GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-3 SECTOR)
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Dated: 21.03.2023

MINUTES OF THE 48th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON 9th - 10th & 13th March, 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 47th Meeting of the EAC (Industry-3 Sector) held during 15th-17th February, 2023, 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. 47.17), based on the request of the Project Proponent (PP).

Agenda No. 47.17

Expansion proposal for various resins, esters and monomers within the existing facility of production capacity from 29393.40 TPM to 39006.40 TPM located at 808/E, 305/6 & 7, Survey No. 523, 434, 800, Phase-III, Notified Industrial Area, GIDC Vapi, Dist. Valsad, Gujarat by M/s Huber Group India Private Limited - Consideration of EC

[Proposal No. IA/GJ/IND3/415285/2023; File No. IA-J-11011/46/2023-IA-II(I)]

Point No. of MoM	As per MoM	Correction Required	Reference in the Brief Summary (Annexure-I) and in the PPT Slide
10	The PP reported that the total water requirement after expansion is 4459.00 KLD of which fresh water requirement of 1803.00 KLD will be met from GIDC water supply department, Vapi. After expansion, industrial effluent will be segregated into High TDS/COD stream and Low TDS/COD stream. High TDS/COD effluent from process and washing (2089.00 KLD)will be routed to the ETP for primary, secondary, and tertiary treatment, whereas low TDS/COD effluent from boiler blow down (50.00 KLD), from cooling tower (100.00 KLD), from floor and other non-contaminated equipment (115.00 KLD) and from scrubber (75.00 KLD) will be routed to the RO Plant, where RO Permeate (127.00 KLD) will be reused in the cooling tower and RO Rejected (23.00 KLD) will be routed to the ETP to mix with the high COD/TDS stream. After Primary, Secondary and Tertiary treatment in ETP, the existingpermitted quantity (591.70 KLD) will be sent to CETP, Vapi for further treatment and finaldisposal, and the excess quantity (1710.30 KLD) will be sent to the UF/RO Plant, where RO permeate (1368.00 KLD) will be reused in the process, RO reject (342.00 KLD) will be sent to MVR, MVR condensate (192.00 KLD) will be reused in	The PP reported that the total water requirement after expansion is 4459.00 KLD of which fresh water requirement of 1803.00 KLD will be met from GIDC water supply department, Vapi. After expansion, industrial effluent will be segregated into High COD & High TDS stream and Low COD & Low TDS stream. High COD & high TDS effluent from process and washing (2089.00 KLD) will be routed to the ETP for primary (P), secondary (S), and tertiary (T) treatment, whereas low COD & low TDS effluent from boiler blow down (50.00 KLD), from cooling tower (100.00 KLD) will be routed to the RO plant, where RO permeate (127.00 KLD) will be reused in the cooling tower and RO reject (23.00 KLD) will be routed to the ETP to mix with the high COD & high TDS stream. Wastewater from floor washing (100.00 KLD), other safety (15.00 KLD) and from scrubber (75.00 KLD) will be routed directly into ETP to mix with the high COD and high TDS stream. After P, S and T treatment in ETP, the existing permitted quantity (591.70 KLD) will be sent to CETP, Vapi for further treatment and final disposal, and the additional quantity (1710.30 KLD) will be sent to the UF/RO Plant, where RO permeate (1368.00 KLD) will be reused in the process, RO reject (342.00 KLD) will be sent to MVR, MVR	**Point No. xiii & xiv of Annexure-I** shared through e-mail dated: 21/02/2023 with the ADS reply. Brief detailed stream wise quantification details were verbally explained from the water balance diagram. Detailed Water balance diagram is given at **Slide No. 78**.

Point No. of MoM	As per MoM	Correction Required	Reference in the Brief Summary (Annexure-I) and in the PPT Slide
	the process, and MVR concentrate (150.00 KLD) will be sent to MEE/ATFD. MEE condensate (99.00 KLD) will be reused in the process, and salt (41.00 MT/D) will be sent to the TSDF site for disposal. Domestic wastewater (50.00 KLD) will be treated in STP and the treated wastewater will be utilized for gardening.	condensate (192.00 KLD) will be reused in the process, and MVR concentrate (150.00 KLD) will be sent to MEE/ATFD. MEE condensate (99.00 KLD) will be reused in the process, and salt (41.00 MT/D) will be sent to the TSDF site for disposal. Domestic waste water (50.00 KLD) will be treated in STP and treated waste water will be utilized for gardening.	
18	The estimated project cost is Rs. 720.00 Crores including existing investment of **Rs. 99.00 Crores**. Total Employment will be 2077 persons with 1977 persons as direct & 100 persons as indirect, after expansion.	The estimated project cost is Rs. 720.00 Crores including existing investment of **Rs. 621.00 Crores**. Total Employment will be 2077 persons with 1977 persons as direct & 100 persons as indirect, after expansion.	**Point No. v of Annexure-I** shared through e-mail dated: 21/02/2023 with the ADS reply. **Estimated project cost** (Existing: 62100.00 Lakhs & Additional: 9900.00 Lakhs, Total: 72000.00 Lakhs) **table** is given at **Slide No. 10** & at **Slide No. 109** in the ToR Compliance 3 (i).

Point No. of MoM	As per MoM	Correction Required	Reference in the Brief Summary (Annexure-I) and in the PPT Slide
(v) of 20	Agro briquettes shall be used as a primary fuel for boilers and thermopack with coal as a secondary fuel i.e only on non-availability of briquettes. Natural gas and LDO, HSD shall be used for the existing utilities.	Agro briquettes shall be used as a primary fuel for the existing 25 TPH capacity boiler, with coal as a secondary fuel, i.e., only on non-availability of briquettes. In the remaining existing boilers and thermopacks and in the additional boilers and thermopacks, Natural Gas and LDO, HSD etc. shall be used as fuel.	**Point No. xvi of Annexure-I** shared through e-mail dated: 21/02/2023 with the ADS reply. Stack and fuel consumption details are given at **Slide No. 97**.

The EAC noted that the above modifications are typographical errors and recommended the modifications, as per the above table with the revised specific condition no. (v) as follows:

"Agro briquettes shall be used as a primary fuel for the existing 25 TPH capacity boiler, with coal as a secondary fuel, i.e., only on non-availability of briquettes. In the remaining existing and additional boilers & thermopacks, Natural Gas/LDO shall be used as fuel".

Agenda No. 48.1

Proposed Expansion for manufacture of synthetic organic chemicals with production capacity of 100 TPM and total Inorganic Chemical Products (Non EC product) from 600 TPM to 350 TPM located at Plot No. 155/3 & 4, GIDC Nandesari, Dist. Vadodara, Gujarat by M/s. Shakti Ammonia Supply Co. - Reconsideration of ToR

[Proposal No. IA/GJ/IND3/407002/2022; File No. IA-J-11011/520/2022-IA-II(I)]

1. The proposal is for the issue of ToR for preparation of EIA/EMP for the Proposed Expansion for manufacture of synthetic organic chemicals with production capacity of 100 TPM and total Inorganic Chemical Products (Non EC product) from 600 TPM to 350 TPM located at Plot No. 155/3 & 4, GIDC Nandesari, Dist. Vadodara, Gujarat by M/s. Shakti Ammonia Supply Co. **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/IND3/407002/2022** dated 5.12.2022. Due to the shortcoming the proposal was referred back to PP on 11.12.2022 and reply for the same has been submitted to PP on 28.12.2022. The proposal was placed in 45th and 47th EAC Meetings held on 11th – 13th January, 2023 and 15th – 17th February respectively, wherein the proposal was referred back to the PP for requisite information. Now, the proposal is placed in 48th EAC Meeting held on 9th-10th & 13th March, 2023 wherein the PP and an accredited Consultant, M/s. Aryan EcoGreens Pvt. Ltd. [Accreditation number NABET/EIA/2124/IA0083, valid up to 26.5.2024] made a detailed presentation on the salient features of the project.

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

S. No.	Name of the Product	CAS No.	Quantity (MT/Month)			End-use of Products
			Existing	Proposed	Total	
1	1 Phenyl 3-Methyl 5-Pyrazolone (PMP)	89-25-8	NIL	100	100	Used in Dyes and Dyes intermediate
2	Para Tolyl 3-Methyl 5-Pyrazolone (PTPMP)	86-92-0				Used in Dyes and Dyes intermediate
3	1 -(M-Chloro Phenyl) 3-Methyl 5-Pyrazolone (MCPMP)	90-31-3				Used in Dyes and Dyes intermediate
4	1 –(O-Chloro Phenyl 3-Methyl 5 -Pyrazolone (OCPMP)	14580-22-4				Used in Dyes and Dyes intermediate
5	1-(3-Sulpho Amido) Phenyl 3-Methyl 5-Pyrazolone (1:3 SAPMP)	59-29-2				Used in Dyes and Dyes intermediate
6	1-(4-Sulpho Amido)	13269-73-3				Used in Dyes and Dyes

	Phenyl 3-Methyl 5-Pyrazolone (1:4 SAPMP)					intermediate
7	1-(2,5 Dichloro 4 Sulpho) Phenyl 3-Methyl 5-Pyrazolone (DCSPMP)	84-57-1				Used in Dyes and Dyes intermediate
8	1-(2 Methyl 4-Sulpho) Phenyl 3-Methyl 5-Pyrazolone	118-07-0				Used in Dyes and Dyes intermediate
9	1 (3 Sulpho Phenyl) 3 Methyl 5 Pyrazolone (1:3 SPMP)	119-17-5				Used in Dyes and Dyes intermediate
10	Vinyl Sulpho Phenyl 3-Methyl 5-Pyrazolone (V.S. SPMP)	21951-34-8				Used in Dyes and Dyes intermediate
11	1-(2-Chloro 5 Sulpho) Phenyl 3-Methyl 5-Pyrazolone (OCSPMP)	88-76-6				Used in Dyes and Dyes intermediate
Total Proposed Organic Chemical Products (EC Applicable Products)			**NIL**	**100**	**100**	--
12	Liquor Ammonia	7664-41-7	100	NIL	100	Used in Pharmaceutical, dye and dye intermediate, textiles
13	Filling of Ammonia gas in cylinders	7664-41-7	100	NIL	100	
14	Nickel Sulphate	10101-97-0	25	-25	NIL	Dyes and dye intermediate, electroplating industry

15	Cobalt Sulphate	10026-24-1	25	-25	NIL	Electroplating industry, drying agent
16	Copper Sulphate	7758-99-8	50	-50	NIL	Electroplating industry, drying industry
17	Zinc Sulphate	7733-02-0	100	-100	NIL	Pharmaceutical industry
18	Magnesium Sulphate	7487-88-9	50	NIL	50	Pharmaceutical industry
19	Ferrous Sulphate	7720-78-7	50	-50	NIL	Pharmaceutical Industry, waste water treatment
20	Purification of G-Salt	842-18-2	50	NIL	50	Dye intermediate
21	Ammonia Sulphate	7783-20-2	50	NIL	50	Agricultural use
Total Existing Inorganic Chemical Products (Non EC Products)			**600**	**-250**	**350**	--

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 existing land area is 1855 m^2, no additional land will be used for proposed expansion.

7. The PP reported that the proposal does not involve Approval/Clearance under Forest (Conservation) Act,1980, Wildlife (Protection) Act,1972 and CRZ 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. Mahi River is flowing at a distance of 2.50 km in West direction

8. The PP reported that total water requirement is 109.8 m^3/day of which fresh water requirement of 63.8 m^3/day will be met from GIDC Water Supply, and 46 KLD of recycled water will be used within plant activities. Effluent of 85.5 quantity will be treated through ETP, from that 30 KLD will be sent to CETP, Nandesari & 55.2 KLD will be treated in MEE from which 46 KLD wastewater will be recycled and reused within the plant.

9. The PP reported that Power requirement after expansion will be 100 kVA (no additional power is required) including existing 100 kVA and will be met from Madhya Gujarat Vij Company Limited (MGVCL). Existing unit has a DG set of 250 KVA capacity, to be used

as a standby during power failure. Stack (height) will be provided as per CPCB norms to the existing DG sets.

10. The PP reported that the project, being in **notified industrial area (Notification No.GHU/75/36/GID 1974/4084 (I) CH dated 06.05.1975), 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 will develop greenbelt in an area of 40 % i.e., 750 m^2 out of total area of the project. The present green belt area witin the plant and along the roadside of industrial area is 20%.

12. The estimated project cost is Rs 4.27 Cr. Total Employment will be 42 (26 persons as direct & 16 persons indirect) after expansion. Industry proposes to allocate Rs 35 lakhs towards CER.

13. The proposal was earlier considered in the 45th EAC meeting held on 11th-13th January, 2023, wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by the PP, which is as follows:

<table>
<tr><th>S. No.</th><th>Queries Raised by EAC</th><th>Reply by PP</th></tr>
<tr><td>1.</td><td>Compliance to green belt development of minimum 40% of the total area of the existing unit (@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.</td><td>• Shakti Ammonia Supply Company is having total plot area of 1855 Sq.m.
• 20% of total plot area 371 Sq.m. is enmarked for greenbelt development.
• In which, 317 Sq.m. (17.1%) inside plant premises and 54 Sq. m. (2.9%) at roadside area. Hence, total 17.1 % + 2.9% = 20% within Industrial estate.
<table>
<tr><td>Total Plot Area</td><td colspan="3">1855.00 Sq. m.</td></tr>
<tr><td>Provided Greenbelt inside plant premises</td><td>317 Sq.m.</td><td>17.1 %</td><td rowspan="2">20%</td></tr>
<tr><td>Provided Greenbelt at road side area</td><td>54 Sq.m.</td><td>2.9 %</td></tr>
<tr><td>Provided Greenbelt outside plant premises</td><td>380 Sq.m.</td><td colspan="2">20.4 %</td></tr>
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</td></tr>
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		(At Damapura Village)		
		Total provided greenbelt area	751Sq. m.	40.4 %
		Nos. of trees required (@2500 per hectare)	188 Nos.	
		Additional trees considering Mortality rate	38 Nos.	
		Total No. of tress to be planted	226 Nos.	
		Currently Planted trees	106 Nos.	
		Additional Trees to be planted	120 Nos.	
		Site Layout of company indicating greenbelt area inside plant premises and road side area has been submitted. Allotment letter by M/s. Nandesari Industries Association (NIA), Nandesari has been submitted.		

The EAC noted that the PP did not comply with the earlier recommendation, i.e. "*Compliance to green belt development of minimum 40% of the total area of the existing unit (@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*".

Hence, the proposal was **deferred** for the said compliance as per the Ministry's O.M. dated 27.10.2020 w.r.t green belt requirement in the industrial estates/areas.

14. The PP replied to the above and accordingly, the proposal was again placed before the EAC in this 48th meeting. It was noted that the green belt condition was not stipulated in the CTO but

was stipulated in the CTE that, adequate green belt of 10 m width and 1000 trees per acre shall be developed. As sought by the EAC, the PP submitted an undertaking for the following:

- Unit will follow all the conditions of Compliance Report as per Ministry's O.M. dated 31.10.2019 regarding projects located in Critically Polluted Area.

- Unit will follow the compliance requirements as per the Ministry's O.M. dated 27.10.2020 w.r.t green belt requirement in the industrial estates/areas.

- Unit will develop 40% greenbelt area within the plant premises and/or outside plant premises within the industrial estate. Details of greenbelt development will be described in EIA report.

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 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 40% Greenbelt area within the plant premises or outside the plant premises within the industrial estate. The plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution.

(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. 48.2

Proposed Active Pharmaceutical Ingredients (APIs) and Chemical Intermediates Manufacturing Unit of production capacity 10200 TPM & Co-product: 7000 TPM located at Plot No. A-5, D7 to D10 (Block A), Gajraula Industrial area site II, Gajraula, Tehsil Dhanaura, Dist. Amroha, Uttar Pradesh by M/s Dykes & Dunes Enterprises Pvt. Ltd. - Reconsideration of ToR

[Proposal No. IA/UP/IND3/287858/2022; File No. IA-J-11011/327/2022-IA-II(I)]

1. The proposal is for the issue of ToR for preparation of EIA/EMP for the Proposed Active Pharmaceutical Ingredient (API) and Chemical Intermediates Manufacturing Unit"of production capacity 10200 TPM & Co-product: 7000 TPM located at Plot No. A-5, D7 to D10 (Block A),

Gajraula Industrial area site II, Gajraula, Tehsil Dhanaura, Dist. Amroha, Uttar Pradesh. by M/s Dykes & Dunes Enterprises 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 'B' of item 5(f), Synthetic organic chemicals industry. However, since the project site is located in a critically polluted area, and lies within the ESZ as per gazette notified by MoEFCC vide S.O. 4890(E) dated 19.09.2018, 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/UP/IND3/287858/2022 dated 28.1.2023. The proposal was placed in the 47th EAC Meeting held on 15th – 17th February, wherein the PP did not attend the meeting. Now, the proposal is placed in 48th EAC Meeting held on 9th-10th &13th March, 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 and co –product details as follows:

S. No.	Products Name	CAS No.	Proposed Production (TPM)	End Use of the Product
A- Chemical Intermediates Manufacturing Unit (Multi Product)				
1	Glacial Acetic Acid	64-19-7	696	Raw material for PAP
2	Acetic Anhydride (for captive consumption)	108-24-7	2500	Raw Material for Paracetamol
3	Para-amino phenol (PAP)	103-90-2	2400	Raw Material for Paracetamol
4	Para Nitro Chlorobenzene and/or Ortho Nitro Chlorobenzene	100-00-5	3750	Raw Material for Paracetamol
5	4- Chloro Aminophenol (4-CAP)	95-85-2	150	Raw Material for Chlorzoxazone
6	Indolinone	15362-40-0	150	Raw Material for Diclonfenac Sodium and Potassium
7	Volta chloride	98 638-29-9	150	Raw Material for Diclonfenac Sodium and Potassium
	Sub Total-A		**9796**	
B- Active Pharmaceutical Ingredients (Single Product Manufacturing Unit)				
8	Paracetamol	103-90-2	3000	Analgesic
	Sub Total-B		**3000**	
C- Active Pharmaceutical Ingredients (Multi Product Manufacturing Unit)				

9	Itraconazole	84625-61-6	10	Antifungal
10	Rosuvastatin	287714-41-4	25	Antihyperlipidemic
11	Escitalopram oxalate	128196-01-0	5	Antidepressant
12	Domperidone	57808-66-9	25	Antiemetic
13	Tramadol hydrochloride	46941-76-8	50	Analgesic
14	Omeprazole	73590-58-6	50	Antiulcer Drug/ Gastric Acid Secretion Inhibitor, PPI
15	Lansoprazole	103577-45-3	10	Gastric Acid Secretion Inhibitor
16	Duloxetine	116539-59-4	101.0	Antidepressant
17	Levocetirizine dihydrochloride	130018-87-0	10.0	Antihistamine
18	Ornidazole	166773-42-5	50.0	Anti amoebic agent
19	Vitamin C	50-81-7	120.0	Dietary Supplement
20	Vitamin B2 (Riboflavin)	83-88-5	3.0	Dietary Supplement
21	Vitamin B6 (Pyridoxine hydrochloride)	58-56-0	3.0	Dietary Supplement
22	Vitamin D3	67-97-0	1.0	Dietary Supplement
23	Methylcobalamin (Vitamin B12)	13422-55-4	1.0	Dietary Supplement
24	Benfotiamine	22457-89-2	30.0	Dietary Supplement
25	Ferrous Ascorbate	24808-52-4	20.0	Dietary Supplement
26	Calcium Ascorbate	5743-27-1	10.0	Dietary Supplement
27	Lactose	64044-51	600.0	Dietary Supplement
28	Esomeprazole magnesium trihydrate	217087-09-7	12.0	Gastric Acid Secretion inhibitor, PPI
29	Pantoprazole esodium sesquihydrate	164579-32-2	15.0	Gastric Acid Secretion inhibitor, PPI
30	Rabeprazole sodium	117976-90-6	6.0	Gastric Acid Secretion inhibitor, PPI
31	Pioglitazone hydrochloride	112529-15-4	6.0	Antihyperglycemic
32	Rosiglitazone maleate	155141-29-0	3.0	Antihyperglycemic

33	Nateglinide	105816-04-4	2.0	Antihyperglycemic
34	Valsartan	137862-53-4	6.0	Cardiovascular
35	Losartan potassium	124750-99-8	12.0	Cardiovascular
36	Ranolazine	95635-55-5	5.0	Cardiovascular
37	Tadalafil	171596-29-5	1.0	Cardiovascular
38	Telmisartan	144701-48-4	4.0	Cardiovascular
39	Olmesartan medoxomil	144689-63-4	2.0	Cardiovascular
40	Azilsartan	147403-03-0	1.0	Cardiovascular
41	Lornoxicam	70374-39-9	2.0	Anti- inflammatory
42	Aceclofenac	89796-99-6	50.0	Anti- inflammatory
43	Diclofenac Sodium	15307-79-6	150.0	Anti- inflammatory
44	Etodolac	41340-25-4	3.0	Anti- inflammatory
45	Sertraline hydrochloride	79559-97-0	3.0	Psychotropic
46	Venlafaxine hydrochloride	99300-78-4	5.0	Psychotropic
47	Oxcarbazepine	28721-07-05	4.0	Psychotropic
48	Lamotrigine	84057-84-1	6.0	Psychotropic
49	Buspirone hydrochloride	33386-08-02	1.0	Psychotropic
50	Carbamazepine	298-46-4	15.0	Psychotropic
51	Lanthanum carbonate	54451-24-0	0.2	Hyperkalemia
52	Gabapentin	60142-96-3	7.2	Neuropathic pain
53	Citicoline sodium	33818-15-4	0.5	Nootropic
54	Lamivudine	134678-17-4	1.0	Antiviral
55	Fluconazole	86386-73-4	9.0	Antifungal
56	Sodium Ascorbyl- 2-phosphate	66170-10-3	5.0	Anti oxidant, cosmetic
57	Piroctone olamine	68890-66-4	2.0	Anti oxidant, cosmetic
58	Ethylhexyl triazone	88122-99-0	1.0	Anti UV, cosmetic
59	Ethyl ascorbate	86404-04-8	3.0	Anti UV, cosmetic

60	Mexoryl- SX	92761-26-7	1.5	Anti UV, cosmetic
61	Ibuprofen	15687-27-1	200.0	Anti-inflammatory
62	Metformin	1115-70-4	500.0	Diabetic
63	Mefenamic Acid	61-68-7	100	Anti-inflammatory
64	Nimesulide	51803-78-2	50.0	Anti-inflammatory
65	Chlorzoxazone	95-25-0	75.0	Anti-inflammatory
66	Albendazole	54965-21-8	5.0	Anti parasitic
67	Febendazole	43210-67-9	5.0	Anti parasitic
68	Mebendazole	31431-39-7	5.0	Anti parasitic
69	Metronidazole	443-48-1	20.0	Antibiotic
70	Metronidazole benzoate	13182-89-3	15.0	Antibiotic
71	Tinidazole	19387-91-8	20.0	Antibiotic
72	Ornidazole	16773-42-5	50.0	Antibiotic
73	Chlorpheniramine maleate	132-22-9	50.0	Anti Histamic
74	Bromhexine HCL	611-75-6	15.0	Anti Mucolitic
75	Ambroxol HCL	23828-92-4	50.0	Anti Mucolitic
76	Phenylephrine HCL	61-76-7	45.0	Anti Mucolitic
77	Dexo Mether Phas HBR	6700-34-1	30.0	Anti Mucolitic
78	Salbutamol sulphate	51022-70-9	25.0	Anti asthamatic
79	Theophylline	58-55-9	25.0	Bronchodialator
80	Caffein	58-08-2	25.0	Psychoactive
81	Theobromine	83-67-0	20.0	Psychoactive
82	Ciprofloxacin	85721-33-1	75.0	Antibiotic
83	Ofloxacin	82419-36-1	50.0	Antibiotic
84	Enrofloxacin	93106-60-6	25.0	Antibiotic
85	Sildinafil citrate	139755-83-2	50.0	Erectile dysfunction
86	Lumefantrine	82186-77-4	30.0	Anti malarial
87	Aluminium Hydroxide Gel/ Powder	21645-51-2	100.0	Antiacid
88	Ampicillin	69-53-4	40.0	Antibiotic
89	Amoxicillin	26787-78-0	40.0	Antibiotic
90	Cloxacillin	61-72-3	30.0	Antibiotic

91	Cephalexin	15686-71-2	30.0	Antibiotic
92	Levofloxacin	100986-85-4	50.0	Antibiotic
93	Norfloxacin	70458-96-7	50.0	Antibiotic
	Sub-Total- C		**3368**	
	Total (A+B+C)		**16164**	

S.No.	Name of Co-product	CAS No.	Quantity (TPM)	End Use of the Product
1.	Acetic Acid (20%)	64-19-7	3480	API Drug (Analgesic)
2	(2,3-Dichloro-5,6-Dicyanobenzoquinone)	84-58-2	21.4	Chemical reagent, This oxidant is useful for the dehydrogenation of alcohols,phenols,and steroid ketones.DDQ decomposes in water, but is stable in aqueous mineral acid.
3	Triphenylphosphine oxide	791-28-6	18.8	API Drug
4	Tert-butyl-fluoro-dimethyl silane	355806-00-7	8.6	Metabolite of Rosuvastatin (R700500) a selective, competitive HMG-CoA reductase inhibitor
5	Tripropyl amine	102-69-2	4.87628	coreactant / extraction agent
6	3,5-Dinitro benzene	98 6276-04-6	1.68	API Drug
7	Aniline	62-53-3	0.99	API Drug
8	1,4- dibenzyloxy butanone	5436-21-5	7.8	API Drug
9	Carbon	7440-44-0	0.3	API Drug
10	Aluminium Hydroxide Manuf	21645-51-2	92.4	API Drug
11	KCl	7447-40-7	84.4	Medical Use
12	HCl	7647-01-0	5.92	API Drug
13	NH_4Cl	12125-02-9	3.19	API Drug
14	NaBr	7647-15-6	3.19	API Drug
15	Sulphide Compound	18496-25-8	27.2	API Drug
16	Sodium Sulphate	7757-82-6	2500	API Drug
17	HBr	10035-10-6	4	API Drug
18	Sodium Bromo Hydride	16940-66-2	1	API Drug
19	Aluminium Chloride	7446-70-0	60	API Drug
20	Sodium Carbonate	497-19-8 (anhydrous) 5968-11-6	0.7	• Some common applications of sodium carbonate (or washing soda) include:

		(monohydrate) 6132-02-1 (decahydrate)		• Sodium carbonate (or washing soda) is used as a cleansing agent for domestic purposes like washing clothes. Sodium carbonate is a component of many dry soap powders. • It is used for removing temporary and permanent hardness of water • It is used in the manufacture of glass, soap and paper. • It is used in the manufacture of sodium compounds like borax.
21	Citric Acid	10035-10-6	0.003	API Drug
22	Ethyl Acetate	141-78-6	290	API Drug
23	Sodium Sulphate	7446-70-0	30	API Drug
24	Ether	60-29-7	300	API Drug
25	Nitric Acid	7697-37-2	20	API Drug
26	$Al(OH)_3$	21645-51-2	486.6	API Drug
27	Methylene Chloride ($MeCl_2$)	75-09-2	398.86	API Drug
Total			**7612**	

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 total land area is 200483 m^2 and no R&R is involved in the Project.

7. The PP reported that the project lies within the ESZ of Hastinapur WildLife Sanctuary as per gazette notified by MoEFCC vide S.O. 4890(E) dated 19 September 2018, however as per the Gazette notified by UP govt. vide letter no. 92/81-4-2023-852-97 dated 06.02.2023, the boundary of Hastinapur Wildlife Sanctuary has been shrunk and thus, the project lies at a distance of 4.98 km SW from the boundary of Hastinapur WildLife Sanctuary. In compliance with the Wildlife (Protection) Act, 1972, an application vide proposal no. FP/UP/IND/6558/2022 has been submitted on 24.06.2022 to the National Board of Wildlife, for grant of wildlife clearance. There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors in the 10 km buffer area. Ganga River is flowing at a distance of 5.82 km in WSW direction. Sihali Jagir Reserved Forest is at 3.79 Km in SE Direction.

