GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-3 SECTOR)
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Dated: 12.06.2023

MINUTES OF THE 52nd EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON 30th –31st MAY, 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 51st EAC Meeting of the EAC (Industry-3 Sector).

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 (51.3 & 51.12) based on the request of the Project Proponents (PPs).

Agenda No. 51.3

Proposed organic pigments (Organic yellow, Organic red and Organic orange) unit at Plot no. 193/2, 2" Phase, GIDC Vapi, Dist. Valsad, Gujarat by M/s Micas Organics Limited (Unit III) – Amendment in Environmental clearance

[Proposal No. IA/GJ/IND3/294344/2022; File No. J-11011/745/2008-IA II (I)]

1. The proposal was recommended by the EAC in its 51st Meeting held on 16th-17th May, 2023 and the MoM were published on 29.5.2023. Subsequently, the PP vide e-mail dated31.5.2023 requested the following modification in the MoM:

Point No. of EAC Recommendation Condition	As per Recommendation Condition	Correction Required	Reference	Remarks
i.	**The PP shall develop Greenbelt covering an area of 40% (500.00 m^2 (40.54% of the total plot area) outside the premises within the INA, GIDC, Vapi areas) by planting 360 number of trees and 978 number of shrubs to be planted within the premises area within a period of six months before monsoon from the grant of EC Amendment.** The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2m). In addition to this, the budget earmarked for the plantation shall be kept in separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of the expert agency engaged, details of	**The PP shall develop additional Greenbelt covering an area of 1500.00 m^2 (40.54% of the total plot area) outside the premises within the INA, GIDC, Vapi areas) by planting 360 number of trees (Inside: 90 + Outside: 270) and 978 number of shrubs (Inside: 438 + Outside: 540) to be planted within and/or outside the premises area within a period of six months before monsoon from the grant of EC Amendment. Hence, total 2000.00 m^2 Greenbelt (Existing: 500.00 m^2 Greenbelt within the premises + Additional: 1500.00 m^2 Greenbelt outside the premises within INA, GIDC, Vapi areas) (54.05% of the total plot area) shall be developed and maintained by the PP.** The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2m). In addition to this, the budget	**Query-2 & its Reply of Additional Details Submission Letter Dated: 19/05/2023 through E-mail**	**EAC noted that shrubs are not considered a part of greenbelt. Hence, the PP needs to plant saplings for developing into trees/ Greenbelt.**

Point No. of EAC Recommendation Condition	As per Recommendation Condition	Correction Required	Reference	Remarks
	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.	earmarked for the plantation shall be kept in separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of the expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.		

2. The EAC deliberated on the above and recommended with the above remarks.

Agenda No. 51.12

Proposed Expansion of Bulk Drug Intermediate Facility by Increasing Mineral Salt Production by Conventional Process from 1020 TPA to 1770 TPA and by Spray Dryer Process from 1034 TPA to 1784 TPA and also installation of a New facility for production of API with a capacity of 100 TPA with addition of 0.4 Ha land area of 19A contiguous to existing 1.02 Ha Land area of 19 and 19B located at Notified Industrial Complex Plot No. 19, 19B, 19A, SIPCOT Complex Phase-I, Hosur, Krishnagiri Dist., Tamilnadu by Global Calcium Private limited Unit-III - Consideration of EC

[Proposal No. IA/TN/IND3/426704/2023; File No. IA-J-11011/141/2019-IA-II (I)]

1. The proposal was recommended by the EAC in its 51st Meeting held on 16th-17th May, 2023 and the MoM were published on 29.5.2023. Subsequently, the PP vide e-mail dated31.5.2023 requested the following modification in the MoM:

Reference of MOM	As per MOM	Modification Required	Remarks
22(i)	The PP shall develop Greenbelt over an area of **1.42 Ha**	The PP shall develop Greenbelt over an area of **0.46 Ha**	Typographical error and factual in nature

2. The EAC deliberated on the above and recommended the same.

Agenda No. 52.1

Proposed expansion of Marine Chemicals, Fertilizers and Captive Co-Gen Power Plant from 5295 MTPM to 113908 MTPM along with 25.6 MW of Co-Gen Power Generation located at Greater Rann of Kutch, Near Village Dhordo, Tal. Bhuj, Dist. Kutch, Gujarat by M/s. Agrocel Industries Pvt. Ltd. - Reconsideration of EC

[Proposal No. IA/GJ/IND3/277411/2020; File No. IA-J- 11011/269/2020-IA-II(I)]

1. The proposal is for environmental clearance for the Proposed expansion of Marine Chemicals, Fertilizers and Captive Co-Gen Power Plant from 5295 MTPM to 113908 MTPM along with 25.6 MW of Co-Gen Power located at Greater Rann of Kutch, Nr. Village Dhordo, Tal.: Bhuj, Dist. Kutch, Gujarat by M/s. Agrocel Industries Pvt. Ltd.

2. The project/activity is covered under Category 'A' of Item 5(a), Chemical Fertilizer & 1(d) of the Schedule of 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. J-11011/269/2020-IA-II(I) dated 7.11.2020. The Public Hearing was conducted by the State Pollution Control Board on 25.8.2021. The main issues raised during public hearing utilize CER fund for drinking water, sanitation facility and education. Action plan for the issues raised during the public hearing has been submitted. The PP applied for Environment Clearance on 11.6.2022 through CAF, and submitted the EIA/EMP Report and other documents. Due to the shortcomings, the proposal was referred back to PP on 23.6.2022 and reply for the same has been submitted on 7.12.2022. The PP reported in the Form-2 that it is an **Expansion case.** The proposal was placed in 44th & 46th EAC Meetings held on 16th &19th December 2022 and 30th & 31st January, 1st February 2023 wherein the EAC deferred the proposal for requisite information. The PP submitted reply to the same and the proposal is now placed in the 52nd EAC Meeting held on 30th-31st May, 2023, wherein the PP and an accredited consultant, San Envirotech Pvt. Ltd. [Accreditation number – NABET/EIA/1922/RA 0216, Valid up to 23.12.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that the existing land area is 27762.5 Acres (112350851.43 m^2), which is leased land. Out of which, 366650 m^2 land is for the project and rest of the land is for salt recovery and leased by the Government of Gujarat on lease. No additional land will be required for proposed

expansion. Expansion will be done within the existing unit and no R&R is involved in the Project. The details of products and by–products are as follows:

S. No.	Name of the Products	CAS No.	Quantity (MT/Month)			Type of products	Schedule as per EIA Notification, 2006
			Existing as per CCA	Proposed	Total		
1	Liquid Bromine	7726-95-6	4000	4333	8333	Inorganic Chemical	Non-EC
2	48% Hydrobromic Acid	10035-10-6					
3	Calcium Bromide (52%) / **Solid Powder**	7789-41-5					
4	Phosphorus Tribromide	7789-60-8	15	10	25	Inorganic Chemical	Non-EC
5	Sodium Bromide (45%)/ **Solid Powder**	7647-15-6	150	1437	1667	Inorganic Chemical	Non-EC
6	Zinc Bromide (77%)	7699-45-8	80				
7	Lithium Bromide	7550-35-8	0.0				
8	Potassium Schoenite ($K_2SO_4.MgSO_4.6H_2O$)	7447-40-7 5	750	28833	29583	Fertilizer	5(a)
9	Syngenite ($K_2SO_4.CaSO_4.H_2O$)	13780-13-7					
10	Sulphate of Potash	7778-80-5	0.0			Fertilizer	5(a)
11	Potassium Nitrate	7757-79-1	0.0			Fertilizer	5(a)
12	Magnesium Sulphate ($MgSO_4$)	7487-88-9	0.0			Fertilizer	5(a)
13	Magnesium Chloride ($MgCl_2$)	7786-30-3	300	57333	57633	Inorganic Chemical	Non-EC
	Magnesium Hydroxide $Mg(OH)_2$	1309-42-8				Inorganic Chemical	Non-EC

	Magnesium Oxide (MgO)	1309-48-4				Inorganic Chemical	Non-EC
14	Enriched Mineral Salt Mix	--	0.0	16667	16667	Inorganic Chemical	Non-EC
15	Captive Co-Gen Power Plant (6.4 MW x 4 nos.)	--	--	25.6 MW	25.6 MW	Power Plant	1(d)
Total			**5295**	**108613**	**113908**		

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 unit is engaged in manufacturing of inorganic products – Marine Chemicals, so EC is not applicable to the existing unit. The Certified Compliance Report of CTO has been issued by the GPCB dated 9.11.2022. All the conditions are complied.

7. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Pond of Dhordo Village is at a distance of 4.6 km in SE direction from project site.

8. The PP reported that **Ambient Air Quality** monitoring was carried out at 8 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentration as: PM_{10} (54.7 – 66.1 μg/m^3), $PM_{2.5}$ (32.5 – 38.9 μg/m^3), SO_2 (8.1 – 12.7 μg/m^3), NOx (12.3 – 15.7 μg/m^3). AAQ modelling study for point source emission indicated that the maximum incremental GLCs after the proposed project would be 10.68 μg/m^3, 5.284 μg/m^3, 4.147 μg/m^3, 0.226 μg/m^3, 0.226 μg/m^3 and 1.131 μg/m^3 with respect to PM_{10}, SO_2, NOx, Br_2, Cl_2, HBr. The resultant concentrations are within the national ambient air quality standards (NAAQS. **Noise-** The monitored noise level in the day time Leq (Ld) varies from 49.7 to 56.3 dB(A) and the night time Leq (Ln) varies from 37.4 to 49.1 dB(A) within the study area. Higher noise value of 56.3 dB(A) was recorded during day time at Project Site & lower noise value of 37.4 dB(A) was recorded during night time in Village Dhord. **Water-** The PP reported that the results have been compared with the drinking water standards specified in IS: 10500-2012. It was observed that all the physicochemical parameters and heavy metals except turbidity are below stipulated drinking water standards of BIS & it is suitable for drinking and other purposes. **Soil**- The PP reported that in the study area, variations in the pH value ranged from 7.45 to 7.97 which showed that the soil is slightly alkaline in nature. Organic Matter ranged from 1.62 to 2.36 mg/kg. Soil of the study area is saline and not good or poor for cultivation. Soil with high bulk density exhibit poor physical conditions for agriculture crops.

