community Augmentation Plan) in a time bound manner.

(iii). Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR).

(iv). The EMP shall comprise of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.

(v). The remediation plan and the natural and community resource augmentation plan shall be prepared as an independent chapter (13) in the EIA report by the accredited consultants.

(vi). The budget for the remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be adequate and shall be used for completing the plans within three years.

(vii). The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB

prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.

(viii). The penalty amount shall be calculated as per provision of SOP dated 07.07.2021 (i.e. 1% of the total project cost incurred up to the date of filing of application along with EIA/EMP report PLUS 0.25% of the total turnover during the period of violation) with supporting documents. In addition to this, actual production vis-a-vis CTO capacity financial year wise in a tabular format with supporting documents.

(ix). The State Government/SPCB shall take action against the project proponent under the provisions of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC

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

(xi). The PP needs to submit the action plan with respect to mitigation measures for CPA mentioned in the Ministry's OMs dated 31.10.2019.

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

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

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

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

(xvi). Activity-wise, a time bound action plan along with budgetary provisions for occupational health & surveillance, environment management plan, and green belt development plans shall be prepared and submitted.

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

(xviii). Action Plan for the management of hazardous waste and provision for its utilization in co-processing if applicable shall be prepared and submitted.

(xix). Provision for reuse/recycle of treated wastewater, wherever feasible shall be made. The PP shall explore the possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. A detailed water harvesting plan also needs to be prepared and submitted. Provision for Zero Liquid Discharge whenever techno-economically feasible shall be included. The PP shall make necessary provisions for continuous monitoring of the effluent quality/quantity.

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

(xxi). The PP should develop Greenbelt over an area of 400 m^2 (within the industrial area) and shall be completed within 1 year, accordingly plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Approx. 120 number of plant species have to be planted considering 80% survival rate and with a spacing of 2 m x 2 m.

(xxii). The PP shall develop the pending greenbelt i.e., 23.6 % i.e., 236 sq. m. within premises and or outside premises within estate.

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

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

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

(xxvi). The action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.

(xxvii). Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.

(xxviii). The PP shall prepare a detailed rain water harvesting plan so as to ensure that unit will become water positive i.e. able to recharge the quantity equivalent to fresh water requirement of the plant or use only re-charged/restored water as a fresh water requirement.

(xxix). Detailed solvent recovery/solvent management plan

(xxx). Detailed Volatile Organic Compounds (VOCs)/Fugitive emissions control plan

Agenda No. 49.21

Paper Sizing Chemical Alkenyl Succinic Anhydride (ASA) Product in the Existing Paper Sizing Chemicals Manufacturing Unit with Overall Production Capacity of 3575 TPM located at Gumpam Village, Pusapatirega Mandal, Vizianagaram District, Andhra Pradesh by M/s. IVAX Paper Chemicals Pvt. Ltd. - Consideration of EC

[Proposal No. [IA/AP/IND3/419302/2023; File No. IA-J-11011/140/2022-IA-II(I)]

The PP vide email dated 04.04.2023 informed that due to health condition of their Director (Plant Operations), they would be unable to attend the meeting and requested to defer the proposal.

The proposal was accordingly, **deferred.**

Agenda No. 49.22

Proposed Change in Product Mix with Increase in Production Capacity and Enhancement of Plant Facilities"at Plot No. 43, 44 & 45, KIADB Bommasandra–Jigani Industrial Area, Bommasandra-Jigani Link Road, IV Phase, Anekal Taluk, Bengaluru Urban District, Karnataka by M/s. Micro Labs Limited - Consideration of EC (under violation category)

[Proposal No. [IA/KA/IND3/419615/2023; File No. J-11011/88/2005-IA-II(I)]

1. The proposal is for the EC to the project for proposed Change in product mix with increase in production capacity and enhancement of plant facilities" at plot No 43, 44 &45, KIADB Bommasandra –Jigani Industrial Area, Bommasandra-Jigani Link Road, IV Phase, Anekal Taluk, Bengaluru Urban District, Karnataka by M/s. Micro Labs Limited.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) as the project is located outside the notified industrial area. The PP also reported that the project site is located within the 5 km radius from Critically Polluted Area (CPA) of Jigani Industrial Area with CEPI score of 70.99

3. The ToR has been issued by the Ministry, vide letter F. no 23-46/2018 –IAIII dated 11.4.2018. The PP submitted that Public hearing is conducted on 7.11.2020 which was presided by the Additional District Magistrate. The PP applied for Environment Clearance on 16.3.2023 in CAF and submitted EIA/EMP Report and other documents. The PP in the CAF reported that it is a **Fresh EC case.** Due to some shortcomings, the Project was referred back to PP on 20.4.2022 and reply to the same was submitted on 28.6.2022. The proposal is now placed in 49th EAC Meeting held on 3rd, 5th-6th April, 2023, wherein the Project Proponent and an accredited Consultant **M/s. Hubert Enviro Care Systems Pvt. Ltd., Chennai** (NABET certificate no. **NABET/ EIA/ 2224/ SA0190 Validity: 27/07/2024**], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area is 6.0 Ha and no R& R is involved in the Project. The details of products and by–products are as follows:

S.No	Product Details	CAS number	Existing Quantity (Kg/A)	Proposed Quantity (Kg/A)	Total Quantity (Kg/A)	Uses
1	Amlodipine Besylate	88150-42-9	5000	-5000	0	Antihypertensive
2	Atovastatine calcium	134523-03-8	1200	-1200	0	Antihistamine Product
3	Carvedilol	72956-09-3	600	-600	0	Antihypertensive
4	Clopidogral hydrogen sulphate	120202-66-6	6000	-6000	0	atherothrombotic
5	Ebastine	90729-43-4	300	1500	1800	Antihistamine
6	Ezetimibe	163222-33-1	250	-200	50	Antihyperlipidemic Products
7	LevocertizeneDihydrochloride	130018-87-0	3000	-3000	0	Antihistamines
8	Lisinopril Dihydrate	83915-83-7	1200	-1200	0	Antihypertensive
9	Losartan potassium	124750-99-8	3000	0	3000	Antihypertensive
10	Nevirapine	129618-40-2	1200	-1200	0	Antiretroviral
11	Olanzapine	132539-06-1	1200	-900	300	AntiPsychotic Products
12	Pantaprazole sodium	164579-32-2	1200	-900	300	Antiulcerant Products
13	Rabeprazole	117976-90-6	1200	-1200	0	Antiulcer
14	Ramipril	87333-19-5	600	-600	0	Antihypertensive
15	Ropinirole	91374-21-9	600	-600	0	Paralysis agitans
16	Rosiglitrazone	122320-73-4	1200	-1200	0	Anti-diabetic Products
17	S-amolodipineBesylate	111470-99-6	600	-600	0	Antihypertensive
18	Sertraline Hydrochloride	79559-97-0	2000	-2000	0	Obsessive compulsive disorder
19	Simvastatin	79902-63-9	600	-600	0	Hyperlipidemia
20	Telmisartan	144701-48-4	600	600	1200	Antihypertensive
21	Toresamide	56211-40-6	600	-300	300	Ophthalmology Products