8. The PP reported that the total water requirement after expansion will be 1516 KLD, out of which fresh water requirement of 523 KLD will be met from groundwater and remaining shall be through use of treated water from ETP, RO and MEE. Effluent of 1052 KLD will be generated out of which 61 KLD will be generated from domestic activities which will

further be treated in STP of capacity of capacity 120 KLD, treated water of 58 KLD will be generated which will be used in gardening. Rest 991 KLD will be treated in ETP (950 KLD), RO (900 KLD), MEE (300 KLD). Segregation of the process waste water into high concentration (directly treated in MEE) and low concentration (treated in ETP followed by RO) will be done. Treated water of 99 KLD from RO & MEE will be reused in cooling tower, boiler makeup, scrubber, washing and industrial processes

9. The PP reported that the power requirement for the project will be 2500 kVA to be met from Uttar Pradesh State Electricity Board (UPSEB)/ Paschimanchal Vidyut Vitran Nigam Ltd., Gajraula. DG sets of 2 x 750 kVA will be used as standby during power failure with maximum stack height of 30 m as per CPCB norms.

10. The PP reported that the project, being in notified industrial area (State of U.P had acquired land at Gajraula under the Land Acquisition Act, 1894 and handed over the same to UPSIDC Ltd, Kanpur for the purpose of setting up an Industrial Area. The Gajraula Industrial area site II, tehsil Dhanaura, dist. Amroha has been declared as notified Industrial area by UPSIDA, UP, GoI vide Gazette Notification no. 1418/77-4- 2001-267-BH-97 T.C.-1 dated 05.09.2001), 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 will develop greenbelt in an area of 80193.2 m^2 i.e; 40% of the total plot area (green area inside the plot is 72600.3 m^2 i.e; 36.2% and green area outside the plot is 7600 m^2 i.e; 3.8% out of the total area of the project. Trees will be planted in the ratio of 2500 trees per hectare. Therefore, a total of 20050 will be planted.

12. The estimated project cost is Rs 158.4 Crore. Total Employment will be 125 people (direct and indirect employment). There is an existing residential colony at the site which will accommodate workers in the operational phase of the unit. Approx. 516 residents can be accommodated in the existing residential colony at the site. Industry proposes to allocate Rs 190 Lakhs towards CER.

13. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the Greenbelt development plan (Existing and proposed), fuel water balance layout plan, and advised the PP to submit the following.

- Existing and proposed Greenbelt Development and undertaking stating that No tree cutting shall be involved and all the trees shall be transplanted as per technical feasibility
- Undertaking regarding fuel stating that only Agro Briquette/ Rice Husk/ Baggase/ LPG/ PNG/ CNG as per availability) will be used as a primary fuel in the boilers & Indigenous coal will be used as secondary fuel only in case of emergency.
- Revised water balance.
- Revised layout plan.

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 Status of approval from the Standing Committee of National Board for Wildlife.

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

(iii) 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.

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

(v) 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.

(vi) 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.

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

(viii) 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.

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

(x) 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.

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

(xii) 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 (ZLD) whenever

techno-economically feasible shall be included. The PP shall make necessary provisions for continuous monitoring of the effluent quality/quantity.

(xiii) 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.

(xiv) The PP should develop 40% Greenbelt area within the plant premises. The plant species (20050 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.

(xv) Agro Briquette/ Rice Husk/ Bagasse / LPG/ PNG/ CNG as per availability) shall be used as a primary fuel in the boilers & Indigenous coal shall be used as secondary fuel only in case of emergency.

(xvi) 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.

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

(xviii) 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. 48.3

Proposed Bulk Drugs & Drug Intermediates Manufacturing unit of production capacity 35.0 TPM, located at Plot No.: C-194, MIDC - Chincholi, Chincholikati Village, Mohol Taluk, Solapur District, Maharashtra State by SRAJ Industries - Consideration of ToR

[Proposal No. IA/MH/IND3/411939/2022, File No. IA-J-11011/539/2022-IA-II(I)]

1. The proposal is for the ToR for preparation of EIA/EMP for the Proposed Bulk Drugs & Drug Intermediates Manufacturing unit of production capacity 35.0 TPM, located at Plot No.: C-194, MIDC - Chincholi, Chincholikati Village, Mohol Taluk, Solapur District, Maharashtra State by SRAJ Industries.

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) as the Great Indian Bustard (GIB) Wildlife Sanctuary – 0.32 Km towards ESE direction. Therefore, the project requires appraisal at Central Level.

3. The PP applied for the ToR vide proposal number No. **IA/MH/IND3/411939/2022** dated 24.12.2022. Due to the shortcoming the proposal was referred back to PP on 5.1.2023 and reply

for the same has been submitted on 11.2.2023. The proposal is now placed in 48th EAC Meeting held on 9th-10th &13thMarch, 2023 wherein the PP made an accredited Consultant, Rightsource Industrial Solutions Pvt. Ltd. [Accreditation number NABET/EIA/2124/RA 0248 valid up to 29.10.2024] a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported the products and By-products details as follows:

S. No.	Product Name	Quantity in TPM	CAS No.	Therapeutic Category
1	3-Methyl-4-(4-Trifluoromethyl thiophenoxy)Aniline (Toltrazuril Intermediate)	2.50	94155-78-9	Toltrazuril Intermediate
2	4-Chlorophenyl (2,6–Dichloro-4- Nitrobenzene) Acetonitrile	3.00	103317-59-5	Diclazuril Intermediate
3	Amitraz	1.00	33089-61-1	Used to treat demodicosis
4	Butaphosphan	1.00	17316-67-5	Used in the treatment of metabolic disorders
5	Diminazene Diaceturate Tetra Hydrate	3.00	908-54-3	Antiprotozoal agent
6	Fluazuron	2.50	86811-58-7	Antiparasitic agents
7	Flubendazole	3.00	31430-15-6	Used to treat worm infection in humans
8	Levamisole Hydrochloride	2.00	16595-80-5	Antihelminthic drug
9	Piperazine Adipate	3.00	142-88-1	Used in the treatment of worm infections
10	Piperazine Citrate	3.00	144-29-6	Used in the treatment of worm infections
11	Piperazine Hexahydrate	4.00	142-63-2	Used in the treatment of worm infections
12	Praziquantel	4.00	55268-74-1	Anthelmintics
13	Ractopamine Hydrochloride	3.00	90274-24-1	Beta-adrenergic receptor
	Total	**35.00**		

LIST OF BY- PRODUCTS & ITS QUANTITIES

S. No.	Name of the product	Name of the By-Product	Quantity in Kg/Day
1	Amitraz	Ethanol	34.00
		Ethyl formate	23.30
2	Praziquantel	Toluene	64.10
		Methanol	37.90
3	Ractopamine Hydrochloride	Sodium bromide	42.30

5. The PP reported that the proposed land area is 0.52 Acres (2100.00 $m^{2)}$ and no R&R is involved in the Project.

6. The PP reported that the Project site distance from GIB wildlife sanctuary is 0.32 km in ESE direction, Project site distance from ESZ is 172 m towards NE direction. The ESZ and GIB wildlife sanctuary has been notified by the MOEF&CC vide gazette notification no. S.O 654 (E) dated 11.2.2020, and no national parks, Biosphere Reserves, Tiger/ Elephant Reserves, etc. lies within 10 km distance.

7. The PP reported that water requirement of the project for domestic and industrial activity during operation phase will be 38.13 KLD. The water requirement will be met through MIDC water supply. The effluent generation will be 14.94 KLD which is from process, washings, cooling tower bleed off, boiler blow down, scrubber and domestic usage. The generated effluent will be sent to ZLD System.

8. The PP reported that the power requirement of proposed project will be made available through Maharashtra State Electricity Distribution Company Limited (MSEDCL). The total power requirement for the unit is 95 kVA respectively. The unit is proposed to install 1 x 125 kVA set to meet the emergency power requirement of the plan.

9. The PP reported that the project, being in notified industrial area i.e MIDC chincholi vide notification no (**Notification No. IDC. 2187/(10514)-IND. 14 dated 12.05.1988**), is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

10. Approximately 704.75 Sq. m (33.56 %) of Greenbelt will be developed and it will be maintained.

11. The project cost is Rs.1.49 Crores) and the approximate employment generation due to proposed unit is 25.

12. **Deliberations by the EAC:**

The EAC inter-alia, noted that the GIB wildlife sanctuary and its ESZ are located at a distance of 320 m and 172 m in ESE direction and NE direction respectively from the roject site. The ESZ of GIB wildlife sanctuary has been notified by the MOEF&CC vide gazette notification no. S.O. 654 (E) dated 11.2.2020. However, as per the Hon'ble Supreme Court order dated 03.06.2022, the ESZ should be of minimum 1 km. **Since the distance of the project site from the sanctuary is less than 1 Km, the PP shall apply for NBWL clearance.**

13. 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 approval from the Standing Committee of National Board for Wildlife.

(ii) 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.

(iii) 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.

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

(v) 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.

(vi) 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.

(vii) 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.

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

(ix) 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.

(x) 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.

(xi) The PP should develop Greenbelt over an area of 704.75 Sq. m (33.56 %) of the total land area. The plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution.

Agenda No. 48.4

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)]

The PP vide email dated 09.03.2023 informed that due to unforeseen reason, their senior technical members will not be able to join meeting, so they would be unable to attend the meeting and requested to reconsider the proposal in the next meeting.

The proposal was accordingly, **deferred.**

Agenda No. 48.5

Proposed Synthetic Organic Chemicals Manufacturing Unit of production capacity of 46 TPM located at Plot No. 124/29 A, Nandesari GIDC Industrial Estate, Vadodara, Gujarat by M/s. Mercury Organics - Consideration of ToR

[Proposal No. IA/GJ/IND3/415319/2023; File No. IA-J-11011/37/2023-IA-II(I)]

1. The proposal is for the issue of ToR for preparation of EIA/EMP for Proposed Synthetic Organic Chemicals Manufacturing Unit of production capacity of 46 TPM located at Plot No. 124/29 A, Nandesari GIDC Industrial Estate, Vadodara, Gujarat by M/s. Mercury Organics. 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/IND3/415319/2023** dated 30.1.2023. The proposal was referred back to the PP on 10.2.2023 and its reply was submitted on 14.2.2023. The proposal is now placed in 48th EAC Meeting held on 9th-10th &13th March 2023, wherein the PP and an accredited Consultant, M/s. Jyoti Om Chemical Research Centre Pvt. Ltd. [NABET certificate no. NABET/EIA/2023/IA0071 validity: 18/12/2023] 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. N	Name of Products	CAS No.	Quantity [MT/Month]	End Uses
Group-A				
1.	Calcium Stearate	1592-23-0	**15 TPM (Sr. No. 1 to 4)**	Pharmaceutical industry as excipient / binder in pharmaceutical industry
2.	Zinc Stearate	557-05-1		
3.	Magnesium Stearate	557-04-0		
4.	Aluminum Stearate	637-12-7		
Group-B				
5.	Di-P-Toluoyl-L/D- Tartaric Acid	32634-66-5/ 32634-68-7	**25 TPM (Sr. No.**	Intermediate of Tofacitinib Citrate

6.	Di-P-Benzoyl-L/D-Tartaric Acid	2743-38-6/ 17026-42-5	**5 to 70)**	Intermediate of Eszopiclone
7.	7-Hydroxy-3-4-dihydro-2-[H]-quinolinone	22246-18-0		Intermediate of Aripiprazole
8.	6-Hydroxy-3-4-dihydro-2-[H]-quinolinone	54197-66-9		Intermediate of Cilostazol
9.	4-Chloro-4'Hydroxy Benzophenone	1137-42-4		Intermediate of Fenofibrate
10.	2-(6-hydroxy- biphenyl-3-carbonyl)-benzoic acid	84627-04-3		Intermediate of Levocloperastine Fendizoate
11.	1-(3-Hydroxyphenyl) ethanone	121-71-1		Intermediate of Phenylephrine HCl
12.	(±)-3-(Carbamoyl methyl)-5- methyl hexanoic acid (CMH)	181289-15-6		Intermediate of Pregabalin
13.	(R)-(-)-3-(Carbamoyl methyl)-5- methyl hexanoic acid (R-CMH)	181289-33-8		Intermediate of Pregabalin
14.	2-(2-chloroethoxy) ethanol (2CEE)	628-89-7		Intermediate of Quetiapine
15.	(R)-2-Acetoxy-2-Phenylacetic Acid (O-Acetyl-D- Mandelic Acid)	51019-43-3		Intermediate of Fesoterodine Fumarate
16.	N (2-Chloro Ethyl) Piperidine hcl	2008-75-5		Intermediate of Pitofenone
17.	3-Dimethyl aminopropyl chloride hydrochloride	5407-04-5		Intermediate of Citalopram hydrobromide
18.	1-Acetyl-4-(4-hydroxyphenyl) Piperazine	67914-60-7		Intermediate of Ketoconazole.
19.	1-(3-chlorophenyl) piperazine	13078-15-4		Intermediate of Trazadone hydrochloride
20.	4-Bromomethyl-2-cyanobiphenyl (4-BMCP)	114772-54-2		Intermediate of Valsartan
21.	4-(3-chloropropyl) morpholine	7357-67-7		Intermediate of Pramoxine Hydrochloride
22.	3-hydroxy acetophenone	121-71-1		Intermediate of Phenylephrine
23.	Bis-(2-chloroethylamine) hydrochloride	821-48-7		Intermediate of Ketoconazole
24.	4-(2- Chloro Ethyl) morpholine	3647-69-6		Intermediate of Morclofone
25.	6-Chloro-2-Hexanone	10226-30-9		Intermediate of Pentoxifylline

26.	2- Dimethyl amino ethyl chloride hydrochloride	4584-46-7		Intermediate of Diltiazem HCl
27.	1-(3-chlorophenyl)-4-(3-Chloropropyl) Piperazine Hydrochloride (T2.hcl)	52605-52-4		Intermediate of Trazadone hydrochloride
28.	[1,2,4] triazolo[4,3-a] pyridin-3(2H)-one	6969-71-7		Intermediate of Trazadone hydrochloride
29.	Isopropyl 2-bromoisobutyrate	51368-55-9		Intermediate of Fenofibrate
30.	Dibenzo[b,f][1,4]thiazepine-11(10h)-one	3159-07-7		Intermediate of Quetiapine
31.	Isobutyl acetophenone	38861-78-8		Intermediate of Ibuprofen
32.	2-Amino-3,5-dibromobenzaldehyde	50910-55-9		Intermediate of Ambroxol hcl
33.	(3,4-Dimethoxyphenyl) acetonitrile	93-17-4		Intermediate of Verapamil
34.	1-(4-Chlorobenzhydryl) piperazine	303-26-4		Intermediate of Cetirizine
35.	Tert-Butyl (4R,6R)-2-[[[6-(2-4-fluorophenyl)-5-isopropyl-3-phenyl-4(phenylcarbamoyl) pyrrol -1-yl] ethyl]-2,2-dimethyl-1,3-dioxan-4-yl] acetate	125971-95-1		Intermediate of Atorvastatin calcium
36.	(4R,6R)-tert-Butyl-6-(2-aminoethyl)-2,2-dimethyl-1,3-dioxane-4-acetate	125995-13-3		Intermediate of Atorvastatin calcium
37.	Methyl 4-(4-fluorophenyl)-6-isopropyl-2-[(N-methyl-Nmethylsulfonyl) amino]pyrimidine5-carboxylate	289042-11-1		Intermediate of Rosuvastatin
38.	Diclofenac Sodium	15307-79-6		Intermediate of Diclofenac Sodium
39.	Chlorhexidine Base	55-56-1		Intermediate of Chlorhexidine Base
40.	Rosuvastatin Calcium	147098-20-2		Intermediate of Rosuvastatin Calcium
41.	Terbinafine	91161-71-6		Intermediate of Terbinafine
42.	Pantoprazole Sodium Sesquihydrate	164579-32-2		Intermediate of Pantoprazole Sodium Sesquihydrate
43.	Pregabalin	148553-50-8		Intermediate of Pregabalin

44.	Ambroxol HCl	23828-92-4		Ambroxol HCl used in the treatment of respiratory diseases associated with viscid or excessive mucus.
45.	Sevelamer HCl	152751-57-0		Sevelamer HCl is used to control high blood levels of phosphorus in people with chronic kidney disease who are on dialysis.
46.	Phenylephrine HCl	61-76-7		Phenylephrine HCl is used for the temporary relief of stuffy nose, sinus, and ear symptoms caused by the common cold, flu, allergies, or other breathing illnesses.
47.	Irbesartan	138402-11-6		Irbesartan an angiotensin - used mainly for the treatment of hypertension.
48.	Ondansetro hydrochloride	103639-04-9		Ondansetron hydrochloride is used to prevent nausea and vomiting caused by cancer chemotherapy, radiation therapy, and surgery.
49.	Levo cetirizine	130018-77-8		Levocetirizine is used to relieve runny nose; sneezing; and redness, itching, and tearing of the eyes.
50.	Febuxostat	144060-53-7		Febuxostat is used to lower hyperuricemia (high uric acid in the blood) in patients with gout who have been treated with allopurinol that did not work well or cannot be treated with allopurinol.
51.	Aripiprazole	129722-12-9		Aripiprazole is an antipsychotic- used in the treatment of schizophrenia and bipolar disorder and other uses include as an add-on treatment in major depressive disorder.

52.	Bisoprolol	66722-44-9		Bisoprolol is a medicine used to treat high blood pressure (hypertension) and heart failure.
53.	Sodium Valproate	1069-66-5		Sodium valproate is an anticonvulsant (or anti-epileptic) medicine.
54.	Magnesium Valproate	62959-46-7		Magnesium Valproate is an antiepileptic medication. It controls seizures or fits by decreasing the abnormal and excessive activity of the nerve cells in the brain.
55.	Sevelamer Carbonate	845273-93-0		Sevelamer carbonate has been approved by US-FDA for the management of hyperphosphatemia in patients with chronic renal disease on hemodialysis.
56.	Quetiapine Fumerate	773058-82-5		Quetiapine Fumerate is used to to treat bipolar disorder and schizophrenia in children and teenagers.
57.	Telmisartan	144701-48-4		Telmisartan is used alone or in combination with other medications to treat high blood pressure. It is also used to decrease the chance of heart attack, stroke, or death in people 55 years of age or older who are at high risk for cardiovascular disease.
58.	Phenylephrine base	59-42-7		Phenylephrine base is used to relieve sinus congestion and pressure. Phenylephrine will relieve symptoms but will not treat the cause of the symptoms or speed recovery.
59.	Pantoprazole Sodium	138786-67-1		Pantoprazole sodium is used to treat erosive esophagitis (damage to the esophagus from stomach acid caused by

				gastroesophageal reflux disease, or GERD) in adults and children who are at least 5 years old.
60.	Quetiapine Hemifumerate	111974-72-2		QuetiapineHemifumerate is used to treat certain mental/mood conditions.
61.	Tenegliptin	760937-92-6		Teneligliptin is used in the treatment of type 2 diabetes mellitus.
62.	Tramadol HCl	27203-92-5		Tramadol HCl used as Pharmaceutical Intermediates of tramadol/meta Bromo anisole and it is used to help relieve moderate to moderately severe pain. Tramadol is similar to opioid (narcotic) analgesics.
63.	Cetrimide	1119-97-7		Cetrimide is used for cleaning wounds and treating minor burns, scalds, abrasions, and even seborrheic dermatitis.
64.	Omeprazole	73590-58-6		Omeprazole is used in the treatment of gastro esophageal reflux disease, peptic ulcer disease, and Zollinger–Ellison syndrome.
65.	Trazadone hydrochloride	25332-39-2		Trazadone hydrochloride is used to treat depression. Trazodone is in a class of medications called serotonin modulators. It works by increasing the amount of serotonin, a natural substance in the brain that helps maintain mental balance.
66.	Olmesartan Medoxomil	144689-63-4		Olmesartan Medoxomil is used to treat high blood pressure (hypertension). Lowering high blood

				pressure helps prevent strokes, heart attacks, and kidney problems. Olmesartan belongs to a class of drugs called angiotensin receptor blockers (ARBs). It works by relaxing blood vessels so that blood can flow more easily.
67.	Benfotiamine	22457-89-2		Benfotiamine use for nerve damage caused by diabetes (diabetic neuropathy).
68.	Alendronate Sodium	121268-17-5		Alendronate Sodium used to treat osteoporosis and Paget's disease of bone.
69.	Vitamin D3	67-97-0		Vitamin D is used to treat and prevent bone disorders.
70.	Atorvastatin calcium	134523-00-5		Atorvastatin calcium is a statin medication used to prevent cardiovascular disease in those at high risk and to treat abnormal lipid levels.
Group-C				
71.	5-Chloro Aniline- 2,4 - Disulphonamide (CADS)	121-30-2	**5 TPM (Sr. No. 71 to 79)**	Intermediate of Hydrochlorothiazide
72.	2-Diethyl amino ethyl chloride hydrochloride	869-24-9		Intermediate of Clomifen citrate
73.	Ethyl-4-(1- hydroxy-1-methylethyl)-2-propyl-1H-imidazole-5-carboxylate)	144689-93-0		Intermediate of Omeprazole
74.	Tert-Butyl 6-[(1E)-2-[4-(4-fluorophenyl)-6-(1-methylethyl)-2[methyl(methylsulfonyl) amino] -5-pyrimidinyl] ethynyl]-2,2-dimethyl-1,3-dioxane-4-acetate	289042-12-2		Intermediate of Rosuvastatin
75.	Topiramate	97240-79-4		Topiramate used to prevent migraine headaches
76.	Celicoxib	169590-42-5		Celecoxib is a COX-2 inhibitor and nonsteroidal anti-inflammatory drug. It is used to treat the pain and

				inflammation in osteoarthritis, acute pain in adults, rheumatoid arthritis, ankylosing spondylitis, painful menstruation, and juvenile rheumatoid arthritis.
77.	Etoricoxib	202409-33-4		Etoricoxib is indicated for the treatment of rheumatoid arthritis, psoriatic arthritis, osteoarthritis, ankylosing spondylitis, chronic low back pain, acute pain, and gout.
78.	Venlafaxine Hydrochloride	99300-78-4		Venlafaxine Hydrochloride is used to treat depression, anxiety, panic attacks, and social anxiety disorder (social phobia).
79.	Fluconazole	86386-73-4		Fluconazole is used to prevent and treat a variety of fungal and yeast infections.
80.	**R&D**	**---**	**1 TPM**	---
Total			**46 PM**	

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 833.62 m^2.

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 37 $m^{3/}$day of which fresh water requirement of 33 m^3/day will be met from GIDC Supply. Effluent of 27 m^3/day quantity will be treated through Primary ETP and then sent to CETP of M/s. NIA, Nandesari for the final disposal. 1 KLD Boiler blowdown will be reuse in washing. Sewage 3 KLD will be treated through STP and reuse in Gardening.

9. Power requirement will be 95 KW and will be met from Madhya Gujarat Vij Company Limited (MGVCL). Unit will have 1 No. of DG sets (125 KVA) capacity, as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG sets.

10. The PP reported that the project, being in **notified industrial area (Notification No.GHU-75/36/GID-1974/4084 (I)CH dated 06.05.1975), 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 will develop greenbelt over an area of 33 % i.e. 275.10 m^2 out of 833.62 m^2, total area of the project within premises and additional 120 m^2 of the project outside premises. Total greenbelt area will be 47 %.

12. The estimated project cost is Rs. 2 Crores. The PP reported that the total Employment will be 170 (50 persons as direct & 120 persons indirect). Industry proposes to allocate Rs. 0.08 Crores towards CER.

13. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the water balance, ETP scheme, fuel, Greenbelt development, notified industrial area notification and advised the PP to submit the following:

- Revised water balance diagram.
- Revised ETP Scheme by adding the filter press after neutralization tank
- Revised flue gas data by changing the name of fuel from bio coal to Agrowaste/Agro Briquettes.
- Undertaking regarding the green belt development within the premises at maximum extent.
- GIDC Nandesari notified area.

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 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 40% within the premises and GIDC area. In addition to this, 14% greenbelt area shall be developed outside the premises. The plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution.

(xiv) Agro waste/Agro Briquettes shall be used for the 0.8 TPH Steam Boiler.

(xv) STP shall be installed to treat the domestic effluent which shall be reused for gardening purpose.

(xvi) 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.

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

(xviii) 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. 48.6

Regularization of the existing Thermosetting Moulding Powder (Melamine-Formaldehyde (M-F) and Urea-Formaldehyde (U-F)) manufacturing unit of production capacity 1800 MTA located at RIICO Industrial Area, Chopanki, Alwar (Rajasthan) by M/s Pashupati Polymers- Consideration of ToR (under violation category)

[Proposal No. IA/RJ/IND3/418214/2023; File No. IA-J-11011/70/2023-IA-II(I)]

1. The proposal is for the ToR for preparation of EIA/EMP (**under violation category**) for Regularization of the existing Thermosetting Moulding Powder (Melamine-formaldehyde (M-F) and Urea-formaldehyde (U-F)) manufacturing unit of production capacity 1800 MTA located at RIICO Industrial Area, Chopanki, Alwar (Rajasthan) promoted by M/s Pashupati Polymers. **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 3.7 kms towards NNE 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/IND3/418214/2023** dated 15 .2.2023. The proposal is now placed in 48th EAC Meeting held on 9th -10th &13th March, 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 (MF) Moulding Powder Urea Formaldehyde (UF)Moulding Powder	1800 MT/Annum

5. The PP reported that the existing land area is 1937.00 sq. m. and no R&R is involved in the Project.

6. The PP reported that the 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 Environmental Clearance (EC) as per EIA Notification dated 14.09.2006.

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. River/ water body flowing within 10 kms are as under: Indori Nala 6.7 km towards NNE.

8. The PP reported that the total water requirement is 5.0 m^3/day of which fresh water requirement of 3.5 m3/day will be met from Ground water supply. Domestic Effluent of 0.4 KLD quantity will be disposed off to soak pit trough septic tank. The plant will be based on Zero Liquid discharge system.

9. The PP reported that the Power requirement will be 469 KW and will be met from State Power Distribution Corporation limited (JVVNL). Existing unit has DG sets of 250 KVA capacity, is used as standby during power failure. Stack (height) will be provided as per CPCB norms to the proposed D.G sets.

10. The PP reported that the project, being in notified industrial area i.e., RIICO Industrial Area, Chopanki, vide **notification no. Pa.4{23}Uo/1/93 dated 14.9.1994**, 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. Approx. 387.4 sq. m (20%) of plant area will be under Greenbelt development. Additional plantation will be done within RIICO Industrial Area.

12. The estimated project cost after expansion is Rs. 250.00 lakhs. The PP reported that total Employment is 12 in number.

13. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the Greenbelt development plan, fuel, STP and the action plan proposed by the PP being located in CPA and advised the PP to submit the following.

- Greenbelt Development Plan
- Undertaking to the effect that DG sets will be provided with RECD kits with dual fuel (HSD/ gas) following the guidelines of CEPI and direction of CAQM.
- Undertaking to the effect that Modular STP will be proposed and treated water will be reused for plantation.

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 774.8 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. 234 number of plantations 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). Modular STP shall be installed and treated water shall be reused for plantation.