9. The PP reported that total water requirement is 26287 KLD, of which fresh water requirement of 22378 KLD will be met from desalination of Sea water and rejected Brine water. 3909 KLD

will be recycled/treated water. Total industrial effluent generation will be 460852 KLD, of which 3858 KLD will be a closed - loop recycle. Hence actual w/w generation will be 456994 KLD. Domestic sewage generation will be 51 KLD. Source of wastewater generation will be process effluent 453712 KLD (Process Brine W/w 435559 + others 18153 KLD), Scrubber (80.0 KLD), stripper washing (1402 KLD), cooling bleed off (150 KLD), boiler blow down (1328 KLD), RO Reject (2380 KLD), Water with Lime slurry (1800 KLD). Trade effluent will be treated in to ETP (Neutralization and Settler). Effluent from the ETP will be sent to the evaporation pan for recovery of mineral salt, which is one of the raw materials of products. Generated 51 KLD of domestic wastewater/sewage will be treated in STP and treated sewage will be reused in greenbelt.

10. The PP reported that power requirement after expansion will be 92000 KVAthat will be partially met from PGVCL (Paschim Gujarat Vij Company Limited) and partially by the Captive Co-gen Power Plant of 25.6 MW. Existing unit has 3 DG sets of 320 kVA, 200 kVA and 82.5 kVA capacity. After expansion, unit proposed to add 3 more DG Sets of 500 kVA x 3 nos. DG sets are used as standby during power failure. Stack (height 12 m and 21 m) will be provided as per CPCB norms to the proposed DG sets.

11. Existing unit has one common stack of 2 nos. of Lignite/Imported Coal fired Boilers (6.0 TPH and 18 TPH), one stack of LDO/HSD fired Boiler (8 TPH), 2 stacks of Wood/Lignite/Imported coal fired Hot Air Generators (2.5 lakh kcal/hr. and 4 lakh kcal/hr.). Multi cyclone Bag filter, water scrubber is installed as APCM on Boiler of 6 TPH, ESP and water scrubber on Boiler of 18 TPH, Dust Collector followed by cyclone separator on LDO/HSD fired boiler. Dust Collector is installed on Hot Air Generators. After expansion, 5 stacks of coal fired Boilers, 6 stacks of coal fired Hot Air Generators will be added. ESP + Wet scrubber will be installed as APCM to Boilers. Cyclone Separator & Bag filter will be installed as an APCM on HAG to achieve the emission norms. Stack with adequate stack height will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 for the proposed utilities. Total Flue stacks after expansion will be 18 nos. (Existing: 6 nos. + Additional: 12 nos.). Details of flue gas stacks are given below.

Flue Gas Stacks

S. No.	Stack attached to	Fuel Type	Stack Height (m)	APC measures	Probable Emission
Flue Gas Stacks-Existing					
1.	Boiler-1 (6.0 TPH)	Lignite/ Imported Coal 26.4 TPD	40	Multi cyclone Bag filter, water scrubber	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm
2.	Boiler-2 (18 TPH)	Lignite/ Imported Coal 79.2 TPD	44	ESP and water scrubber	
3.	Boiler-3 (8 TPH)	LDO/HSD 16.8 TPD	30	Dust Collector followed by	

				cyclone separator	
4.	Hot Air Generator-1 (2.5 lakh kcal/hr)	Wood / Lignite / Imported coal 7.2 TPD	11	Dust Collector	
5.	Hot Air Generator-2 (4 lakh kcal/hr)		15	Dust Collector	
6.	DG Set-1, 2 & 3 (320 KVA, 200 KVA and 82.5 kVA) (Stand By)	HSD 245 lit/hr.	12	Adequate stack height	
Flue Gas Stacks-Proposed					
1.	Boiler-4 (30 TPH) (non-salt based products)	Coal 131 TPD	47	ESP +Wet scrubber	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm
2.	Boiler-5 (45 TPH) (salt based products)	Coal 197 TPD	51	ESP +Wet scrubber	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm
3.	Boiler-6 (45 TPH) (salt based products)	Coal 197 TPD	51	ESP +Wet scrubber	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm
4.	Boiler-7 (45 TPH) (salt based products)	Coal 197 TPD	51	ESP +Wet scrubber	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm
5.	Boiler-8 (45 TPH) (salt based products)	Coal 197 TPD	51	ESP +Wet scrubber	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm
6.	Hot Air Generator-3 (non-salt based products) (5 Lakh kcal/hr.)	Coal 2 TPD	24	Cyclone Separator	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm
7.	Hot Air Generator-4 (salt based products) (4 Lakh kcal/hr.)	Coal 1.6 TPD	24	Cyclone Separator	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm
8.	Hot Air Generator-5 (salt based products) (50 Lakh kcal/hr.)	Coal 26 TPD	30	Cyclone Separator & Bag filter	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm
9.	Hot Air Generator-6 (salt based products) (50 Lakh kcal/hr.)	Coal 26 TPD	30	Cyclone Separator & Bag filter	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm
10.	Hot Air Generator-7 (salt based products) (50 Lakh kcal/hr.)	Coal 26 TPD	30	Cyclone Separator & Bag filter	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm

11.	Hot Air Generator-8 (salt based products) (50 Lakh kcal/hr.)	Coal 26 TPD	30	Cyclone Separator & Bag filter	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm
12.	DG Set-4, 5 & 6 (500 kVA x 3 nos.)	Diesel 630 lit/hr.	21	Adequate stack height	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm

12. **Details of Process Emissions Generation and its Management:** At present, process gas emission is from stack attached with Bromine Plant-1. Process Stack is equipped with Water and Alkali scrubber. After expansion, process emissions will be from one vent of Bromine plant-2, 16 vents of Bromine Stripping plants, 3 vents of Air dryer for $CaBr_2$, NaBr, LiBr, 5 vents of 5 nos. of Rotary dryers (of Inorganic fertilizer) and one vent of Calciner (for MnO Plant). Vent of Bromine Plant-2 will be equipped with Water and Alkali Scrubber. 2 stage Alkali Scrubber will be installed on Bromine stripping plants and bag filter on vent of Air dryer, Rotary dryers and Calciner. Total process stacks after expansion will be 27 nos. (Existing: 1 no. + Additional: 26 nos.). Details of process gas stacks are given below.

Process Gas Stacks

S. No.	Stack attached to	Stack Height (m)	APC measures	Probable Emission
Process Gas Stacks –Existing				
1.	Bromine plant-1	20	Water and Alkali Scrubber	Br_2: 2 mg/Nm^3 Cl_2:9 mg/Nm^3 HBr: 30 mg/Nm^3
Process Gas Stacks –Proposed				
1.	Bromine plant-2	20	Water and Alkali Scrubber	Br_2: 2 mg/Nm^3 Cl_2:9 mg/Nm^3 HBr: 30 mg/Nm^3
2.	Bromine Stripping plant-3	20	2 stage Alkali Scrubber	
3.	Bromine Stripping plant-4	20	2 stage Alkali Scrubber	
4.	Bromine Stripping plant-5	20	2 stage Alkali Scrubber	
5.	Bromine Stripping plant-6	20	2 stage Alkali Scrubber	
6.	Bromine Stripping plant-7	20	2 stage Alkali Scrubber	
7.	Bromine Stripping plant-8	20	2 stage Alkali Scrubber	
8.	Bromine Stripping plant-9	20	2 stage Alkali Scrubber	
9.	Bromine Stripping plant-10	20	2 stage Alkali Scrubber	
10.	Bromine Stripping plant-11	20	2 stage Alkali Scrubber	

11.	Bromine Stripping plant-12	20	2 stage Alkali Scrubber	
12.	Bromine Stripping plant-13	20	2 stage Alkali Scrubber	
13.	Bromine Stripping plant-14	20	2 stage Alkali Scrubber	
14.	Bromine Stripping plant-15	20	2 stage Alkali Scrubber	
15.	Bromine Stripping plant-16	20	2 stage Alkali Scrubber	
16.	Bromine Stripping plant-17	20	2 stage Alkali Scrubber	
17.	Bromine Stripping plant-18	20	2 stage Alkali Scrubber	
18.	Air dryer for $CaBr_2$ solid	25	Bag filter	PM < 45 mg/Nm^3
19.	Air dryer for NaBr solid	25	Bag filter	PM < 45 mg/Nm^3
20.	Air dryer for LiBr	25	Bag filter	PM < 45 mg/Nm^3
21.	Rotary dryer 1 (for SOPM - Schoenite)	15	Bag filter	PM < 45 mg/Nm^3
22.	Rotary dryer 2 (for SOP - Sulphate of potash)	15	Bag filter	PM < 45 mg/Nm^3
23.	Rotary dryer 3 (for Syngenite)	15	Bag filter	PM < 45 mg/Nm^3
24.	Rotary dryer 4 (for $MgSO_4$)	15	Bag filter	PM < 45 mg/Nm^3
25.	Rotary dryer 5 (for $(MgOH)_2$)	15	Bag filter	PM < 45 mg/Nm^3
26.	Calciner (for MgO)	25	Bag filter	PM < 45 mg/Nm^3

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

S. No.	Name of waste	Category as per Haz. Rule, 2016	Source	Qty.			Disposal method
				Existing	Proposed addition	Total after expansion	
1.	Neutralizer sludge	35.3	Neutralizer	00	700000 MT/year	700000 MT/year	Collection, Storage, and reuse in Syngenite & Potassium Schoenite
2.	Discarded Containers/Liner/Bags	33.1	Material storage	500 Nos./ Year 5 MT/Year	1500 Nos./Year 15 MT/Year	2000 Nos./Year 20 MT/Year	Collection, Storage, Decontamination, Transportation, Disposal by selling to

							Authorized Recycler
3.	Used Oil	5.1	Driving units	1 MT/Year	4 MT/Year	5 MT/Year	Collection, Storage, Transportation, Disposal by selling to Registered Reprocess
4.	Spent H_2SO_4 (70-75%)	C2	From Product Bromine and 48% Hydro Bromic Acid	4800 MT/Year	46,000 MT/Year	50,800 MT/Year	Collection, Storage, Transportation and captive consumption

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 5.195 Crore (capital) and the Recurring cost (operation and maintenance) for EMP will be about ₹ 94.5 Lakhs per annum. Industry proposes to allocate ₹ 187.5 Lakhs towards CER.

15. The PP reported that Public Hearing for the expansion project has been conducted by the Gujarat Pollution Control Board on 25.08.2021 which was presided by the Resident Additional Collector and Additional District Magistrate-Kutch. Most of participants have welcomed the project and advise to utilize CER fund for drinking water, sanitation facility and education.

16. The industry has developed greenbelt in an area of 30% i.e. 51225 m^2 and proposes to add greenbelt in an area in 48587 m^2 for expansion project. Hence after expansion, total greenbelt area will be 99812 m^2 of total project area.