22	venlafaxine Hydrochloride	99300-78-4	1200	-1200	0	Antidepression
23	Abacavir Sulfate	188062-50-2	0	300	300	Antiviral Product
24	Acrivastine	87848-99-5	0	50	50	Antihistamine Products
25	Alcaftadine	147084-10-4	0	50	50	Ophthalmology Products
26	Anagliptin	739366-20-2	0	50	50	Anti-diabetic Products
27	Anagrelide	823178-43-4	0	50	50	Platelet Inhibitor Product
28	Apixaban	503612-47-3	0	10	10	Platelet Inhibitor Product
29	Artemether	71963-77-4	0	1500	1500	AntiMalerial Products
30	Atazanvir	198904-31-3	0	50	50	Antiviral Product
31	AzilsartanMedoxmilPottasium	863031-24-7	0	250	250	Antihypertensive
32	BepotastineBesylate	190786-44-8	0	10	10	Ophthalmology Products
33	Besifloxacin Hydrochloride	405165-61-9	0	10	10	Ophthalmology Products
34	Bilastine	202189-78-4	0	10	10	Antihistamine Product
35	Bisegliptin	862501-61-9	0	50	50	Anti-diabetic Products
36	Brexpiprazole	913611-97-9	0	50	50	Anti-Psychotic Products
37	Brimoidine Tartrate	70359-46-5	0	50	50	Ophthalmology Products
38	Brinzolamide	138890-62-7	0	50	50	Ophthalmology Products
39	Bromfenac	120638-55-3	0	25	25	Anti Inflammatory Products
40	Canagliflozine	842133-18-0	0	50	50	Anti-diabetic Products
41	Candesartan	145040-37-5	0	30	30	Antihypertensive
42	Celecoxib	169590-42-5	0	8000	8000	Anti Inflammatory Products
43	Cilnidipine	132203-70-	0	100	100	Antihypertensive

		4				
44	Clobazam EC	22316-47-8	0	50	50	Anti-epileptic Product
45	CyamemazineTartarate	93841-82-8	0	300	300	Anti-Psychotic Products
46	Cyclizine Hydrochloride	303-25-3	0	2000	2000	Antihistamine
47	Cyclserine	68-41-7	0	50	50	Antibacterial Product
48	Dabigatran EtexylateMesylate	872728-81-9	0	250	250	Platelet Inhibitor Product
49	Daclatasavir	1009119-64-5	0	50	50	Antiviral Product
50	Dalfampridine	504-24-5	0	50	50	Multiple Sclerosis
51	Dapagliflozine	461432-26-8	0	50	50	Anti-diabetic Products
52	DarunavirEthanolate	635728-49-3	0	300	300	Antiviral Product
53	Dimethyl Fumarate	624-49-7	0	250	250	Psoriasis and Multiple Sclerosis
54	Dolutegravir	1051375-19-9	0	15	15	Antiviral Product
55	Dorzolamide Hydrochloride	130693-82-2	0	500	500	Ophthalmology Products
56	Empagliflozine	864070-44-0	0	50	50	Anti-diabetic Products
57	Emtricitabine	143491-57-0	0	50	50	Antiviral Product
58	Escitalopram oxalate	219861-08-2	0	1860	1860	Antidepressant
59	Ethambutol Hydrochloride	1070-11-7	0	500	500	Antibacterial Product
60	Febuxostat	144060-53-7	0	50	50	Antigout Product
61	Flupiritine Maleate	75507-68-5	0	50	50	Analgesic
62	Flurbiprofen	5104-49-4	0	50	50	Anti-Inflammatory Product
63	Gatifloxacin	112811-59-3	0	50	50	Ophthalmic Use
64	Gliclazide	21187-98-4	0	3000	3000	Anti-diabetic Products
65	Glimepiride	93479-97-1	0	200	200	Anti-diabetic Products

66	Hexamine Hippurate	5714-73-8	0	500	500	Anti-Bacterial Product
67	Iioperidone	133454-47-4	0	50	50	Anti-Psychotic Products
68	Irbesartan	138402-11-6	0	2000	2000	Antihypertensive
69	Isopropterenol Hydrochloride	51-30-9	0	5	5	Antihistamine Product
70	Ivabrdine	148870-57-9	0	50	50	Antihyperlipidemic Product
71	Lacosamide	175481-36-4	0	50	50	Anti-diabetic Products
72	Lafutadine	118288-08-7	0	50	50	Antihistamine Product
73	Levomilnaciprn Hydrochloride	175131-60-9	0	100	100	Antidepressant Product
74	Lumefantrine	82186-77-4	0	4000	4000	AntiMalerial Products
75	Lurasidone Hydrochloride	367514-88-3	0	100	100	Anti-Psychotic Products
76	Meloxicam	71125-38-7	0	100	100	Anti-Inflammatory Products
77	Meptazinol	59263-76-2	0	50	50	Anti Inflammatory Products
78	Milnacipran Hydrochloride	101152-94-7	0	300	300	Antidepressant Product
79	Mirabegron	223673-61-8	0	50	50	Adrenergic/Anticholonergicagent Product
80	Montelukast	158966-92-8	0	25	25	Allergic Rhinitis
81	Moxifloxacin	186826-86-2	0	50	50	Anti-Bacterial Product
82	Moxonidine	75438-57-2	0	50	50	Antihypertensive Product
83	Nebivolol Hydrochloride	152520-56-4	0	60	60	Antihypertensive
84	Nefopam	23327-57-3	0	50	50	Anti Inflammatory Products
85	Nepafenac	78281-72-8	0	50	50	Anti Inflammatory Products

86	Nephazoline Hydrochloride	550-99-2	0	100	100	Ophthalmology Products
87	Olmisartanmedoxomil	144689-63-4	0	300	300	Antihypertensive
88	Omagrigliptin	1226781-44-7	0	50	50	Anti-diabetic Products
89	Perampanel	380917-97-5	0	50	50	Antiparkinson Products
90	Pirfenidone	53179-13-8	0	50	50	Antiviral Product
91	RasagilineMesylate	161735-79-1	0	10	10	Antiparkinson Products
92	RasigilineTartarate	136236-52-7	0	10	10	Antiparkinson Products
93	Refaxmine	80621-81-4	0	50	50	Anti-diabetic Products
94	Rilpivirine	700361-47-3	0	50	50	Antiviral Product
95	Rivaroxaban	366789-02-8	0	50	50	Platelet Inhibitor Product
96	Rosuvastatin	287714-41-4	0	20	20	Antihyperlipidemic Product
97	Sacrubitil Valsartan	936623-90-4	0	50	50	Chronic Heart Failure and Reduce dejection Fraction
98	Sitagliptin	486460-32-6	0	20	20	Anti-diabetic Products
99	Sodium Nitroprusside	13755-38-9	0	20	20	Antihypertensive Product
100	Sofosbuvir	1190307-88-0	0	50	50	Antiviral Product
101	Sollfenacin	242478-38-2	0	20	20	Antipasmodic Agent Products
102	Teneligliptin	906093-29-6	0	100	100	Anti-diabetic Products
103	Tenofovir Alafenamide Fumerete	1392275-56-7	0	50	50	Antiviral Product
104	Ticagrelor	274693-27-5	0	20	20	Platelet Inhibitor Product
105	Tofactinib Citrate	540737-29-9	0	15	15	Anti-Rheumatic Agent
106	Valsartan	137862-53-4	0	50	50	Antihypertensive

107	Vilazidone	163521-08-2	0	100	100	Antidepressant Product
108	Vildagliptin	274901-16-5	0	100	100	Anti-diabetic Products

5. The PP reported that there is a violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and the KSPCB issued letter Vide. No. PCB/045/HPI/2016-17/5494 Dated 22.12.2016 and the direction issued by **KSPCB Notice dated 22.12.2016.**