(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. 48.7

Regularization of existing Thermosetting Moulding Powder Manufacturing Unit of production capacity 1800 MT/Annum located at G1-947, RIICO Industrial Area, Chopanki, Tijara, Alwar, Rajasthan by M/s Laxmi Industries - Consideration of ToR (under violation category)

[Proposal No. IA/RJ/IND3/418042/2023; File No. IA-J-11011/71/2023-IA-II(I)]

1. The proposal is for the issue of ToR for preparation of EIA/EMP (**under violation category**) for Regularization of existing Thermosetting Moulding Powder Manufacturing Unit of production capacity 1800 MT/Annum located at G1-947, RIICO Industrial Area, Chopanki, Tijara, Alwar, Rajasthan by M/s Laxmi 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 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/RJ/IND3/418042/2023** dated 15 .2. 2023.The proposal is now placed in 48th EAC Meeting held on 9th-10th &13th March, 2023, wherein the PP and an accredited Consultant, Gaurang Environmental Solutions Pvt. Ltd. [Accreditation number NABET/EIA/2023/ RA0192 (Rev.02) dated July 16, 2021 valid up to Dec 07,2023], made a detailed presentation on the salient features of the project and informed the following:

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

S. No.	**Product**	**Total Capacity**
1.	Thermosetting Moulding Powder Melamine Formaldehyde (MF) Moulding PowderUrea Formaldehyde (UF)Moulding Powder	1800 MT/Annum

5. 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 Environmental Clearance (EC) as per EIA Notification dated 14.09.2006 will be governed by the requirement of such EC.

6. The PP reported that the existing land area is 1358 m^2 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. Indori Nala is flowing at a distance of 5.4 km in NE direction.

8. The PP reported that the total water requirement is 215 m^3/day of which fresh water requirement of 207 m3/day will be met from GIDC Supply and the balance 8 m^3/day will be met from the treated domestic effluent. Effluent of 120 m^3/day will be treated through Primary ETP and then sent to CETP of M/s. NIA, Nandesari for the final disposal.

9. The PP reported that Power requirement will be 86.4 and will be met from State power Distribution Corporation limited (JVVNL). The unit has proposed DG sets of 125 KVA capacity, which will be used as standby duringpower failure. Stack (height) will be provided as per CPCB norms to the proposed D.G sets.

10. The PP reported that the project, being in notified industrial area i.e., RIICO Industrial Area, Chopanki, vide **notification no. Notification No.Pa.4{23}Uo/1/93 dated 14.9.1994** , 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. Approx. 543.2 sq. m area (40%) will be under Greenbelt development at plant (271.6 sq. m. within the premises + 271.6 sq. m. outside the premises)

12. The estimated project cost is Rs. 168.27 Lakhs. The PP reported that the Total Employment will be 10 persons.

13. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the Greenbelt development plan, fuel, STP and advised the PP to submit the following.

- Greenbelt Development Plan
- Undertaking to the effect that DG sets will be provided with RECD kits with dual fuel (HSD/ gas) following the guidelines of CEPI and direction of CAQM.
- Undertaking to the effect that Modular STP will be proposed and treated water will be reused for plantation.

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 shall develop Greenbelt over an area of 543.2 m^2 (within the plant premises) of the total land 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. 164 number of plantations 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). Modular STP shall be installed and treated water shall be reused for plantation.

(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. 48.8

Regularization of existing Melamine powder & Crockery powder manufacturing unit of production capacity 1070 MT/annum and expansion to 2500 MT/annum located at RIA Bhiwadi, District Alwar (Rajasthan) by Goyal Enterprises - Consideration of ToR (under violation category)

[Proposal No. IA/RJ/IND3/418526/2023; File No. IA-J-11011/72/2023-IA-II(I)]

1. The proposal is for the issue of ToR for preparation of EIA/EMP **(under violation category)** for Regularization of existing Melamine powder & Crockery powder manufacturing unit of production capacity 1070 MT/annum and expansion to 2500 MT/annum located at RIA Bhiwadi, District Alwar (Rajasthan) by Goyal 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 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/RJ/IND3/418042/2023** dated 16 .2. 2023.The proposal is now placed in 48th EAC Meeting held on 9th-10th &13th March, 2023, wherein the PP and an accredited Consultant, Gaurang Environmental Solutions Pvt. Ltd. [Accreditation number NABET/EIA/2023/ RA0192 (Rev.02) dated July 16, 2021 valid up to Dec 07,2023], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported the product details as follows:

S. No.	Product Details (complete name)	CAS NO.	Existing Quantity	Proposed Quantity	Total Quantity	Uses
1	Melamine powder & Crockery powder	99 108-78-1	1070 MTA	1430 MTA	2500 MTA	Crockery production

5. The PP reported that the unit is existing since 2009 and is operational on the consent to operate from Rajasthan State Pollution Control Board, Jaipur (for the production 1070 MT/Annum dated 04 09 2018 valid till 30 04 2022. 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 Environmental Clearance (EC) as per EIA Notification dated 14.09.2006 will be governed by the requirement of such EC.

6. The PP reported that the proposed land area is 1000 m^2 and no additional land will be used for proposed expansion.

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. Indori Nala is flowing at a distance of 4.9 km in ENE direction.

8. The PP reported that the total water requirement for the project is 5.5 KLD of which fresh water requirement of 4 m^3/day will be met from Tanker supply. Domestic sewage of 1.3 quantity will be handled through septic tank followed by soak pit.

9. The PP reported that the Power requirement after expansion will be 180 kVA and will be met from JVVNL. Existing unit has DG sets of 200 kVA capacity, additionally DG sets are used as standby during power failure. Stack (3.5 mt. above roof) will be provided as per CPCB norms to the DG set.

10. The PP reported that the project, being located in notified industrial area i.e., RIA Bhiwadi **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. Industry will develop greenbelt in an area of 40 % i.e., 400 m^2 out of total area of the project.

12. The estimated project cost is Rs. 202.04 lakhs (Existing: Rs. 122.04 lakhs + Proposed: Rs. 80 lakhs). The PP reported that the Total Employment will be 20 persons.

13. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the Greenbelt development plan, fuel, STP and advised the PP to submit the following.

- Greenbelt Development Plan
- Undertaking to the effect that DG sets will be provided with RECD kits with dual fuel (HSD/ gas) following the guidelines of CEPI and direction of CAQM.
- Undertaking to the effect that Modular STP will be proposed and treated water will be reused for plantation.

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 shall develop Greenbelt over an area of 400 m^2 (40% within the plant premises and within the industrial area) 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. 100 number of plantations 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). Modular STP shall be installed and treated water shall be reused for plantation.

(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. 48.9

Regularization of existing Plastic Moulding Powder (Melamine Formaldehyde powder and Urea Formaldehyde Powder) Manufacturing Unit of production capacity 360 MT/annum and expansion to 1500 MT/annum located at G-1-714, RIA, Chopanki, Tehsil Tijara, District Alwar (Rajasthan) by Krishna Industries - Consideration of ToR (under violation category)

[Proposal No. IA/RJ/IND3/418503/2023; File No. IA-J-11011/74/2023-IA-II(I)]

1. The proposal is for the issue of ToR for preparation of EIA/EMP (**under violation category**) for Regularization of existing Plastic Moulding Powder (Melamine Formaldehyde powder and Urea Formaldehyde Powder) Manufacturing Unit of production capacity 360 MT/annum and expansion to 1500 MT/annum located at G-1-714, RIA, Chopanki, Tehsil Tijara, District Alwar (Rajasthan) by Krishna 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 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/RJ/IND3/418503/2023** dated 16 .2. 2023.The proposal is now placed in 48th EAC Meeting held on 9th-10th&13th March, 2023, wherein the PP and an accredited Consultant, Gaurang Environmental Solutions Pvt. Ltd. [Accreditation number NABET/EIA/2023/ RA0192 (Rev.02) dated July 16, 2021 valid up to Dec. 07, 2023], made a detailed presentation on the salient features of the project and informed the following:

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

S. No.	Product	Existing	Proposed	Total
1.	Thermosetting Plastic Moulding Powder o Melamine Formaldehyde (MF)Moulding Powder o Urea Formaldehyde (UF)Moulding Powder	360 MT /Annum	1140 MT/Annum	1500 MT/Annum

5. 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 Environmental Clearance (EC) as per EIA Notification dated 14.09.2006.

6. The PP reported that the existing land area is 1000.00 m^2 and no additional land will be used for proposed expansion, 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. Indori Nala is flowing at a distance of 5.8 km in NE direction

8. The PP reported that total water requirement is 3.4 KLD of which fresh water requirement of 3.0 KLD will be met from Ground Water. Domestic Effluent of 0.8 KLD quantity will be disposed off to soak pit trough septic tank. The plant will be based on Zero Liquid discharge system.

9. The PP reported that Power requirement will be 275 KW and will be met from State power Distribution Corporation limited (JVVNL). Existing unit has DG sets of 200 KVA capacity used as standby during power failure. Stack (height) will be provided as per CPCB norms to the proposed D.G sets.

10. The PP reported that the project, being in notified industrial area i.e., RIICO Industrial Area, Chopanki, vide **notification no. Notification No.Pa.4{23}Uo/1/93 dated 14.9.1994** , 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. Industry will develop greenbelt in an area of 400.00 sq. m area (40%) i.e., (The plant has been operating since year 2010 & the plant/machinery already covers the plant premises. Therefore, greenbelt will be provided within the project site and within the industrial area.

12. The project cost is Rs. 142.91 lakhs (Existing: Rs. 42.91 lacs + Proposed: Rs.100.00 lakhs) Total Employment will be 10 persons after expansion.

13. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the Greenbelt development plan, fuel, STP and advised the PP to submit the following.

- Greenbelt Development Plan
- Undertaking to the effect that DG sets will be provided with RECD kits with dual fuel (HSD/ gas) following the guidelines of CEPI and direction of CAQM.
- Undertaking to the effect that Modular STP will be proposed and treated water will be reused for plantation.

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 (40% within the plant premises and within the industrial area in consultation with RIICO) of the total land 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 plantations 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). Modular STP shall be installed and treated water shall be reused for plantation.

(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. 48.10

Expansion of Agrochemicals Manufacturing Unit (From 30 TPD to 70.1 TPD) and inclusion of Bio-based agrochemicals and Captive Cogeneration Power Plant 6 MW located at Sy. No. 177, Arinama Akkivalasa village, Etcherla mandal, Srikakulam District, Andhra Pradesh by M/s. NACL Industries Limited - Amendment in EC

[Proposal No. IA/AP/IND3/297725/2023, File No. IA-J-11011/75/2007-IA-II(I)]

1. The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter No. A-J-11011/75/2007-IA-II(I) dated 21.4.2022 for Expansion of Agrochemicals Manufacturing Unit (From 30 TPD to 70.1 TPD) and inclusion of Bio-based agrochemicals and Captive Cogeneration Power Plant 6 MW at Sy. No. 177, Arinama Akkivalasa village, Etcherla mandal, Srikakulam District, Andhra Pradesh by M/s. NACL Industries Limited.

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

S. No.	EC Reference	As mentioned, in EC order dt. 21.04.2022	To be amended as	Justification
1	Page no. 5 of 12 (Point No. 9)	The total water requirement after proposed expansion is 2340 m^3/day out of which 1075 m^3/day will be fresh water and 1265 m^3/day is recycled. Water requirement will be met from ground water/surface water (Nagavali river).	The total water requirement after proposed expansion is 2340 m^3/day out of which 1245 m^3/day will be fresh water and 1095 m^3/day is recycled. Water requirement will be met from ground water/surface water (Nagavali river).	To maintain/ achieve the stringent quality parameters as per export requirement and to avoid impurities formation, the treated wastewater (170 KLD) is not reused in process.
2	Page no. 5 of 12 (Point No. 9)	Total effluent of 1372 m3/day will be treated through "Zero Liquid Discharge" based	Total effluent generation is 1372 m^3/day, out of which	To maintain/ achieve the stringent quality parameters as per export requirement

		effluent treatment system. The treated wastewater is reused for process, washings, scrubber's circulation and cooling towers make-up	1202m^3/day will be treated through "Zero Liquid Discharge" based effluent treatment system. The treated wastewater is reused for washings, scrubber's circulation and cooling towers make-up. About 170 m^3/day will be sent to Visakha Pharma City (VPL), Parawada, Anakapalle District, Andhra Pradesh.	and to avoid impurities formation, the treated wastewater (170 KLD) is not reused in process.
3	Page no. 9 of 12 (A-Specific Conditions Point No. xiv)	Total fresh water requirement shall not exceed 1075 m3/day. Prior permissions in this regard shall be obtained from the concerned regulatory authority	Total fresh water requirement shall not exceed which 1245 m^3/day. Prior permissions in this regard shall be obtained from the concerned regulatory authority	To maintain/ achieve the stringent quality parameters as per export requirement and to avoid impurities formation, the treated wastewater (170 KLD) is not reused in process.
4	Page no. 9 of 12 (A-Specific Conditions Point No. xv)	As already committed by the project proponent, Zero Liquid Discharge (ZLD) 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 development/horticulture purpose	As already committed by the project proponent, Zero Liquid Discharge (ZLD) shall be ensured and no waste/ treated water shall be discharged outside the premises. Treated effluent shall be reused in the utilities. Treated Industrial effluent shall not be used for gardening/ greenbelt development/ horticulture purpose	To maintain/ achieve the stringent quality parameters as per export requirement and to avoid impurities formation, the treated wastewater (170 KLD) is not reused in process.

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 various options for disposal of HTDS effluent of 170 KLD, expediting the establishment of CETP nearby, cost comparison for treatment of HTDS effluent In-house vs. CETP and advised the PP to submit the following:

- Justification of proposal for disposal of HTDS effluent of 170 KLD to Visakha Pharmacity Limited located at Parawada, Anakapalle District, Andhra Pradesh and adequacy of CETP.
- Undertaking for sending the HTDS of 170 KLD to the proposed CETP Ranasthalam mandal, Srikakulam district, Andhra Pradesh (after its operation).
- A Letter to Andhra Pradesh Industrial Infrastructure Corporation (APIIC) for expediting the establishment of Common Effluent Treatment Plant (CETP) at Ranasthalam mandal, Srikakulam district, Andhra Pradesh.
- Cost comparison for treatment of HTDS effluent at In-house vs. sending to CETP of Visakha Pharmacity Limited located at Parawada, Anakapalle District, Andhra Pradesh.

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 keep pursuing and provide full support for establishment of a Common Effluent Treatment Plant (CETP) at Ranasthalam mandal, Srikakulam district, Andhra Pradesh. Further, the HTDS of 170 KLD shall be sent to this CETP immediately after its start of operation.

(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.

(iii). 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. 48.11

Proposed Establishment of Synthetic Organic Chemicals (APIs) manufacturing unit of production capacity 7271.4 TPA located at SIPCOT Industrial Growth Centre, Gangaikondan Village, Tirunelveli Taluk and District, Tamil Nadu by M/s. Megha Agro International - Consideration of EC

[Proposal No. IA/TN/IND3/411095/2022, File No IA-J-11011/128/2022-IA-II(I)]

1. The proposal is for the environmental clearance for the Proposed Establishment of Synthetic Organic Chemicals (APIs) manufacturing unit of production capacity 7271.4 TPA located at SIPCOT Industrial Growth Centre, Gangaikondan Village, Tirunelveli Taluk and District, Tamil Nadu by M/s. Megha Agro International.

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry of Schedule of EIA Notification, 2006 (as amended). However, since the proposed project site is at a distance of 1.6 km (SE) from Gangaikondan Spotted Deer Sanctuary Wild Life Sanctuary, the project attracts the general condition and considered as Category 'A' at Centre.

3. The standard ToR has been issued by Ministry vide letter no. **IA-J-11011/128/2022-IA-II(I)** dated 20.4.2022. **The PP submitted that Public Hearing is exempted as the project site is located in a notified Industrial area i.e.** SIPCOT Industrial Growth Centre, Gangaikondan Village **notified vide G.O.M No.91 dated 27.2.1991.** The PP applied for Environment Clearance on 17.12. 2022 in CAF and submitted EIA/EMP Report and other documents. The PP reported in Form that it is a **Fresh EC**. Due to some shortcomings, the Project was referred back to PP on 5 .1.2023 and the reply for the same has been submitted on 3.3.2023. The proposal is now placed in 48th EAC Meeting held on 9th -10th & 13th March, 2023, wherein the PP and an accredited consultant, Consultant M/s KKB Envirocare Consultants Pvt. Ltd., Hyderabad **[Accreditation number NABET/EIA/1922/SA0154, Valid up to 9.2.2023**] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that the total land area of **1.6576 ha** will be used for proposed project and no R& R is involved in the Project. The details of products are as follows:

S. No.	Products	Quantity (TPM)	Quantity (TPA)	CAS No.	Therapeutic Category
1.	Brucine	0.24	2.88	5787-00-8	Denaturants
2.	Strychnine	0.64	7.68	57-24-9	Central Stimulant
3.	Metformin Hydrochloride	600	7200	1115-70-4	Anti-Diabetic
4.	Tolbutamide	5.07	60.84	64-77-7	Anti-Diabetic
Total Production capacity of the manufactured products		**605.95**	**7271.4**		

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 Gangaikondan Spotted Deer Sanctuary the Wild Life Sanctuary is located at 1.6 km (SE) to the project site, an area to an extent varying from zero kilometres to 0.82 km around the boundary of Gangaikondan Spotted Deer Sanctuary, in Tirunelveli districts in the State of Tamil Nadu is declared as the Eco-sensitive Zone, Bird Sanctuary at Gangaikondan Tank at 3.13 km (E) are within 10 km distance from the project site. Water bodies viz., small

ponds near site 0.88 km SSE direction, 1.28 km (E), Gangaikondan Tank at 3 km in East direction, Pond near Rajavallipuram at 4.18 km in ESE, Ponds near Karisalkulam at 3.13 km in NNE direction and 4.5 km in NNE direction, Chittar river at 4 km in NE direction, Tambrparni river at 7.1 km in SSE direction, Tirunelveli canal at 4.5 km in S direction, Canal near Venkatachalapuram at 4.6 km in N direction, Parakiramapandiyan Kulam at 5.5 km in SE direction, Palamadai kulam at 7 km in W direction, Kalkurichikulam at 5.77 km in SE 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 site**.**

7. **Ambient Air Quality**: The PP reported that the Ambient air quality monitoring was carried out at *8* locations during *Dec 2021 to Feb 2022* and the baseline data indicate that ranges of concentrations as: PM_{10} (34 - *63 µg/m*^{3}), $PM_{2.5}$ (14 - 32.7 *µg/m*^{3}), SO_2 (5.2 – *12.5 µg/m*^{3}) and NO_2 (8.8 – *24.6 µg/m*^{3}). AAQ modeling study for point source emissions indicate that the maximum incremental GLCs after the proposed project would be 0.178 *µg/m*^{3}*, 4.71 µg/m*^{3}*and 5.45 µg/m*^{3} with respect to PM_{10}, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS)

8. **Noise monitoring-** The PP reported that the ambient noise levels were monitored at eight locations within study area. The observed noise level in the study area ranges from 50.6 to 55.2 dB (A) during day time The maximum noise level of 55.2 dB (A) was observed at Pallikottai village and the minimum noise level of 50.6 dB (A) was observed at Dadandarpuram village during the study period. The night time (Lnight) noise levels at all the locations were observed in the range of 40.8 to 45.3 dB (A). The maximum noise level of 45.3 dB (A) was observed at Pappankulam village and the minimum noise level of 40.8 was observed at Project Site during the study period. The noise levels at all the locations in study area during day & night are meeting the noise standards in respective of category of Area / zone prescribed by CPCB during day as well as night time.

9. **Ground Water & Surface water:** The PP reported that six samples of surface water and eight samples of groundwater were collected in the study area. All the surveyed villages are having piped water supply for drinking purpose provided by Panchayat. Ground water through bore wells is used for their domestic needs. The source for industry water requirement will be provided by SIPCOT water supply. All the Ground water sample villages use bore/river water supplied through public stand posts and house connections for drinking purpose. Ground water through bore wells is used for their domestic needs. All the surveyed villages are supplied drinking water by Panchayat. The bore wells etc. are used for other purposes. It is learnt that the industries in SIPCOT Industrial growth Centre, do not permit for bore well in industry premises.

10. **Soil:** The PP reported that eight soil samples were collected and analysed. The predominant texture of soil in study area is loam. Potassium availability is good in neutral and alkaline soil.

11. The PP reported that total water requirement is 55.35 KLD. The fresh water requirement of 38.65 KLD will be met from SIPCOT water supply. About 10 KLD of treated water from ETP-ZLD will be reused in cooling towers in future. Treated water of 2 KLD from STP will be used in Greenbelt, 4.7 KLD is used in process Total of 16.7 KLD of water is reused/Recycled. Trade

Effluent of 11.9 KLD quantity will be sent to ETP-ZLD and Domestic effluent of 2.8 KLD will be sent to packaged STP.

12. Power requirement will be 2000 HP will be met from Tamil Nadu State Power Distribution Corporation Limited. Industry proposed 2 *nos. DG sets of 380 KVA capacity. DG sets* are used as standby, during power failure. Stack (height 9 *m for both*) will be provided as per CPCB norms to the proposed DG sets.

13. Proposed 3.5 TPH LPG fired Boiler with a stack height of 30 m will be installed. The NOx emissions from the boiler will be controlled by controlling combustion measures, which will be approached by way of low NOx burners or by air stagging in boiler.

14. Details of Proposed process emissions generation and its management is given below:

Sl. No.	Process Emission	Maximum Quantity on various combinations (kg/day)	Treatment
1.	CO_2	30.85	• Scrubbed by using Caustic Iye Solution
2.	HCl	200	• Scrubbed by using Chilled water/ Caustic solution
3.	NH_3	11.9	• Scrubbed by using Chilled water/dil. H_2SO_4 solution

15. Details of solid waste/ hazardous waste generation and its management is given below.

S. No.	Source	Proposed Quantity (TPD*)	Stream	Handling Method	Disposal
1.	Organic residue from Process	5.5	28.1 of Schedule -I	HDPE Drums	Sent to SPCB Authorized Cement industries or to TSDF for Incineration
2.	Spent carbon	0.1	28.3 of Schedule -I		
3.	Inorganic & Evaporation salt (Process)	0.089	28.1 of Schedule -I	HDPE Drums	Sent to SPCB Authorized Cement industries or to TSDF for landfill
4.	Evaporation salt (Non-Process)	0.2	35.3 of Schedule -I		
5.	ETP Sludge	0.3	35.3 of Schedule -I		
6.	Waste pulp after extraction from process	2.6	-	HDPE Drums	Sold to other industries to Use as biofuel in Boilers.
Other Hazardous / Solid Waste generation from the Plant					
	a) Detoxified Container / Liners	15 Nos./ month	33.1 of Schedule-I		

S. No.	Source	Proposed Quantity (TPD*)	Stream	Handling Method	Disposal
	drums, HDPE Carboys, Fiber Drums			Designated covered area	Disposed to SPCB Authorized agencies after complete detoxification
	b) PP Bags	3 Kg/month	--		
	Spent solvents	36 KLD	28.6 of Schedule -I	Tanks / Drums	Recovered within the premises
	Recovered Solvents from Spent solvents	32 KLD	28.6 of Schedule -I	Tanks / Drums	Reuse or sold to Recyclers
	Spent Mixed solvents (unrecovered solvents)	4 KLD	28.6 of Schedule -I	Tanks/ Drums	Sent to SPCB Authorized agencies
	Waste oils & Grease	1 KL/annum	5.1 of Schedule -I	MS Drums	Sent to SPCB Authorized agencies for reprocessing
	Used Lead acid Batteries	30 Nos. / annum	A1160 of Schedule-III	Stored in Covered shed	Sent to suppliers on buy-back basis.
	Misc. Waste (spill control waste)	L.S.(3.6 TPA)	--	Stored in Drums	TSDF
	Rejects	L.S.(3.6 TPA)	--		
	E- waste	L.S.(1.08 TPA)	--	Designated covered area	Authorized re-processor or TSDF
	Waste papers & other types of packing scrap	L.S.(3.6 TPA)	--		Sold to scrap venders
	Canteen waste	L.S.(7.2 TPA)	--	HDPE bags	Composted on site and reused for green belt
	Bio Medical Waste	LS. (0.72 TPA)	--	Color coded containers	Sent to SPCB authorized Biomedical waste incinerator

16. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 2.6 Crore (capital) and the Recurring Cost (operation and maintenance) will be about 2.8 Crores per annum., Industry proposes to allocate Rs. 18.5 Lakhs towards Corporate Social Responsibility

17. Industry will develop greenbelt in an area of 0.5742 Ha (34.7%) out of 1.6576 Ha total area of the project.

18. The PP proposed to set up an Environment Management Cell (EMC) by engaging Qualified & trained person in the field of Environment & Safety with desirable qualification & experience will be recruited for the post of Environment Officer after Industry is established. for the functioning of EMC.

19. The PP reported that Carbon Footprint is estimated during construction and operation phases About 866.42 tonnes of CO_2 is expected during construction phase from the building materials and transportation. Proposes to utilize eco-friendly building materials, use low carbon content cement, reuse of building materials, components etc. During operation phase carbon footprint is estimated from process emissions, CO_2 emissions are expected from vehicular movement, usage of electricity, fuel. Total Carbon emissions from the proposed project during operation phase will be approximately 5866 Tonnes per annum. Around 332 Tonnes of CO_2 is estimated to sequester over the years i.e. it will be around 5.7% reduction from carbon emissions generated during operation phase. Apart from greenbelt development, industry proposes to adopt the best management practices to reduce the amount of carbon like solar panels.

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

21. The estimated project cost is **Rs. 9.27 Crores**. Total Employment will be 70 nos. 50 persons as direct and 50 persons as indirect.

22. <u>Deliberations by the EAC:</u>

The EAC inter-alia, noted that the PP and the Consultant have reported (both in the EIA/EMP Report and the presentation) contradictory information i.e. there are no schedule–I species and also that Indian peafowl exists within the 10 km distance. Further, the conservation plan was also not prepared. The EAC took a serious note of this and warned, especially the Consultant that the Ministry/QCI-NABET shall be requested to take appropriate action, if such lapses are repeated.

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

(i) Wildlife conservation plan for Schedule-I species and a copy of the acknowledgment of submission to CWLW for approval.

(ii) The detailed greenbelt development plan along with budgetary allocation. Details of the high carbon sequestration species trees proposed in the greenbelt shall also be submitted.

(iii) A map clearly depicting the distance of the project site from the Gangaikondan Spotted Deer Sanctuary and Gangaikondan Bird Sanctuary and their respective notified ESZs.

(iv) On-site and Off-site emergency plans and mitigation measures to be proposed during implementation of the project.

<u>Agenda No. 48.12</u>

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 EC

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

1. The proposal is for environmental clearance for the 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.

2. The project/activity is covered under Category 'A' of item 5(a), Chemical Fertilizers of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by the EAC.

3. The standard ToR was issued by the Ministry, vide letter no. IA-J-11011/495/2022-IA-II(I) dated 26.11.2022. The PP reported that Public Hearing is exempted as the proposed project site is located in Nardana MIDC Phase - I, notified vide **Notification No. IDSO 2189/944681dated 31.08.1991.** The PP applied for Environment Clearance on 8.2.2023 in CAF and submitted the EIA/EMP Report and other documents. The PP in the Form-2 reported that it is **Fresh case.** Due to some shortcomings, the Project was referred back to PP on 10.2.2023 and reply to the same was submitted on 13.2.2023, 21.2.2023. The proposal is now placed in 48th EAC Meeting held on 9th-10th & 13th March, 2023, wherein the Project Proponent and an accredited Consultant, Green Circle Inc., Vadodara. [Accreditation number 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 existing land area of the project is. Proposed 1,00,000.00 m^2 and no R& R is involved in the Project. The details of products are as follows:

Sr. No.	Product Details	CAS No.	Existing Quantity	Proposed Quantity	Total Quantity	Uses
1	Single Super Phosphate (SSP)	8011-76-5	0	132000	132000	Fertiliser
2	GSSP (Boronated /Zincated/ Boronated +Zincated)	8011-76-5	0	132000	132000	Fertiliser
3	PSSP (Boronated /Zincated/ Boronated +Zincated)	89574-82-3	0	132000	132000	Fertiliser
4	DCP	120-83-2	0	6600	6600	Fertiliser
5	Magnesium Sulphate	7487-88-9	0	6600	6600	Fertiliser
6	Organic Fertilizer	68917-51-1	0	33000	33000	Fertiliser
7	LABSA	27176-87-0	0	66000	66000	Fertiliser
	Total Fertilizer Manufacturing Capacity				**508200**	

8	Sulphuric Acid & allied Products like Oleum 23% & 65%	7664-93-9	0	66000	66000	Used in Production of SSP
Total Allied Product Manufacturing Capacity			0	**66000**	**66000**	

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

6. The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Panzara River is flowing at a distance of 5.2 km in direction South East, Tapi River is flowing at a distance of 10.7 km North East and no Schedule- I species exist within the 10 km study area.