17. The PP reported that the unit has established set up of Environment Management Cell (EMC), Chief operating officer- Manager (EHS) – Safety manager- Environment- Safety officer- ETP in charge- ETP for the functioning of EMC.

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

19. The estimated project cost is Rs. 600 Crore including existing investment of Rs. 350 Crore. Total Employment will be 600 Persons after expansion.

20. The proposal was last considered in the 46th EAC Meeting held on 30th & 31st January, 1st February 2023, wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by PP on 10.1.2023, which is as follows:

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

1.	Confirmation from GCZMA or authorized agency of the Ministry on an authenticated map regarding the location of the project outside the CRZ area.	Letter of DLCRZ (District Level Coastal Regulation Zone) along with map has been presented during the presentation.	Confirmation from GCZMA or authorized agency of the Ministry on an authenticated map regarding the location of the project outside the CRZ area **was not submitted**.
2.	Confirmation from GCZMA or authorized agency of the Ministry with supporting documents regarding the non-requirement of CRZ clearance for the drawl of sea water	The PP reported that Industry will not directly withdraw sea water. They are pumping saline water from ponds generated after salt recovery which is around 18 to 22 km away from the project area, whereas Arabian Sea is around ~100 km away from the site hence CRZ clearance for drawl of sea water is not required in our case	Confirmation from GCZMA or authorized agency of the Ministry with supporting documents regarding the non-requirement of CRZ clearance for the drawl of sea water **was not submitted**

21. **Deliberations by the EAC**:

In view of the above observations, the PP needs to submit the same. The EAC also cautioned the PP and the consultant for submitting incomplete information/ documents.

In compliance to the OM dated 18.05.2023, the EAC confirmed from the PP, that the said Consultant was actually involved in the preparation of EIA/EMP report etc.

The proposal was accordingly, **deferred.**

Agenda No. 52.2

Proposed Expansion of Marine Chemicals, Fertilizers & Organic Chemicals with production capacity from 3005 MTPM to 112917 MTPM and Captive Co-Gen Power Plant from 7.675 MW to 33.275 MW located at Survey No. 164, Village Ratadia, Near Khavda, Ta. Bhuj, Dist. Kutch, Gujarat by M/s. Solaris Chemtech Industries Ltd. - Reconsideration of EC.

[Proposal No. IA/GJ/IND3/280064/2020; File No. IA-J-11011/271/2020-IA-II(I)]

20. The proposal is for the environmental clearance for the Proposed Expansion of Marine Chemicals, Fertilizers & Organic Chemicals with production capacity from 3005 MTPM to 112917 MTPM and Captive Co-Gen Power Plant from 7.675 MW to 33.275 MW located at Survey No. 164, Village: Ratadia, Near, Khavda, Ta. Bhuj, Dist. Kutch, Gujarat by M/s. Solaris Chemtech Industries Ltd.

21. The project/activity is covered under Category 'A' of Item 5(a)-Chemical Fertilizers, 5(f) - Synthetic Organic Chemicals and 1(d)-Thermal Power Plants of Schedule of EIA Notification, 2006 (as amended) and requires appraisal at Central Level by the EAC.

22. The standard ToR was issued by the Ministry vide letter no. IA- J-11011/271/2020-IA-II(I) dated 07.11.2020. The PP submitted that Public Hearing for the expansion project has been conducted by the Gujarat Pollution Control Board on 15.9.2021 which was presided by the Resident Additional Collector and Additional District Magistrate-Kutch. The main issues raised during the PH are noise pollution, wastewater, employment. Action plan for the issues raised during the public hearing has been submitted. The PP applied for Environment Clearance on 28.6.2022 in CAF and submitted EIA/EMP Report and other documents. The PP reported in Form that it is an **Expansion EC**. Due to some shortcomings, the proposal was referred back to PP on 6.7.2022 and the reply for the same has been submitted on 9.12.2022. The proposal was placed in 44th & 46th EAC Meeting held on 16th &19th December 2022, 30th & 31st January, 1st February 2023 wherein the EAC deferred the proposal for requisite information. The PP submitted reply to the same and the proposal is now placed in the 46th EAC Meeting held on 30th & 31st January, 1st February 2023, wherein the PP and an accredited consultant, San Envirotech Pvt. Ltd. [Accreditation number – NABET/EIA/1922/RA 0216, Valid up to 23.12.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

23. The PP reported that the existing land area is 222578 m^2 and no additional land will be required for proposed expansion. Expansion will be done within the existing unit and no R& R is involved in the Project. The details of products are as follows:

S. No.	Name of the Products	Quantity (MT/Month)			Type of products	Schedule as per EIA Notification, 2006
		Existing as per CCA	Proposed Addition	Total		
1	Liquid Bromine	1700.0	1375	3075	Inorganic Chemical	Non-EC
2	Hydrobromic Acid (48%)	180.0	2037	2217	Inorganic Chemical	Non-EC
3	6-Chloro Hexanone	5.0	00	5.0	Organic Chemicals	5(f)
4	n – Propyl Bromide	270.0	417	687	Organic Chemicals	5(f)
5	n – Butyl Bromide				Organic Chemicals	5(f)
6	TBBA-Tetra Bromo Bisphenol A	850.0	0.0	850	Organic Chemicals	5(f)
	HBr in TBBA (33% W/W)				Inorganic Chemical	Non-EC
7	Potassium Schoenite	0.0	29583	29583	Fertilizer	5(a)

	($K_2SO_4.MgSO_4.6H_2O$)					
8	Syngenite ($K_2SO_4.CaSO_4.H_2O$)				Fertilizer	5(a)
9	Potassium Sulphate (SOP)				Fertilizer	5(a)
10	Potassium Nitrate (KNO_3)				Fertilizer	5(a)
11	Magnesium Sulphate ($MgSO_4$)				Fertilizer	5(a)
12	Magnesium Hydroxide ($Mg(OH)_2$)	0.0	57333	57333	Inorganic Chemical	Non-EC
13	Magnesium Oxide (MgO)				Inorganic Chemical	Non-EC
14	Magnesium Chloride ($MgCl_2$)				Inorganic Chemical	Non-EC
15	Enriched Mix Mineral Salt	0.0	16667	16667	Inorganic Chemical	Non-EC
16	Zinc Bromide (75%)	0.0	1667	1667	Inorganic Chemical	Non-EC
17	Lithium Bromide					
18	Calcium Bromide (CaBr) (52%)					
19	Calcium Bromide Solid Powder					
20	Sodium Bromide (45%)					
21	Sodium Bromide Solid Powder					
22	Di Bromo Neo Pentyl Glycol (DBNPG)	0.0	833	833	Organic Chemicals	5(f)
23	2,4,6 Tri Bromo Phenol (TBP)				Organic Chemicals	5(f)
24	Deca Bromo Diphenyl Ethane (DBDPE)				Organic Chemicals	5(f)
25	Tri Bromo Neo Pentyl Alcohol (TBNPA)				Organic Chemicals	5(f)
	Total	**3005**	**109912**	**112917**		
Captive Co-Gen Power Plant		7.675 MW	6.4x4 = 25.6 MW	33.275 MW	CPP	1(d)

24. 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.

25. The PP reported that the Ministry had issued EC earlier vide letter no. J-11011/400/2008-IA-II (I), dated 13.05.2009 to the existing project in favour of M/s. Solaris Chemtech Limited. The same EC is transferred by MoEF&CC in favour of M/s. Solaris Chemtech Industries

Limited vide letter no. J-11011/400/2008-IA-II(I), dated 08.02.2012. Certified compliance report has been issued by the IRO, Gandhinagar dated 10.10.2022, which summarizes that, out of 29 conditions, 18 are complied, 7 are partly complied and 4 are agreed to comply.

26. The PP reported that there are no national parks and Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Pond of Khavda Village is at a distance of 2.5 km in E direction from project site. Schedule I species Peacock or Indian Peafowl) exist within 10 km study area of the project, for which conservation plan is submitted to Deputy Conservator of Forest dated 5.12. 2022.

27. The PP reported that the **Ambient air quality** monitoring was carried out at 8 locations during October, 2020 to December, 2020 and the baseline data indicated the ranges of concentration as: PM_{10} (58.0 – 65.9 µg/m^3), $PM_{2.5}$ (22.1 – 34.2 µg/m^3), SO_2 (9.3 – 12.3 µg/m^3), NOx (11.6 – 15.9 µg/m^3). AAQ modelling study for point source emission indicated that the maximum incremental GLCs after the proposed project would be 11.536 µg/m^3, 7.911 µg/m^3, 6.036 µg/m^3, 0.168 µg/m^3, 0.185 µg/m^3 and 0.868 µg/m^3 with respect to PM_{10}, SO_2, NOx, Br_2, Cl_2, HBr. The resultant concentrations are within the national ambient air quality standards (NAAQS). **Noise**- The monitored noise level in the day time Leq (Ld) varied from 48.1 to 53.9 dB(A) and the night time Leq (Ln) varied from 38.6 to 42.8 dB(A) within the study area. Higher noise value of 53.9 dB(A) was recorded during day time at Project Site & lower noise value of 38.6 dB(A) was recorded during night time in Village Ludiya. **Soil**- soil quality of the study area, analysis of all eight locations including the project site was conducted by making suspension of soil sample. The samples were examined for various physical and chemical characteristics in order to assess the impact on soil. **Water**- In the study area, variations in the pH value ranging from 7.58 to 8.06 which shows that the soil is slightly alkaline in nature. Organic Matter ranges from 0.36 to 3.59 mg/kg in the soil samples. Soil of the study area is known as saline soil and no or poor for cultivation. High bulk density and exhibit poor physical conditions for agriculture crops.

28. The PP reported that the total water requirement is 91316 KLD, of which 9614 KLD will be fresh water demand, 4101 KLD will be recycle/treated water and 77601 KLD Brine water. Fresh water requirement will be met from the desalinated Sea water and rejected Brine water. Total industrial effluent generation will be 86032 KLD, of which 3596 KLD will be closed loop recycle. Hence actual w/w generation will be 82436 KLD. Domestic sewage generation will be 35 KLD. Source of wastewater generation will be process effluent (75895 KLD), Scrubber (30.0 KLD), stripper washing (5811 KLD), cooling bleed off (810 KLD), boiler blow down (470 KLD), RO Reject (2316 KLD), Water with Lime slurry (700 KLD). Effluent is segregated into two streams one is from Bromides, TBBA and Organics products and second stream is from Bromine Recovery plant. Both the streams are treated separately and treated effluent will be sent to evaporation pan for recovery of mineral salt, which is one of the raw materials of products. Generated 35 KLD of domestic wastewater/sewage will be treated in STP and treated sewage will be reused in greenbelt.