- Micro Labs Limited has received notice from Karnataka State Pollution Control Board (KSPCB), issue of consent for operation for under the Water Act for the period ending upto 30.06.2021 for Bulk Drugs and API.
- MoEF&CC has issued EC for establishing industry for manufacture of 22 No.s of bulk drug/API. Accordingly, the consent for establishment under the Water Act and the Air Act was issued by the KSPCB.
- Further, the industry applied CFEx for manufacture of 65 No.s of bulk drug/API in 2010, The KSPCB has issued CFEx for manufacture of 65 No.s of bulk drug/API's. The KSPCB also issued Consent for operation for the period ending upto 30.06.2016.
- The SEIAA has issued direction under Section 5 of the Environment (Protection)Act,1986 directing the PCB to issue consent for establishment for all such projects attracting EIA Notification, 2006 and subsequent amendments only after submission of copy of EC issued in accordance with law. In the said directions, it was stated that all new, expansion & modernization and change in product mix project listed in schedule to the EIA notification require prior EC from the regulatory authority.
- In view of the directions of SEIAA to the PCB cited above, the KSPCB vide letter informed you to submit the copies of EC obtained for all the products for which CFO was sought along with other details. As per the records submitted by Micro Labs Limited, the unit has not obtained EC for change of product mix.
- Please note that, operating an industry without valid consent for the board under Section 25 of the Water Act and Section 21 of the Air Act as well as EC under EIA Notification attracts penal action.
- Based on the above information from KSPCB, Micro Labs Limited has been given reply letter dated 26.12.2016 to KSPCB for the clarification of letter No.PCB/046/HPI/2016-17/5494

KSPCB Notice dated 19.08.2017

- Micro Labs Limited has received notice from Karnataka State Pollution Control Board (KSPCB), Non-Compliance to the provisions of the Water (Prevention and Control of Pollution) Act, 1974 & Air (Prevention & Control of Pollution) Act, 1981.
- M/s Micro Labs Limited, Unit-III is a large scale Red category industry located at Plot No: 43 to 45, Bommasandra – Jigani Link Road Industrial Area, 4th Phase, Anekal Taluk, Bangalore Urban District had obtained combined consent order from the Board vide No.PCB/046/HPI/2015-16/H-1248 dated 02.01.2016 for the manufacture of Active Pharmaceutical Ingredients (Powders).

- Further, Micro Labs Limited had submitted CFO application under Water and Air acts for renewal for the period from 01.07.2016 to 30.06.2021 vide HDR No. 110629 dated 21.05.2016. Your Industry was inspected by RO-Anekal on 14/06/2016, in view of the CFO application. The RO-Anekal had forwarded the inspection report to Board Office vide dated 14.07.2017.
- As per the Board Office Memo vide no.2526. dated 02.08.2017 with the statement that, your consent for operation application submitted by the industry under Water Act and Air Act for the period upto 30.06.2021 is incomplete due to the reason that, the industry is currently manufacturing Active Pharmaceutical Ingredients (Powders) 65 products without obtaining prior consent of the Board and EC from State Level Impact Assessment Authority (SEIAA).
- Since there was no response from the unit authorities even after giving sufficient time, the Board proposes to initiate action under Section 33(A) of Water (Prevention & Control of Pollution) Act, 1974, read with Rule 34 of Water (Prevention & Control of Pollution) Rules 1976 & Section 31 (A) of Air (Prevention & Control of Pollution) Act, 1981, read with Rule 20(A) of Air (Prevention & Control of Pollution) Rules 1983 as under:

Proposed Directions: In exercise of the powers conferred under Section 33 (A) of Water (Prevention & Control of Pollution) Act, 1974, read with Rule 34 of Water (Prevention & Control of Pollution) Rules 1976 & Section 31 (A) of Air (Prevention & Control of Pollution) Act, 1981, read with Rule 20(A) of the Karnataka Air (Prevention & Control of Pollution) Rules 1983, the designated officer, namely Zonal Senior Environmental Officer, Bengaluru South, Karnataka State Pollution Control Board, Bengaluru here gives the following proposed direction as to why not to direct:

- 1. The Occupier, M/s. Micro Labs Limited, Unit-III, Plot No: 43 to 45, Bommasandra – Jigani Link Road Industrial Area, 4th Phase, Anekal Taluk, Bangalore Urban District to close the industry forthwith and until further orders.

- 2. The Managing Director, BESCOM, K.R.Circle, Bangalore, to issue necessary directions to the concerned Executive Engineer/Assistant Executive Engineer

- 3. The Executive Engineer/Assistant Executive Engineer, BESCOM, Chandapura Division, to stop/cut off power supply to the above industry forthwith and until further orders.

- 4. The Managing Director, BWSSB, Cauvery Bhavan, KG Road, Bangalore, to cut off water supply to the above said industry forthwith and until further orders.

- 5. The Deputy Commissioner, Bengaluru, to seize the industry forthwith and until further orders.

- Based on the above information from KSPCB, Micro Labs Limited has been given reply letter dated 29.08.2017 to KSPCB of letter No.PCB/ZSEO/Bng.South/NPD-Water & Air Acts/2017-18/244

6. The PP reported that Micro Labs is engaged in manufacturing API products and having EC(2005)&CFO (2007)for22 products for the total production capacity of 33,350 Kg/A(Actual Manufactured-112.79 Kg/A)and the CFO was obtained for 38products with a total production capacity of 33,850 Kg/A(Actual Manufactured-1352.59Kg/A)in the year 2008-09 later the unit was obtained CFO for65 products with a total capacity of 36,445Kg/A(Actual Manufactured-7454.58Kg/A)in the year2011 &(Actual Manufactured-22919.83Kg/A in2016).The unit is manufacturing22 No's ofproducts and total production capacity of 33,350Kg/A as per EC-2005 from2017onwards and latest CFO was obtained with a capacity of33,350Kg/Aof EC 22products in the year 2021.After Expansion 15 No's of existing products(26,200kg/A)will be dropped and will be retained7No's(4,850 Kg/A)&(2100 Kg/A)increased from existing APIs, & newly introduce APIs will be 86No's(29,495 Kg/A).After expansion the total products will be93 No's(36445Kg/A).The violation period is2007to2017.

7. The PP reported that the EC has been obtained from MoEF&CC for existing products (22 Nos of APIs with a total capacity of 33,350 Kg/A) in the year 2005. The existing EC Certified compliance report from MoEF&CC has been obtained vide letter File No. EP/12.1/226/KAR/ 1270 dated 6.2.2023.

8. The PP reported that Bannerghatta National Park ESZ located ~ 4.99 km (W), Bannerghatta National Park Core Boundary is located ~ 5.99 km (WSW) from the project site. Cuvery Wildlife Sanctuary ESZ & Core Bannerghatta National Park Core Boundary is located ~ 11.57 km (S) from the project site. Bandenalasandra Kere is ~0.28 km in the NNW Direction, Hennagara Kere is ~ 0.65km in the Southern Direction, Mastenahalli Lake is ~ 0.66km in the Eastern Direction, Jigani Kere is ~1.71km in the Western Direction, Kammasandra Lake is ~5.43 km in the NE Direction, Muttanallur Kere is ~7.26 km in the ENE Direction, Begur Lake is ~8.99 km in the NNW Direction, from the project site. The PP reported that no forest area is involved in the proposed project. and one Schedule I species i.e Pavo cristatus exist within 10 km study area of the project, for which conservation plan is submitted to PCCF on 24.11.2021.