7. **Ambient air quality:** The PP reported that ambient air quality monitoring was carried out at 8 locations during pre-monsoon i.e. 1st March 2022 to 31st May 2022 to and the baseline data indicates the ranges of concentrations as: PM_{10} (41.6 µg/m^3 – 59.7 µg/m^3), $PM_{2.5}$ (12.1 µg/m^3 – 21.6 µg/m^3), SO_2 (11.3 µg/m^3 – 23.7 µg/m^3) and NO_2 (9 µg/m^3 – 19.5 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 4.26 µg/m^3, 0.42 µg/m^3 and 0.88 µg/m^3 with respect to PM10, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

8. **Noise Quality Monitoring:** The PP reported that the ambient noise level measurements were carried out at 8 Locations pre-monsoon i.e. 1st March 2022 to 31st May 2022 to and the baseline data indicates the ranges of concentrations as: L_{eq} (Day) from 55.1 dB(A) to 64.0 dB(A) and L_{eq} (Night) from 48.3 dB(A) to 54.9 dB(A).

9. **Surface Water Quality Monitoring** was proposed at 1 location. But no sample was taken as the river was observed to be dry. **Ground Water Quality Monitoring** was carried out at 8 Locations pre-monsoon i.e. 1st March 2022 to 31st May 2022 to and the baseline data indicates the ranges of concentrations as: **pH** from **7.13 to 7.96**, **Total Hardness** from **115** mg/l to **134** mg/l, TDS from 215 mg/l to 347 mg/l, Chloride from 71 mg/l to 98 mg/l, Fluoride from 0.3 mg/l to 0.8 mg/l, Total Coliform and Faecal Coliform was found to be Absent.

10. **Soil Monitoring** was carried out at 8 Locations pre-monsoon i.e. 1st March 2022 to 31st May 2022 to and the baseline data indicates the ranges of concentrations as: pH from 7.12 to 7.98, EC from 0.18 to 0.37 ms/cm, Organic Carbon from 0.44 to 0.9 %, Available Nitrogen from 40.3 to 110.3 kg/ha, Phosphorous Content from 22.06 kg/ha to 95.63 kg/ha and Sodium Adsorption Ratio from 0.45 to 0.89.

11. The PP reported the total fresh water requirement for the proposed project during construction phase is 20 KLD whereas for operation phase the total water requirement is 697.9 KLD of which

fresh water requirement is 451.3 KLD which will be provided by MIDC. The total trade effluent generated is 66.6 KLD which will be treated in ETP of capacity 100 KLD to adopt ZLD. 66.6 KLD of treated water from ETP will be reused in Process. The total sewage generation is 10 KLD which will be treated in STP of capacity 25 KLD

12. The PP reported the total Power requirement is **2405** kVA and will be met from Maharashtra State Electricity Distribution Corporation Limited (MSEDCL). **1 no.** of DG set of capacity **500 kVA** and **1 no.** of D.G set of capacity **125 kVA** is proposed as standby during power failure. Stack of **8 m** above ground will be provided as per CPCB norms to the proposed DG set.

13. **Details of Process Emissions Generation and their Management:** For control of Sulphur, fluoride and acid mist highly efficient special designed Scrubber system comprising of four stages of Venturi and Cyclonic Towers will be installed and further continuous Silica separation by highly efficient centrifuge machines to recover silica and fluorine and maintain Stack emissions below prescribed limits.
    1. 1 x 14 TPH Boilers will be provided with stack of adequate 30 m stack height followed by Multi - Cyclone Scrubber.
    2. Furnace will also be provided with adequate stack height of 30 m followed by Multi - Cyclone Scrubber.
    3. DG set will be utilized in case of power failure. D.G set will be placed in acoustic enclosure. 8 m stack will be provided for better dilution and dispersion of pollutants.

14. **Details of Solid/ Hazardous Waste Generation and its Management**:

Solid Waste (Construction Phase)

Sr. No.	Type of Waste	Quantity	Mode of Disposal
1.	Metal, Debris & stony waste, Wooden box/plastic/paper/ corrugated box	1250 MT	Metal waste & debris/stony waste shall be utilized within site for road construction and site levelling. Other waste sale to authorized scrap vendor.
2.	Dry Waste	21 kg/day	Disposed off through Local MSW Facility
3.	Wet Waste	14 kg/day	Disposed off through Local MSW Facility

Solid Waste (Operation Phase)

Sr. No.	Type of Waste	Quantity	Mode of Disposal
1.	Dry Waste	75.6 kg/day	Disposed of through Local MSW Facility
2.	Wet Waste	50.4 kg/day	Disposed of through Local MSW Facility

Operation Phase

a) Hazardous Waste

Sr. No.	Category	Type of Waste	Quantity	Mode of Disposal
1.	5.1	Used Spent Oil	500 Lit/A	Recycler
2.	17.1	Process acidic residue, filter cake, dust	700 Kg/day	Send to CHWTSDF
3.	17.2	Spent catalyst	100 Kg/day	Send to CHWTSDF
4.	34.2	ETP Sludge from treatment of waste water arising out of cleaning/ disposal of barrels/ containers	6 Kg/day	Send to CHWTSDF

b) Non-Hazardous Waste

Sr. No.	Description	UOM	Total	Treatment
1	Wooden Material	kg/M	20	Sale to Authorized recycler
2	Glass scrap	kg/M	5	Sale to Authorized recycler
3	HDPE Drums	Nos/M	5	Sale to Authorized recycler
4	Plastic scrap & other non-biodegradable waste	kg/M	120	Sale to Authorized recycler
5	Paper waste	kg/M	4	Sale to Authorized recycler
6	e-Waste	kg/A	50	Sale to Authorized recycler

15. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ **950 Lakhs** (capital) and the Recurring cost (operation and maintenance) will be about **108** Lakhs per annum. Industry proposes to allocate ₹ 1.98 Crore towards CER.

16. The PP reported that Industry will develop greenbelt in an area of 33 % i.e., **33,000** m^2 out of total area of the project.

17. The PP proposed to set up an Environment Management Cell (EMC) to engage General manager- Senior Dy. General Manager- Factory Manager –Manager (EHS) – safety officer for the functioning of EMC.

18. The PP reported the details of carbon sequestration as follows:

S. No.	Product	Scope 1 and 2 CFP per MT $kgCO_2/MT$	Annual Production MT	Annual GHG emissions in tCO_2
1	SSP	719.01	132000	94909.32
2	GSSP	660.17	132000	87142.44
3	DCP	35.95	6600	237.27

4	Sulphuric Acid	428.74	66000	28296.84
5	Magnesium Sulphate	35.95	6600	237.27
6	Organic Fertilizer	179.77	33000	5932.41
7	LABSA	359.31	66000	23714.46
8	**Total (including energy saving measures)**			**2,40,470**
9	**Total Emissions without Energy saving measures**			**2,48,411.46**
10	**Emissions Saved through Energy saving measures**			**7941.46**
11	**Annual Sequestration potential**			**419.13**
12	**Percentage Savings of carbon emission achieved on Scope 1 and 2 emissions**			**3%**

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

20. The estimated cost for proposed expansion is Rs 99.24 Crores. Total Employment will be **200** persons as permanent & **160** persons as temporary.

21. **Deliberations by the EAC**:

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

The EAC noted that the PP has given an undertaking 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 Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

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

The EAC inter-alia, deliberated on the Greenbelt development plan, EMP cost, carbon footprint study, EMP cost, distance from the project boundary to the nearest highway and advised the PP to submit the following:

- Revised Green belt development plan with 10000 number of trees to be planted in 1 year.

- Revised EMP cost considering additional green development cost.
- Revised carbon footprint study with increase in percentage savings of carbon emission achieved on scope 1 & scope 2 emissions from 3% to 15%.
- Distance showing boundary of the project to the nearest highway.

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

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

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

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

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

(i) The PP shall develop Greenbelt over an area of at least, **33,000** m^2 by planting 10000 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 General manager- Senior Dy. General Manager- Factory Manager –Manager (EHS). 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 ₹ 950 Lakh (Capital cost) and ₹ 108 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) The total fresh water requirement for the proposed project during construction phase is 20 KLD whereas for operation phase the total water requirement is 697.9 KLD of which fresh water requirement is 451.3 KLD which shall be provided by 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.

(v) Generated Effluent shall be 66.6 KLD which shall be treated in ETP of capacity 100 KLD. 66.6 KLD of treated water from ETP shall be reused in Process. The total sewage generation is 10 KLD which shall be treated in STP of capacity 25 KLD. The plant shall be based on Zero Liquid Discharge system.

(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 comply with the environment norms for Fertilizer Industry as notified by the Ministry of Environment, Forest and Climate Change, *vide* GSR 1607(E), dated 29.12.2017 under the provisions of the Environment (Protection) Rules, 1986.

(viii) 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.

(ix) 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.

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

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

(xii) The 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; and (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; and (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

Agenda No. 48.13

Expansion of Liquid formulations from 600 TPA to 1080 TPA, Powder formulations from 600 TPA to 700 TPA, Cation Exchange Resins from 300 TPA to 3000 TPA, Biocide from 24 TPA to 360 TPA, Dispersants from 24 TPA to 360 TPA, Flocculating Agents from 12 TPA to 240 TPA and newly added Oil field chemicals 1200 TPA (Manufacturing of Water & Waste Water treatment – Resins & Chemicals) located at Gat No. 227/2, Alandi Markal Road, Village Dhanore, Tehsil Khed, District Pune, Maharashtra by M/s Asha Resins Pvt. Ltd. - Consideration of EC

[Proposal No. IA/MH/IND3/412933/2023; File No. IA-J-11011/397/2021-IA-II(I)]

1. The proposal is for environmental clearance for the Expansion of Liquid formulations from 600 TPA to 1080 TPA, Powder formulations from 600 TPA to 700 TPA, Cation Exchange Resins from 300 TPA to 3000 TPA, Biocide from 24 TPA to 360 TPA, Dispersants from 24 TPA to 360 TPA, Flocculating Agents from 12 TPA to 240 TPA and newly added Oil field chemicals 1200 TPA (Manufacturing of Water & Waste Water treatment – Resins & Chemicals) located at Gat No. 227/2, Alandi Markal Road, Village Dhanore, Tahsil Khed, District Pune, Maharashtra by M/s Asha Resins Pvt Ltd.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic Organic Chemicals industry of the Schedule of Environment Impact Assessment (EIA) Notification, 2006 and subsequent amendments as the project falls outside the notified industrial area.

3. The ToR has been issued by the Ministry, vide letter No. IA-J-11011/397/2021-IA-II(I) dated 25th October, 2021 and Amended on 14th December, 2021. The PP applied for Environment Clearance on 24.1.2023 through CAF and submitted the EIA/EMP Report and other documents. The PP in the CAF reported that it is an **Expansion case.** Due to the shortcomings, the proposal was referred back to PP on 9.2.2023 and the reply for the same has been submitted on 21.2.2023. The proposal is now placed in 48th EAC Meeting held on 9th-10th & 13th March, 2023, wherein the PP and an accredited Consultant, Anacon Laboratories Pvt. Ltd. [Accreditation number NABET/EIA/2023/SA 0160 valid till 29.3.2023], 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 6500 m^2, the existing project site is fit for the proposed project and hence, no alternative/additional site is required. The land was already diverted to industrial purpose. The details of products and by–products are as follows:

S. No.	Product	Qty. Granted MT/Annum	Qty. Expansion MT/Annum		Total Qty. MT/Annum
			Phase - I	Phase – II	

1.	Liquid Formulations A. Boiler Water Treatment Chemicals B. Cooling Water Treatment Chemicals C. Antiscalants D. Descaling Chemicals E. Fuel Additives F. ETP /STP Chemicals	600	240	240	1080
2.	Powder Formulations A) Alkaline Descalants B) Fuel Additives	600	-	100	700
3.	Cation Exchange Resins in different forms	300	1700	1000	3000
4.	Biocides	24	216	120	360
5.	Dispersants	24	216	120	360
6.	Flocculating Agents	12	108	120	240
7.	Oil field chemicals	-	600	600	1200
	Total	**1560**	**3080**	**2300**	**6940**

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 existing plant is in operation as per Valid CTO from MPCB vide Consent No. Format1.0/AS(T)/UAN No.0000150089/CR/2301001318 dated 13.01.2023.

7. The PP reported that the site inspection was conducted by RO, MPCB on 25.02.2022. Certified Compliance Report is also covered by RO in the site visit report and all compliances are in place duly certified by RO.

8. 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. Indrayani River is flowing at a distance of 1.5 km in SE direction and no Schedule-I species exist within 10 km study area of the project

9. The PP reported that **Ambient air quality** monitoring was carried out at 8 locations during **1st March 2021 to 31st May 2021** and the baseline data indicates the ranges of concentrations as: **PM10 (55.7-66.5 µg/m^3), PM2.5 (22.2-29.2 µg/m^3), SO_2 (8.7-14.6 µg/m^3) and NO_2 (16.9-24.3µg/m^3).** AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be **0.34 µg/m^3, 0.191 µg/m^3, 0.18 µg/m^3 and 0.65 µg/m^3** with respect to PM_{10}, $PM_{2.5}$ Sox and NOx. The resultant concentrations are within the

National Ambient Air Quality Standards (NAAQS). Ambient noise level monitoring was carried out at 8 monitoring locations during **1st March 2021 to 31st May 2021** and the baseline data indicates the noise levels at every station were within CPCB standards. Residential Area – 53.4 to 54.2 dBA for day time and 41.9 to 43.6 dBA for night time. Commercial Area – 56.3 to 61.9 dBA for day time and 46.1 to 48.7 dBA for night time. Silence Zone – 47.4 to 52.6 dBA for day time and 36.2 to 42.1 dBA for night time. Industrial area – 63.7 dBA for day time and 52.4 dBA for night time.

10. **Ground Water Quality:** The PP reported that the Ground water quality monitoring was carried out at 8 locations during **1st March 2021 to 31st May 2021** and the baseline data indicates the ranges of concentrations as: The analysis results indicate that the pH ranged between 6.72 -8.17. The TDS was ranging from 176-330 mg/l. Total hardness was found to be in the range of 116.91-229.9 mg/l. The fluoride concentration was found below detectable limit. The nitrate and sulphate were found in the range of 2.76-9.47 mg/l and 5.82-23.68 mg/l respectively. Water quality assessed based upon above physico-chemical parameters and samples were found to be physico-chemically good and excellent. **Surface Water Quality:** The PP reported that the surface water quality monitoring was carried out at 8 locations during **1st March 2021 to 31st May 2021** and the baseline data indicates the ranges of concentrations as: pH ranged between 7.82 - 8.21 which is well within the specified standard of 6.5 to 8.5. The TDS was observed to be 389 - 469 mg/l which is within the permissible limit of 2000 mg/l. The total hardness recorded was in the range of 186.64 – 238.81 mg/l as CaCO3 which is also within the permissible limit of 600 mg/l. The levels of chloride and sulphate were found to be in the range of 41.18 – 64.92 mg/l and 26.43 – 38.59 mg/l respectively. The DO reported value of range of 6.1-6.4 mg/l. COD ranges from 16.51-56.29 mg/l and BOD ranges from 4.7-21.56 mg/l. **Soil Quality:** The PP reported that the soil quality monitoring was carried out at 8 locations during **1st March 2021 to 31st May 2021** and the baseline data indicates the ranges of concentrations as: pH of the soil in the study area is found to be neutral (6.81 – 7.52) in reaction. Electrical conductivity, a measure of soluble salts in the soil is in the range of 85.48 - 274.30 µS/cm. The important soluble cations in the soil are calcium and magnesium whose concentration levels ranged from 176.13 – 351.17 mg/Kg and 53.19 - 232.81 mg/Kg respectively. Chloride is in the range of 304.97 – 593.68 mg/Kg. Organic matter and organic carbon were found in the range of 1.07% – 3.16% and 0.62% – 1.73% respectively.

11. The PP reported that Total water requirement for plant activities after expansion will be 159 KLD. Fresh water requirement after expansion = 64 KLD [for industrial (148-95) 53 KLD and domestic waste 11 KLD]. The water requirement for existing plant of M/s. ARPL is sourced from local supplier by Pipeline at Factory gate. After proposed expansion, ground water will be the source of water supply and NOC for abstraction of 75 KLD ground water is obtained from CGWB. Effluent of 111.1 KLD will be treated in ETP of 125 KLD. Domestic waste of 8.8 KLD will be treated in STP of 10 KLD based on MBBR Technology. The plant will be based on Zero Liquid discharge system.

12. Power requirement after expansion will be 200 HP Including existing 67 HP and will be met from Maharashtra State Electricity Board (MSEB). Existing unit has 1 DG set of 20 KVA capacity, additionally 1 DG set of 82.5 KVA is used as standby during power failure. Stack (5.74 mtr height above roof) will be provided as per CPCB norms to the proposed DG sets.

13. **Details of Process Emissions Generation and its Management:**

Sr. No.	Stack Attached To	Height (m)	Top Dia (m)	Exit Temp (°C)	Exit Velocity (m/s)	Volumetric Flow (Nm^3/hr)	PM_{10} (gm/sec)	SO_2 (gm/sec)	NO_2 (gm/sec)
For Existing									
1.	Boiler (1TPH)	10	0.3048	162	7.3	1312.9	0.017	0.0125	0.006
2.	DG set (1x 20 KVA)	5.74	0.1016	105	6.52	149.94	0.001	0.0008	0.0005
After Expansion Phase I									
3.	Boiler (1x3TPH)	30	0.8	139	4.5	5886.8	0.08	0.03	0.16
4.	DG set (1x82.5KVA)	5.74	0.1016	105	6.52	149.94	0.001	0.0008	0.0005
After Expansion Phase II									
5.	Boiler (1x4TPH)	30	0.8	139	4.5	5886.8	0.08	0.04	0.16
6.	DG set (1x82.5KVA)	5.74	0.1016	105	6.52	149.94	0.001	0.0008	0.0005
	After Expansion Phase I&II								
7.	Boiler (1x3TPH)	30	0.8	139	4.5	5886.8	0.08	0.03	0.16
8.	Boiler (1x4TPH)	30	0.8	139	4.5	5886.8	0.08	0.04	0.16
9.	DG set (1x82.5KVA)	5.74	0.1016	105	6.52	149.94	0.001	0.0008	0.0005

14. **Details of Solid Waste/ Hazardous Waste Generation and its Management:** The total estimated solid waste generation will be 2750 kg/month fine polymer and resin waste, 350Kg/month plastic waste/HDPE/LD bags, 6600 kg/month Wood & Briquette Ash. 85 lit/m used oil, 162 MT/month spent acid, 85 MT/ month 5% HCL, 45475 Kg/Month ETP sludge in the form of Hazardous waste. It will be disposed by scientific manner or CHWTSDF Ranjangaon.

15. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 355 Lakhs capital) and the Recurring cost (operation and maintenance) for EMP will be about ₹ 123.5 Lakhs. Industry proposes to allocate ₹ 15 Lakhs towards CER.

16. Industry has already developed greenbelt in an area of 13.9 % i.e., 905 m^2 out of total area of the project. Industry will develop greenbelt in an area of 33.53 % i.e., 2180 m^2 out of total area of the project. (Existing + Proposed).

17. The PP reported that the Public Hearing for the proposed project has been conducted by the Maharashtra Pollution Control Board on 03.08.2022 at Vishwavilas Mangal Karyalaya, which was presided by the Additional District Magistrate at Post – Solu, Alandi – Markal Road, Tah.-Khed, District – Pune, Maharashtra. The main issues raised during the public hearing are related to wastewater management, employment generation, benefits to the local people, water pollution, impact on air pollution, daily water requirement and its 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
Wastewater management	• ETP of 119 KLD capacity will be provided to treat waste water generated in the project. 95 KLD treated water will be reused in the process. For domestic waste water, STP will be provided and STP treated water will be used for landscape development. No effluent will be discharged outside the factory premises. Zero Liquid Discharge System will be maintained in the plant. • Generated Hazardous waste will be given to Common Hazardous Waste Treatment Storage and Disposal Facility (CHWTSDF) by transporting through authorized vehicle. No mixing of solid waste with rain water as the project is completely covered. • Adequate care is already taken in the existing plant to avoid chemical spillage and same will continue.	For water and wastewater management budgetary provision is provided. EMP Capital Cost – 240 Lakhs EMP Recurring Cost – 90 Lakhs Time frame – within 2 years from receipt of Env. clearance.
Employment generation	The proposed expansion project will provide additional employment to about 33 people. However, 23 people are already working in the existing plant. Thus, total employment will be available to 56 people.	Total Employment Generation due to proposed expansion activities: During Operation: Direct – 56 Indirect– Approx. 60 Nos. Time frame :During Implementation and plant operation phase.

Benefits to the local people	The proposed expansion project will increase the CSR activities of the project which will help in improving the basic infrastructure of the village. Also, employment to about 33 local people will be provided in proposed expansion project.	Total CER Budget – 15 Lakhs allocated by ARPL and details are described in EIA report. During PH consultation it was mutually decided - Sarpanch and Gram sabha will decide the mode of utilisation of Rs.15 lakhs based on need of the Dhanore village. Documentation to this effect will be included at the time of final EC presentation before MoEFCC.
Impact on air pollution	The project will fully comply with the Standards prescribed by MoEFCC and the MPCB for air quality. In the proposed expansion unit, Air pollution control equipment's based on modern technology will be commissioned.	Air Pollution Control Equipment's will be installed in the proposed expansion project. EMP Budget Capital Cost: Rs 40 Lakhs. Recurring Cost: Rs 07 Lakhs Time frame: During Operation Phase
Daily water requirement and its management	Existing water requirement is 9 KLD, proposed water requirement will be 150 KLD. Total water requirement for plant activities after expansion will be 159 KLD. Out of 159 KLD, 103.8 KLD will be recycled and reused in process. Thus, fresh water requirement after expansion will be 64 KLD. The water requirement for existing plant is sourced from local supplier by Pipeline at Factory gate. After proposed expansion, ground water will be the source of water supply and NOC for abstraction of 75 KLD ground water is obtained from CGWB.	Permission for abstraction of ground water (75 KLPD) is obtained from CGWB.

18. The PP reported that the unit has established set up of Environment Management Cell (EMC) which engage VP- Corporate HSE- Head- Environment- Manager - Environment- Executive officers- staff man for the functioning of EMC.

19. The PP reported the M/s. Asha Resin Pvt. Ltd. will be set up in 0.650 Hectare area, out of which 33.53% (0.218 hectare) is catered for green belt development. Presently, the plantation and green belt covered land is 905 Sq. M. (0.0905 Ha.) approx.13.9 % of total project area which is about 0.65 ha area. Presently, 30 nos. of trees are grown in existing plant premises. The existing plant species Coconut, Mango, Guava, Ashoka, Gulmohar, Tamarind, Nilgiri, etc. grown under green belt within plant premises. Lawn & Flowers is grown all around the plant. Total greenbelt area is 0.218 Ha. (33.53%). Thus, total plantation will be 545 nos. (Existing 30 + proposed addition 515) will be developed by considering 2500 trees/ha. Carbon offset due to Greenbelt will be 136 tCO_2/Year. Thus net GHG emission due to proposed project will be 2170 tCO_2/Year excluding the HSD fuel which is used in DG set as standby mode

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

21. The estimated project cost is Rs.15.00 Crores including existing investment of Rs. 250 Lakhs. Existing employment is 23 persons, proposed employment generation will be 33 person and total employment after expansion will be 116 (56 person as direct & 60 persons indirect after expansion).

22. **Deliberations by the EAC**

The EAC constituted under the provisions of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the 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 Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

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

The EAC inter-alia, deliberated on the, Greenbelt development plan, and advised the PP to submit the Revised Greenbelt Development Plan and a commitment that 100% plantation will be carried out within 1 year of receipt of the EC. The PP submitted the same and the EAC found it to be satisfactory.

The EAC also deliberated the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of

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

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

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

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

(i) The PP shall develop Greenbelt over an area of at least 2180 m^2. by planting 588 number of saplings shall be planted during the upcoming monsoon season (Jun' 23 to Sept' 23). The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2m). In addition to this, the budget earmarked for the green belt 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 VP- Corporate HSE- Head- Environment- Manager - Environment- Executive officers- staff man. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 355 Lakhs (Capital

cost) and 123.5 Lakhs (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(iv) The total water requirement after expansion shall be 159 KLD and the water requirement for existing plant is sourced from local supplier by Pipeline at Factory gate. After proposed expansion, ground water shall be the source of water supply The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.

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

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

(vii) The PP shall comply with the environment norms for 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.

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

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

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

(xi) Zero Liquid Discharge shall be ensured, Effluent of 111.1 KLD shall be treated in ETP of 125 KLD. Domestic waste of 8.8 KLD shall be treated in STP of 10 KLD based on MBBR Technology.

(xii) A continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the

unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(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 already set up shall be maintained effectively. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

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

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

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

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

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

(xx) The activities and the action plan proposed by the 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. 48.14

Clarification on the applicability of Environment Clearance for Green Hydrogen and Green Ammonia Projects by M/s ReNew Power, IGH$_2$PA, ESSAR, IOCL (Panipat Refinery)

1. M/s ReNew Power, IGH$_2$PA, ESSAR, IOCL have submitted their justification/understanding regarding the requirement of Prior EC for proposed Green Hydrogen and Green Ammonia Projects and sought clarification of the same from MoEF&CC. Accordingly, the matter was placed before the EAC, wherein the PPs (M/s ReNew Power, ESSAR and IOCL) made a presentation on the production process, environmental parameters etc., the brief of which are as follows:

2. **IOCL (The proposed Green Hydrogen will be used as a fuel for the existing Panipat Refinery, for which ECs were issued earlier):**
   - Utilisation of Green Hydrogen in refineries is an environmental improvement project being implemented to meet Government of India's National Green Hydrogen Mission - January, 2023 and is in line with the national policy. Additionally, in the Environmental Clearance dated 03.12.2021 for the project "Panipat Refinery Capacity Expansion from Existing 15 MMTPA to 25 MMTPA within the Existing Refinery Complex", IOCL committed to comply with the policy of Government on Green Hydrogen.
   - The Capacity of the Green Hydrogen plant proposed in Panipat Refinery and Petrochemical complex is 7 KTA. The land required for the proposed project is 20 acres and the greenbelt area proposed for the proposed project is 1.5 acres. The water requirement of 80 m^3/hr will be sourced from irrigation canal.
   - The process involves producing green hydrogen by electrolysis from renewable sources which involves breaking down water molecules (H_2O) into oxygen (O_2) and hydrogen (H_2). The power requirement of 56 MW will be met from renewable power source (hybrid renewable power comprising of Solar and Wind Power plants) via CTU.
   - The process utilities are as follows:

Cooling water	For cooling the electrolyser as electrolysis is an exothermal reaction via exchangers embedded in the EPU.
Chilled water system	To cool gases and condense the main fraction of the water content in each electrolyser and in the PDU.
Demineralized water production system	As a feedstock for the electrolysis reaction from raw water. By-product is either brine or usable water; ion concentration of the effluent depends on the raw water quality. DM water is then stored in a tank before being pressurized and injected into the electrolyser.
Instrument air system	Necessary for the actuation of the pneumatic valves.

Nitrogen system	For the system start-up, commissioning and during maintenance only, for purging and flushing purposes. The electrolyser operates in normal operation, hot-standby state or cold stand-by without nitrogen consumption
KOH storage and pumping system for Alkaline Electrolysers	This consists of the equipment necessary to store and handle the electrolyte (KOH - potassium hydroxide) 30%-wt solution. This system is used during the lifetime of the unit to fill or replace the KOH electrolyte. It is composed of KOH tanks for the used electrolyte and of a second tank for preparing and injecting the new electrolyte. A dedicated pump is used to transfer the electrolyte to the electrolyser module.