29. Power requirement after expansion will be 32000 KVA will be partially met from PGVCL (Paschim Gujarat Vij Company Limited) and partially by Captive Co-gen Power Plant. Existing

unit has DG sets of 500 kVA and 1735 kVA capacity. After expansion, unit proposed to add 3 more DG Sets of 500 kVA x 3 nos. DG sets are used as standby during power failure. Stack (height 12 m, 30 m and 21 m) will be provided as per CPCB norms to the proposed DG sets.

30. Total Flue stacks after expansion will be 16 nos. (Existing: 4 nos. + Additional: 12 nos.). Details of flue gas stacks are given below.

Flue Gas Stacks

S. No.	Stack attached to	Fuel Type	Stack Height (m)	APC measures	Probable Emission
Flue Gas Stacks-Existing					
1.	Boiler (15.0 TPH)	Imported Coal 63 TPD	63	ESP	PM: 50 mg/Nm^3 SO_2: 600 mg/Nm^3 NO_x: 300 mg/Nm^3 Hg: 0.03 mg/Nm^3
2.	Boiler (45.0 TPH)	Imported coal 189 TPD	60	ESP	
3.	DG Set (500 KVA)	HSD 150 Lit/hr.	12	Adequate stack height	
4.	DG Set (1735 KVA)	HSD 400 Lit/hr.	30	Adequate stack height	
Flue Gas Stacks-Proposed					
1.	45 TPH Boiler	Imported Coal 189 TPD	60	ESP	PM: 50 mg/Nm^3 SO_2: 600 mg/Nm^3 NO_x: 300 mg/Nm^3 Hg: 0.03 mg/Nm^3
2.	45 TPH Boiler	Imported Coal 189 TPD	60	ESP	
3.	45 TPH Boiler	Imported Coal 189 TPD	60	ESP	
4.	45 TPH Boiler	Imported Coal 189 TPD	60	ESP	
5.	Boiler (30 TPH) (non-salt based products)	Coal 131 TPD	47	ESP +Wet scrubber	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm
6.	Hot Air Generator-1 (non-salt based products) 5 Lakh kcal/hr.	Coal 2 TPD	24	Cyclone Separator	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm
7.	Hot Air Generator-2 (Salt based products) 4 Lakh kcal/hr.	Coal 1.6 TPD	24	Cyclone Separator	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm
8.	Hot Air Generator-3 (Salt based products) 50 Lakh kcal/hr.	Coal 26 TPD	30	Cyclone Separator & Bag filter	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm
9.	Hot Air Generator-4 (Salt based products) 50 Lakh kcal/hr.	Coal 26 TPD	30	Cyclone Separator & Bag filter	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm

10.	Hot air generator-5 (Salt based products) 50 Lakh kcal/hr.	Coal 26 TPD	30	Cyclone Separator & Bag filter	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm
11.	Hot air generator-6 (salt based products) 50 Lakh kcal/hr.	Coal 26 TPD	30	Cyclone Separator & Bag filter	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm
12.	DG Set-4, 5 & 6 (500 kVA x 3 nos.)	Diesel 630 lit/hr.	21	Adequate stack height	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_x: 50 ppm

12. **Details of Emissions Generation and Its Management:** Total process stacks after expansion will be 27 nos. (Existing: 7 nos. + Additional: 20 nos.). Details of process gas stacks are given below.

Process Gas Stacks

Sr. No.	Stack attached to	Stack Height (m)	APC measures	Probable Emission
Process Gas Stacks – Existing				
1.	Bromine Plant-1	30	Water and Alkali Scrubber	Br_2: 2 mg/Nm^3 Cl_2: 9 mg/Nm^3 HBr: 30 mg/Nm^3
2.	Bromine Plant-2	30		
3.	Bottling Plant	32	Water and Alkali Scrubber	Br_2: 2 mg/Nm^3
4.	Bromine Plant (HBr, n-PBr, n-BBr & 6 CH_X)	14	Water and Alkali Scrubber	Br_2: 2 mg/Nm^3 Cl_2: 9 mg/Nm^3 HBr: 30 mg/Nm^3
5.	TBBA Plant	30	Water and Alkali Scrubber	Br_2: 2 mg/Nm^3 HBr: 30 mg/Nm^3
6.	Bromine ETP Tank	17	Alkali Scrubber	Br_2: 2 mg/Nm^3 Cl_2: 9 mg/Nm^3
7.	Chlorine Charging Station	20	Alkali Scrubber	Cl_2: 9 mg/Nm^3
Process Gas Stacks – Proposed				
1.	Bromine Plant-3	20	Water and Alkali Scrubber	Br_2: 2 mg/Nm^3 Cl_2: 9 mg/Nm^3 HBr: 30 mg/Nm^3
2.	Bromine Plant Plant-4	20	Alkali Scrubber	
3.	Bromine Plant Plant-5	20	Alkali Scrubber	
4.	N Propyl Bromide	20	Alkali Scrubber	
5.	Hydrobromic Acid	30	Alkali Scrubber	
6.	ZnBr/LiBr/CaBr/ NaBr	30	Alkali Scrubber	
7.	HBr in TBBA	30	Alkali Scrubber	
8.	Process reactor of DBNPG	30	Alkali Scrubber	
9.	Process reactor of TBP	30	Alkali Scrubber	
10.	Process reactor of DBDPE	30	Alkali Scrubber	
11.	Process reactor of TBNPA	30	Alkali Scrubber	

12.	Air dryer for $CaBr_2$ solid	25	Bag filter	PM<45 mg/Nm^3
13.	Air dryer for NaBr solid	25	Bag filter	PM<45 mg/Nm^3
14.	Air dryer for LiBr	25	Bag filter	PM<45 mg/Nm^3
15.	Rotary dryer 1 (for SOPM - Schoenite)	15	Bag filter	PM<45 mg/Nm^3
16.	Rotary dryer 2 (for SOP - Sulphate of potash)	15	Bag filter	PM<45 mg/Nm^3
17.	Rotary dryer 3 (for Syngenite)	15	Bag filter	PM<45 mg/Nm^3
18.	Rotary dryer 4 (for $MgSO_4$)	15	Bag filter	PM<45 mg/Nm^3
19.	Rotary dryer 5 (for $(MgOH)_2$)	15	Bag filter	PM<45 mg/Nm^3
20.	Calciner (for MgO)	25	Bag filter	PM<45 mg/Nm^3

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

S. No.	Name of waste	Source	Category as per HAZ Rule 2016	Quantity			Disposal Method
				Existing	Proposed addition	Total after expansion	
1.	ETP sludge	ETP	35.3	1500 MT/Month	15000 MT/Month	16500 MT/Month	Collection, Storage, Transportation, and disposed of at approved TSDF site
2.	ETP sludge	ETP (Bromide Plant)	35.3	20 MT/Month	30 MT/Month	50 MT/Month	
3.	Process Sludge	Process	20.4	66 MT/Month	--	66 MT/Month	Collection, Storage, Transportation, and incinerate at common CHWIF
4.	Discarded Containers/ Liner/Bags	Material storage	33.1	3.6 MT/Year	5.4 MT/Year	9.0 MT/Year	Collection, Storage, Decontamination, Transportation, Disposal by selling to Authorized Recycler
5.	Used Oil	Driving units	5.1	10.2 MT/Year	25 MT/Year	35.2 MT/Year	Collection, Storage,

							Transportation, Disposal by selling to Registered Reprocess

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 7.335 Crore (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 1.445 Crore per annum, Industry proposes to allocate Rs. 1.5 Crore @0.75% of project expansion cost towards Corporate Social Responsibility

15. The industry has developed greenbelt over an area of 7350 m^2 and proposes to add greenbelt over an additional area of 12350 m^2 for the expansion project. Hence after expansion, total greenbelt area will be 19700 m^2 of the total project area.

16. The PP proposed to set up an Environment Management Cell (EMC) by engaging Chief Operating Officer - Manager EHS- Safety Manager- Safety Officer- Environment- ETP in charge for the functioning of EMC.

17. The PP reported that the total CO_2 generation would be 1292456386 tonnes/annum.

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

19. The estimated project cost is Rs. 500 Crore including existing investment of Rs. 300 Crore. Total Employment will be 500 Persons after expansion.

20. The proposal was last considered in 46th EAC Meeting held on December 30th & 31st January, 1st February 2023, wherein the EAC deferred the proposal for want of requisite information. Reply to the same is submitted by PP on 10.1.2023, which is as follows:

S. No.	Queries Raised by EAC	Reply by PP	Observation of EAC
1.	Confirmation from GCZMA or authorized agency of the Ministry on an authenticated map regarding the location of the project outside the CRZ area	Letter of **DLCRZ** (District Level Coastal Regulation Zone) and **GCZMA** along with map has been presented during the presentation.	The EAC found that the reply submitted by the PP was found to be satisfactory.
2.	Confirmation from GCZMA or authorized agency of the Ministry	The PP reported that industry will pump saline water from ponds which are 50 km far from the coastal line as	Confirmation from GCZMA or authorized agency of the Ministry with supporting documents regarding the non-requirement of

	with supporting documents regarding the non-requirement of CRZ clearance for the drawl of sea water	well 55 km far from our project. These ponds are filled during high tide and we required pumping after salt recovery. There is no any physical activity carried out in CRZ area. Hence CRZ clearance for the drawl of sea water is not required.	CRZ clearance for the withdrawl of sea water **was not submitted.**

21. **Deliberations by the EAC**:

In view of the above observations, the PP needs to submit the same. The EAC also cautioned the PP and the consultant for submitting incomplete information/ documents.

In compliance to the OM dated 18.05.2023, the EAC confirmed from the PP, that the said Consultant was actually involved in the preparation of EIA/EMP report etc.