9. The PP reported that Ambient air quality monitoring was carried out at 8 locations during from September 2018 to November 2018, since the validity of the baseline period expired, we have conducted three months (December 2021- February 2022) Validation and the baseline data indicates the ranges of minimum and maximum concentrations as: PM_{10} (81.31-90.26µg/m³), $PM_{2.5}$ (44.4-49.6µg/m³), SO_2 (11.98-17.91µg/m³), NO_2 (25.38-39.62µg/m³). AAQ modeling study for point source emissions indicate that the maximum incremental GLCs after the proposed project would be PM, SO_2 and NO_x are nil due to the proposed project is change in product mix and increasing in production capacity. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise** - The observations of day equivalent and night equivalent noise levels at all locations are given below: In Industrial areas day time noise levels was about 68.9 dB (A) and 62.6dB (A) during night time, which is within prescribed limit by CPCB (75 dB (A) Day time & 70 dB (A) Night time). In residential areas day time noise levels varied from 53.9 dB (A) to 58.5dB (A) and night time noise levels varied from 44.1dB (A) to 45dB (A) across the sampling stations. The field observations during the study period indicate that the ambient noise levels in some residential area is within the prescribed limit by CPCB (55 dB (A) Day time & 45 dB (A) Night time) whereas in some parts slight

increase is noted. **Surface water**- In the surface water the pH value ranges from 6.63 to 7.80. The values are within the limits of IS 2296:1992. The Electrical Conductivity of the collected surface water ranges from 1237 µS/cm to 5412 µS/cm. The TDS value of the collected surface water samples ranges from 784mg/l to 3260 mg/l. The chloride content in the collected surface water ranges from 300.26mg/l to 1320 mg/l. The sulphate content in the collected surface water sample ranges from 30.36mg/l to 415.21mg/l. The Total hardness of the collected surface water sample ranges from 220.3 mg/l to 985.21 mg/l. **Ground water -** The ground water results of the study area indicate that the pH range varies between 7.43 and 8.21. It is observed that the pH range is within the limit of IS 10500:2012. The Total Dissolved Solids range is varied between 490mg/l –1852mg/l for the ground water. It is observed that all samples are well within the permissible limit of IS 10500: 2012. The acceptable limit of the chloride content is 250mg/l and permissible limit is 1000 mg/l. The chloride content in the ground water for study area ranges between 65 mg/l – 690 mg/l. It is observed that all the samples are well within the permissible limit of IS 10500:2012. The desirable limit of the sulphate content is 200mg/l and permissible limit is 400mg/l. The sulphate content of the ground water of the study area is varied between 61.25 mg/l – 304 mg/l. It is observed that all the samples are meeting the acceptable limit of the IS 10500: 2012. The Total hardness ranges is between 188.23 mg/l – 895.26 mg/l for ground water samples. It is observed that some of the samples are exceeding the permissible limit of the IS 10500: 2012. **Soil Environment**- The pH of the soil samples ranged from 5.98 to 7.34. Indicating that the soils are moderately acidic to slightly alkaline in nature. Conductivity of the soil samples ranged from 39 to211 µmhos/cm. Nitrogen content ranged from 131.29 mg/kg to 425.31 mg/kg. Phosphorous ranged from 61.24mg/kg to 269.31mg/kg.Potassium content ranges from 159.32mg/kg to 752.36mg/kg.

10. The PP reported that the total water requirement for existing unit is 104 KLD. Water requirement after Expansion will be 130KLD. There is a 26 KLD additional fresh water requirement after expansion. Fresh water requirement 96 KLD and treated effluent and sewage 34 KLD. After Expansion the effluent generation in the plant will be 37 KLD (HTDS-18KLD & LTDS19KLD). The process effluent (HTDS) will be treated in Multiple Effect Evaporator (MEE), the condensate will be mixed with other wastewater stream (LTDS) treated in ETP followed by RO Filtration. The RO permeate will be re-used and the reject will be sent to MEE. The MEE concentrate will be taken to ATFD, the ATFD solids waste will be sent TSDF for disposal. ZLD system is being adopted. The domestic waste water 9 KLD (Proposed) + 4 KLD (Existing) will be treated in the proposed STP having capacity of 15 KLD followed by ETP RO. The treated Effluent & sewage will be used for Cooling tower makeup, Fire water and Green belt development. The ZLD method will be followed, there will be no discharge to land environment

11. The PP reported that Power requirement after expansion will be **1600KVA including** existing **1500KVA** and will be met from Bangalore Electricity Supply Company Limited (BESCOM)**.** However, wind power through wind mill (5x2MW) is available to utilize to reduce the carbon footprint on every month. Existing unit have DG sets of 2**x750 KVA** capacity is getting used as emergency backup with the stack height of 20m. Existing unit have **4TPH and 1TPH (standby) capacity PNG fired Boilers** with a stack of height of **30 m** for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3.

12. Details of Process Emissions Generation and their Management: Existing Stack Emission Details

S. No.	Emission Source	Type of fuel used	APC	Height (m)	Emission rate(g/s)				
					PM 10	SO2	NOX	CO	Acid Mist
1	Boiler (4TPH)	PNG	Stack	30	0.0518	0.0202	0.0405	0.1173	-
2	DG 750 kVA	Diesel	Stack	20	0.0094	0.0030	0.0065	0.0238	-
3	DG 750 kVA	Diesel	Stack	20	0.0094	0.0030	0.0065	0.0238	-
4	KL/Scrubber/001(BAY-01)	-	Scrubber	20	0.0100	0.0036	0.0073	0.0098	0.0025
5	KL/Scrubber/002(BAY-02)	-	Scrubber	20	0.0107	0.0042	0.0086	0.0141	0.0034
6	PBA/Scrubber/001	-	Scrubber	20	0.0006	0.0002	0.0005	0.0007	0.0001
7	PBB/Scrubber/001	-	Scrubber	20	0.0004	0.0002	0.0004	0.0005	0.0001
8	PBB/Scrubber/002	-	Scrubber	20	0.0005	0.0002	0.0004	0.0006	0.0001
9	PP/Scrubber/001	-	Scrubber	20	0.0006	0.0002	0.0005	0.0006	0.0001

Note: The Existing 1x1TPH Boiler is not in the latest Consent 2021
Boiler -Natural Gas (PNG) is being used for boiler (2 Nos), capacity of 4 TPH and 1 TPH, one is working (4 TPH) & another one is standby (1 TPH).

13. Details of Solid Waste / Hazardous waste Generation and Its Management: As the proposed plant facilities would be installed within premises and the operation will be confined within plant premises.

Solid Waste Generation in Operation Phase and Its Management

S.No	Type	Existing	Proposed	After Expansion	Disposal method
		Kg/day	Kg/day	Kg/day	
1	Organic	59.4	31.05	90.45	Municipal bin (Food waste to cattle feed)
2	Inorganic	39.6	20.7	60.3	SPCB authorized recyclers
Total		**99**	**51.75**	**150.75**	

Note: 0.45 kg/person/day is considered as per CPHEEO manual for calculation of waste. 60% is considered as organic, 40% is considered as inorganic.

Hazardous Waste Management

Hazardous waste materials will be properly disposed as per the Hazardous Wastes (Management, Handling and Transboundary Movement) Rules 2016. Hazardous Waste Authorization vide 328362dated 26.11.2021 valid till 30.06.2026.

HAZARDOUS WASTE GENERATION AND ITS MANAGEMENT

Hazardous waste Generated	Waste Category (HWM Rules 2008)	Waste Category (HWM Rules 2016)	Quantity in MT/A				Treatment and Disposal methods to be adopted
			Current (KSPCB) Authorized Qty (as of 2021)	Actual Quantity generation	Proposed generation Qty	After Expansion	
Pharmaceutical residue (HWM Rules 2008) /Process Residue and waste (HWM Rules 2016) in MT/A	28.1	28.1	10	10	0	10	Stored in secure manner and handed over to KSPCB Authorized incinerator.
Spent catalyst in MT/A	28.2	28.2	10	10	0	10	Stored in secure manner and handed over to KSPCB Authorized TSDF
Off specification products in MT/A)	-	28.4	0.1	-	-	0.1	Stored in secure manner and handed over to KSPCB Authorized incinerator.