- Wastewater to the tune of approximately 15 m^3/hr is estimated to be generated from the plant which shall be treated in ETP followed by RO plant and the reject shall be processed in upcoming ZLD plant. There shall be no gaseous emissions during production of green hydrogen.

3. **ReNew Power (Green Ammonia will be sent to fertilizer plants (export/domestic) as a raw material)**
   - ReNew Power has always been at the forefront of innovation and has expanded its business foraying into new age clean energy solutions, including Green Hydrogen-based Standalone Ammonia projects in India.
   - Green ammonia is produced using nitrogen and green hydrogen. Green hydrogen is produced through electrolysis of water using renewable electricity. Thus, this technique of producing green hydrogen and its derivatives is a carbon-free method.
   - Most of the Ammonia is traditionally produced through Hydrogen by breaking down hydrocarbons followed by reaction of Hydrogen with Nitrogen (Steam Methane Reforming Process), which leads to high carbon and effluent emissions. Such Ammonia is called Grey Ammonia, whereas, Green Ammonia is an innovative technique of producing Ammonia using Green Hydrogen, which is produced through electrolysis of water using renewable energy (solar, wind & small hydel projects). Thus, Green Ammonia production technique involves zero GHG emissions and limited effluent discharges than Grey Ammonia.
   - The proposed green ammonia facility will be a Standalone Ammonia Production facility. Environmental clearance may not be required as ammonia is an intermediate inorganic chemical, and it is input to fertilizers and not a fertilizer itself. Moreover, as per EIA Notification 2006 and amendments thereof, standalone ammonia project is not included in the schedule of projects/activities which require environmental clearance.
   - Government of India under its National Green Hydrogen Mission (Jan. 2023) has announced massive support & incentives for green hydrogen and its derivatives, including ammonia. Hence, Green ammonia production is thus expected to grow exponentially in India and a standardized & fast permits/clearances mechanism is required to be set in order to ensure faster project execution.

4. **Essar (Green Ammonia will be exported to Essar's facilities in the UK — EOUK & Vertex Hydrogen)**

- India's Green Hydrogen Policy is a major enabler to help India reach its climate targets and become "A global hub for Green Hydrogen and Green Ammonia production." The objective is for our country to emerge as an export Hub for Green Hydrogen and Green Ammonia. Development of green hydrogen/green ammonia will also ensure substantial energy security for the country.
- EET Future Energy Limited (EET FE) is planning to setup a 100% export oriented, 1GW electrolyser capacity & 2200 TPD Ammonia Project generating Green Hydrogen (150,000 MTPA), & Green Ammonia 800,000 MTPA at Salaya, Near Jamnagar, Gujarat as part of Phase — 1 fully owned by Essar Group. The entire Green Ammonia produced will be exported to Essar's facilities in the UK — EOUK & Vertex Hydrogen. The associated renewable power capacity (Solar + Wind Hybrid) is estimated to be —4.4 GW and is proposed to be developed along with reputable RE Developer. This would be one of the earliest firm Green Hydrogen projects in India that is fully integrated with downstream captive markets.

5. **Deliberations by the EAC**:

The EAC inter-alia, noted that the issues of hazards for green ammonia may not be greener, these may be similar to that of black or grey ammonia. It is incorrect to state that ammonia is not a fertilizer. Ammonia is also a fertilizer, except that its use requires adequate preacautions due to its toxic nature.

Regarding exporting of green ammonia, the EAC opined that, why produce in India and export to UK, why not produce in UK and use in UK to reduce carbon footprint and cost? The proposed shipment from the place of manufacture (near sea-coast) to far of places will require use of tankers propelled by diesel oil leading to add to carbon foot-print. *Proper assessment of carbon foot print shall have to be done.*

There is no indigenous capability for making electrolysers. The country will be depending on import of foreign technology and units and their components. The membranes used in electrolysers are patented items.

On cloudy days/during rains and during night, the solar power conversion to electricity will be quite low and may not be sufficient eough for the electrolysers to operate, thus grid power from TPP may be required. The output from wind mills too will be variable. *All such limitations require proper and careful assessment.*

The basic information on various aspects (techno-economic feasibility report, raw materials, material balance, water balance, electrolysers, energy consumption, possible environmental and hazard issues etc.) are yet to be properly analysed, for an assessment w.r.t the environmental impact/requirement of EC.

Further, considering the impact on the sea microbiota and other species, and since the sea water too will have to be conditioned to make it suitable for electrolyser, usage of treated wastewater as a feed shall be examined. The Life Cycle Analysis of the Projects are also required.

The EAC sought the above information/documents, for further deliberations.

Agenda No. 48.15

Expansion of synthetic organic chemicals in existing manufacturing plant from production capacity 2244.1TPM (-50+50) to 2244.1 TPM located at plot no. 13, P.C.C. area, P.O. petrochemicals, Vadodara, Gujarat by M/s. Diamines and Chemicals Limited - Consideration of EC

[Proposal No. IA/GJ/IND3/415592/2023, File No. IA-J-11011/190/2020-IA-II(I)]

1. The proposal is for the environmental clearance for the Expansion of synthetic organic chemicals in existing manufacturing plant from production capacity 2244.1TPM (-50+50) to 2244.1 TPM located at plot no. 13, P.C.C. area, P.O. petrochemicals, Vadodara, Gujarat by M/s. Diamines and chemical limited.

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 ToR has been granted by the SEIAA letter SIA/GJ/98805/2022 dated 27.5.2022. The PP applied for Environment Clearance on 25.1.2023 in CAF and submitted EIA/EMP Report and other documents. The PP reported in CAF that it is an **Expansion EC.** Due to some shortcomings, the Project was referred back to PP on 9.2.2023 and reply to the same was submitted on 21.2.2023. The proposal is now placed in 48th EAC Meeting held on 9th – 10th &13th March, 2023 wherein the Project Proponent and an accredited Consultant, M/s. Aqua-Air Environmental Engineers Pvt. Ltd. (NABET Accreditation No.: NABET/EIA/2023/IA0062 (Rev. 03) Valid Up to October 7, 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 40248 m^2 and no R& R is involved in the Project. The details of products and by–products are as follows:

Sr. No.	**Name of Product**	**CAS No.**	**Existing**	**Proposed**	**Total**	**Uses**
			Quantity MT/Month			
Group – 1 Product Mix of Ethylene Amine & Piperazine (By CPA Route)						
1	Product Mix of Ethylene Amine &	--	239	0	239	Specialty Chemicals & Pharma Intermediate

	Piperazine (By CPA Route)					
Group – 2 Piperazine Derivatives						
2	Piperazine Citrate	144-29-6	525	0	525	Pharmaceutical Intermediate
3	Piperazine Hexahydrate	142-63-2				Pharmaceutical Intermediate
4	Piperazine Adipate	142-88-1				Pharmaceutical Intermediate
5	Piperazine Dihydrochloride	142-64-3				Pharmaceutical Intermediate
6	Piperazine Phosphate	18534-18-4				Pharmaceutical Intermediate
7	1-Methyl Piperazine	109-01-3				Pharmaceutical Intermediate for Olanzapine, Levocetrizine, ofloxacin, Rifampicin, Clozapine, Sildenafil, Trifluoperazine and Zopiclone.
8	1,4-Dimethyl Piperazine	106-58-1				Catalyst for polyurethane foams and intermediate for cationic surfactants
9	1-Ethyl Piperazine	5308-25-8				Pharmaceutical Intermediate, Enrofloxacin, Intermediate for Dyes
10	1,4-Diethyl Piperazine	6483-50-7				Pharmaceutical intermediate
11	1-(2-Hydroxyethyl) Piperazine	103-76-4				Pharmaceuticals Intermediate
Group 3 – Amides						
12	Isobutyramide	563-83-7	50	0	50	Pharmaceutical intermediate
13	Salicylamide	65-45-2				Pharmaceutical intermediate
14	Lithium Amide	7782-89-0				Catalyst for many organic reactions, polymer industries, advanced fuel cells and battery applications

15	Lithium Methoxide 10% Solution in Methanol	865-34-9	0			Use as Catalyst for various pharmaceutical product
16	Lithium Methoxide Powder	865-34-9	0			
17	Lithium Hexamethyldisilazide (LiHMDS)	4039-32-1	0			
Group 4 - Nitriles (Ammoxidation & Ammonolysis)						
18	Butyronitrile	109-74-0	300	0	300	Used in electrolyte composition in dye-sensitized solar cells.
19	Isobutyronitrile	78-82-0				As a catalyst in the polymerization of Ethylene, Additive
20	Benzonitrile	100-47-0				Intermediate for Rubber, Solvent, Resins, Polymer, Pharmaceutical Intermediate
21	2-Chlorobenzonitrile	873-32-5				Pharmaceutical intermediates, OTBN, Losartan, Valsartan, Telmisartan, Sartan Series etc.,
22	3-Chlorobenzonitrile	766-84-7				Pharmaceuticals, Chemical intermediates and High performance pigments.
23	4-Chlorobenzonitrile	623-03-0				Pharmaceutical Intermediate, Letrazole, In Dyes, Plastics etc.
24	2,4 Dichlorobenzonitrile	6574-98-7				Pharmaceuticals Intermediate.
25	2,3 Dichlorobenzonitrile	6574-97-6				Pharmaceuticals Intermediate.
26	2,6 Dichlorobenzonitrile	1194-65-6				Pharmaceuticals Intermediate.
Group – 5 Amines/Hydrogenation Products						
27	Propylenediamine	78-90-0	500	0	500	In Plastics, Polymers, Surface Treatment Agent
28	[(4R,6R)-6-(2-Amino-Ethyl)-2,2-	125995-13-3				Atorvastatin

	Dimethyl-[1,3]Dioxan-4-yl]-Acetic Acid Tert-Butyl Ester]					
29	1-Aminonaphalene	134-32-7				Leather, Textile. Dyes, Photo resists, Light-emitting device, Disk, Display Device, Oil Products, Construction Materials etc.
30	2,4-Difluorobenzylamine	72235-52-0				Pharmaceutical Intermediate
31	o-Phenylenediamine	95-54-5				Pharmaceutical Intermediate, Antioxidants in Rubber Industry. Intermediate for Benzotriazole, Corrosion inhibitor
32	m-Phenylenediamine	108-45-2				In Polymers, Epoxy Resins, Coatings, Adhesives, Dyes, Leather and Textiles Industries.
33	p-Phenylenediamine	106-50-3				Hair Dyes, Rubber, Polymers etc.
34	N-Octyl-D-Glucamine	23323-37-7				Pharmaceutical Intermediate, S-(+)-ketoprofen etc.
35	2-Chlrophenylethylamine	13078-80-3				Intermediates, Fine and Specialty Chemicals.
36	Meta Amino BenzoTrifluoride / MABTF	98-16-8				Pharmaceutical Intermediate
37	4-Methyl-2-n-propyl-1H-Benzimidazole-6-Carboxylic Acid	152628-03-0				Pharmaceutical Intermediate, Telmisartan API
38	S) - (+) - 3–Aminomethyl - 5 - Methyl Hexanoic Acid	148553-50-8				Pharmaceutical Intermediate, Pregabalin API
39	3,5-Dimethylpiperidine	35794-11-7				Corrosion inhibitor, Gels etc.

40	Piperidine-2-Ethanol	1484-84-0				Pharmaceutical Intermediate, Lubricant, Additives etc.
41	4,4'-Diaminostilbene-2,2'-disulfonic Acid	81-11-8				Colorants, Dyes, Textiles, Cosmetics, Tatoo Inks, Hair Dye, Food colorants, Printing etc.
42	Phenylethylamine	64-04-0				Pharmaceutical Intermediate
Group – 6 Ketonization Products						
43	Diethyl ketone	96-22-0	500	0	500	Pharmaceutical Intermediate, Vitamin E, Solvent in Paint etc.
44	Propiophenone	93-55-0				Pharmaceutical Intermediate, Ketoamphetamines, Cathinone and Methcathinone
45	Dicyclohexyl ketone	119-60-8				Intermediate for 1, 1 - Dicyclohexylethanol, bis (1-bromocyclohexyl) ketone in checmical industries. Dicyclomide
46	Cyclohexyl phenyl ketone	712-50-5				Intermediate for 1-Hydroxycyclohexyl phenyl ketone.
47	Isobutyrophenone	611-70-1				Photosensitizer Intermediate, Intermediate for alpha-hydroxyisobutyrophenone, 3-hydroxy-4-methyl-3-phenyl-valeric acid ethyl ester
48	Cyclopentanone	120-92-3				Fragrances
49	Pinacolone	75-97-8				Pharmaceutical Intermediate for Pinacidil, Naminidil, and Valconazole.
Group – 7 Aldehydes						
	4-Methylbenzaldehyde	104-87-0	50	-50	0	Cosmetic, Flavouring Ingredient etc.
Group – 7 HMT						

50	5-Hydroxymethylthiazole	38585-74-9	0	50	50	Pharmaceutical intermediate
Group – 8 Speciality Chemicals						
51	Allyl Amine	107-11-9	50	0	50	Pharmaceutical Intermediate, Solvent etc.
52	Diallyl Amine	124-02-7				Pharmaceutical Intermediate, Solvent etc.
53	Triallyl Amine	102-70-5				Intermediate for Ion Exchange Resins and Rubber.
54	Aminoacetaldehyde Dimethyl Acetal	22483-09-6				Pharmaceutical Intermediate, Intermediate for preparation of chitosan - dendrimer and synthesis of a bicyclic proline analog from L-ascorbic acid.
Group – 9 Research & Development Based Products						
55	R & D	--	0.1	0	0.1	--
56	Pilot Plant	--	4	0	4	--
Group – 10 Formulation						
57	33% solution of TEDA in MEG (Mono ethylene Glycol)	280-57-9	10.5	0	10.5	--
58	33% solution of TEDA in DPG (Dipropylene Glycol)	280-57-9	10.5	0	10.5	--
59	33% solution of TEDA in DMF(Dimethyl Formamide)	280-57-9	2.5	0	2.5	--
60	33% solution of TEDA in Butanediol	280-57-9	2.5	0	2.5	--
TOTAL			**2244.1**	**-50 & +50**	**2244.1**	

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 court case/ direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that the Ministry (SEIAA, Gujarat) had issued EC earlier vide letter no. SEIAA/GUJ/EC/5(f)/2074/2021 dated 28/12/2021 to the existing project for Synthetic Organic Chemicals manufacturing unit of capacity 2244.1 MT/Month in favour of M/s. Diamines and Chemicals Limited.

7. The PP reported that the certified compliance report to the conditions of CTO has been issued by IRO - Gandhinagar, MoEF&CC vide letter no. J-11/68-2022-IROGNR dated 14/11/2022, as per which, out of total 183 conditions, 43 are complied, 104 are agreed to comply by the project proponent, 16 are noted by the unit, 2 conditions are not applicable to the unit whereas 18 conditions can't be ascertained. Action Taken Report has been submitted to IRO- Gandhinagar, MoEF&CC vide letter dated 30/12/2022.

8. 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 mahi is flowing at a distance of 3.47 km in North West direction. Schedule-I Species Oriental honey buzzard, White-eyed buzzard, Black kite, Shikra, Short-toed snake eagle, Indian peafowl, Black-shouldered kite, Mugger Crocodile, Indian flapshell turtle was evidenced in the 10 km study area from the project site for which conservation plan has been prepared and submitted to PCCF and Chief wildlife warden.

9. The PP reported that Ambient air quality monitoring was carried out at 10 locations during October 2020 to December 2020 and the baseline data indicates the ranges of concentrations as: PM10 (70.45 – 76.35 $\mu g/m^3$), PM2.5 (40.75 – 44.89 $\mu g/m^3$), SO2 (9.19 – 16.89 $\mu g/m^3$) and NO2 (11.33 – 17.55 $\mu g/m^3$). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.7 $\mu g/m^3$, 0.465 μg/m3, 2.047 $\mu g/m^3$ and 0.733 $\mu g/m^3$ with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Ground Water quality monitoring was carried out at 10 locations during October 2020 to December 2020 and the baseline data indicates the ranges of concentrations as: pH (6.68 – 8.31), Total Dissolved Solids (538-2012 mg/l), Total Hardness (130.2 – 720.2 mg/l), Chlorides (35.45 – 480.8 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 2 locations during October 2020 to December 2020 and the baseline data indicates the ranges of concentrations as: pH (7.35 – 7.82), Dissolved Oxygen (7.2 – 7.5 mg/l), Chemical Oxygen Demand (1.33 – 10.66 mg/l), Bio-Chemical Oxygen Demand (<1 – 2.98 mg/l). Soil quality monitoring was carried out at 10 locations during October 2020 to December 2020 and the baseline data indicates the ranges of concentrations as pH (7.08 – 8.12), Nitrogen (1107.7 – 1851.4 mg/kg), Phosphorus (6.89 – 683.8 mg/kg), Potassium (0.12 – 4.63 mg/kg) and Electric Conductivity (0.077 – 2.347 mS/cm). Noise level monitoring was carried out at 9 Residential locations, 5 Commercial locations and 6 Industrial locations during October 2020 to December 2020. The baseline data indicates the ranges of concentrations for Industrial Location Leq (Day) (63.2 – 67.8 dB) A)) and Leq (Night) (61 – 66.9 dB(A)). Residential Location Leq (Day) (48.2 – 54.9 dB) A)) and Leq (Night) (39.4 – 44.9 dB(A)). Commercial Location Leq (Day) (59.6 – 64.8 dB) A)) and Leq (Night) (51.4 – 54.3 dB(A)).

10. The PP reported that the total water requirement is 508 m^3/day of which fresh water requirement of 468 m^3/day will be met from Ground Water Supply, rest 40 m^3/day water will be recycled

water. Effluent of 343 m^3/day quantity will be treated through Primary & Secondary ETP followed by MEE and SBT System.

- 40 m^3/day Waste Water from Domestic is subjected to STP whereby 40 m^3/day treated water is obtained & from that 10 m^3/day used for Gardening & 30 m3/day recycled back to Domestic Purposes only so effectively 20 m^3/day fresh water is required for Domestic.
- 51 m^3/day Waste Water from Boiler, 45 m^3/day Cooling Tower, 25 m^3/day RO Reject Water of Boiler, 10 m^3/day Washing and 125 m3/day Low TDS effluent from Process will be treated in ETP followed by Bio Reactor System facility. After the treatment Waste Water quantity as 256 m^3/day which confirming the GPCB Discharge Norms is disposed of in Conveying System of Vadodara Enviro Channel Ltd (VECL) which finally discharged to estuary of River Mahi at Coastal Zone of Arabian Sea.
- 33 m^3/day High TDS effluent and 14 m^3/day softening Back wash will be sent for neutralization followed by MEE and Bio Reactor System facility. After the treatment Waste Water quantity as 36 m3/day which confirming the GPCB Discharge Norms is disposed of in Conveying System of Vadodara Enviro Channel Ltd (VECL) which finally discharged to estuary of River Mahi at Coastal Zone of Arabian Sea.
- Total of 292 m^3/day will be disposed of in Conveying System of Vadodara Enviro Channel Ltd. (VECL) which finally discharged to estuary of River Mahi at Coastal Zone of Arabian Sea. The plant is not based on the total zero liquid discharge system.

11. The power requirement after expansion will be 3000 KVA including existing and proposed will be met from Madhya Gujarat Vij Company Limited (MGVCL). Existing unit has 3 Nos.of DG sets (500 KVA (2 Nos.) & 910 KVA (1 No.)) Capacity, additionally DG set will be used as standby during power failure. Stack (height 11 m) is provided as per CPCB norms to the DG sets.

12. Existing unit has 6 TPH Steam Boiler, 7 TPH Steam Boiler, 15 TPH Steam Boiler and 15 Lacs Kcal/hr of TFH. Additionally, 0.8 TPH Steam Boiler & 1.0 Lac Kilo Cal/ hr of Thermo Pack will be installed. Adequate stack height, Multi Cyclone Separator with Bag Filter + Water Scrubber and ESP System + Water Scrubber with stack height of 30 m & 40 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the proposed boilers.

13. Details of process emissions generation and its management.

Flue Gas Emission

Sr. No.	Source of Emission With Capacity	Stack Height (Meter)	Type of Fuel	Quantity Of Fuel / Day	Air Pollution Control Measures (APCM)
Existing as per EC					
1	Steam Boiler (Capacity: 6.0 TPH)	30 MT	Imported Coal	16.8 MT/Day	Multi Cyclone Separator with

2	Steam Boiler (Capacity: 7.0 TPH)	(Common Stack)			Bag Filter + Water Scrubber
3	TFH (15 Lacs Kcal/hr)		LDO	3.12 MT/Day	Adequate stack height
4	Steam Boiler Coal based (Capacity: 15.0 TPH)	40	Imported Coal /Bio Briquette from Sugarcane Waste/ Rice Husk / Peanut Husk	65 MT/Day or 102 MT/ Day	ESP System + Water Scrubber
5	D. G. Set (2 Nos.) Stand By (Capacity : 500 KVA)	11	HSD	3.50 KL/ Day	Adequate stack height
6	D. G. Set (Capacity : 1000 KVA)	11	HSD	2 KL/Day	Adequate stack height
Proposed					
1	Steam Boiler (Capacity: 0.8 TPH)	18	LDO	2.75 KL/Day	Adequate stack height
2	Thermo Pack (Capacity: 1.0 Lac Kilo Cal/ hr.)				
Total					
1	Steam Boiler (Capacity: 6.0 TPH)	30 MT (Common Stack)	Imported Coal /Bio Briquette from Sugarcane Waste/ Rice Husk / Peanut Husk	16.8 MT/Day	Multi Cyclone Separator with Bag Filter + Water Scrubber
2	Steam Boiler (Capacity: 6.0 TPH)				
3	TFH (15 Lacs Kcal/hr)		LDO	3.12 MT/Day	Adequate stack height
4	Steam Boiler Coal based(Capacity: 15.0 TPH)	40	Imported Coal /Bio Briquette from Sugarcane Waste/ Rice Husk / Peanut Husk	65 MT/Day or 102 MT/ Day	ESP System + Water Scrubber
5	Steam Boiler (Capacity: 0.8 TPH)	18	LDO	2.75 KL/Day	Adequate stack height
6	Thermo Pack (Capacity: 1.0 Lac Kilo Cal/ hr.)				
7	D. G. Set (2 Nos.) Stand By (Capacity : 500 KVA)	11	HSD	3.50 KL/ Day	Adequate stack height
8	D. G. Set (Capacity : 910 KVA)	11	HSD	2 KL/Day	Adequate stack height

Process Gas Emission

S. NO.	VENT ATTACHED TO	STACK HEIGHT	POLLUTANTS	AIR POLLUTION CONTROL SYSTEM	PERMISSIBLE LIMIT
Existing as per EC					
1	Vessel 103,104,105 (Product Mix of Ethylene Amine & Piperazine (By CPA Route)	12	NH_3	Water Scrubber	175mg/ nm^3
2	Reaction Vessel	12	HCl Cl_2	Two Stage Water & Alkali Scrubber	20mg/nm^3 9 mg/nm^3
3	Reaction Vessel	12	NH_3	Two Stage Acidic Scrubber	175 mg/nm^3
Total					
1	Vessel 103,104,105 (Product Mix of Ethylene Amine & Piperazine (By CPA Route)	12	NH_3	Water Scrubber	175mg/ nm^3
2	Reaction Vessel	12	NH_3	Two Stage Acidic Scrubber	175 mg/nm^3
3	Reaction Vessel	12	HCl	Two Stage Water Scrubber	20mg/nm^3
4	Pilot Plant Section	12	HCl NH_3	Two Stage Water + Acidic Scrubber	20 mg/nm^3 175 mg/nm^3

NOTE: - Chlorine vent will be discontinued as we are removing 4-Methylbenzaldehyde product after expansion.

14. Details of Solid Waste/ Hazardous Waste Generation and its Management: 24 Categories of Hazardous/Solid Wastes and 2 Non Hazardous waste will be generated from this Unit.

Sr. No	Name of Waste	Source of Generation	Category	Existing	Reduce Quantity	Propose	Total	Disposal Method
				MT/Annum				

1.	Used Spent Oil	Equipment & Machineries	Schedule -I - 5.1)	1	0	0	1	Collection, Storage, Transportation & Disposal by selling to registered recycler.
2.	Discarded Containers / Bags / Liners	Storage & handling of Raw Materials	Schedule - I (33.1)	MS - 3000 Nos. HDPE-500 Nos. Fiber - 2000 Nos.	0	0	MS - 3000 Nos. HDPE-500 Nos. Fiber - 2000 Nos.	Collection, Storage, Transportation, Decontamination & Disposal by selling to registered recycler.
3.	Distillation Bottom	Distillation	Schedule -I- (1.6)	20.75	0	0	20.75	Collection, Storage, Transportation & disposal at M/s. Nandesari Environment Control Ltd. (NECL) – TSDF or Co - Processing to Cement Industry or Common Incineration Site of NECL
4.	ETP Sludge	ETP	Schedule - I- (35.3)	40.95	0	59.05	100	Collection, Storage, Transportation and disposal at M/s. Nandesari Environment Control Ltd. (NECL) – TSDF

5.	Sodium Chloride Salt	Process	Schedule -I- (28.1)	12333.6	-5133.6	+440.4	7640.4	Collection, Storage, Transportation & Disposal to registered TSDF Site.
6.	MEE Salt	MEE	Schedule - I- (35.3)	10800	0	-9720	1080	Collection, Storage, Transportation & Disposal to registered TSDF Site.
7.	Zinc Oxide	Process	Schedule -I- (28.1)	144	0	0	144	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9 or M/s. Nandesari Environment Control Ltd. (NECL) – TSDF
8.	Raney Nickel	Process	Schedule -I- (28.1)	539.1	0	0	539.1	Collection, Storage, Transportation & Disposal by selling to registered regenerator
9.	Aluminum Oxide	Process	Schedule -I- (28.1)	60	0	0	60	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9 or M/s. Nandesari Environment Control Ltd.

								(NECL) – TSDF
10.	Calcium Oxide	Process	Schedule - I- (28.1)	60	0	0	60	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9 or M/s. Nandesari Environment Control Ltd. (NECL) – TSDF
11.	Potassium Oxide	Process	Schedule - I- (28.1)	48	0	0	48	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9 or M/s. Nandesari Environment Control Ltd. (NECL) – TSDF
12.	Copper Chloride	Process	Schedule -I- (28.1)	48	0	0	48	Collection, Storage, Transportation & Disposal by selling to authorize end user registered under Rule-9 or Disposal of to register TSDF Site.
13.	HCl (30%)	Scrubber	Schedule -I - (B15)	1986	0	0	1986	Collection, Storage, Transportation and reuse

								within premises or Disposal by selling to authorized end user registered under Rule-9.
14.	Sodium Hypochlorite 8-10 %	Scrubber	Schedule -I - (B15)	1000	-1000	0	0	Collection, Storage, Transportation and reuse within premises or Disposal by selling to authorized end user registered under Rule-9.
15.	Ammonia Solution 20 %	Scrubber	Schedule -I - (B15)	360	0	0	360	Collection, Storage, Transportation and reuse within premises or Disposal by selling to authorized end user registered under Rule-9.
16.	Spent Solvent	Solvent Distillation	Schedule - I- (28.6)	295287	-16514	+9150	287923	Collection, Storage In - house Distillation and Reuse within Premises or Sell to Authorized Distillation unit or Sell to end user under Rule-9.