The proposal was accordingly, **deferred.**

Agenda No. 52.3

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

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

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

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

3. The PP applied for the ToR vide proposal number No. **IA/MH/IND3/416691/2023** dated 8 .2.2023. The proposal was placed in 49th EAC Meeting held on 3th, 5th -6th April, 2023, wherein the Proposal deferred for requiste for some information now the proposal is placed in the 52nd EAC meeting held on 30th -31st May, 2023 wherein the PP and an accredited Consultant, Green Circle Inc. [Accreditation number: NABET/EIA/2124/RA 0219, Valid up to 26.1.2024] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported the product details as follows:

S. No.	Name of the Products	CAS no. / CI no.	Quantity MT/Month		
			Existing	Proposed	Total
1.	Pigment Green 7 (CPC Green)	14832-14-5	30	170	200
2.	Copper Phthalocyanine Blue Crude	147-14-8	0	200	
3.	Pigment Beta Blue 15:3	147-14-8	0	200	
4.	Pigment Beta Blue 15:4	147-14-8	0	200	
5.	Pigment Blue 15:0/15:1[Alpha Blue]	147-14-8	0	200	
6.	Pigment Violet 23	215247-95-3	0	200	
7.	Pigment Violet 27	12237-62-6	0	200	
8.	Pigment Violet 19	1047-16-1	0	200	
9.	Pigment Orange 5	3468-63-1	0	200	
10.	Pigment Orange13	3520-72-7	0	200	
11.	Pigment Orange 34	15793-73-4	0	200	
12.	Pigment Yellow 74	6358-31-2	0	200	
13.	Pigment Yellow 83	5567-15-7	0	200	
14.	Pigment Red 122	980-26-7	0	200	
15.	Mono Sulpho Additive [Synergist]/Solosperse 12000	28901-96-4	0	200	
16.	Phthalimido Additive [Synergist]/Solosperse 5000	85-41-6	0	200	
17.	Acrylic Binders	25767-47-9	0	200	
18.	Middle Chrome	1344-37-2	0	200	
19.	Lemon Chrome	1344-37-2	0	200	
20.	Scarlet Chrome	12656-85-8	0	200	
21.	Pigment Yellow1	2512-29-0	0	200	
22.	Pigment Yellow12	6358-85-6	0	200	
23.	Pigment Yellow13	5102-83-0	0	200	
24.	Pigment Yellow 14	5468-75-7	0	200	
25.	Pigment Yellow17	4531-49-1	0	200	
26.	Pigment Yellow74	6358-31-2	0	200	
27.	Pigment Yellow 83	5567-15-7	0	200	
28.	Pigment Red 170	2786-76-7	0	200	
29.	Pigment Red 112	6535-46-2	0	200	
30.	Pigment Red 3	2425-85-6	0	200	
31.	Pigment Red 4	2814-77-9	0	200	
32.	Pigment Red 8	6410-30-6	0	200	
33.	Pigment Red 53:1	73263-40-8	0	200	
34.	Pigment Red 57:1	5281-04-9.	0	200	
35.	Pigment Red48:2	7023-61-2	0	200	
36.	Pigment Red48:3	15782-05-5	0	200	
37.	Pigment Orange 5	3468-63-1	0	200	
38.	Pigment Orange13	3520-72-7	0	200	

S. No.	Name of the Products	CAS no. / CI no.	Quantity MT/Month		
			Existing	Proposed	Total
39.	Pigment Orange34	15793-73-4	0	200	
40.	Copper Sulphate	7758-99-8	0	200	
41.	Aluminium Chloride	7446-70-0	0	200	
42.	PAC	1327-41-9	0	2200	2200
43.	HYPO	10022-70-5	0	350	350
44	30% HCL	7647-01-0	0	250	250
	TOTAL				**3000**

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

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

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

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

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

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

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

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

13. The proposal was earlier considered in the 49th EAC meeting held on 3th,5th -6th April, 2023, 2022 wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by the PP, which is as follows:

S. No.	Queries Raised by EAC	Reply by PP
1.	Compliance to green belt development of minimum 40% of the total area of the existing unit (within the site and the industrial estate) @2500 per hectare, in consultation with forest department and accordingly, submit the details of green belt developed, number of trees and aerial photographs and video.	PP has submitted the cover letter from the Tarapur Environment protection society.
2.	Revised layout plan with the requisite green belt.	Revised layout plan has been submitted.
3.	Undertaking for the use of natural gas/biomass instead of coal.	PP submitted the undertaking for the use of natural gas/biomass/coal
4.	Quantified and specific compliance and action plan for the additional safeguard measures prescribed in the Ministry's O.M. dated 31.10.2019 for critically and severely polluted areas.	Additional safeguard measures has been submitted as per OM dated 31.10.2019
5.	Detailed justification/trend w.r.t the CEPI score of the CPA since the declaration as CPA.	Justification/trend w.r.t the CEPI score of the CPA since the declaration as CPA

14. **Deliberations by the EAC:**

The EAC noted that the reply and presentation of the PP/ Consultant to the information/ documents sought earlier were casual without addressing the issues raised. The EAC took a serious note of the same and cautioned the PP and the consultant. The proposal was accordingly, **deferred to submit the complete and specific reply to the said requisite information sought earlier.**

Agenda No. 52.4

Expansion of Dyes manufacturing plant from (2,225 TPA to 4,225 TPA) and production of textile Auxiliaries 13,000 TPA, Dispersions 70,000 TPA at Mangalore works, Suratkal Bajpe Road, Bajpe road, Bala village, Mangalore Taluka, Dakshina Kannada District, Karnataka by M/s BASF India Ltd. - Corrrigendum in EC

[Proposal No. IA/KA/IND3/298820/2023; File No. IA- J-11011/456/2008-IA-II(I)]

The PP vide email dated 30.5.2023 informed that due to unavoidable circumstances, they would be unable to attend the meeting and requested to defer the proposal.

The proposal was accordingly, **deferred.**

Agenda No. 52.5

Proposed Expansion of Pesticides, Pesticides Specific Intermediates & Speciality Chemicals Manufacturing Plant of production capacity from 7260 MT/Month to 8111 MT/Month located at Plot No. D-2/11/B/3/2, GIDC, Dahej-II, Dist: Bharuch, Gujarat by M/s. NACL Spec-Chem Limited - Consideration of EC

[Proposal No. IA/GJ/IND3/422869/2023; File No. IA-J-11011/437/2017-IA-II(I)]

The PP vide email dated 30.5.2023 informed that due to unavoidable circumstances, they would be unable to attend the meeting and requested to defer the proposal.

The proposal was accordingly, **deferred.**

Agenda No. 52.6.

Setting up of a Synthetic Resins manufacturing unit of production capacity 4005 MT/M located at Plot No. 62 and 63, Survey No. 800, Soham Integrated Textile Park, Village: Mahijda, Taluka: Daskroi, Dist. Ahmedabad, Gujarat by M/s. Dharmit Composites Polymers - Consideration of EC

[Proposal No. IA/GJ/IND3/422392/2023; File No. IA-J-11011/137/2022-IA-II(I)]

1. The proposal is for the grant of EC for the setting up of a Synthetic Resins manufacturing unit production capacity of 4005 MTPM located at Plot No. 62 and 63, Survey No. 800, Soham Integrated Textile Park, Village: Mahijda, Taluka: Daskroi, Dist. Ahmedabad, Gujarat by M/s. Dharmit Composites Polymers.

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) as the project is located outside the notified industrial area.

3. The ToR was issued by the Ministry vide letter no. IA-J-11011/137/2022-IA-II(I) dated 23.4.2022. The PP applied for the Environment Clearance in the Common Application Form and submitted the EIA/EMP Report and other documents. The PP in the CAF reported that it is a **Fresh case.** The proposal is placed in 52nd EAC Meeting held on 30th-31st May, 2023, wherein the PP and an accredited Consultant, San Envirotech Pvt. Ltd. [Accreditation number – NABET/EIA/1922/RA 0216, Valid up to 23.12.2023], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area of the project is 12089 m^2 that will be used for the proposed project and no R & R is involved in the Project. The details of products are as follows:

S. No.	Name of Products	CAS No.	Quantity (MT/month)	End use of product
1.	**Unsaturated Polyester Resin**			
1a	PET Resin	--	900	FRP industry manufacturing process
1b	Ortho Unsaturated Polyester Resin	--	720	
2	**Other Resins**			
2a	Iso Phthalic Resin	--	180	FRP industry Manufacturing process
2b	Vinyl Ester Resin	--		
2c	Super Vinyl Ester Resin	--		
2d	Bisphenol Fumarate Resin	--		
3.	Urea Formaldehyde Resin (UF Resin)	9011-05-6	945	Wooden industries
4.	Melamine Formaldehyde Resin (MF Resin)	9003-08-1		
5.	Mono Glyceride Alkyd Resin	--		
6.	Medium Soya Fatty Acid Alkyd Resin	--		
7.	Fatty Acid Process Alkyd 80% Resin	--		
8.	Acrylic Resin	9063-87-0	270	Acrylic industries
9.	Polyvinyl Alcohol (PVA) Solution	9002-89-5	720	Wooden industries
10.	Epoxy Resin	25085-99-8	270	Paint industries
		Total	**4005**	**--**

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 there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance of the project site. Pond of Mahijada Village is at a distance of 1.79 km in S direction. Sabarmati River is flowing at a distance of 1.5 km in the W direction. There is no forest land involved in the proposed project. Schedule-I species i.e Indian peafowl (Pavo cristatus), is observed in the 10 km radius

from the proposed expansion project site. Wildlife Conservation Plan has been prepared and submitted to Deputy conservator of Forests dated 15.3.2023.

7. The PP reported that the **Ambient air quality** monitoring was carried out at 8 locations during (March, 2022 to May, 2022) and the baseline data indicated the ranges of concentrations as: PM_{10} (62.8 – 66.2 µg/m^3), $PM_{2.5}$ (34.1 – 38.9 µg/m^3), SO_2 (13.3 – 16.6 µg/m^3), NOx (19.1 – 21.3 µg/m^3). AAQ modeling study for point source emission indicated that the maximum incremental GLCs after the proposed project would be 2.731 µg/m^3, 1.013 µg/m^3 and 1.517 µg/m^3 with respect to PM, SO_2 and NOx. The resultant concentrations are within the national ambient air quality standards (NAAQS). **Noise:** Noise monitoring has been conducted at nine locations in the study area. The monitored noise level in the day time Leq (Ld) varied from 44.3 to 54.3 dB (A) and the night time Leq (Ln) varied from 38.1 to 41.1 dB (A) within the study area. Higher noise value of 54.3 dB (A) was recorded during day time at Primary School, Timba & lower noise value of 38.1 dB(A) was recorded during night time at Village Navapura. Based on the observations made during the studies, it is concluded that; the noise levels recorded at various locations in the study area show considerable fluctuations because of changes in traffic movement, commercial and other domestic activities in the study area. Overall the ambient noise level in the monitored locations was found to be within the permissible limits stipulated for residential, industrial areas, silence and commercial zone **Ground Water:** The results have been compared with the drinking water quality standards specified in IS: 10500-2012. It is found that, all the samples meet the permissible limit authority (BIS). **Surface Water:** All the physico-chemical parameters and heavy metals from surface water samples except turbidity and coliforms are below stipulated drinking water standards and it is suitable for domestic usage after filtration/boiling. **Soil:** In the study area, variations in the pH value ranging from 7.63 to 7.80 which shows that the soil is slightly alkaline in nature. Organic Matter ranges from 1.89 to 3.66 mg/kg in the soil samples. Soil of the study area is known to be moderate for cultivation because high salinity. Generally, soils with low bulk density have favorable physical conditions (porosity and permeability) whereas those with high bulk density exhibit poor physical conditions for agriculture crops.