Hazardous waste Generated	Waste Category (HWM Rules 2008)	Waste Category (HWM Rules 2016)	Quantity in MT/A				Treatment and Disposal methods to be adopted
			Current (KSPCB) Authorized Qty (as of 2021)	Actual Quantity generation	Proposed generation Qty	After Expansion	
Date-expired product in MT/A	-	28.5	0.05	-	-	0.05	Stored in secure manner and handed over to KSPCB Authorized incinerator.
Spent solvent in MT/A	28.5	28.6	15	15	6	21	Stored in secure manner and handed over to KSPCB Authorized recycler
Empty barrels/ liners contaminated with hazardous chemicals / waste in MT/A	33.3	33.1	85	85	-	85	Stored in secure manner and handed over to KSPCB Authorized recycler
Contaminated cotton rags or other cleaning materials in MT/A	5.2	33.2	0.1	0.1	0.9	1	Stored in secure manner and handed over to

Hazardous waste Generated	Waste Category (HWM Rules 2008)	Waste Category (HWM Rules 2016)	Quantity in MT/A				Treatment and Disposal methods to be adopted
			Current (KSPCB) Authorized Qty (as of 2021)	Actual Quantity generation	Proposed generation Qty	After Expansion	
							KSPCB Authorized incinerator.
Chemical sludge from waste water treatment in MT/A	34.3 a) Chemical Sludge from ETP	35.3	3.6	3.6	119.5	123.1	Stored in secure manner and handed over to KSPCB Authorized TSDF, As per HWM, rules 2016
Concentration or evaporation residues in MT/A	b) Sludge from MEE)	37.3	156	36.5	-119.5	36.5	Stored in secure manner and handed over to KSPCB Authorized TSDF, As per HWM, rules 2016
Used spent oil in KL/A	5.1	5.1	1.5 KL	1.5	1	2.5 KL	Collected in leak proof containers and disposed

Hazardous waste Generated	Waste Category (HWM Rules 2008)	Waste Category (HWM Rules 2016)	Quantity in MT/A				Treatment and Disposal methods to be adopted
			Current (KSPCB) Authorized Qty (as of 2021)	Actual Quantity generation	Proposed generation Qty	After Expansion	
							only to KSPCB registered Authorized re-processor.

OTHER WASTE GENERATION AND ITS MANAGEMENT

Other waste Generated	Waste Category (Rules 2008 Amended 2016)	Quantity in MT/A				Treatment and Disposal methods to be adopted
		Current (KSPCB) Authorized Qty, MT/A (as of 2021)	Actual Quantity generation, MT/A	Proposed generation Qty, MT/A	After Expansion, Quantity MT/A	
Waste Batteries	B1090	0.6	0.6	0	0.6	Stored in secure manner and handed over to KSPCB Authorized recycler.
Used Electrical and Electronic assemblies	B1110	0.8	0.8	0	0.8	Stored in secure manner and handed over to KSPCB Authorized recycler
Glass Waste in nodispersible form	B2020	12	12	0	12	Stored in secure manner and handed over to

Other waste Generated	Waste Category (Rules 2008 Amended 2016)	Quantity in MT/A				Treatment and Disposal methods to be adopted
		Current (KSPCB) Authorized Qty, MT/A (as of 2021)	Actual Quantity generation, MT/A	Proposed generation Qty, MT/A	After Expansion, Quantity MT/A	
						KSPCB Authorized actual user
Other waste containing principally inorganic constituents	B2040	3.5	3.5	0	3.5	Stored in secure manner and handed over to KSPCB Authorized actual user
Untreated Cork and wood waste and scrap	B3050	6.57	6.57	0	6.57	Stored in secure manner and handed over to KSPCB Authorized actual user
Waste arising from agro food industries	B3060	7.3	7.3	0	7.3	Stored in secure manner and handed over to KSPCB Authorized actual user
Metal and metal alloy wastes in metallic	DB-1010	18	18	0	18	Stored in secure manner and handed over to KSPCB Authorized actual user

Other waste Generated	Waste Category (Rules 2008 Amended 2016)	Quantity in MT/A				Treatment and Disposal methods to be adopted
		Current (KSPCB) Authorized Qty, MT/A (as of 2021)	Actual Quantity generation, MT/A	Proposed generation Qty, MT/A	After Expansion, Quantity MT/A	
Paper, paperboard and paper product wastes	DB-3020	5.697	5.697	0	5.697	Stored in secure manner and handed over to KSPCB Authorized actual user

14. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 60 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 32.138 Lakh per annum, Industry proposes to allocate ₹ 12.00Lakhs towards CER for Greenbelt development activities and its maintenance outside the factory premises at proposed greenbelt area.

15. The PP reported that the Public Hearing for the project was conducted by the Karnataka Pollution Control Board on **7.11.2020,** which was presided by Additional District Magistrate.

16. The PP reported that existing Greenbelt is 1717.17 Sq. m (0.424 Acres, 7.07 % of the total area). After expansion, the same green belt area will be maintained. Outside the compound wall of the project site which belongs to KIADB is 620.67 Sq.m i.e. 2.55%.

17. The PP proposed to set up an Environment Management Cell (EMC) by engaging CMD- Sr. VP-AVP- Managers / executive officers for the functioning of EMC.

18. The PP reported that the total carbon foot print for the proposed unit at full capacity of 365 days of operation is 4787.55 MT/Annum.

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

20. The estimated project cost is ₹ 6.0 Crores. Total employment will be **335** (Existing: 220, Proposed 115) will be appointed.

21. <u>Deliberations by the EAC:</u>

The EAC inter-alia, deliberated on the Greenbelt development plan, damage assessment, Clarification from KIADB regarding the availability of additional land for green belt, carbon

sequestration, action plan and mitigation measures proposed being a project located in CPA, and sought the following requisite information/documents:

(i). Action Plan for green belt development of minimum 40% of the project area (within the site and the industrial estate) @2500 per hectare, in consultation with forest department.

(ii). Revised layout with maximum greenbelt within the project site

(iii). Clarification from KIADB regarding the availability of additional land for green belt.

(iv). Revised damage assessment cost considering the violation of green belt

(v). Revised carbon sequestration of the proposed project.

(vi). Quantified and specific compliance and action plan for the additional safeguard measures prescribed in the Ministry's O.M. dated 31.10.2019 for critically and severely polluted areas.

(vii). Detailed justification/trend w.r.t the CEPI score of the CPA since the declaration as CPA.

In view of above, the EAC **deferred** the proposal.

Agenda No. 49.23

Regularization of Existing Production Capacity of Thermosetting Moulding Powder Manufacturing Unit and Expansion from 480 MT/Annum to 3500 MT/Annum located at F-287 B, Phase-1, RIICO Industrial Area, Bhiwadi, Dist. Alwar, Rajasthan by M/s Ancore Enterprises - Consideration of ToR (under violation category)

[Proposal No. [IA/RJ/IND3/422935/2023; File No. IA-J-11011/126/2023-IA-II(I)]

1. The proposal is for the ToR for preparation of EIA/EMP (**under violation category**) for Regularization of existing production capacity of Thermosetting Moulding Powder Manufacturing Unit and expansion from 480 MT/Annum to 3500 MT/Annum located at F-287 B, Phase-1, RIICO Industrial Area, Bhiwadi, Dist.Alwar, Rajasthan by M/s Ancore Enterprises **The PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the CPCB.**

2. The project/activity is covered under Category 'B' of item 5 (f)-Synthetic organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). However, due to the applicability of general conditions i.e. interstate boundary (Rajasthan –Haryana) at a distance of 1.29 kms from the project site and located in CPA, it requires appraisal at Central Level by the Expert Appraisal Committee (EAC).

3. The PP applied for the ToR vide proposal number No. **IA/RJ/IND3/422935/2023** dated 22 .3.2023. The proposal is now placed in 49th EAC Meeting held on 3rd, 5th – 6thApril, 2023, wherein

the PP and an accredited Consultant, M/s. Gaurang Environmental Solutions Private Limited [Accreditation number – NABET/EIA/2023/RA 0192 (Rev.02), Valid up to 7.12.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

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

Product	Existing	Proposed	Total
Thermosetting Moulding Powder (Melamine & Urea)	480 MT/Annum	3020 MT/Annum	3500 MT/Annum

5. The PP reported that the existing land area is 2025 sq. m. and no R&R is involved in the Project.

6. The PP reported that in the matter of O.A. 298/2021, Vineet Nagar vs. CGWA & Ors., Hon'ble NGT vide its order passed on 21.12.2021 directed that all the units manufacturing formaldehyde and its different resins (including melamine formaldehyde, urea formaldehyde & phenol formaldehyde) without requisite EC as per EIA Notification dated 14.09.2006 will be governed by the requirement of such EC. Therefore, we understand that the project is in violation of EIA Notification, 2006.