17.	Distillation Residue	Process	Schedule - (20.3)	1833	-103	+57	1787	Collection, Storage, Transportation and send for Co – processing to Cement Industry or Common Incineration Site of NECL.
18.	Organic Residue	Process	Schedule - I- (28.1)	2268	-240	0	2028	Collection, Storage, Transportation and send for Co - Processing to Cement Industry or Common Incineration Site of NECL.
19.	Spent Catalyst	Process	Schedule – I – (28.2)	2412	0	0	2412	Collection, Storage, Transportation & Disposal by selling to registered regenerator.
20.	Off Specification Materials	Batch Failure	Schedule -I/ 36.1	0	0	150	150	Collection, Storage, Transportation and sent for co-processing in cement industries or nearest incineration site.
21.	Expired Materials	Storage & handling of Raw Materials and Products	Schedule -I/ 36.1	0	0	150	150	Collection, Storage, Transportation and sent for co-processing in cement

								industries or nearest incineration site.
22.	Insulation Waste	Storage & handling of Products	Other-1 / S1	0	0	5	5	Collection, Storage, Transportation and disposal at M/s. Nandesari Environment Control Ltd. (NECL) – TSDF
23.	Waste Glass Wool	Storage & handling of Products	Other-1 / S2	0	0	1	1	
24.	Activated Carbon	Process	Schedule-I/28.1	0	0	3	3	

Non-Hazardous Waste Generation, Storage & Disposal

Sr. No	Name of Waste	Source of Generation	Existing	Propose	Total	Disposal Method
			MT/Annum			
1.	Fly Ash	Utilities	3348	0	3348	Collection, Transportation & Disposal by selling to Brick Manufacturer
2.	STP Sludge	STP	0	36.5	36.5	Collection, Storage, Transportation and disposal at M/s. Nandesari Environment Control Ltd. (NECL) – TSDF

15. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 7.085 Crore (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 13.14 Crore per annum, Industry proposes to allocate ₹ 80.5 Lakhs towards CER.

16. The PP reported that Public Hearing is exempted as the project is located in the industrial area i.e Petrochemical Complex Industrial Area notified vide **notification no. GHU/75/41/GID1974/4084 (VI) ch dated 6.5.1975.**

17. Industry has already developed greenbelt in an area of 33% i.e. 13300 m^2 out of 40248 m^2 (total area of the project) and additional 7.45% i.e., 3000 m^2 was developed outside the main gate periphery. So total greenbelt is 40.45%.

18. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment and safety manager- manager maintenance & utility – Production manager for the functioning of EMC.

19. The PP reported that the emissions reduction due to carbon sequestration and avoided emissions (electricity generated by wind mill) are 1494.933 t CO_2 eq. / year. Net emissions = gross emissions – (carbon sequestration + avoided emissions) Net emissions = 10124.034 – 1494.933 = 8629.101 t CO^2 eq. / year The net emissions of Diamines and Chemicals Ltd. are 8629.101 t CO^2 eq. / year. The total savings that can be achieved by avoided emissions and carbon sequestration are 14.766%. The capacity of electricity generation by wind mill can be increased to reduce the emissions. Also other renewable sources of electricity generation like solar plant can be installed. In addition to this we will plant 4000 Nos. of trees in the village which will sequestrated 1000 t CO^2 eq. / year. Industry will also install another 0.75 mw of wind mill which will sequestrated 569.93 t CO_2 eq. / year. Industry will provide 5 Nos. of Solar high mast light tower which will sequestrated 3.009 t CO^2 eq. / year and 30 KW of Solar Photovoltaic Electricity Generation Systems at Gram panchayat office of the Village which will sequestrated 82.08 t CO2 eq. / year. Till now Industry have sequestrated 14.76% t CO^2 eq. / year and after implementing CER activity and other activity we will sequester 25.48% t CO^2 eq. / year. By 2030 we will achieve 100 % t CO^2 eq. / year

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

21. The estimated project cost is Rs. 80.39 Crores including existing investment of Rs 80.39 crores. Total Employment will be 115 persons as direct & 85 persons as indirect after expansion.

22. **Deliberations by the EAC**:

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

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

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

The EAC inter-alia, deliberated on the number of trees details, fuel, water balance, STP flow diagram, Carbon sequestration and its mitigation measures, CEPI compliance and advised the PP to submit the following:

- Revised details of number of trees (existing and proposed).
- Undertaking for Fuel.
- Revised water balance.
- STP flow diagram
- Action plan of Carbon sequestration
- Specific CEPI compliance

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

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

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

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

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

(i) Adequate stack height of 30 m 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) CEMS shall be installed and connected to SPCB/CPCB Server.

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

(iv) Local raw materials shall be transported by road and imported materials shall be transported by sea and then the material shall reach the site by road. The PP shall also explore transportation of materials by rail/belt conveyer.

(v) Agro-briquettes shall be used as a primary fuel, coal shall be used as a secondary fuel i.e during the unavailability of Agro- briquette and Existing boiler system shall be converted with the usage of Agro - Briquette

(vi) The best available technology shall be used.

(vii) The PP shall effectively maintain the greenbelt already developed over an area of about 33% within the premises and 7.45% outside the premises. In addition, 375 numbers of saplings shall be planted within the project area within a year of grant of EC. Further, as committed, 5000 nos. of saplings shall be planted in the nearby village. 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) 40 KLD domestic wastewater shall be sent to STP and out of the treated wastewater, 10 KLD shall be used for Gardening & 30 KLD shall be recycled back to Domestic Purpose.

(x) Continuous monitoring of effluent quality at site which shall be monitored by VECL and which shall be connected to the SPCB and CPCB server.

(xi) The Unit shall install and maintain rain water harvesting system of adequate capacity.

(xii) The total treated process/industrial effluent (292 KLD) confirming to the GPCB Discharge Norms shall be disposed of in Conveying System of Vadodara Enviro Channel Ltd. (VECL). The Unit shall not discharge any additional effluent after expansion.

(xiii) Fly ash shall be sent to brick manufacturers.

(xiv) Hazardous waste shall be sent to GPCB approved TSDF/CHWIF site. The distillation residue, having high Calorific value, shall be sent for Co-processing and the ETP Sludge, having low Calorific value shall be either sent for Incineration or to TSDF site.

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

(xvi) An amount of ₹ 80.5 lakhs shall be allocated towards CER for developing approx. 4000 no. of trees in the Rupapura village. Solar Photovoltaic Electricity Generation Systems at Gram panchayat office of the Rupapura & Ranoli Village, 5 No. of Solar high mast light tower in the Rupapura Village.

(xvii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage Environment and safety manager- manager maintenance & utility – Production manager. 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.

(xviii) 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 ₹ 7.085 Crore (Capital cost) and ₹ 13.14 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.

(xix) The total water requirement is 508 m^3/day of which fresh water requirement of 468 m^3/day will be met from Ground Water Supply, rest 40 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.

(xx) 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.

(xxi) 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.

(xxii) The PP shall comply with the environment norms for Pharmaceutical 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.

(xxiii) 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.

(xxiv) 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.

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

(xxvi) 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.

(xxvii) 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.

(xxviii) 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.

(xxix) 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.

(xxx) 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.

(xxxi) 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. 48.16

Regularization of existing Formaldehyde Resin (Phenol, Melamine & Urea) Manufacturing Unit of production capacity 500 MT/annum and Expansion to 6000 MT/annum located at

RIICO Industrial Area, Chopanki, Alwar (Raj) by M/s Saint Polymers - Consideration of ToR (under violation category)

[Proposal No. IA/RJ/IND3/419110/2023, File No. IA-J-11011/33/2023-IA-II(I)]

1. The proposal is for the issue of ToR for preparation of EIA/EMP (**under violation category**) for Regularization of existing Formaldehyde Resin (Phenol, Melamine & Urea) Manufacturing Unit of production capacity 500 MT/annum and Expansion to 6000 MT/annum located at RIICO Industrial Area, Chopanki, Alwar (Raj) by M/s Saint Polymers. **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) and (due to the applicability of general condition- interstate boundary (Rajasthan –Haryana) at a distance of 1.24 kms from the project site) and requires appraisal at Central Level by the Expert Appraisal Committee (EAC).

3. The PP applied for the ToR vide proposal number No. **IA/RJ/IND3/419110/2023** dated 22 .2.2023. The proposal is now placed in 48th EAC Meeting held on 9th -10th &13th March, 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**
Formaldehyde Resin (Phenol, Melamine & Urea)	500 MT/Annum	5500 MT/Annum	6000MT/Annum

5. The PP reported that the existing land area is 1045 sq. m. and no R&R is involved in the Project.

6. The PP reported that the unit is operational since 2014 with the consent to operate from RSPCB vide letter no F(Tech)/Alwar(Tijara)/2766(1)/2016-2017/861-862 dated Aug 10 2022 valid upto from 31/08/2020 to 31/07/2025 & F(Tech)/Alwar(Tijara)/2766(1)/2016-2017/825-826 dated Aug 10 2022 valid upto from 04/07/2020 to 30/04/2024. The unit was issued Closure Direction vide letter No. 449/IP dated 10/01/2023, under section 12 (2) (xi) of the Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021 and on receipt of the Closure Direction, all operations / activities of the unit have been ceased with effect from 11.01.2023 and the electricity power connection to the unit was also disconnected by the DISCOM on 11.02.2023.

7. 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 Environmental Clearance (EC) as per EIA Notification dated 14.09.2006.

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. River/ water body flowing within 10 kms are as under: Indori Nala 5.7 km towards NE.

9. The PP reported that the total water requirement is 9.2 m^3/day of which fresh water requirement of 8.0 m3/day will be met from ground water. Domestic Effluent of 0.8 KLD quantity will be disposed off to soak pit trough septic tank. The plant will be based on Zero Liquid discharge system.

10. The PP reported that the power requirement is 160 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 proposed D.G set.

11. The PP reported that the project, being in notified industrial area i.e., RIICO Industrial Area, Chopanki, vide **notification no. Notification No.Pa.4{23}Uo/1/93 dated 14.9.1994**, is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

12. Industry will develop greenbelt in an area of 418 sq.m area (40%). The plant has been operating since year 2014 & the plant/machinery already covers the plant premises. Therefore, greenbelt will be provided within the project site and within the industrial area.

13. The project cost is Rs. 498.19 lacs (Existing: Rs.48.19 lakhs + Proposed: Rs. 450 lakhs). The PP reported that Total Employment will be 15 persons after expansion.

14. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the Greenbelt development plan and STP and advised the PP to submit a commitment for the following:

- The tree plantation will be completed within I year and 40% (418 sq.m) area will be provided for the greenbelt development within the plant (Maximum) and within the RICO industrial area.
- Modular STP of cross-flow MBR type will be installed and the treated water will be reused for plantation.

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 418 m^2 (40% within the plant premises and within the industrial area) of the total land 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. 126 number of plantations 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). Modular STP of cross-flow MBR type shall be installed and the treated water shall be reused for plantation.

(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. 48.17

Regularization of existing Thermosetting Moulding Powder Manufacturing Unit of production capacity 300 MT/annum and expansion to 1800 MT/annum located at Plot no. H1-224 & H1-231, RIICO Industrial Area, Chopanki, Tehsil- Tijara, District- Alwar, Rajasthan by M/s Shri Sai Melaware - Consideration of ToR (under violation category).

[Proposal No. IA/RJ/IND3/419898/2023, File No. IA-J-11011/84/2023-IA-II(I)]

1. The proposal is for the issue of ToR for preparation of EIA/EMP (**under violation category**) for Regularization of existing Thermosetting Moulding Powder Manufacturing Unit of production capacity 300 MT/annum and expansion to 1800 MT/annum located at Plot no. H1-224 & H1-231, RIICO Industrial Area, Chopanki, Tehsil- Tijara, District- Alwar, Rajasthan by M/s Shri Sai Melaware. **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) and (due to the applicability of general condition- interstate boundary (Rajasthan –Haryana) at a distance of 4.28 kms from the project site) and requires appraisal at Central Level by the Expert Appraisal Committee (EAC).

3. The PP applied for the ToR vide proposal number No. **IA/RJ/IND3/419898/2023** dated 25.2.2023. The proposal is now placed in 48th EAC Meeting held on 9th -10th &13th March, 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**
Formaldehyde Resin (Phenol, Melamine & Urea)	300 MT/Annum	1500 MT/Annum	1800MT/Annum

5. The PP reported that the existing land area is 1003.50 sq.m. and no R&R is involved in the Project.

6. The PP reported that The unit is operational since 2017 with consent to operate from RSPCB vide letter no F(Tech)/Alwar(Tijara)/5580(1)/2018-2019/4316-4318 dated 25.09.2018 valid from 20/07/2017 to 30/04/2022.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 Environmental Clearance (EC) as per EIA Notification dated 14.09.2006.

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. River/ water body flowing within 10 kms are as under: Indori Nala 7.1 km towards NNE.

8. The PP reported that the total water requirement is 6.0 m^3/day of which fresh water requirement of 5.0 m3/day will be met from ground water. Domestic Effluent of 1.2 KLD quantity will be disposed off to through septic tank followed by soak pit. The plant will be based on Zero Liquid discharge system.

9. The PP reported that the power requirement is 214.72 KW and will be met from State power Distribution Corporation limited (JVVNL). Existing unit has DG set of 200 KVA used as standby during power failure. Stack (height) will be provided as per CPCB norms to the proposed D.G set.

10. The PP reported that the project, being in notified industrial area i.e., RIICO Industrial Area, Chopanki, vide **notification no. Notification No.Pa.4{23}Uo/1/93 dated 14.9.1994**, 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. Industry will develop greenbelt in an area of 400.40 sq.m area (40%) (The plant has been operating since year 2017 & the plant/machinery already covers the plant premises. Therefore greenbelt will be provided within the project site and within the industrial area.

12. The project cost is Rs. 114.6 lacs (Existing: Rs. 64.16 lacs + Proposed: Rs. 50 lacs). The PP reported that total Employment will be 16 persons after expansion.

13. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the Greenbelt development plan, STP and advised the PP to submit a commitment for the following:

- The tree plantation will be completed within 1 year and 40% (400.4 sq. m) area will be provided for the greenbelt development within the plant (Maximum) and within the RIICO industrial area.
- Modular STP of cross-flow MBR type will be installed and the treated water will be reused for plantation.

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 the 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 400.4 m^2 (40% within the plant premises and within the industrial area) of the total land 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. 101 number of plantations 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). Modular STP of cross-flow MBR type shall be installed and the treated water shall be reused for plantation.

(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. 48.18

Proposed Expansion of synthetic organic chemicals production capacity in existing unit from 430 TPM to 2470 TPM located at Plot No. 4703, 4704, 4705/1/2/3/4, GIDC Estate Ankleshwar, Dist. Bharuch, Gujarat by Jayshree Aromatics Pvt. Ltd. - Consideration of ToR

[Proposal No. IA/GJ/IND3/419657/2023; File No. J-11011/874/2008-IA-II(I)]

1. The proposal is for the issue of ToR for preparation of EIA/EMP for Proposed Expansion of synthetic organic chemicals production capacity in existing unit from 430 TPM to 2470 TPM located at Plot No. 4703, 4704, 4705 /1/2/3 /4, GIDC Estate Ankleshwar, Dist. Bharuch, Gujarat by Jayshree Aromatics 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/GJ/IND3/419657/2023** dated 25.2.2023. The proposal is now placed in 48th EAC Meeting held on 9th -10th &13th March, 2023, wherein the PP and an accredited Consultant, M/s. Aryan EcoGreens Pvt. Ltd [Accreditation number – NABET/EIA/2124/SA 190, Valid up to26.5.2024] 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 Product	Total production (MTM)
	Group A : Cumulative Production	
1	Aaurantine	100
2	Citral Pure	
3	Citronellal	
4	Ambrettolide Extra	
5	Benzal Chloride	
6	Benzo Tri Chloride	
7	Benzyl Acetone Extra	
8	Benzyl Cinnamate Benzyl Alcohol	
9	Benzyl Cinnamate Ex Benzyl Chloride	
10	Benzyl Formate Ex Benzyl alcohol	

S. No.	Name of Product	Total production (MTM)
11	Benzyl Foramte Ex Benzyl Chloride	
12	Benzyl Phenyl Acetate	
13	Beta Methyl Ionone	
14	Cineole 98% Rectified	
15	Cinnamic Acid Extra	
16	Cinnamylidene Acetaldehyde	
17	Citronellyl Butyrate	
18	Citronellyl Formate	
19	Citronellyl Propionate	
20	D Limonene	
21	Dcpd Butyrate	
22	Dcpd Propionate	
23	Decanal	
24	Decanoic Acid	
25	Decyl Alcohol	
26	Delta Damascone Extra	
27	Di Ethyl Pthalate Extra	
28	Ebanol Extra	
29	Ethyl Butyrate	
30	Ethyl Cinnamate	
31	Ethyl Phenyl Acetate	
32	Ethyl Propionate	
33	Eucalyptol	
34	Eugenol	
35	Geraniol Extra	
36	Geranyl Formate	
37	Geranyl Propionate	
38	Greenone	
39	Hydro Cinnamic Acid Extra	
40	Hydro Cinnamic Aldehyde Extra	
41	Indole Extra	
42	Iso Amyl Alcohol Flavoure Grade	
43	Iso Butyl Phenyl Acetate	
44	Iso Butyl Salicylate	
45	Iso Nonyl Acetate	
46	Levo Sandecol Extra	
47	Methyl Cinnamte	
48	Methyl Heptanone Extra	
49	Methyl Phenyl Acetate	
50	Nerol Super	
51	Neroline Bromelia Extra	

S. No.	Name of Product	Total production (MTM)
52	Normal Amyl Phenyl Acetate	
53	Normal Butyl Phenyl Acetate	
54	Octanal	
55	Octanoic Acid	
56	Octanol	
57	Orange Oil 10 Fold	
58	Orange Oil 25 Fold	
59	Orange Oil 4 Fold	
60	Orange Oil 40 Fold	
61	Orange Oil 5 Fold	
62	Para Anisic Alcohol Extra	
63	Para Anisic Aldehyde Extra	
64	Para Cresyl Phenyl Acetate Extra	
65	Phenyl Ethyl Aclohol Extra	
66	Phenyl Ethyl Cinnamate	
67	Phenyl Ethyl Formate	
68	Phenyl Ethyl Iso Butyrate	
69	Phenyl Ethyl Valerinate	
70	Phenyl Propyl Alcohol Pure	
71	Rhodinol IPL	
72	Schiff Base of Citronellal	
73	Skatole Extra	
74	Styrallyl Alcohol	
75	Yara Yara Pure	
76	Pseudo Methyl Ionone	
	GROUP - B : Cumulative Production	
77	Amyl Acetate	**160**
78	Benzyl Iso Butyrate	
79	Cinnamic Aldehyde	
80	Citronellol	
81	Clove Oil Rectified	
82	Dimethyl Octanol	
83	Gamma Methyl Ionone/M. Ionone	
84	Hexyl Cinnamic Aldehyde	
85	Jasma Floor	
86	Phenyl Ethyl Propionate	
87	Schiff Base Of Cinnamic Aldehyde	
88	2 Ethyl Butyl Propionate	
89	Amyl Propionate	
90	Amyl Cinnamate	
91	Cinnamyl Acetate	

S. No.	Name of Product	Total production (MTM)
92	Citronellidene Acetone	
93	Hexyl Benzoate	
94	Hydroxy Di Methyl Acetal	
95	Iso Amyl Phenyl Ether	
96	Methyl Ionone	
97	Phenyl Acetic Acid Extra	
98	Phenyl Ethyl Butyrate	
99	Ionone 100%	
100	Ionone Alpha	
	GROUP - C: Cumulative Production	
101	Alpha Amyl Cinnamic Aldehyde	**60**
102	Citronellyl Acetate	
103	Amyl Butyrate	
104	Amyl Benzoate	
105	Citral Di Methyl Acetal	
106	Cyclo Hexyl Salicylate	
107	Geranyl Acetate	
108	Glycogrenal	
109	Dimethyl Octanyl Acetate	
110	Gamma Psudo Methyl Ionone / Psudo Methyl Ionone	
111	Phenyl Ethyl Acetate	
112	Phenyl Ethyl Phenyl Acetate	
113	Aldehyde C16	
114	Alpha Methyl Cinnamic Aldehyde	
115	Hexyl Salicylate	
116	Lilial	
117	Mixed Amyl Salicylate	
118	Neryl Acetate	
119	Para Cresyl Benzyl Ether	
120	Phenyl Ethyl Salicylate	
121	Benzyl Alcohol	
122	Amyl Salicylate	
123	Cinnamic Alcohol	
124	Psudo Ionone	
	GROUP - D: Cumulative Production	
125	Phenyl Ethyl Methyl Ether	**40**
126	2 Ethyl Buty Benzyl Ether	
127	Cinnamyl Butyrate	
128	Cinnamyl Formate	
129	Cinnamyl Propionate	
130	Citral Di Ethyl Acetal	

S. No.	Name of Product	Total production (MTM)
131	DCPD Acetate	
132	Hydro Aldehyde Di Methyl Acetal	
133	Styrallyl Acetate	
134	Styrallyl Propionate	
	GROUP - E: Cumulative Production	
135	Cinnamic Nitrile	**15**
136	Citronellyl Nitrile	
137	Geranyl Nitrile	
138	Hydroxy Citronellal	
139	Hydroxy Citronellal Extra	
140	Iso Amyl Benzyl Ether	
	GROUP - F: Cumulative Production	
141	Allyl Caproate	**15**
142	Allyl Phenoxy Acetate	
143	Phenoxy ethyl iso butyrate	
144	Phenyl ethyl benzoate	
145	Phenyl ethyl iso valerinate	
146	Terpinyl Acetate	
147	Citronellyl Iso Butyrate	
148	Citronellyl Phenyl acetate	
149	Di benzyl ether	
150	Ethyl Benzoate	
151	Ethyl Caproate	
152	Ethyl caprylate	
153	Ethyl Iso Butyrate	
154	Ethyl Iso valerinate	
155	Ethyl 2 Methyl Butyrate	
156	Ethyl salicylate	
157	Geranyl butyrate	
158	Geranyl Iso Butyrate	
159	Geranyl Phenyl acetate	
160	Iso amyl Formate	
161	Iso amyl iso valerinate	
162	Allyl Butyrate	
163	Allyl Caprylate	
164	n Butyl acetate	
165	Iso butyl Acetate	
	GROUP - H: Cumulative Production	
166	Ethyl levulinate	**100**
167	N Butyl Levulinate	

S. No.	Name of Product	Total production (MTM)
168	LPK(Ethyl 3-(2,4-dimethyl-1,3-dioxolan-2-4) Propanoate	
169	LGK(1,3-Dioxolane-2 Propanoic acid)	
	GROUP - I: Cumulative Production	
170	Methyl Benzoate	**25**
171	Methyl Butyrate	
172	Methyl Iso Butyrate	
173	Methyl salicylate	
174	Iso Amyl Caprylate	
175	Iso amyl phenyl acetate	
176	Para anisyl acetate	
177	Linnalyl Acetate	
178	Phenyl Propyl aldehyde	
179	Benzoic acid	
	GROUP - J: Cumulative production	
180	Benzyl Acetate	**500**
181	Benzyl Benzoate	
182	Benzyl Salicylate	
183	Benzyl Propionate	
184	Benzyl Butyrate	
	GROUP - K: Cumulative Hydrogenation	
185	Nitro to Amino	**100**
186	Aldehyde to Alcohol	
187	Nitrobenzene to Aniline	
188	Beta Ionone	**25**
189	TMT 53%	**15**
190	Benzyl Chloride	**1000**
191	Benzaldehyde	**260**
192	Sodium Benzoate	**35**
193	Perfumery Compounds	**20**

5. The PP reported that the total land area is 19000 sq. m. No additional land will be used for proposed expansion.

6. The PP reported that Company has valid CC&A, AWH-113659 to manufacture total 430 MTM Organic Chemical products, Valid Up to 27-11-2025.

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/ water body flowing within 10 kms are as under: Narmada Canal is flowing at a distance of 13.12 km in NW direction.

8. The PP report that the total water requirement will be 389.5 KLD. From which 59 KLD recycled water will be reused in cooling tower and 6 KLD treated STP water will be reused in green belt development. Hence total fresh water requirement will be 324.5 KLD. Effluent of 85.5 KLD will be treated in ETP, from that 30 KLD of treated effluent will be sent to CETP, Nandesari & 55.2 KLD will be treated in MEE from which 46 KLD wastewater will be recycled and reuse within plant.

9. The PP reported that the power requirement after expansion will be 650 KVA (no additional power is required) and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Unit has proposed DG set of 500 KVA, which will be used as standby during power failure. Stack (height) will be provided as per CPCB norms to the DG sets.

10. The PP reported that the project, being in notified industrial area i.e., Ankleshwar GIDC Estate, vide **Notification No. GHU-78-20-GID-1977-660-CH dated 01.02.1978**, 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 will develop greenbelt in an area of 42.3 % i.e., 8043 m^2 out of total area of the project.

12. The project cost is Rs. 26.23 crores including existing investment of Rs. 13.0 crores. The PP reported that the total Employment will be 130 persons as direct & 25 persons indirect, after expansion. Industry proposes to allocate Rs. 33 lakhs towards CER.

13. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the action plan of the Greenbelt development plan, budget for greenbelt development and advised the PP to submit the detailed Action Plan for Greenbelt Development with provision of budget and tree plantation location. 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 42.3 % of the total land area i.e 8043.05 sq. m 1714 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. 48.19

Regularization of existing Thermosetting Moulding Powder Manufacturing Unit of production capacity 300 MT/annum and expansion to 1440 MT/annum located at Plot no. H1-941, RIICO Industrial Area, Chopanki, District-Alwar, Rajasthan - by M/s Shri Sai Polychem - Consideration of ToR (under violation category).

[Proposal No. IA/RJ/IND3/418549/2023, File No. IA-J-11011/85/2023-IA-II(I)]

1. The proposal is for the issue of ToR for preparation of EIA/EMP (**under violation category**) for Regularization of existing Thermosetting Moulding Powder Manufacturing Unit of production capacity 300 MT/annum and expansion to 1440 MT/annum located at Plot no. H1-941, RIICO Industrial Area, Chopanki, District-Alwar, Rajasthan. **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) and (due to the applicability of general condition- interstate boundary (Rajasthan –Haryana) at a distance of 2.84 kms from the project site) and requires appraisal at Central Level by the Expert Appraisal Committee (EAC).

3. The PP applied for the ToR vide proposal number No. **IA/RJ/IND3/418549/2023** dated 27.2.2023. The proposal is now placed in 48th EAC Meeting held on 9th -10th &13th March, 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 Formaldehyde (MF) Moulding Powder • Urea Formaldehyde (UF)Moulding Powder	300 MT/Annum	1140 MT/Annum	1440 MT/Annum

5. The PP reported that the existing land area is 742 sq.m. and no R&R is involved in the Project.

6. The unit is existing since 2017 and operational and had obtained Consent to Establish from Rajasthan State Pollution Control Board, Jaipur (Rajasthan) for the production 300 MT/Annum

dated 24.05.2016 and valid till 31.03.2019.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 Environmental Clearance (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 5.4km towards NE.

8. The PP reported that the total water requirement is 5.5 m^3/day of which fresh water requirement of 4.5 m3/day will be met from ground water. Domestic Effluent of 0.8 KLD quantity will be disposed off to soak pit trough septic tank. The plant will be based on Zero Liquid discharge system.

9. The PP reported that the power requirement is 160 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 proposed D.G set.

10. The PP reported that the project, being in notified industrial area i.e., RIICO Industrial Area, Chopanki, vide **notification no. Pa.4{23}Uo/1/93 dated 14.9.1994**, is exempted from the public hearing as per the Ministry's O.M. No. J-11011/321/2016-IA. II(I) dated 27.04.2018.

11. Industry will develop greenbelt in an area of 296.8 sq. m area (40%) (The plant has been operating since year 2017 & the plant/machinery already covers the plant premises. Therefore, greenbelt will be provided within the project site and within the industrial area.

12. The project cost is Rs. 146.32 Lakhs (Existing: Rs. 96.32 lakhs + Proposed: Rs. 50 lakhs). The PP reported that total Employment will be 11 persons after expansion.

13. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the Greenbelt development plan and STP and advised the PP to submit a commitment for the following:

- The tree plantation will be completed within 1 year and 40% (296.8 sq. m) area will be provided for the greenbelt development within the plant (Maximum) and within the RICO industrial area.
- Modular STP of cross-flow MBR type will be installed and the treated water will be reused for plantation.