8. The PP reported that the total water requirement is 49.0 m^3/day; of which fresh water requirement of 45.0 m^3/day will be met from Ground Water Source – Bore well. 4.0 m^3/day will be recycled/treated water. Total trade effluent generation will be 19.5 KLD. Entire effluent will be treated in ETP and finally evaporated in an -house spray dryer or Spray dried In-House or Common Facility Operated in closed vicinity to evaporate the industrial effluent. Domestic sewage (4.0 KLD) will be treated in STP and the treated sewage will be utilized for Greenbelt development

9. The PP reported that the Power requirement will be 400 kW and will be met from Uttar Gujarat Vij Company Ltd. (UGVCL). Unit proposed to install 2 D.G. Sets (25 kVA and 125 kVA capacity) and will be used as standby during power failure. Stack (height 11 meters) will be provided as per CPCB norms to the proposed D.G. Set.

10. In proposed unit, Natural Gas/LDO fired Boiler (0.8 TPH), Natural Gas/LDO fired 2 nos. of Thermic Fluid Heaters (10.0 Lakhs Kcal/hr. and x 5.0 Lakhs Kcal/hr.) will be installed. No APCM will be required as NG/LDO will be is used as fuel. Stack details are given below.

Sr. No.	Stack attached to	Fuel Type	Stack Height (m)	APC measures	Probable emission
➢ **Flue Gas stacks**					
1.	Boiler (0.8 TPH)	Natural Gas 1200 SCM/Day/ LDO=2.0 KLD	30	Adequate Stack height	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_X: 50 ppm
2.	Thermic Fluid Heater (10 Lakhs kcal/hr.) x 2 nos.	Natural Gas 4800 SCM/Day/ LDO=8.0 KLD			
3	Thermic Fluid Heater (5 Lakhs kcal/hr.)	Natural Gas 1200 SCM/Day/ LDO=2.0 KLD			
4.	D G Set (125 KVA) (Stand by)	HSD: 30.0 lit/hr.	11	Acoustic Enclosure & Adequate Stack height	

11. **Details of Process Emissions Generation and its Management**: Process gas emission will be from vent attached with Natural Gas/LDO fired Spray Dryer. In-built water scrubber will be installed on vent of Spray Dryer. Stack details are given below:

Sr. No.	Stack attached to	Fuel Type	Stack Height (m)	APC measures	Probable emission
Process Gas stack					
1	Spray Dryer (2000 Lit/hr.)	Natural Gas 4000 SCM/Day/ LDO=8.0 KLD	30	In-Built water scrubber	PM: 150 mg/Nm^3 SO_2: 100 ppm NO_X: 50 ppm

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

Sr. No.	Type of Waste	Source	Category as per HWM Rules, 2016	Quantity (MTPA)	Method of Disposal
1.	ETP sludge	ETP	35.3	24.0 MT/Year	

2.	Evaporation Salt	SD of ETP	35.3	16.0 MT/Year	Collection, Storage, Transportation, Disposal at TSDF.
3.	Discarded Containers Liner/Bags	Raw material	33.1	24000 Nos./Year 24.0 MT/Year	Collection, Storage, Transportation, Disposal by selling to Authorized Recycler.
4.	Used Oil	Plant machineries	5.1	0.5 KL/Year	Collection, Storage and reuse as lubricant.

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹- Rs. 1.71 Crores (capital) and the Recurring cost (operation and maintenance) will be about ₹ 1.35 Crores per annum. The industry proposes to allocate Rs 40.0 Lakhs towards CER.

14. Industry will develop greenbelt over an area of 33% i.e. 3990 m^2, out of the total area of the project.

15. The PP reported that Public Hearing for the proposed project has been conducted by the Gujarat Pollution Control Board on 14.02.2023 which was presided by the Sub Divisional Magistrate. The main issues raised during the public hearing were for proper utilization of CER fund, local employment and proper pollution control.

Issue raised	Response/Commitment from Project Proponent	Action Plan	Budget Allocation
• Budget for CER .	• Representative of Project informed that, Rs. 40 lakhs are earmarked for CER activities before the unit is commissioned and after the unit is operational, CSR budget will be allocated as per government guidelines. For which priority will be given to nearby villages.	Installation of Solar Panels (20 KW) on rooftop of Community Health Center, Dholka, Pond development & tree plantation in village Mahijada within one year.	Rs. 25.0 Lakhs out of Earmark amount of CER Rs. 40.0 Lakhs will be utilized within one year and balance 15.0 Lakhs will be utilized as maintenance cost within five years.
• Pollution Control	• Representative of Project informed that, there will be no process gas emission from the production. Priority will be given to Natural gas as first fuel in boilers and thermic fluid heaters (TFH) and in its non-	Immediately along with project development and operate with plant operation.	Unit has provision of Rs. 171.5 Lakhs for overall EMP capital cost and Rs. 135.7 Lakhs /Annum estimated for Operational/

	availability Diesel (LDO) will be used as fuel. Both the fuels are enviro-friendly and not harmful to the environment and there will no requirement of installation of any air pollution control equipment. • Technical representative of the project stated that, polluted water will be generated from the process from inter-reaction of raw material. Total wastewater generated from the unit will be evaporated after proper treatment. No any type of wastewater will be disposed outside the company. Whatsoever hazardous solid waste generated will be disposed of at the TSDF site and used oil and drums/ containers will be disposed by selling to registered recyclers.		Maintenance cost
• Employment	• Representative of Project informed that, atleast 45 to 50 workers will be employed in the proposed unit and priority will be given to suitable local people.	Immediately along with implementation of project.	--
Safety of the workers	• Representative of Project informed that, workers working at heights shall be provided with safety belts, helmets and gumboots, hand gloves, safety goggles will be given to workers working with chemicals. Apart	Immediately along with project development and operate with plant operation.	Unit has provision of Rs. 4.0 Lakhs for as capital cost for safety facility and Rs. 1.5 Lakhs /Annum estimated for

	from this, expert's advice in this matter will be considered.		Maintenance cost

16. The PP proposed to set up an Environment Management Cell (EMC) consisting of Manager (EHS) – Executive- ETP in charge- SD- incharge- Safety officer for the functioning of EMC.

17. The PP reported that Industry proposed to develop greenbelt over 3990 m^2 area with around 1000 nos. of trees. Approximately 2241.2 Ton/annum of CO2 will be sequestrated & reduced. It will be around 32.37% reduction from carbon emission of project during operational phase.

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

19. The estimated project cost is Rs. 20.0 Crores. Total employment will be 45 persons as direct.

20. **Deliberations by the EAC:**

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

The EAC noted that the Project Proponent has given an undertaking 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 project proponent.

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

The EAC inter-alia, deliberated on the layout of the project site, water balance, greenbelt development plan, Environment management cell (EMC), pollution load, characterstics of treated and untreated effleunt CER activities, compliance of OM dated 18.5.2023 and advised the PP to submit the following:

- Revised reply related to some construction work observed in the project site.
- Revised water balance diagram removing alternate proposal off disposal of effleunt to common facility for evaporation.
- Commitment for development of Greenbelt development in 1st Year.

- Revised structure of EMC.
- Revised Pollution load (Kg/day) from wastewater generation in terms of BOD, COD and TDS.
- Revised table of charcaterstics of treated and untreated effluent.
- Revised CER activities
- Supporting documents of the compliance of OM dated 18.5.2023 regarding the verification of the consultant.

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

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

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

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

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

(i) The PP shall develop Greenbelt over an area at least of 33% i.e. 3990 m^2 by planting 1000 trees 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 Manager EHS- Executive officer- ETP incharge-spray dryer boiler in charge. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget propose under EMP is ₹ 1.71 crore (Capital cost) and ₹ 1.35 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 of the project is 49.0 KLD of which fresh water requirement of 45.0 m^3/day (**as per revised commitment after deliberation**) which will be met from Ground 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 withdrawal only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(v) As committed by the PP, Rs. 40 Lakh shall be allocated for CER activities for installation of Solar Panels (20 KW) on rooftop of Community Health Center, Opp. Menaben tower, Dholka, Maghiya, Dist: Ahmedabad, Maintenance cost of Solar Panel, Village pond development at Mahijda Village with development of tree plantation, Tree plantation in Mahijda Village (~2000 trees), Maintenance cost for plantationincluding security guard, water and manure/soil etc.

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

(xii) Total trade effluent generation shall be 19.5 KLD. Entire effluent shall be treated in ETP and finally **evaporated in in-house spray dryer**. Domestic sewage (4.0 KLD) shall be treated in STP and treated sewage shall be utilized for Greenbelt development.

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

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

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

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

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

(xviii) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be 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.

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

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

(xxi) The activities and the action plan proposed by the 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. 52.7

Proposed expansion in production capacity from 75 MT/Month to 800 MT/Month located at Plot No. C-1/128/24, C-1/128/25, C-1/128/18 & C-1/128/19 GIDC, Nandesari, District: Vadodara- 391340, Gujarat by M/s. Base Metal Chlorination (P) Ltd. (Unit- II) - Consideration of EC

[Proposal No. IA/GJ/IND3/427154/2023; File NoIA-J-11011/189/2023-IA-II(I)]

1. The proposal is for environmental clearance for the Proposed expansion in production capacity from 75 MT/Month to 800 MT/Month located at Plot No. C-1/128/24, C-1/128/25, C-1/128/18 & C-1/128/19 GIDC, Nandesari, District: Vadodara- 391340, Gujarat by M/s. Base Metal Chlorination (P) Ltd. (Unit- II).