7. The PP reported that The unit is operational since 2001 with Consent to Operate from RSPCB vide letter no F(Tech)/Alwar(Tijara)/5179()/2017-2018/775-776 dated 05.02.2018 valid from 01/07/2017 to 30/06/2022.

8. The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. River/ water body flowing within 10 kms are as under: Indori Nala 5.3 km towards NE.

9. The PP reported that total water requirement is 8.7 m^3/day of which fresh water requirement of 6.5 m^3/day will be met from ground water. Domestic Effluent of 1.2 KLD quantity will be treated in STP based on Automatic Control Airlift Cross flow MBR & treated water to the tune of 1.0 KLD will be utilized for greenbelt development & plantation. The plant will be based on Zero Liquid discharge system.

10. The PP reported that the Power requirement is 400 KW and will be met from State power Distribution Corporation limited (JVVNL). Existing unit has DG set of 125 KVA used as standby during power failure. Stack (height) will be provided as per CPCB norms to the D.G set.

11. The PP reported that the project, being in notified industrial area i.e., RIICO Industrial Area, Chopanki, vide Notification No. Va.4 (80)Udhyog/189 dated 6.4.1994 , is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

12. Industry will develop greenbelt in an area of 810 sq.m area (40%) (This is an existing unit & the plant/machinery already covers the plant premises. Therefore, greenbelt will be provided within the project site and within the industrial area.)

13. The estimated project cost after expansion is Rs. 265.35 lakhs (Existing: Rs. 165.35 lakhs + Proposed: Rs. 100.00 lakhs). The PP reported that Total Employment will be 30 persons after expansion.

14. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the Greenbelt development plan, and the action plan proposed by the PP being located in CPA and advised the PP to submit the detailed Greenbelt Development Plan. The PP submitted the above information/documents and the EAC found it to be satisfactory.

15. After detailed deliberations, the EAC **recommended** the project for grant of ToR (**Standard ToR [Annexure-II]** and **additional ToR as mentioned below)**, **without public hearing** as per the provisions of the EIA Notification, 2006 and as per O.M. No. 22-23/2018-IA.III dated 05.07.2022.

(i). The PP shall follow the Standard Operating Procedure (SoP) issued by the Ministry on 07.07.2021 for handling of violation cases under EIA Notification, 2006.

(ii). The PP shall complete the impact assessment studies & submit Environmental Impact Assessment (EIA) report & Environmental Management Plan (EMP) (Damage Assessment, Remedial Plan and Community Augmentation Plan) in a time bound manner.

(iii). Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR).

(iv). The EMP shall comprise of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.

(v). The remediation plan and the natural and community resource augmentation plan shall be prepared as an independent chapter (13) in the EIA report by the accredited consultants.

(vi). The budget for the remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be adequate and shall be used for completing the plans within three years.

(vii). The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful

implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.

(viii). The penalty amount shall be calculated as per provision of SOP dated 07.07.2021 (i.e. 1% of the total project cost incurred up to the date of filing of application along with EIA/EMP report PLUS 0.25% of the total turnover during the period of violation) with supporting documents. In addition to this, actual production vis-a-vis CTO capacity financial year wise in a tabular format with supporting documents.

(ix). The State Government/SPCB shall take action against the project proponent under the provisions of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC

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

(xi). The PP needs to submit the action plan with respect to mitigation measures for CPA mentioned in the Ministry's OMs dated 31.10.2019.

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

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

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

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

(xvi). Activity-wise, a time bound action plan along with budgetary provisions for occupational health & surveillance, environment management plan, and green belt development plans shall be prepared and submitted.

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

(xviii). Action Plan for the management of hazardous waste and provision for its utilization in co-processing if applicable shall be prepared and submitted.

(xix). Provision for reuse/recycle of treated wastewater, wherever feasible shall be made. The PP shall explore the possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. A detailed water harvesting plan also needs to be prepared and submitted. Provision for Zero Liquid Discharge whenever techno-economically feasible shall be included. The PP shall make necessary provisions for continuous monitoring of the effluent quality/quantity.

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

(xxi). The PP should develop Greenbelt over an area of 2025 m^2 (within the industrial area) and shall be completed within 1 year, accordingly plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Approx. 231 number of plant species (121- inside the project site and 110 -outside the project boundary) have to be planted considering 80% survival rate and with a spacing of 2 m x 2 m.

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

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

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

(xxv). The action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.

(xxvi). Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.

(xxvii). The PP shall prepare a detailed rain water harvesting plan so as to ensure that unit will become water positive i.e. able to recharge the quantity equivalent to fresh water requirement of the plant or use only re-charged/restored water as a fresh water requirement.

(xxviii). Detailed solvent recovery/solvent management plan

(xxix). Detailed Volatile Organic Compounds (VOCs)/Fugitive emissions control plan

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

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ANNEXURE-II

STANDARD TERMS OF REFERENCE

A. GENERIC TERMS OF REFERENCE

1) **Executive Summary**
2) **Introduction**
   - i. Details of the EIA Consultant including NABET accreditation
   - ii. Information about the PP
   - iii. Importance and benefits of the project

3) **Project Description**
   - i. Cost of project and time of completion.
   - ii. Products with capacities for the proposed project.
   - iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
   - iv. Details of existing products and production, if any, along with present product/production details in tabular format, to verify the compliance of the EIA Notifications.
   - v. Details of existing products and production, if any, along with present product/production details in tabular format, to verify the compliance of the EIA Notifications.
   - vi. List of raw materials required and their source along with mode of transportation.
   - vii. Other chemicals and materials required with quantities and storage capacities
   - viii. Details of Emission, effluents, hazardous waste generation and their management.
   - ix. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
   - x. Details of boiler/gensets (including stacks/exhausts) and fuels to be use
   - xi. Details of boiler/gensets (including stacks/exhausts) and fuels to be used
   - xii. Process description along with major equipment's and machineries, process flow sheet (quantitative) from raw materials to products to be provided
   - xiii. Hazard identification and details of proposed safety systems.
   - **xiv. Expansion/modernization proposals:**
     - a. Copy of all the EC(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing ECs including Amendments shall be provided. In addition, copy of the latest CTO and status of compliance of Consent to Operate for the ongoing/existing operation of the project from SPCB shall be attached with the EIA-EMP report.
     - b. In case the existing project has not obtained EC, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted.

Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4) Site Details

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

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

i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
ii. Land-use map based on High resolution satellite imagery of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha)*
iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the PP shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon
v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State

Government for conservation of Schedule I fauna, if any exists in the study area

vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife

vii. Recommendations and NOC from the concerned State/UT Coastal Zone Management Authority on CRZ angle

6) Environmental Status

i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.

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

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

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

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

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

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

vii. Soil Characteristic as per CPCB guidelines.

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

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

x. Socio-economic status of the study area.

7) Environment Impact and Environment Management Plan

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

site, habitation nearby, sensitive receptors, if any.

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

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

iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules 1986.

v. Details of stack emission and action plan for control of emissions to meet standards.

vi. Measures for fugitive emission control

vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.

viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.

ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.

x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.

xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.

xii. Action plan for post-project environmental monitoring shall be submitted.

xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8) Occupational health

i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers

ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre-placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.

iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the

workers can be preserved,

iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

9) Corporate Environment Policy

i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.