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 296.8 m^2 (40%) of the total land 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. 90 number of plantations 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). Modular STP of cross-flow MBR type shall be installed and the treated water shall be reused for plantation.

(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. 48.20

Proposed establishment of Bulk Drugs & Drug Intermediates manufacturing unit of production capacity of 383.60 TPM located at Plot No's.: 268, 269 & 270, KIADB, Kadechur Industrial Area, Kadechur Village, Yadgir Taluk, Yadgir District, Karnataka by Vibrant Pharmachem Pvt. Ltd., Unit-II - Consideration of EC

[Proposal No. IA/KA/IND3/420401/2023, File No. IA-J-11011/308/2022-IA-II(I)]

1. The proposal is for Environmental Clearance for the Proposed establishment of Bulk Drugs & Drug Intermediates manufacturing unit of production capacity of 383.60 TPM located at Plot No's.: 268, 269 & 270, KIADB, Kadechur Industrial Area, Kadechur Village, Yadgir Taluk, Yadgir District, Karnataka by Vibrant Pharmachem Pvt. Ltd., Unit-II.

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). However, since the inter-state boundary of Karnataka and Telangana is at 4.09 Km towards S direction, the project attracts the general condition and considered as Category 'A' at Centre.

3. The standard ToR was issued by the Ministry, vide letter No. No. IA-J-11011/308/2022-IA-II(I)dated 20.08.2022. The PP applied for the Environment Clearance on 28.2.2023 in Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a Fresh EC. The proposal is now placed in 48th EAC Meeting held on 9th-10th &13th March, 2023, wherein the Project Proponent and an accredited Consultant, Rightsource Industrial Solutions Pvt. Ltd. [Accreditation number NABET/EIA/2124/RA 0248 valid up to 29.10.2024], 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 24300.00 m^2 and no R&R is involved in the Project. The details of products and by–products are as follows:

S. No.	Product Name	Quantity in TPM	CAS No	Therapeutic Use
1	Abacavir	3.00	136470-78-5	Anti - HIV
2	Amiloride	1.00	2016-88-8	Treat High Blood pressure
3	Amlodipine Besylate	5.00	88150-42-9	Treat High Blood pressure
4	Apixaban	1.00	503612-47-3	Used to treat and prevent blood clots
5	Aripiprazole	1.00	129722-12-9	used to treat mental disorders
6	Canagliflozin	1.00	842133-18-0	Used to treat type 2 Diabetes
7	Carvedilol	5.00	72956-09-3	Anti-Hypertensive
8	Clobetasol propionate	5.00	25122-46-7	Skin diseases
9	Clotrimazole	5.00	23593-75-1	Anti Fungal
10	Dabigatran etexilate mesylate	1.00	872728-81-9	Anti-Coagulant
11	Dapagliflozin Propanediol Monohydrate	1.00	960404-48-2	Used to treat Diabetes
12	Deflazacort	2.00	14484-47-0	Used to treat Inflammation
13	Empagliflozin	1.00	864070-44-0	Used to treat Diabetes
14	Esomeprazole magnesium Trihydrate	5.00	217087-09-7	Anti Ulcer

S. No.	Product Name	Quantity in TPM	CAS No	Therapeutic Use
15	Febuxostat	1.00	144060-53-7	Used to treat high Uric acid
16	Fluconazole	5.00		Anti Fungal
17	Gliclazide	3.00	21187-98-4	Used to treat Diabetes
18	Hydroxy chloroquine sulphate	3.00	747-36-4	Anti-Malarial
19	Irbesartan	2.00	138402-11-6	Treat High Blood pressure
20	Isavuconazole	5.00	241479-67-4	Anti Fungal
21	Itraconazole	6.00	84625-61-6	Anti Fungal
22	Ketoconazole	6.00	65277-42-1	Anti Fungal
23	Levocetirizine dihydrochloride	2.00	130018-77-8	Anti-Histamine
24	Lifitegrast	1.00	1025967-78-5	Used in Dry Eye Treatment
25	Losartan potassium	2.00	124750-99-8	Treat High Blood pressure
26	Luliconazole	5.00	187164-19-8	Anti Fungal
27	Methylprednisolone	1.00	83-43-2	Anti-inflammatory
28	Omeprazole	8.00	73590-58-6	Anti Ulcer
29	Pantoprazole sodium	5.00	138786-67-1	Anti Ulcer
30	Paroxetine Hydrochloride Hemihydrate	2.00	110429-35-1	Anti-depressant
31	Posaconazole	5.00	171228-49-2	Anti Fungal
32	Telmisartan	2.00	144701-48-4	Treat High Blood pressure
33	Ticagrelor	2.00	274693-27-5	Used to treat and prevent blood clots
34	Trazadone Hydrochloride	5.00	19794-93-5	Treat Depression
35	Vilazodone Hydrochloride	1.00	163521-08-2	Treat Depression
36	(5R-cis)-toluene-4-sulfonic acid5-(2,4-diflurophenyl)-5-(1H-1,2,4-traizol-1-yl)methyltetrahydrofuran-3-ylmethyl ester	5.00	149809-43-8	Posaconazole intermediate
37	1-(2,3-Dichlorophenyl) piperazine	5.00	119532-26-2	Aripiprazole Intermediate
38	1-(2s,3s)-2-(benzyloxy)pentane-3-yl)4-4-4-hydroxyphenylpiperazine-1-	5.00	184177-83-1	Posaconazole intermediate

S. No.	Product Name	Quantity in TPM	CAS No	Therapeutic Use
	yl)phenyl)-4,5-dihydro-1H-1,2,4-triazol-5-one			
39	1,2,3,9 tetrahydroxy carbozole-4-one	10.00	15128-52-6	Carvedilol Intermediate
40	1,2,4-triazolo[4,3-a]pyridin-3(2H)-one, sodium salt	10.00	6969-71-7	Trazadone Intermediate
41	1,3 cyclohexane dione	10.00	504-02-9	Carvedilol Intermediate
42	2 (2,4 Fluorophenyl)-1-(4-amino)-1H-1,2,4-triazole-1-yl)-ethanone Hydrochloride	5.00	NA	Fluconazole intermediate
43	2-((3aR,4S,6R,6as)-6 amino-2,2-dimethyl tetrahydro-3aH-cyclopenta9D)(1,3dioxol-4-yloxyethanol	5.00	376608-65-0	Ticagrelor intermediate
44	2-(Tert-butoxycarbonyl)-5,7-dichloro-1,2,3,4-tetrahydroisoquinoline-6-carboxylic acid	2.00	851784-82-2	Lifitegrast intermediate
45	2,4 dihydro-4-(4-4 hydroxyphenyl)-1-piperazinyl)-2-(1-methylpropyl)-3H-1,2,4-triazole-3-one	5.00	106461-41-0	Itraconazole intermediate
46	1-(2,4-Difluorophenyl)-2-(1H-1,2,4-triazol-1-yl)ethanone (Fluconazole intermediate)	5.00	86404-63-9	Fluconazole intermediate
47	2,5-diamino-4,6-Dihydroxy-Pyrimidine Hydrochloride (DADHP)	10.00	56830-58-1	Abacavir Intermediate
48	2-[[(2,4-Difluorophenyl)-2-oxiranyl]methyl]-1H-1,2,4-triazole methanesulfonate	5.00	86386-77-8	Fluconazole intermediate
49	2-butyl-4-chloro-5-Formyl Imidazole (BCFI)	10.00	83857-96-9	Losartan intermediate
50	2-n-Propyl-4-methyl-6-(1-methylbenzimidazole-2-yl)benzimidazole (BIM)	5.00	152628-02-9	Telmisartan Intermediate
51	4-bromo 1- chloro-2-(4-ethoxybenzyl) benzene (Dapagliflozin intermediate)	5.00	4614-32-23	Dapagliflozin intermediate
52	4,6-dichloro-5 nitro-2(propylthio)pyrimidin-5- Amine	5.00	145783-14-8/146783-15-9	Ticagrelor intermediate

S. No.	Product Name	Quantity in TPM	CAS No	Therapeutic Use
53	4-2-(2R,3R)-3-(2,5-difluorophenyl)-3-hydroxy-4-(1,2,4triazol-1-yl)butan-2-yl)1,3-thiazol-4-yl)benzonitrile	5.00	241479-67-4	Isavuconazole intermediate
54	4-chloro-3-nitro benzoic acid	5.00	96-99-1	Dabigatran intermediate
55	4-Hydroxy carbazole	10.00	52602-39-8	Carvedilol Intermediate
56	5-Difluoromethoxy-2-{[(3,4-dimethoxy-2-pyridinyl)methyl]thio}-1H-benzimidazole	5.00	102625-64-9	Pantoprazole intermediate
57	5-(N-Ethyl-N-2-hydroxyethylamino)-2-pentylamine	2.00	69559-11-1	HCQS Intermediate
58	5-bromo-2-chloro-benzoic acid	5.00	21739-92-4	Empagliflozin intermediate
59	5-bromo-2-chlorophenyl-(4-ethoxypheny)methanone	5.00	461432-22-4	Dapagliflozin intermediate
60	5-bromo-2-methylphenyl)5,4 fluorophenyl)thiophene-2-ylmethanone	5.00	1132832-75-7	Canagliflozin intermediate
61	7-(4-chlorobutoxy)-3,4-dihydro-1H-quinolin-2-one	5.00	120004-79-7	Aripiprazole Intermediate
62	Alpha 2,4-sulfonatedichloro-A-(chloromethyl)-Benzene methanol methane	5.00	53984-39-7	Luliconazole intermediate
63	Bis-(2-chloroethylamine) hydrochloride	10.00	821-48-7	Trazadone Intermediate
64	Cis-Bromo benzoate	10.00	61397-56-6	Ketoconazole intermediate
65	Cis Mesylate	5.00	67914-86-7	Itraconazole intermediate
66	Cis Tosylate	5.00	134071-44-6	Ketoconazole intermediate
67	Cyclopentane-1,2-dicarboximide	10.00	5763-44-0	Gliclazide Intermediate
68	Cyano Irbesartan	5.00	138401-24-8	Irbesartan Intermediate
69	Ethyl 2-(3-cyano-4-isobutoxyphenyl)-4-methyl-5-thiazolecarboxylate	5.00	160844-75-7	Febuxostat Intermediate

S. No.	Product Name	Quantity in TPM	CAS No	Therapeutic Use
70	Ethyl 5-(piperazine-1-yl)benzofuran-2-carboxylate	5.00	163521-20-8	Vilazodone Intermediate
71	(Z)-Ethyl 2-chloro-2-(2-(4-methoxyphenyl)hydrazono)acetate	5.00	27143-07-3	Apixaban intermediate
72	Ethyl-3-(pyridine-2-ylamino)proponate	5.00	103041-38-9	Dabigatran intermediate
73	Glycine,n-(1,1-dimethylethoxy)carbonyl-n methylchloroethoxy)carbonyl Methylamino-3-pyridine methyl ester	5.00	338990-31-1	Isavuconazole intermediate
74	Methyl (S)-2-amino-3-(3-(methylsulfonyl)phenyl) propanoate hydrochloride	2.00	851785-21-2	Lifitegrast intermediate
75	Methyl 3,5 diamino-6-chloropyrazine-2-carboxylate	5.00	1458-01-1	Amiloride Intermediate
76	N-(2-Amino4,6-Dichloro-5-pyrimidinyl)-formamide (FADCP)	5.00	171887-03-9	Abacavir Intermediate
77	N,N-Bis(2-chloroethyl)-P-toluene sulphonamide	5.00	42137-88-2	Levocetirizine intermediate
78	N-amino-3-Azabicyclo(3,3,0)-octane Hcl	10.00	58108-05-7	Gliclazide Intermediate
79	n-n-dimethylmalonamide	8.00	76311-95-0	Paroxetine Intermediate
80	Omeprazole sulphide	5.00	73590-85-9	Omeprazole intermediate
81	Phthaloyl Amlodipine	5.00	88150-62-3	Amlodipine intermediate
82	Development (R & D) products	0.60	--	----
	Total	**383.60**		

LIST OF BY- PRODUCTS & ITS QUANTITIES

S. No.	Name of the product	Name of the By-Product	Quantity in Kg/Day
1	Abacavir	Triethylamine hydrochloride	139.60
		Ethanol	140.20
2	Canagliflozin	Trimethyl Silanol	38.30
		Lithium acetate	23.60
3	Fluconazole	Aluminium Hydroxide solution (33%)	259.00
		Ammonium nitrate	66.30
4	Ketoconazole	Benzoic acid	69.80

S. No.	Name of the product	Name of the By-Product	Quantity in Kg/Day
5	Levocetirizine dihydrochloride	Tri ethyl amine hydrogen chloride	27.50
6	Losartan Potassium	Succinimide	21.80
		Trityl alcohol	49.70
7	Luliconazole	Triethylamine hydrochloride	91.80
		Potassium bromide	66.70
8	Omeprazole	Ammonium sulphate	570.50
		Sodium nitrite	100.90
		Sodium acetate	120.00
9	Pantoprazole Sodium	Potassium Sulphate	129.50
		Sodium acetate	56.60
10	Trazadone Hydrochloride	Sodium bromide	89.00
11	2-((3aS, 4R, 6S, 6aR)-4-amino-tetrahydro-2, 2-dimethyl-3aH-cyclopenta[d] [1, 3]dioxol-6-yloxy)ethanol	Toluene	80.40
12	2, 4 Dihydro-4-(4-4 hydroxy phenyl)-1-piperazinyl)-2-(1-methyl propyl)-3H-1, 2, 4-Triazole-3-one (Itraconazole Intermediate)	Phenol	72.80
		Sodium bromide	101.30
13	2 –Butyl-4-Chloro-5-Formyl Imidazole (BCFI) (Losartan Potassium Intermediate)	Phosphoric acid	206.00
14	4,6-Dichloro-2-(propylthio)-pyrimidin-5-ylamine	Phosphoric acid	88.70
15	4-(2-((2R,3R)-3-(2,5-difluorophenyl)--hydroxy-4-(1H-1,2,4-triazol-1-yl) butan-2-yl)thiazol-4-yl)benzonitrile	Diethyl aluminium hydroxide	63.30
		O,O-Diethyl thiophosphate	89.70
16	Cis Bromo Benzoate (Ketoconazole intermediate)	Hydrobromic acid solution (23%)	354.80
17	Cis-Mesylate (Itraconazole Intermediate)	Potassium Bromide	65.70
		Sodium Benzoate	79.60
		Triethylamine Hydrochloride	65.30
18	Cis-Tosylate (Ketoconazole Intermediate)	Benzoic acid	58.30
19	N-(2-Amino4,6-Dichloro-5-pyrimidinyl)-formamide (FADCP)	Ethanol	108.90
		Phosphoric acid	85.20
20	n-n-dimethylmalonamide	Methanol	152.70

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 no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. lies within 10 km distance. The PP reported that no Schedule-I species exist within 10 km study area of the project.

7. **Ambient Air Quality:** The PP reported that Ambient air quality monitoring was carried out at 8 locations during Post-Monsoon Season (October, 2022 to December, 2022) and submitted baseline data indicates that ranges of concentrations of PM10 (41.2 to 66.2 µg/ m3), PM2.5 (14.9 to 27.3 µg/ m3), SO2 (7.2 to 20.6 µg/ m3), NOx (9.9 to 25.9 µg/ m3), CO (0.17 to 0.44 mg/m3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be PM10, PM2.5, SO2 & NOx would be 0.164 µg/ m3, 0.042 µg/ m3, 0.940 µg/ m3 & 1.535 µg/ m3 respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NQQS). **Noise- Industrial Zone:** Daytime Noise Levels (Lday) Industrial Zone: The day time noise level at the Project site was 44.2 dB (A), which is well below the permissible limits of 75 dB (A). Residential Zone: The daytime noise levels in all the residential locations were observed to be in the range of 47.2 dB (A) to 54.2 dB (A). The noise levels at all the locations were below the permissible limits of 55 dB (A). Night time Noise Levels (Lnight) Industrial Zone: The night time noise level in the Project site was observed be 34.4 dB (A), which is well below the permissible limits of 70 dB (A). Residential Zone: The night time noise levels in all the residential locations were observed to be in the range of 36.5 dB (A) to 44.1 dB (A). The noise levels were below the permissible limits of 45 dB (A) in night time at all the locations.

8. **Ground water -** The PP reported that the pH of the ground water samples collected was in the range between 7.04 – 7.52. Total dissolved solids in the ground water samples were in the range between 620 – 1915 mg/l. In the ground water samples collected from the study area, the total hardness was found to vary between 160 – 1010 mg/l. The Chlorides concentration was found to vary between 78.27 – 684.89 mg/l in the collected ground water samples. Fluoride concentration in all ground water samples was found to be <0.1 – 0.89 mg/l. Sulphates concentration was found to be vary between 24.3 – 162.1 mg/l.

9. **Surface water –** The PP reported that the pH of the water samples collected was in the range between 7.78 – 8.17. Total dissolved solids in the samples were in the range between 161 – 650 mg/l. Total hardness was found to be in the range of 68 – 208 mg/l. Chlorides concentration was found to in the range of 5.87 – 139.42 mg/l. Fluoride concentration was found to be in the range of 0.25 - 0.74 mg/l. Sulphates concentration was found to be in the range of 3.82 – 73.65 mg/l.

10. **Soil-** The physico-chemical characteristics of the soil samples obtained from 7 areas in the Study area and one from the project site revealed that all are basically Silt Loam, Silty Clay Loam, Clay Loam & Clay. It is due to the fact that the upper soil layers are formed by the deposition of fine sand and silt carried down by the storm waters from the surrounding areas. They are moderately productive and they are not prone to water logging. It has been observed

that the pH of the soil quality ranged from 7.37 to 8.21. Percentage of Organic Carbon is observed in between 0.44 to 0.68 indicating that Medium to on an avg. sufficient in nature.

11. The PP reported that the total water requirement is **404.6 m^3/day** and will be met from KIADB water supply. Generated effluent of **155.09 m^3/day** will be sent to CETP- Mother Earth, Kadechur.

12. The PP reported that the power requirement will be **1000 kVA** and will be met from Karnataka Power Corporation Limited (KPCL). The unit is proposed to install **1 x 125 kVA, 2 x 320 kVA & 1 x 500 kVA DG Sets**, Stacks (heights of 6.0 mts, 8.0 mts & 9.0 mts) will be provided as per CPCB norms to the proposed DG sets respectively.

13. **1 x 2.0 TPH, 1 x 3.0 TPH & 1 x 5.0 TPH boilers** are proposed with stack height of 30 mtrs separately for 2.0 TPH & 3.0 TPH boilers & 35 mtrs for 5.0 TPH boiler. Cyclone separators followed by bag filters will be installed for the proposed boilers separately for controlling the particulate emissions (within statutory limit of 115 mg/ Nm^3). **2 x 2.0 Lakh K. Cal/ Hr Thermic fluid heaters** are proposed with stack height of 11 mtrs separately and Cyclone separator will be installed separately for controlling the particulate emissions (within statutory limit of 115 mg/ Nm^3).

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

S. No.	Name of the Gas	Quantity in Kg/Day	Treatment Method
1	Hydrogen	13.00	Diffused by using Nitrogen through Flame arrestor to avoid formation of explosive mixture
2	Isobutylene	15.00	Diffused by using Nitrogen through Flame arrestor to avoid formation of explosive mixture
3	Ammonia	64.00	Scrubbed by using chilled water media
4	Oxygen	460.00	Dispersed into the atmosphere
5	Nitrogen	8.00	Dispersed into the atmosphere
6	Hydrogen Bromide	796.00	Scrubbed by using C. S. Lye solution
7	Hydrogen chloride	1516.00	Scrubbed by using chilled water media
8	Dimethylamine	95.00	Scrubbed by using chilled water media
9	Boron trifluoride	59.00	Scrubbed by using chilled water media
10	Methyl chloride	12.00	Scrubbed by using C. S. Lye solution
11	Hydrogen Iodide	92.00	Scrubbed by using C. S. Lye solution
12	Hydrogen Fluoride	56.00	Scrubbed by using C. S. Lye solution
13	Carbon dioxide	358.00	Dispersed into the atmosphere
14	Sulphur dioxide	585.00	Scrubbed by using C. S. Lye solution

15. **Details of Solid/ Hazardous Waste Generation and its Management**:

S. No	Name of the Waste	Quantity	Category (As per schedule)	Disposal Method
Hazardous Waste Details				
1	Organic solid waste	6.15 TPD	28.1 of schedule-I	Will be sent to Cement Industries
2	Organic waste from Development (R & D) products	600 Kg/ Month	28.1 of schedule-I	
3	Spent Carbon	288 Kg/Day	28.3 of Schedule-I	
4	Solvent Distillation Residue	2093 Kg/Day	36.1 of Schedule-I	
5	Inorganic Solid Waste	795 Kg/Day	28.1 of schedule-I	Will be sent to TSDF-Mother Earth-Kadechur
6	ETP Sludge	230 Kg/Day	35.3 of schedule-I	
7	Used Oils	255 Ltrs/Annum	5.1 of schedule-I	Will be sent to SPCB Authorized Agencies for Reprocessing/ Recycling
8	Detoxified Containers/ Container liners	4000 No's / Month	33.1 of Schedule-I	After Detoxification will be sent to SPCB authorized agencies
9	Used Lead Acid Batteries	8 No's/ Annum	9.1 of Schedule-I	Send back to suppliers for buyback of New Batteries
Solid waste details				
10	Ash from boilers operations (During usage of Biomass Briquettes)	1.5 TPD	---	Will be sent to Brick Manufacturers
11	Ash from boilers operations (During usage of Coal)	15.4 TPD	---	

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

	Kg per day	
	EFFLUENT WATER	**SOLID WASTE**

Water in put	Water in Effluent	inorganic in effluents	Organic effluent	TDS	COD	HTDS	LTDS	Total Effluent	Organic	Inorganic	Spent carbon	Distillation residue
84095.00	86991.90	3854.27	2252.12	3854.27	4029.95	81773.45	11324.84	93098.29	6754.39	795.31	287.86	2092.48

17. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 108.50 Lakhs (capital) and the Recurring cost (operation and maintenance) will be about ₹ 26.5 Lakhs per annum. The industry proposes to allocate ₹ 15.37 lakhs towards CER.

18. The PP reported that the project, being located in **Kadechur Industrial Area, for which EC was granted by the Ministry vide letter dated 14.10.2016, the public hearing is exempted** as per the Ministry's O.M. J-11011/321/2016-IA.II(I) dated 27.04.2018.

19. Industry will develop greenbelt over an area of **8055.50 Sq. m** which is **33.15 %** out of **24300.00 Sq.m** of the total project area.

20. The PP proposed to set up an Environment Management Cell (EMC) consisting of Plant General Manager-Manager (EHS)-Assistant manager (Env.)-Assistant Manager (Safety)-Executive supervisor-workmen helpers for the functioning of EMC.

21. The PP reported that the by developing the greenbelt, we are sequestering the CO2 of 95.8 TPA. In future, we are ready to plant the more greenbelt nearby the project site. By using the solar panels, the unit is expected to reduce CO2 – 2.03 Tons/ Annum and we will plan for solar panels to install within 3 years after receiving the statutory clearances from the respective authorities. We will try to mitigate the above CO2 emissions by adopting the new technologies wherever possible in the proposed project.

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

23. The proposed project cost is about Rs. 7.685 Crores**.** Total proposed employment will be 100 persons.

24. **<u>Deliberations by the EAC</u>**:

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

The EAC noted that the PP has given an undertaking 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 Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

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

The EAC deliberated on the environmental parameters, Greenbelt development plan, and EAC found it to be satisfactory.

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

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

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

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

(i) The PP shall develop Greenbelt over an area of at least 8055.50 m^2 by planting 2417 number of trees within a period of one year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2m). The budget earmarked for the plantation shall be kept in a separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before

& after with geo-location date & time), details of the expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

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

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 108.50 Lakhs (Capital cost) and ₹ 26.5 Lakh (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(iv) The PP shall carry out detailed Phyto and Zooplankton studies of the Nala water passing through the industrial area during non-monsoon season and submit the report within one year for its appraisal before the EAC.

(v) The total water requirement is 404.6 m^3/day and shall be met from KIADB water supply. The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year

(vi) Biomass Briquette shall be used for Proposed Boilers; Diesel shall be used for Proposed Thermic Fluid Heaters & DG sets. Coal shall be used during the Non-Availability of Biomass Briquettes during rainy season and on any emergency purpose

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

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

(ix) The project proponent shall comply with the environment norms for Pharmaceutical as notified by the Ministry of Environment, Forest and Climate Change, *vide* GSR 541(E), dated 6.8.2021 under the provisions of the Environment (Protection) Rules, 1986.

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

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

(xii) Generated effluent of 155.09 m^3/day shall be sent to CETP- Mother Earth, Kadechur.