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 was issued by SEIAA vide letter No. SIA/GJ/163209/2021; dated 03.09.2021. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is an **Expansion case.** The proposal is placed in this 52nd EAC meeting on 30th -31st May, 2023, wherein the PP along with accredited Consultant, M/s. Excel Enviro Tech, Ahmedabad [Accreditation number NABET/EIA/2124/RA 0234_Rev01 dated valid till 27.06.2024] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that the existing land area is 1450 m^2, additional 1470 m^2 land will be used for proposed expansion and no R& R is involved in the Project. The details of products and capacity are as follows:

S. No	Product Details (completename)	CAS NO.	Existing Quantity (MT/Month)	Proposed Quantity (MT/Month)	Total Quantity (MT/Month)	Uses
1.	Calcium Butyrate	5743-36-2	75	425	500	Animal Feed
2.	Calcium Propionate	4075-81-4	0	500		Animal Feed
3.	Sodium Butyrate	156-54-7	0	500		Animal Feed
4.	Sodium Propionate	137-40-6	0	500		Animal Feed
5.	Calcium Propionate (Food Grade)	4075-81-4	0	300	300	Food preservatives
	Total		**75**	**725**	**800**	**--**

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 Unit was established before 2006. Hence, EC was not obtained. Currently the Unit is engaged in the manufacturing of Animal feed with consented quantity of 75 MT/Month. Unit has valid CTO in favour of M/s Base Metal Chlorination (P) Ltd. (Unit – II). Self-certified Compliance report is submitted as the CTO obtained within last year vide letter no. WH – 122566, Dated 14.11.2022. All the conditions are complied.

7. The PP reported that there are no National parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wild life Corridors etc. within 10 km distance from the project site. Mahi river is flowing at a distance of 2.37 km & in direction W. 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.

8. The **Ambient air quality** monitoring was carried out at 9 locations during October 2022 - December 2022 to and the baseline data indicated the ranges of concentrations as: PM_{10} (70.55 – 87.56 µg/m^3), $PM_{2.5}$ (34.87 – 42.59 µg/m^3), SO_2 (12.12 – 24.10 µg/m^3) and NO_2 (22.64 – 32.93 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.29467 µg/m^3, 0.51468 µg/m^3 and 0.18466 µg/m^3 with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise-** The hourly Leq noise levels recorded at project site shows that the noise level is in the range of 60.5 dB(A) to 68.4 dB (A) during the day time & 57.3 dB(A) to 61.6 dB (A) during the night time. The noise level at project site was found in within the Industrial limits. The noise level recorded in study area is in the range of 51dB (A) to 74.3 dB (A) during the day time and 41.7 dB (A) to 68.9 dB (A) during night time and are found below the Industrial limits. The recorded noise levels were well below the national ambient noise level standards for day time and night time**. Ground water**- The TDS concentration in the ground water samples has been found to vary between 350.4 mg/L and 1222 mg/Land total hardness in the range of 100 mg/L and 380mg/L The concentration of TDS is well above the drinking water standards. pH is found Neutral at all locations. The Phenolic compound and Ammonical Nitrogen are below detectable limits. The Fluoride concentration in ground water ranges from 0.17 to 0.89 mg/L. Concentration of metals in raw water is also

within acceptable range**. Surface water-** Water samples were collected from neighbouring villages within 10 km aerial distance from the site. The pH of surface water sample was found in the range of 7.27 to 7.91, TDS concentration of water were ranging between 355 mg/L (Dodka) to 1378mg/L (Sankarda). other parameters are within the range of acceptance criteria for drinking water as per IS: 10500: 2012. **Soil-** Samples collected from identified locations indicatd that the soil is neutral; pH value ranging from 7.09 to 9.45 Soil texture is mostly mixed type. Organic matter is in the range of 0.41% to 0.72%.

9. The PP reported that the total water requirement is 53.6 m^3/day of which fresh water requirement of 29.6 m^3/day will be met from Nandesari GIDC. Effluent of 25 m^3/day will be treated through in house ETP. 24 m^3/day will be reused within premises and 1 m^3/day will be sent to CETP – Nandesari.

10. The Power requirement after the expansion will be 200 KVA. Including existing 100 KVA and will be met from Madhya Gujarat Vij Company Ltd. (MGVCL). Existing unit has no DG sets. After Expansion additionally 1 DG sets (63 kVA) will be used as standby during power failure. Stack (11) will be provided as per CPCB norms to the proposed DG sets.

11. The existing unit has no boiler. Additionally, 1 TPH Natural Gas fired boiler will be installed. Adequate stack height will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 for the proposed boilers.

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

Stack No.	**Specific Source of emission**	**Type of emissions i.e. Air Pollutants**	**Stack/Vent Height (meter)**	**Air Pollution Control Measures**
1	Evaporator Water Scrubber	PM, VOC	11	Water
2	Blender (For Calcium Propionate & Sodium Propionate)		11	Lime Solution/Caustic Solution
3	Blender (For Calcium Butyrate & Sodium Butyrate)		11	Lime Solution/Caustic Solution

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

Sr. No.	**Type of Waste**	**Specific Source of generation**	**Category (as per HWM Rules, 2016)**	**Quantity (MT/Annum)**			**Method of Disposal**
				Existing	**Proposed**	**Total**	

1	Discarded Containers/bags	Raw material	33.1	12	+ 12	24	Collection, Storage, Transportation and Disposal by selling to registered recyclers / sent to NECL.
2	Lime sludge/ Sweeping waste	ETP	35.3	--	84	84	Collection, Storage, Transportation and Disposal at TSDF, NECL, Nandesari.
3	Used oil	Machineries	5.1	--	0.1	0.1	Collection, Storage, Transportation; reuse as lubricant or by selling to Authorized refiners.
Solid Waste							
1.	STP Sludge	STP	--	--	12	12	Collection, Storage and disposal by used as Manure within premises.

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 20.71 Lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 2.8 Lakhs per annum. Industry proposes to allocate Rs. 5.6 Lakhs towards Corporate Social Responsibility.

15. Industry has already developed greenbelt over an area 400 m^2 and will develop greenbelt over an additional area of 773.6 m^2 (Total i.e. 40 %), out of total area of the project. 210 m^2 green belt area will develop at common area of Nandesari GIDC.

16. The PP reported that the public hearing is exempted as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006 as the project site is located within GIDC Nandesari which is declared as notified industrial area vide notification number No. GHU/75/36/GID1974/4084 dated 6th, May,1975.

17. The PP proposed to set up an Environment Management Cell (EMC) by engaging site head-EHS Manager- Shift-In-Charge / Supervisor- Visiting Doctors for the functioning of EMC.

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

19. The estimated project cost is Rs 5.21 Cr including existing investment of Rs. 2.43 crores. Total Employment will be 36 persons as direct & 110 persons indirect after expansion.

20. **Deliberations by the EAC**

The EAC constituted under the provisions of the EIA Notification, 2006 comprising expert members /domain experts in various fields, examined the proposal submitted by the 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, water balance diagram, hazardous waste details, EMP plan, compliance of OM dated 18.5.2023, and advised the PP to submit the following:

- Revised Green Belt Development Plan and Undertaking for the Same.
- Revised Water Balance Diagram Including STP
- Revised Hazardous Waste Details
- Revised EMP Plan
- Supporting Documents of the Compliance of OM Dated 18.5.2023 Regarding the Verification of the Consultant.

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.

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

i. Adequate stack height as per CPCB/SPCB guidelines shall be provided. Stack emission levels shall be stringent than the existing standards.

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. As committed by the PP, raw materials, products and hazardous chemicals shall be stored and transported in closed containers. Transportation of materials by rail/conveyor belt, wherever feasible, shall be explored.

v. Natural gas shall be proposed as the primary fuel.

vi. The best available technology shall be used.

vii. The PP shall develop greenbelt over an area of at least 963.6 m^2 and additional 210 m^2 area will be developed in Nandesari GIDC within one year of grant of EC. The saplings 350 number of trees 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 PP shall also develop avenue plantation in the nearby areas.

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

x. Treated sewage (3.5 KLD) And industrial wastewater (24 KLD) shall be reused in premises. Unit shall generate only 1 KLD of floor washing effluent occasionally which shall be sent to CETP Nandesari.

xi. Continuous monitoring system for effluent quality/ quantity shall be connected to CPCB server.

xii. The rain water from the building roofs (Admin building & Engineering work shop) shall be connected to rain water harvesting collection tank and same shall be used as raw water.

xiii. The total Industrial effluent to be generated shall be 25 KLD. 3.5 Domestic effluent shall be treated in STP and then reused for gardening activities. 24 KLD Industrial effluents shall be reused in process and 1 KLD after primary treatment shall be sent to CETP.

xiv. The unit shall install STP with capacity of 5 KLD for sewage generation of 3.5 KLD.

xv. The PP shall dispose the waste at TSDF facilities approved by state pollution control board.

xvi. The hazardous waste generated should be preferably utilized in co-processing.

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

xviii. As proposed, an amount of ₹ 5.60 Lakhs shall be allocated towards CER activities.

xix. A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage site head- EHS Manager- Shift-In-Charge / Supervisor- Visiting Doctors. 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.

xx. 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 ₹ 31.39 Lakhs (Capital cost) and ₹ 5.0 Lakhs/ annum (Recurring cost) **(Revised cost after deliberation**) 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.

xxi. The Total water requirement for the proposed expansion project shall be 54.1 KLD, out of which Fresh water requirement shall be 26.6 KLD sourced from Nandesari GIDC Pipeline water supply system. (**revised after the EAC deliberation**) 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.

xxii. 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.

xxiii. 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.

xxiv. 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.

xxv. 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.

xxvi. 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.

xxvii. 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.

xxviii. 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.

xxix. 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.

xxx. 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.

xxxi. 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.

xxxii. 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. 52.8

Expansion in manufacturing unit "Pesticides and pesticide specific intermediates along with Synthetic Organic chemicals (Pharma/API/Intermediates): 48075 MTPA (excluding formulation) and By-Product-20339 MT/Annum" located at Plot No. 3133-3139, 3231-3245, 3330-3351, 3571-3524, GIDC-Panoli, Bharuch, Gujarat by M/s PI Industries Ltd. - Consideration of EC

[Proposal No. IA/GJ/IND3/426422/2023; File No IA-J-11011/168/2022-IA-II(I)]

The PP vide email dated 30.5.2023 informed that due to unavoidable circumstances, they would be unable to attend the meeting and requested to defer the proposal.

The proposal was accordingly, **deferred.**

Agenda No. 52.9

Expansion in the production capacity of existing thermosetting Moulding Powder Manufacturing Unit from 2100 MT/annum to 4500 MT/annum located at Plot No. F-1041 RIICO Industrial Area, Bhiwadi Tehsil: Tijara District: Alwar, Rajasthan by Chawla Polychem – Corrigendum in Terms of Reference (ToR) (Violation category)

[Proposal No. IA/RJ/IND3/426479/2023; File No. IA-J-11011/32/2023-IA-II(I)]

1. The proposal is for Corrigendum in the ToR granted by the Ministry vide letter No. IA-J-11011/32/2023-IA-II(I) dated 10.03.2023 for the existing Thermosetting Moulding Powder Manufacturing Unit located at Plot No.F-1041 RIICO Industrial Area, Bhiwadi Tehsil: Tijara District: Alwar (Raj), in favour of M/s Chawla Polychem.