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

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

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

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

10) Corporate Environmental Responsibility (CER)

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

11) Additional studies/Measures to be considered

(i) Provide latest and ecofriendly technology for product manufacturing.
(ii) Emphasize on Green chemistry/Clean Manufacturing
(iii) Provide CAS No. of products along with product list.
(iv) Provide details of amount of carbon sequestered in their unit through greenbelt/other modes, in case of expansion project.
(v) Life structure and sustainability for carbon and water foot print.
(vi) Detailed pollution Load estimation.
(vii) Transportation of Hazardous substance, effluents etc shall be carriedout through authorized and GPS enable vehicles/Trucks only.
(viii) Category of Hazardous Wastes shall be mentioned in the EIA/EMP report and in presentation.
(ix) Details of greenhouse gases and emissions shall be provided.
(x) Greenbelt shall be developed in the first year of the project and wind breaks shall be erected.
(xi) Study area map shall be overlapped with all the associated features.

(xii) Emphasize on green fuels.
(xiii) The project from NCR shall not use Coal as fuel. Further, PP shall avoid use of Coal in the CPAs and elsewhere also if alternatives are available.
(xiv) Provide the Cost-Benefit analysis with respect to the environment due to the project.

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

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

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

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

C. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR 5(b) CATEGORY - PESTICIDES INDUSTRY AND PESTICIDE SPECIFIC INTERMEDIATES (EXCLUDING FORMULATIONS)

a. Commitment that no banned pesticides will be manufactured.
b. Details on solvents to be used, measures for solvent recovery and for emissions control.
c. Details of process emissions from the proposed unit and its arrangement to control.
d. Ambient air quality data should include VOC, other process-specific pollutants* like NH3*, chlorine*, HCl*, HBr*, H2S*,HF*, CS2etc.,(*-as applicable)
e. Work zone monitoring arrangements for hazardous chemicals.
f. Detailed effluent treatment scheme including segregation for units adopting 'Zero' liquid discharge.
g. Action plan for odour control to be submitted.
h. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
i. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
j. Material Safety Data Sheet for all the Chemicals are being used/will be used
k. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
l. Details of incinerator if to be installed.
m. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
n. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.
o. Details of carbon foot prints and carbon sequestration study w.r.t. proposed project needs to spelled out. Proposed mitigation measures also needs to be analysed and submitted for further appraisal of the EAC.

D. STANDARD TOR FOR CONDUCTING EIA STUDY FOR THERMAL POWER PLANTS PROJECTS AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

1) The proposed project shall be given a unique name in consonance with the name submitted to other Government Departments etc. for its better identification and reference.
2) Vision document specifying prospective long term plan of the project shall be formulated and submitted.
3) Latest compliance report duly certified by the Regional Office of MoEF&CC for the conditions stipulated in the environmental and CRZ clearances of the previous phase(s) for the expansion projects shall be submitted.
4) The project proponent needs to identify minimum three potential sites based on environmental, ecological and economic considerations, and choose one appropriate site having minimum impacts on ecology and environment. A detailed comparison of the sites in this regard shall be submitted.
5) Executive summary of the project indicating relevant details along with recent photographs of the proposed site (s) shall be provided. Response to the issues raised during Public Hearing and the written representations (if any), along with a time bound Action Plan and budgetary allocations to address the same, shall be provided in a tabular form, against each action proposed.
6) Harnessing solar power within the premises of the plant particularly at available roof tops and other available areas shall be formulated and for expansion projects, status of implementation shall also be submitted.

7) The geographical coordinates (WGS 84) of the proposed site (plant boundary), including location of ash pond along with topo sheet (1:50,000 scale) and IRS satellite map of the area, shall be submitted. Elevation of plant site and ash pond with respect to HFL of water body/nallah/River and high tide level from the sea shall be specified, if the site is located in proximity to them.
8) Layout plan indicating break-up of plant area, ash pond, green belt, infrastructure, roads etc. shall be provided.
9) Land requirement for the project shall be optimized and in any case not more than what has been specified by CEA from time to time. Item wise break up of land requirement shall be provided.
10) Present land use (including land class/kism) as per the revenue records and State Govt. records of the proposed site shall be furnished. Information on land to be acquired including coal transportation system, laying of pipeline, ROW, transmission lines etc. shall be specifically submitted. Status of land acquisition and litigation, if any, should be provided.
11) If the project involves forest land, details of application, including date of application, area applied for, and application registration number, for diversion under FCA and its status should be provided along with copies of relevant documents.
12) The land acquisition and R&R scheme with a time bound Action Plan should be formulated and addressed in the EIA report.
13) Satellite imagery and authenticated topo sheet indicating drainage, cropping pattern, water bodies (wetland, river system, stream, nallahs, ponds etc.), location of nearest habitations (villages), creeks, mangroves, rivers, reservoirs etc. in the study area shall be provided.
14) Location of any National Park, Sanctuary, Elephant/Tiger Reserve (existing as well as proposed), migratory routes / wildlife corridor, if any, within 10 km of the project site shall be specified and marked on the map duly authenticated by the Chief Wildlife Warden of the State or an officer authorized by him.
15) Topography of the study area supported by toposheet on 1:50,000 scale of Survey of India, along with a large scale map preferably of 1:25,000 scale and the specific information whether the site requires any filling shall be provided. In that case, details of filling, quantity of required fill material; its source, transportation etc. shall be submitted.
16) A detailed study on land use pattern in the study area shall be carried out including identification of common property resources (such as grazing and community land, water resources etc.) available and Action Plan for its protection and management shall be formulated. If acquisition of grazing land is involved, it shall be ensured that an equal area of grazing land be acquired and developed and detailed plan submitted.
17) A mineralogical map of the proposed site (including soil type) and information (if available) that the site is not located on potentially mineable mineral deposit shall be submitted.
18) Details of fly ash utilization plan as per the latest fly ash Utilization Notification of GOI along with firm agreements / MoU with contracting parties including other usages etc. shall be submitted. The plan shall also include disposal method / mechanism of bottom ash.
19) The water requirement shall be optimized (by adopting measures such as dry fly ash and dry bottom ash disposal system, air cooled condenser, concept of zero discharge) and in any case not more than that stipulated by CEA from time to time, to be submitted along with details of source of water and water balance diagram. Details of water balance calculated shall take into account reuse and recirculation of effluents.

20) Water body/Nallah (if any) passing across the site should not be disturbed as far as possible. In case any Nallah / drain is proposed to be diverted, it shall be ensured that the diversion does not disturb the natural drainage pattern of the area. Details of proposed diversion shall be furnished duly approved by the concerned Department of the State.
21) It shall also be ensured that a minimum of 500 m distance of plant boundary is kept from the HFL of river system / streams etc. and the boundary of site should also be located 500 m away from railway track and National Highways.
22) Hydro-geological study of the area shall be carried out through an institute/ organization of repute to assess the impact on ground and surface water regimes. Specific mitigation measures shall be spelt out and time bound Action Plan for its implementation shall be submitted.
23) Detailed Studies on the impacts of the ecology including fisheries of the River/Estuary/Sea due to the proposed withdrawal of water / discharge of treated wastewater into the River/Sea etc shall be carried out and submitted along with the EIA Report. In case of requirement of marine impact assessment study, the location of intake and outfall shall be clearly specified along with depth of water drawl and discharge into open sea.
24) Source of water and its sustainability even in lean season shall be provided along with details of ecological impacts arising out of withdrawal of water and taking into account inter-state shares (if any). Information on other competing sources downstream of the proposed project and commitment regarding availability of requisite quantity of water from the Competent Authority shall be provided along with letter / document stating firm allocation of water.
25) Detailed plan for rainwater harvesting and its proposed utilization in the plant shall be furnished.
26) Feasibility of near zero discharge concept shall be critically examined and its details submitted.
27) Optimization of Cycles of Concentration (COC) along with other water conservation measures in the project shall be specified.
28) Plan for recirculation of ash pond water and its implementation shall be submitted.
29) Detailed plan for conducting monitoring of water quality regularly with proper maintenance of records shall be formulated. Detail of methodology and identification of monitoring points (between the plant and drainage in the direction of flow of surface / ground water) shall be submitted. It shall be ensured that parameter to be monitored also include heavy metals. A provision for long-term monitoring of ground water table using Piezometer shall be incorporated in EIA, particularly from the study area.
30) Socio-economic study of the study area comprising of 10 km from the plant site shall be carried out through a reputed institute / agency which shall consist of detail assessment of the impact on livelihood of the local communities.
31) Action Plan for identification of local employable youth for training in skills, relevant to the project, for eventual employment in the project itself shall be formulated and numbers specified during construction & operation phases of the Project.
32) If the area has tribal population it shall be ensured that the rights of tribals are well protected. The project proponent shall accordingly identify tribal issues under various provisions of the law of the land.
33) A detailed CSR plan along with activities wise break up of financial commitment shall be prepared. CSR component shall be identified considering need based assessment study and Public Hearing issues. Sustainable income generating measures which can help in upliftment of affected section of society, which is consistent with the traditional skills of the people shall be identified. Separate budget for community development activities and income generating programmes shall be specified.