(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) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

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

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

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

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

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

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

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

Agenda No. 48.21

Proposed Expansion of Synthetic Organic Chemical Industry 5(f) (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 is for the environmental clearance for the Proposed Expansion of Synthetic Organic Chemical Industry 5(f) (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

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) 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 dated 28.4.2022. The PP applied for Environment Clearance on 28.2.2023 in Common application form and submitted EIA/EMP Report and other documents. The PP reported that it is an **Expansion EC.** The proposal is placed in 48th EAC Meeting held on 9th-10th&13th March, 2023 wherein the Project Proponent and an accredited Consultant, Kadam Environmental Consultants

[Accreditation number NABET/EIA/2023/SA 0164 valid till 19th March, 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 **94,898.77 m²**. The existing facility is already in operation & the proposed expansion will be within the existing area on the un-utilized land for the future expansion. The proposed expansion will be within the existing plant facility. No additional land required for the proposed expansion. The details of products are as follows:

S. No.	Name of Product	Production Quantity			CAS No.	End use of the Product
		Existing as per CCA (no. AWH-106201 dtd. 16.01.2020), MT/Year	Proposed Expansion, MT/Year	Total After Proposed Expansion, MT/Year		
A	**Co-generation Power plant**	**4 MW**	**0 MW***	**4 MW**	**-**	**Captive use**
B	**Chlorination of Benzene, Toluene (Other derivatives)**	**43200**	**+28000**	**71200**	**-**	
1	Mono Chloro Benzene and/or Crude Mono Chloro Benzene (MCB)	36000	+28000	64000	108-90-7	Raw material for Dye intermediates, Basic pharma intermediates, Pigments & Polymer
2	Ortho/Meta/Para Di Chloro Benzene and/or Crude Di Chloro Benzene and/or Crude Tri Chloro benzene				95-50-1 / 541-73-1/ 106-46-7	
3	1 2 4 Tri Chloro Benzene and/1 2 3 Tri Chloro Benzene /Crude Tri Chloro Benzene	3600	0	3600	120-82-1/ 87-61-6	
4	Di Chloro Toluene Mixture and/or Crude DCT	1200	0	1200	118-69-4	
5	Ortho/Meta/Para Chloro Toluene	1200	0	1200	95-49-8/	

	and/or Crude Ortho/Meta/Para Chloro Toluene				108-41-8/ 106-43-4	
6	Di Chloro Para Nitro Aniline and/or Crude Di Chloro Para Nitro Aniline	1200	0	1200	99-30-9	Raw material for Speciality Chemicals & Dyes Intermediate
C	**Mono Nitro Derivatives (Other derivatives)**	**24000**	**+10000**	**34000**		
7	Nitrobenzene and/or Crude Nitrobenzene	6000	0	24000	98-95-3	Raw material for Dyes Intermediates, Basic pharma intermediates
8	Ortho/Meta/Para -Nitro Chloro Benzene and/or Crude Ortho/Meta/Para -Nitro Chloro Benzene				88-73-3/ 121-73-3/ 100-00-5	
9	Nitro Toluene Mixture (MNT/PNT/ONT)				88-72-2	Raw material for Dyes Intermediates
10	Nitro Xylene mixture				83-41-0	
11	Nitro Cumene mixture				1817-47-6	
12	2 5 Di Chloro nitro benzene and/or Crude 2 5 Di Chloro nitro benzene	18000	0		89-61-2	Dyes, Dye intermediates, Basic pharma intermediates, Raw material for Pigments, Polymer
13	3 4 Di Chloro nitro benzene and/or Crude 3 4 Di Chloro nitro benzene				99-54-7	
14	2 6 Di Chloro nitro benzene				601-88-7	

	and/or Crude 2 6 Di Chloro nitro benzene					
15	2 4 Di Chloro nitro benzene and/or Crude 2 4 Di Chloro nitro benzene				611-06-3	
16	2 4 5 Tri Chloro nitro benzene and/or Crude 2 4 5 Tri Chloro nitro benzene/234 Tri Chloro nitro benzene and/or Crude 234 Tri Chloro nitro benzene				89-69-0/ 17700-09-03	
17	4-nitro-N-methyl phthalimide and/or Crude 4-nitro-N-methyl phthalimide	0	+10000	10000	1663-84-7	In Polymer manufacturing
18	2,4-dichloro-3-fluoro nitro benzene /3,5-dichloro-4-fluoro nitro benzene and/or Crude 2,4-dichloro-3-fluoro nitro benzene/Crude 3,5-dichloro-4-fluoro nitro benzene				393-79-3/ 3107-19-5	Pharma Intermediate
19	3-nitro benzotrifluoride (MNBTF) and/or Crude 3-nitro benzotrifluoride (MNBTF)				98-46-4	Pharma Intermediate, veterinary drug intermediate

20	3-nitro-4-chloro benzotrifluoride (CNBTF) and/or Crude 3-nitro-4-chloro benzotrifluoride (CNBTF)				121-17-5	Pharma Intermediate
21	3,5-dinitro-4-chloro benzotrifluoride (CDNBTF) and/or Crude 3,5-dinitro-4-chloro benzotrifluoride (CDNBTF)				393-75-9	Pharma Intermediate
22	1-(3-nitrophenyl) ethanone (3-NAP) and/or Crude 1-(3-nitrophenyl) ethanone (3-NAP)				121-89-1	Pharma Intermediate
23	2,4-dichloro-3,5-dinitro benzotrifluoride (DCDNBTF) and/or Crude 2,4-dichloro-3,5-dinitro benzotrifluoride (DCDNBTF)				29091-09-6	Speciality chemicals intermediate
24	2,4-Dichloro-5-fluoronitrobenzene or Crude 2,4-Dichloro-5-fluoronitrobenzene				2105-59-1	Pharma intermediates
25	2-Chloro-5-nitro-benzonitrile and/or Crude 2-Chloro-5-nitro-benzonitrile				16588-02-06	Dyes & Dyes Intermediates

26	2,6-dichloro-3,5-difluoronitrobenzene				15952-70-02	
27	2-chloro-4-fluoro-5-nitrobenzoic acid				114776-15-7	
D	**Dinitro Derivatives (Other derivatives)**	**12000**	**0**	**12000**		
28	Di nitro benzene and/or Crude Di nitro benzene	12000	0	12000	99-65-0	Dyes & Dyes Intermediates
29	Di nitro Chloro benzene and/or Crude Di nitro Chloro benzene				97-00-7	
E	**Mix Nitro Derivatives (Other derivatives)**	**12000**	**0**	**12000**		
30	Mixture of Nitro Chloro Benzene and/or Crude Nitro Chloro Benzene	12000	0	12000	88-73-3	Dyes, Rubber chemicals
31	Mixture of Di Chloro Nitro Benzene and/or Crude Di Chloro Nitro Benzene				0611-06-03	
32	Mixture of Nitro Toluene and/or Crude Nitro Toluene				99-99-0	
F	**Hydrogenated/ Reduction (Other derivatives)**	**84000**	**+72000**	**156000**		
33	Aniline and/or Crude Aniline	2400	2400	4800	62-53-3	chemical intermediate for the

						dye, polymer, and rubber
34	Monomethyl Aniline and/or Crude Monomethyl Aniline	78000	+66000	144000	100-61-8	Solvent for organic reactions, Organic synthesis, Fuels and fuel additives
35	Dimethyl Aniline and/or Crude Dimethyl Aniline	3600	3600	7200	121-69-7	Intermediate for Pharma and Dyes
G	**Phthalate Derivatives (Other derivatives)**	**24000**	**+36000**	**60000**		
36	Di Methyl Phthalate (DMP) and/or Crude Di Methyl Phthalate (DMP)	24000	+36000	60000	131-11-3	Building Material, Additive for products to promote hardening, used in paints and varnishes, plastics
37	Di Iso Nonyl Phthalate (DINP) and/or Crude Di Iso Nonyl Phthalate (DINP)				68515-48-0	Electrical and electronic products, Floor coverings, Adhesives and sealants, etc.
38	Di Iso Decyl Phthalate (DIDP) and/or Crude Di Iso Decyl Phthalate (DIDP)				26761-40-0	Lubricants, Plasticizers, Paints and coatings.

39	Di Methyl Adipate (DMA)				627-93-0	Building material, Adhesive, Cleaning washing, paint, etc.
40	Di Octyl Adipate (DOA)				103-23-1	Disinfectant, Toys, etc.
41	Di Octyl Phthalate (DOP)				117-81-7	Air craft, Building material, Adhesive
42	Dibasic ester				106-65-0	Paints, plasticizers & resins
43	Dioctyl Terephthalate				6422-86-2	Paints, plasticizers
44	Dicyclohexyl phthalate				84-61-7	
45	Di isononyl Adipate				33703-08-1	
46	Calcium Chloride (Solid)	36000	23520	59520	10043-52-4	Beverage, Brine, oil exploration, Absorbent, Anti-freezing, Antistatic, etc.
Total (MT/year)		**2,35,200**	**1,69,520**	**4,04,720**		
	By-Product					
47	Calcium Chloride solution (MT/Year)	8,400	1,61,657	1,70,057	10043-52-4	Beverage, Brine, oil exploration, Absorbent, Anti-freezing, Antistatic, etc.

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 as per EIA notification 1994, products are not under purview of the EC. However, since the inception, unit has obtained consents from GPCB as applicable time to time.

The existing facility is having valid Consent to Operate (CTO) from GPCB vide consent order No. AWH-106201, issued on dated 16th January, 2020, valid up to 31st December, 2024 in favour of M/s. Aarti industries Ltd. (Anushakti Division). Unit has obtained first Consent to Operate from GPCB prior to EIA notification 14th September, 2006.

7. The PP reported that the Compliance report of CCA conditions were submitted to GPCB, Gandhinagar on 15th July, 2022. The visit of RO, Kutch has been done on 27th September, 2022. Certified Compliance Report of Valid CCA received from GPCB vide letter no. GPCB/CCA-Kutch-228(11)-/ID-17766/700462 dated 05th January, 2023. All conditions of CTO are complied.

8. The PP reported that Wild Ass Sanctuary and Kutch Biosphere Reserve are located at ~ 3.5 km in SW direction and ~ 8.1 km in NW direction respectively. The Little Rann of Kutch and Great Rann of Kutch are located adjacent to site in E direction and ~ 8.1 km in NW direction respectively. There are no National Parks, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. 1 Dalwala Vokra is flowing at a distance of 0.17 km in **West** direction from project site.

9. The PP reported that the **Ambient Air Quality** monitoring was carried out at **8** Locations during 20th October, 2020 to 23rd January, 2021 and base line data indicates the ranges of average concentrations as: PM_{10} (**46-67**µg/m^3), $PM_{2.5}$ (**18-21** µg/m^3), SO_2 (**8.0–9.3** µg/m^3) and NO_2 (**14.6-16.4** µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.5 µg/m^3, 4.7 µg/m^3, 1.8 µg/m^3 with respect to PM_{10}, SO_x and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise -** Ambient Noise level monitoring was carried out at 8 locations and baseline Noise levels during daytime & night time, in industrial area & residential area was observed within CPCB standards. **Ground Water** - Ground water samples were collected from 8 locations within study area and baseline data indicates that TDS ranging from 512 – 3420 mg/L, Chlorides: 186-1565 mg/L, Total Hardness: 220-850 mg/L, Ca: 47.3-200.4 mg/l, Mg: 24.8-97.2 mg/l. **Surface Water** - Surface water samples were collected from 8 locations form Ponds & Creek within study area and baseline data indicates that pond water can be compared with class E & D as per classification of Inland surface water and Creek water can be compared with class V as per classification for coastal water Marine (CPCB). **Soil** - Soil samples were collected from 9 locations within study area and baseline data indicates soils are non-saline to saline having normal soil reaction, soils having moderate fertility having low to medium nitrogen level, low in phosphorous and low to high in potassium level.

10. The PP reported that the total water requirement after the proposed expansion will be **4274 KLD** (Existing: 1075 KLD + Proposed 3199 KLD) of which **fresh water requirement of 2983 KL/day** (Existing 949 KLD + Proposed 2034 KLD) will be met from **Gujarat Water Infrastructure Limited (GWIL).** Total Industrial Effluent after the proposed expansion will be **1266 KLD** (Existing: 128 KLD + Proposed 1138 KLD) quantity will be treated through **Effluent Treatment Plants** & **Sewage of 68 KLD** will be treated in **Sewage Treatment Plant**. The plant will be based on Zero Liquid Discharge (ZLD) system.

11. The PP reported that Power requirement after expansion will be **8 MW** including existing 3 MW and will be met from **In-house co-generation power plant (of 4 MW capacity) and Paschim Gujarat Vij Company Ltd. (PGVCL)** during the operation phase. Existing unit has 2 nos. of DG sets of 1000 kVA capacity, additionally 2 nos. of 2000 kVA capacity are used as standby during power failure. Stack (height – 11 mtr. of each) will be provided as per CPCB norms to the proposed DG Sets.

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

S. No.	Stack Attached to	Nos. of Stacks	Stack Height in m	Pollutants Emitted & Limits	Air Pollution Control Measures Attached	Location
Existing						
1	Incinerator	1	30	PM: 150 mg/Nm^3, SO_2: 100 ppm, NO_X: 50 ppm	Scrubber	Removed
2	HCl Stack	1	30	HCl: 20 mg/Nm^3	Two Stage water & Alkali Scrubber	Chlorination Plant
3	Nitrator	1	30	NO_X: 100 mg/Nm^3	Two Stage water & Alkali Scrubber	Nitration Plant
4	Mixing Tank of $CaCl_2$	1	25	PM: 150 mg/Nm^3, HCl: 20 mg/Nm^3	Alkali Scrubber	$CaCl_2$ plant
5	$CaCl_2$ Dryer Vents	1	20	PM: 150 mg/Nm^3	Two Stage Wet Scrubber (Venturi Scrubber)	$CaCl_2$ plant
Proposed						
1	$CaCl_2$ mixing Plant-1	1	15	HCl: 20 mg/Nm^3	Alkali scrubber	$CaCl_2$ (Old Plant)
2	Chlorine Shed	1	15	Cl_2: 9 mg/Nm^3	Chlorine shed scrubber (Alkali Scrubber)	Chlorine Shed
3	HCL Tank farm - (Additional precautionary)	1	11	HCl: 20 mg/Nm^3	Two stage (water + caustic) scrubber	HCl Tank farm
4	2,4 Dichloro- 3,5 Dinitro Benzo Tri Fluoride (DCDNBTF) scrubber	1	11	NO_X: 100 mg/Nm^3	two stage H2SO4 scrubber followed by Caustic scrubber	Nitro toluene mixture
Total After the Proposed Expansion						

1	Chlorination plant (HCl stack)	1	30	HCl: 20 mg/Nm^3	Two stage water & alkali scrubber	Chlorination Plant
2	Nitration plant (Nitrator, Nitration plant Loading area)	1	30	NOx: 100 mg/Nm^3	two stage H2SO4 scrubber followed by Caustic scrubber	Nitration Plant
3	Alkali scrubber of $CaCl_2$ plant	1	25	PM: 150 mg/Nm^3	Alkali Scrubber	$CaCl_2$ plant
4	$CaCl_2$ Dryer vents	1	20	PM: 150 mg/Nm^3	Two stage wet Scrubber (Venturi Scrubber)	$CaCl_2$ plant
5	$CaCl_2$ mixing plant -1	1	15	HCl: 20 mg/Nm^3	Alkali scrubber	$CaCl_2$ plant (Old Plant)
6	Chlorine Shed	1	15	Cl2: 9 mg/Nm^3	Chlorine shed scrubber (Alkali Scrubber)	Chlorine Shed
7	HCl Tank farm - (Additional precautionary)	1	11	HCl: 20 mg/Nm^3	Two stage (water + caustic) scrubber	HCl Tank farm
8	2,4 Dichloro- 3,5 Dinitro Benzo Tri Fluoride (DCDNBTF) scrubber	1	11	HCl: 20 mg/Nm^3, Cl2 : 9 mg/Nm^3	Two stage water followed by caustic scrubber	DCDNBTF

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

Hazardous waste generation and disposal details

S. No.	Type of waste	Source of generation (Plant/Group)	Category	Existing Quantity (MT/year)	Proposed Quantity (MT/year)	Total After Proposed (MT/Year)	Disposal at
1	ETP Sludge	ETP	35.3	5400	9132	14532	Collection, Storage, Transportation and Disposal at Common TSDF site.
2	MEE/ATFD Salt	MEE/ATFD		0			Collection, Storage, Transportation and Disposal

							at Common TSDF site.
3	Discarded Containers, Barrels, Drums	Packaging Material	33.1	~ 150 MT (250 Nos. discarded containers)	~ 160 MT (=21500 x 7.5 = 161000 Kgs)	310	Collection, Storage, Transportation and Disposal at Common TSDF site or Selling to Re-processors or co-processing.
4	Used Oil/Spent Oil	Process	5.1	0.5	24.5	25	Collection, storage, Transportation & and Disposal by Selling to MoEF registered recyclers/re-processors.
5	Incinerator Ash*	Incinerator	26.1	90	-90	NIL	Collection, Storage, Transportation and Disposal at Common TSDF site.
6	Sludge from Calcium Chloride Plant	Process	26.1	5400	7765	13165	Collection, Storage, Transportation and Disposal at TSDF site or coprocessing
7	Process waste (organic layer from after HCL purification, from flash vessel, Storage tank	Process	26.1	0	200	200	Collection, Storage, Transportation and Disposal at Common Incinerator facility or pre/co-processing

	contaminated residue during tank cleaning)						
8	Spent Carbon	ETP/Process	36.2	0	200	200	Collection, Storage, Transportation and Disposal at Common Incinerator facility/TSDF/ Re processor
9	Spent Resin & Used RO Membrane	Process & RO Plant	35.2	0	20	20	Collection, Storage, Transportation and Disposal at Common Incinerator facility/TSDF/ Re processor
10	Spent HCl	Process Chloro Products of Benzene and Toluene	B 15 of Schedule II	127000	-10040	116964	Collection, Storage, Transportation and Sold to Authorized agency under Rule 9 of Hazardous and Other wastes (Management & Transboundary Movement) Rules 2016 / Utilized in Calcium Chloride Plant in- house
		Other industries					Reception collection, transportation, storage and use in Calcium

							Chloride Plant in-house
11	Spent Sulphuric Acid	Process – Mono nitration derivatives and denitro derivatives and mix nitro derivatives	B 15 of Schedule II	60000	187044	247044	Collection, Storage, Transportation and Sold to Authorized agency under Rule 9 of Hazardous and Other wastes (Management & Transboundary Movement) Rules 2016 / Co-processing
12	Off Specification Products	Process	26.1	0	20	20	Collection, Storage, Transportation and Sent to Incineration / Pre /Co-Processing at approved facility
13	Non-Recyclable Plastic Waste	Process	33.1	0	28	28	Collection, Storage, Transportation and sent to Approved TSDF Facility / Co-Processing
14	Spent Catalyst	Process	26.5	0	12	12	Collection, Storage, Transportation and Sent to registered recycler and reprocessor
15	Ceramic Saddles	Process	-	0	3	3	Collection, Storage, Transportation

							and disposal to authorized TSDF site
16	Process Residue	Process	26.1	0	9512	9512	Collection, Storage, Transportation and Sent to Incineration / Pre /Co Processing at approved facility
17	Sodium Hypochlorite	Process and Chlorine Scrubber	B 15 of Schedule II	0	27356	27356	Collection, Storage, Transportation and Sold to Authorized agency under Rule 9 of Hazardous and Other wastes (Management & Transboundary Movement) Rules 2016
18	Calcium Chloride solution	Process	C 2 of Schedule II	8,400	1,61,657	1,70,057	Collection, Storage, Transportation and Sold to Authorized agency under Rule 9 of Hazardous and Other wastes (Management & Transboundary Movement) Rules 2016
		Other industries					Reception collection, transportation,

							storage and use in Calcium Chloride Plant in-house

Note: * The request letter for amendment in CTO has been submitted to GPCB on 13/02/2020 & 09/10/2020 for justification. We have installed advanced technology ATFD as an alternative treatment for MEE concentrate. As of today our incinerator plant is idle and the ATFD plant is in under the operation. In future, we will dismantle the Incinerator facility.

Non-hazardous (Solid) Waste

S. No.	Name of Waste	Source of generation (Plant/Group)	Existing Quantity (MT/year)	Proposed Quantity (MT/year)	Total After Proposed (MT/Year)	Disposal Mode
1	Insulation waste	Plant and machinery	0	50	50	Collection, Storage, Transportation and Disposal at TSDF
2	Battery waste/ Lead-Acid Batteries	Plant and machinery	0	20 Nos.	20 Nos.	Collection, storage, Transportation & and Disposal by Selling to MoEF&CC / GPCB registered recyclers/re-processors
3	E- waste/ Electrical waste	Plant and machinery	0	2	2	Collection, storage, Transportation and Disposal by Selling to MoEF&CC / GPCB registered recyclers/re-processors
4	Fly ash	Use of coal	9125	17863	26988	Collection, storage, Transportation and Sold to Brick Manufacturers, Construction activities and other end users,

						coprocessing, road construction.
5	Office Waste	Admin/ Office	0	20	20	Collection, Storage, Transportation Registered recyclers
6	Glass	Plant/lab/ Buildings	0	15	15	Collection, Storage, Transportation , disposal/sold to scrap processors
7	STP Waste (Sludge)	STP	0	60	60	Collection, Storage, Transportation disposal as manure / to TSDF site.
8	Bio-medical waste	Occupational health centre	0	2	2	Collection, Storage, Transportation , Disposal to CBWTF-Incineration

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 48.34 Crore (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 42.774 Crore per annum. Industry proposes to allocate **1.105** Crore towards CER

15. The PP reported that out of total project area (94,898.77 m^2), approx. 12,609.86 m^2 (~13.29%) Greenbelt will be developed within existing plant premises. In addition to this, 28,000 m^2 (29.50%) area will be developed as Greenbelt area located at approx. 200 m from project site boundary in North East direction. Hence, the total greenbelt area will be 40,609.86 m^2 (Internal: 12,609.86 m^2 + Proposed: 28,000 m^2), which will be approximately 42.79% of total plot area. To meet 33% greenbelt requirement, additional land of 48,462 m^2 has been acquired by the PP near the existing plant.

16. The PP reported that Public Hearing (PH) for the expansion project was conducted by the Gujarat Pollution Control Board on 10.1.2023, which was presided by the Sub-Divisional Magistrate, Bhachau as representative of Collector & District Magistrate, Bhuj-Kutch. The main issues raised during the public hearing and their reply/commitement by the PP is as follows:

Sl.No.	**Issues raised during public hearing (Sl.Nos. provided here is as furnished by the PP in Table)**	**Commitments/Reply given by the PP**

1	Issues related to the Sl. Nos. 1, 2,3,4,12, 13, 14 is **employment/needs and services for the local people,** "**Air pollution towards the Bhachau village**	Project Proponent (PP) has committed that, we will consider suggestion during future employment. PP has committed that polluted air coming from the companies situated is coming towards Bhachau village in which we have checked ourselves and we have found that Aarti Industry is not emitting any polluted air which will cause us any problem. It is my humble request to you that GPCB may come forward to report to CPCB, since most of the four months of summer air comes from the south-west corner, polluted from eight to ten kilometers away, polluted air released at night disturbs the sleep of people in residential areas, self-examination reveals that the air is not so clean. PP will consider your suggestions and we will move forward by allocating some of the budget in CER as appropriate.
2	Issues related to the Sl. No 2, 9 10,11,16 is **CSR funds and the school is located nearby the company .**	PP has committed that the building of HDD Kanya Vidhyalaya worth 1.5 crores was constructed by the company and company had distributed around 4500 sweaters in 2021 to school children and we have supported many other schools. We shall make all acknowledgement of the letters to you as and you want. The representative of the project said that the plant of the company came in 2003 and the school was built later and 400 boys have been trained by the company in emergency situations have been planned. All the arrangements for the emergency plan have been made by the company. Letter received from beneficiary has been submitted.
3	Issues related to the Sl. Nos. 5 is **impact on crop .**	PP has committed we provide assurance to you for what you have said, we have many experts within our Aarti Foundation, which belong to the agricultural sector. If you think that this is due to the pollution of the Aarti industry, we will get it verified and work in a such way that the land becomes fertile

		The team of Aarti Foundation is well versed in the agricultural sector. We have been fully successful in the same regard at Jhagadia. Farmer from Jhagadia nowadays invite us to ask for our advice on how to do things. If you think so, we are ready to help you.
4	Issues related to the Sl. Nos. 6 is **inclusion of Scheduled Castes and Scheduled Tribes persons for employment and equal opportunities to be given to divyang people**	We will consider your suggestion regarding employment to divyang people.
5	Issues related to the Sl. Nos. 7,17 is regarding the fatal accident, earthquake.	The project representative said that your suggestions are very good. Aarti Industries was the first industry to be established in Bhachau after the earthquake in 2000, and no one was willing to come to Bhachau, People were opting for Mandvi but though Bhachau was an epicenter of earthquake, Aarti Industries was ready to establish in 2003 in Bhachau. At that point of time, no one was ready to come so if you applaud and welcome it, Industry keep standards so high.
6	Issues related to the Sl. Nos. 7 is like primary education, animal husbandry, agriculture, water storage etc. As shown in the presentation, Aarti Industries have been taking up many activities like water storage, primary education, waste water recycling inside & outside Kutch. If we talk about this whole matter, and briefly talk about the whole of Kutch, it will be very lengthy. Very first sewage waste water recycling plant was installed 32 years ago in Kutch by Hon'ble Mr. Chandrakant Gogri, who is a chemical engineer himself.	The representative of the project said that you have rightly pointed and actively participated in the skill development and other activities of Aarti industries. Project proponent said thanks for all appreciation
7	Issues related to the Sl. Nos. 13 & 14 are w.r.t drainage issue	The representative of the project said that the requirement of revamping of existing drainage as suggested and we will work together in that direction along with Shri Lalbhai.

17. The PP proposed to set up an Environment Management Cell (EMC) by engaging General manger (Environment Head) Senior manager (Zone Environment Head) - Engineer (Division Environment Engineer) for the functioning of EMC.

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

19. The PP reported that that the carbon emission increases due to the proposed project which is about 1,72,910 tCO_2e/Annum. AIL will adopt various mitigation measures to reduce the emission of carbon, the details of mitigation measures to be taken are mentioned. After taking the several steps, **AIL will be able to reduce 52,497 tCO_2e/Annum**. Also, several other initiatives will be taken by AIL, which will help in reducing the CO_2 emission by the Organization.

20. The estimated total project cost is Rs. 129.26 Crore including existing investment of Rs. 55.81 Crore and the proposed expansion investment of Rs. 73.45 Crore. Total employment will be ~**150 number during construction phase** (indirect) and **~1176 number during operation phase** (i.e. Direct - Existing: 426 + Proposed: 100 = 526 and Indirect – Existing 500 + Proposed 150 = 650) after proposed expansion.

21. **Deliberations by the EAC:**

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

The EAC noted that the PP has given an undertaking 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 Environmental Clearance given, if any, will be revoked at the risk and cost of the PP.

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

The EAC inter-alia, deliberated on the distance of the wildlife sanctuary and its ESZ from the project site, water balance and water losses from different stream, number of trees and its survival rate, carbon neutral targets, fuel, Carbon footprint study, energy conservation measures and advised the PP to submit the following:

- Justification for non requirement of NBWL clearance with supporting documents in light of the Hon'ble Supreme Court Order dated 03.06.2022 w.r.t the minimum ESZ.

- Water requirement shown for the proposed greenbelt development outside the premises to be removed from water balance and separate provision to be made for water requirement. Also, revise domestic wastewater generation and losses in water balance.
- Provide Water losses from different streams in tabular form.
- Survival rate for the proposed green belt to be considered as 80 % and Capex to be added in capital cost. Total 11,600 total plantations to be done in 1 year.
- Give the commitment to the carbon net zero targets.
- Alternate fuel to be explored and commitment to be given for the same.
- Additional Initiatives for CO_2 emission reduction and energy conservation.

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

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

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

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

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

(i) The PP shall develop Greenbelt over an area of at least 40,609.86 m^2 (Internal: 12,609.86 m^2 + Proposed: 28,000 m^2), by planting 11,600 trees in 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.

(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 and shall also engage General manger (Environment Head) Senior manager (Zone Environment Head) - Engineer (Division Environment Engineer. 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 ₹ 48.34 Crore (Capital cost) and ₹ 42.774 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 after the proposed expansion will be **4274 KL/day** (Existing: 1075 KLD + Proposed 3199 KLD) of which **fresh water requirement of 2983 KL/day** (Existing 949 KLD + Proposed 2034 KLD) shall be met from **Gujarat Water Infrastructure Limited (GWIL).** The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(v) Total Industrial Effluent after the proposed expansion will be **1266 KLD** (Existing: 128 KLD + Proposed 1138 KLD) 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

(vi) The proposed new boiler (36 TPH) shall be dual-fired boiler, wherein biomass shall be used as a primary fuel and coal as a secondary fuel i.e. only upon non-availability of biomass.

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

(ix) The 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 21st July, 2010 under the provisions of the Environment (Protection) Rules, 1986.

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

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

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

(xiii) 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.

(xiv) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

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

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

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

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

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

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

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

(xxii) 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.

ANNEXURE-I

GENERAL EC CONDITIONS

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

- The PP shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at **https://parivesh.nic.in/**. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

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ANNEXURE-II

STANDARD TERMS OF REFERENCE

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

to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4) Site Details

i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
ii. A topo-sheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
iii. Details w.r.t. option analysis for selection of site
iv. Co-ordinates (lat-long) of all four corners of the site.
v. Google map-Earth download of the project site.
vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
viii. Land-use break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
x. Geological features and Geo-hydrological status of the study area shall be included.
xi. Details of Drainage of the project 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 environmental clearance conditions? Details of this system may be given.
iv. Does the company have system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report
v. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

10) Corporate Environmental Responsibility (CER)

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

11) Additional studies/Measures to be considered

(i) Provide latest and ecofriendly technology for product manufacturing.
(ii) Emphasize on Green chemistry/Clean Manufacturing
(iii) Provide CAS No. of products along with product list.
(iv) Provide details of amount of carbon sequestered in their unit through greenbelt/other modes, in case of expansion project.
(v) Life structure and sustainability for carbon and water foot print.
(vi) Detailed pollution Load estimation.
(vii) Transportation of Hazardous substance, effluents etc shall be carriedout through authorized and GPS enable vehicles/Trucks only.
(viii) Category of Hazardous Wastes shall be mentioned in the EIA/EMP report and in presentation.
(ix) Details of greenhouse gases and emissions shall be provided.

(x) Greenbelt shall be developed in the first year of the project and wind breaks shall be erected.

(xi) Study area map shall be overlapped with all the associated features.

(xii) Emphasize on green fuels.

(xiii) The project from NCR shall not use Coal as fuel. Further, PP shall avoid use of Coal in the CPAs and elsewhere also if alternatives are available.

(xiv) Provide the Cost-Benefit analysis with respect to the environment due to the project.

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

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

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

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like NH3*,chlorine*,HCl*,HBr*,H2S*,HF*,*etc*.,(*-as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9. Action plan for utilization of MEE/dryers salts.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

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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. 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

MOM approved by

(Prof. Aniruddha B. Pandit)
Chairman

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