34) While formulating CSR schemes it shall be ensured that an in-built monitoring mechanism for the schemes identified are in place and mechanism for conducting annual social audit from the nearest government institute of repute in the region shall be prepared. The project proponent shall also provide Action Plan for the status of implementation of the scheme from time to time and dovetail the same with any Govt. scheme(s). CSR details done in the past should be clearly spelt out in case of expansion projects.

35) R&R plan, as applicable, shall be formulated wherein mechanism for protecting the rights and livelihood of the people in the region who are likely to be impacted, is taken into consideration. R&R plan shall be formulated after a detailed census of population based on socio economic surveys who were dependant on land falling in the project, as well as, population who were dependant on land not owned by them.

36) Assessment of occupational health and endemic diseases of environmental origin in the study area shall be carried out and Action Plan to mitigate the same shall be prepared.

37) Occupational health and safety measures for the workers including identification of work related health hazards shall be formulated. The company shall engage full time qualified doctors who are trained in occupational health. Health monitoring of the workers shall be conducted at periodic intervals and health records maintained. Awareness programme for workers due to likely adverse impact on their health due to working in non-conducive environment shall be carried out and precautionary measures like use of personal equipments etc. shall be provided. Review of impact of various health measures undertaken at intervals of two to three years shall be conducted with an excellent follow up plan of action wherever required.

38) One complete season site specific meteorological and AAQ data (except monsoon season) as per latest MoEF&CC Notification shall be collected and the dates of monitoring shall be recorded. The parameters to be covered for AAQ shall include PM10, PM2.5, SO2, NOx, CO and Hg. The location of the monitoring stations should be so decided so as to take into consideration the upwind direction, pre-dominant downwind direction, other dominant directions, habitation and sensitive receptors. There should be at least one monitoring station each in the upwind and in the pre - dominant downwind direction at a location where maximum ground level concentration is likely to occur.

39) In case of expansion project, air quality monitoring data of 104 observations a year for relevant parameters at air quality monitoring stations as identified/stipulated shall be submitted to assess for compliance of AAQ Standards (annual average as well as 24 hrs).

40) A list of industries existing and proposed in the study area shall be furnished.

41) Cumulative impacts of all sources of emissions including handling and transportation of existing and proposed projects on the environment of the area shall be assessed in detail. Details of the Model used and the input data used for modeling shall also be provided. The air quality contours should be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any. The windrose and isopleths should also be shown on the location map. The cumulative study should also include impacts on water, soil and socio-economics.

42) Radio activity and heavy metal contents of coal to be sourced shall be examined and submitted along with laboratory reports.

43) Fuel analysis shall be provided. Details of auxiliary fuel, if any, including its quantity, quality, storage etc should also be furnished.

44) Quantity of fuel required, its source and characteristics and documentary evidence to substantiate confirmed fuel linkage shall be furnished. The Ministry's Notification dated 02.01.2014 regarding

ash content in coal shall be complied. For the expansion projects, the compliance of the existing units to the said Notification shall also be submitted

45) Details of transportation of fuel from the source (including port handling) to the proposed plant and its impact on ambient AAQ shall be suitably assessed and submitted. If transportation entails a long distance it shall be ensured that rail transportation to the site shall be first assessed. Wagon loading at source shall preferably be through silo/conveyor belt.

46) For proposals based on imported coal, inland transportation and port handling and rail movement shall be examined and details furnished. The approval of the Port and Rail Authorities shall be submitted.

47) Details regarding infrastructure facilities such as sanitation, fuel, restrooms, medical facilities, safety during construction phase etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase should be adequately catered for and details furnished.

48) EMP to mitigate the adverse impacts due to the project along with item - wise cost of its implementation in a time bound manner shall be specified.

49) A Disaster Management Plan (DMP) along with risk assessment study including fire and explosion issues due to storage and use of fuel should be carried out. It should take into account the maximum inventory of storage at site at any point of time. The risk contours should be plotted on the plant layout map clearly showing which of the proposed activities would be affected in case of an accident taking place. Based on the same, proposed safeguard measures should be provided. Measures to guard against fire hazards should also be invariably provided. Mock drills shall be suitably carried out from time to time to check the efficiency of the plans drawn.

50) The DMP so formulated shall include measures against likely Fires/Tsunami/Cyclones/Storm Surges/ Earthquakes etc, as applicable. It shall be ensured that DMP consists of both On-site and Off-site plans, complete with details of containing likely disaster and shall specifically mention personnel identified for the task. Smaller version of the plan for different possible disasters shall be prepared both in English and local languages and circulated widely.

51) Detailed scheme for raising green belt of native species of appropriate width (50 to 100 m) and consisting of at least 3 tiers around plant boundary with tree density of 2000 to 2500 trees per ha with a good survival rate of around 80% shall be submitted. Photographic evidence must be created and submitted periodically including NRSA reports in case of expansion projects. A shrub layer beneath tree layer would serve as an effective sieve for dust and sink for CO2 and other gaseous pollutants and hence a stratified green belt should be developed.

52) Over and above the green belt, as carbon sink, plan for additional plantation shall be drawn by identifying blocks of degraded forests, in close consultation with the District Forests Department. In pursuance to this the project proponent shall formulate time bound Action Plans along with financial allocation and shall submit status of implementation to the Ministry every six months.

53) Corporate Environment Policy

a. Does the company has a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.

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

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

d. Does the company has compliance management system in place wherein compliance status along with compliances / violations of environmental norms are reported to the CMD and the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA report.

All the above details should be adequately brought out in the EIA report and in the presentation to the Committee.

54) Details of litigation pending or otherwise with respect to project in any Court, Tribunal etc. shall invariably be furnished.

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Annexure-III

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

S. No.	Name of Member	Designation
1.	**Prof. (Dr.) A.B. Pandit** Vice Chancellor, Institute of Chemical Technology, Mumbai, Sir JC Bose Fellow, Government of India Email: ab.pandit@ictmumbai.edu.in	Chairman
2.	**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. Umesh Jagannathrao Kahalekar*** *Professor-Civil Engineering,* *Govt. College of Engineering-Aurangabad,* *39, Mauli, Samarth Hsg. Soc., Near Jawahar Colony* *Aurangabad, (Maharashtra) – 431005*	*Co-opted member of EAC (Thermal Power) for Agenda No. 49.19*
11.	**Dr. M. Ramesh** Scientist 'E' Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Room No. V-203, Vayu Wing, Jor Bagh Road, New Delhi-110003 Tel. 011-20819338 E-mail: ramesh.motipalli@nic.in	Member Secretary

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MOM approved by

(Prof. Aniruddha B. Pandit)
Chairman

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