2. The project proponent has requested for Corrigendum in the ToR with the details as under:

S. No.	Reference of ToR letter	Details as per the ToR	To be revised/ read as	Justification/ reasons
1.	**Point no. 7, Page no. 2** of ToR Letter no. vide file no. IA-J-11011/32/2023-IA-II(I) on dated 10.03.2023.	*"The PP reported that the total land required for the proposed project is 792.5 m^2 and no R&R is involved in the Project."*	The actual land area is 1981.35 sq. m.	In ToR letter, the total plot area was misread as 792.5 sq. m. which is green belt area. The actual land area is 1981.35 sq. m.

3. **Deliberations by the EAC**

The PP informed that since corrigendum application is not available in the Parvesh 2.0, they have applied as an amendment proposal. The MS clarified that since this proposal was applied as an amendment, it was auto-listed in the agenda of Parivesh 2.0, else, corrigendum matters need not be placed before the EAC. However**,** the EAC **recommended** the above corrigendum in ToR.

Agenda No. 52.10

Proposed Unit for the Specialty Chemicals & Agrochemicals Product of production capacity (21620 MT/Annum) located at Plot No. 5807-5808 GIDC Estate Ankleshwar-393002, Dist.: Bharuch, Gujarat by M/s. Sajjan India Limited (Unit – 2) - Consideration of EC

[Proposal No. IA/GJ/IND3/426752/2023; File No. IA-J-11011/351/2022-IA-II(I)

1. The proposal is for the environmental clearance for Proposed unit for the Specialty Chemicals & Agrochemicals Product of production capacity (21620 MT/Annum) located at Plot No. 5807-5808 GIDC Estate Ankleshwar, District- Bharuch, Gujarat by M/s. Sajjan India Limited (Unit – 2).

2. The project/activity is covered under Category 'A' of item 5(b) & 5(f) Pesticides industry and pesticide specific intermediates, synthetic organic chemical (excluding formulations of Schedule of EIA Notification, 2006 (as amended). **The PP reported that project site is located in a critically polluted area.**

3. The ToR was issued by the Ministry, vide letter no. IA-J-11011/351/2022-IA-II(I) dated 26.10.2022. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a **Fresh EC case.** The proposal is placed in this 52nd EAC meeting on 30th-31st May, 2023, wherein the PP along with accredited Consultant, M/s. Aqua-Air Environmental Engineers Pvt. Ltd [Accreditation number NABET/EIA/2023/IA0062 (Rev. 03) valid till 7.10.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that the proposed land area of the project is 34561 m^2 and no R& R is involved in the Project. The details of products to be manufactured are as follows:

Sr. No.	Name of Product	CAS No.	Group Qty. (MT/Annum)
Group Name: Other Agro and Pharma Intermediates			
1	4-tert-Butylcyclohexanone	98-53-3	3740
2	3-Trimethylsilanyl-propynoic acid allylamide	251911-61-2	
3	3-Iodophathalicanhydride	28418-88-4	
4	3-Bromo-2-methyl propene	1458-96-6	
5	1-(4-Phenoxyphenoxy)propan-2-ol	57650-78-9	
6	5-Methyl chroman-6-carboxylic acid	20006-76-2	
7	6-Amino-7-fluoro-4-(2-propynyl)-2H-1,4-benzoxazin-3(4H)-one	103361-42-8	
8	3-Isobutylaniline	131826-11-4	
9	2,5-Dimethoxypyrimidin-4-amine	6960-17-4	
10	(1E)-[2-[[6-(2-chlorophenoxy)-5-fluoro-4-pyrimidinyl] oxy]phenyl] and its intermediates.	361377-29-9	
11	3',4'-difluoro-2-aminobiphenyl	873056-62-3	
12	isopropyl 2-(4-methoxybiphenyl-3-yl) hydrazinoformate 1-methylethyl 2-(4-methoxy [1,1′-biphenyl]-3-yl)hydrazinecarboxylate and its intermediates	149877-41-8	
Group Name : Benzene Derivatives			
13	2,6-Dichloro-4-methylphenol	2432-12-4	6500
14	2-Trifluoromethylbenzoyl chloride	312-94-7	
15	3-Chloro 2 Flouro Phenol	2613-22-1	
16	4-Nitro-2-sulphobenzoic Acid Potassium salt	5344-48-9	

17	2-Methoxyethyl a-cyano-a-[4-(1,1-dimethylethyl)phenyl]-B-oxo-2-(trifluoromethyl) benzene propanoate	400882-07-7	
18	4-Chloro-2,6-dimethyl bromobenzene	103724-99-8	
19	1,2- bis (2- Aminophenoxy) ethane	52411-34-4	
20	2-Trilfuoromethyl benzamide	[360-64-5]	
21	5-Amino-2,4-di-tert-butylphenol	873055-58-4	
22	AOX-D	Not Available	
23	4-Acetyl-2-methylbenzamide	1095275-06-1	
24	2-amino benzonitrile	1885-29-6	
25	2,4,6-Trimethylaniline (Mesidine)	88-05-1	
26	Methyl (2-bromomethylphenyl) (methoxyimino) acetate	133409-72-0	
27	2-tert-butyl-2-[2-(4-chlorophenyl)ethyl]oxirane	80443-63-6	
28	3-[Benzoyl(methyl)amino]-2-fluorobenzoic acid	1207726-84-8	
29	Methyl 3-(bromomethyl)-2-chloro-4-(methyl sulfonyl) benzoate	120100-44-9	
30	(4-Chloro-2,6-dimethylphenyl)acetic acid	186748-50-5	
Group Name: Heterocyclic Derivatives			
31	Ethyl 4-chloro-3-ethyl-1-methyl-1H-pyrazole-5-carboxylate	124800-34-6	3580
32	1-Methyl-3-(trifluoromethyl)-1h-pyrazole-4-carboxylic acid	113100-53-1	
33	3-bromo-1-(3-chloro-2-pyridyl)-4,5-dihydro-1H-pyrazole-5-carboxylic acid	500011-86-9	
34	2-chloro-5-(3-chloropropyl)-3-(ethylsulfonyl) pyridine	2505482-71-1	
35	(2,4-dichlorophenyl)(5-hydroxy-1,3-dimethyl-1H-pyrazol-4-yl)methanone	58010-98-3	
36	1,3-Dimethyl-5-chloropyrazol carbonyl chloride	27006-83-3	
37	2,6-Dimethyl-,2,3-dihydro-1h-inden-1-one	66309-83-9	
38	N-[1,1-dimethyl-2-(4-isopropoxy-o-tolyl)-2-oxoethyl]-3-methylthiophene-2-carboxamide	875915-78-9	
39	6-Fluoro-2-methyl indole	40311-13-5	
40	Bis[1-(N,N-dimethylsulfamoyl)-1,2,4-triazole-3-yl]disulfide	247236-09-5	
41	1,3-Thiazolan-2-one	2682-49-7	
42	2-Chloro-1-(1-chloro-cyclopropyl)-ethanone	120983-72-4	
Group Name: Pyrimidine Derivatives			
43	4-hydroxy-2-isopropyl-6-methylpyrimidine	2814-20-2	2600
44	2,4,6-Trihydroxypyrimidine	67-52-7	
45	4,6-Difluoro-2-ethoxy pyrimidine	166524-65-8	
46	5-Bromopyrimidine	4595-59-5	
47	1-(4,6-Dimethoxy Pyrimidine-2-yl)propan-2-one	414909-25-4	

48	2-(3-Chloro-5-(trifluoromethyl)pyridin-2-yl) ethanamine	658066-44-5	
49	2-chloro-4, 6-dimethylpyrimidine	4472-44-0	
Group Name : Napthelene Based Dye Intermediates			
50	4 – Benzoylamino - 5 – Napthol – 2 – 7 Disulphonic Acid	117-46-4	900
51	4 – Hydoxy N – (3 – Sulfophenyl – 2 – Napthylamine – 6- Sulphonic Acid	25251-42-7	
52	5-chloro-2-methoxy-4-methylpyridine-3-carboxylic acid	851607-38-0	2350
53	(5-chloro-2-methoxy-4-methylpyridin-3-yl) (2,3,4-trimethoxy-6-methylphenyl)methanone	6880046-61-9	
54	2-Sulfonamide-3-trifluoromethylpyridine	104040-76-8	
55	3-Chloro-2-hydrazinopyridine	22841-92-5	
56	3-Chloro-N-(3-chloro-5-tri uoromethyl-2-pyridyl)-α,α,α-tri uoro-2,6-dinitro-p-toluidine	79622-59-6	
57	2-chloro-5-chloromethylpyridine	70258-18-3	
Group Name : Pyrimidine Chloro Derivatives			
58	4,6-Dimethoxy-2-chloropyrimidine	[13223-25-1]	1400
59	N-(2-Amino-4,6-dichloropyrimidin-5-yl) formamide	[171887-03-9]	
60	Dichloro-1,3 diazabenzene	[1193-21-1]	
Group Name: Thiol Derivatives			
61	Thiocyclam oxalate	31895-22-4	400
Group Name : R & D Products			
62	R & D Products	--	150
	Total		**21620 MT/Annum**

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

6. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance of the project site. River Narmada is flowing at distance of 7.9 Km in North direction. There is no forest land involved in the proposed project. Schedule-I species Grey mongoose, Shikra, Indian peafowl, Indian ratsnake, Indian cobra were observed in the 10 km radius from the proposed project for which conservation plan has been prepared and submitted to District Forest Officer vide dated 9.3.2023.

7. The PP reported that **Ambient air quality** monitoring was carried out at 8 locations during 1st October 2022 to 31st December 2022 and the baseline data indicated the ranges of concentrations as: PM_{10} (77.18 – 96.18 μg/m^3), $PM_{2.5}$ (42.56 – 48.84 μg/m^3), SO_2 (16.90 – 18.81 μg/m^3) and NO_x (19.14 – 23.63 μg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.4 μg/m^3, 0.266 μg/m^3 and 1.173 μg/m^3 with respect to PM_{10}, SO_2 and NO_2. The resultant concentrations

are within the National Ambient Air Quality Standards (NAAQS). **Ground Water quality** monitoring was carried out at 8 locations during 1st October 2022 to 31st December 2022 and the baseline data indicated the ranges: pH (7.10 – 7.95), Total Dissolved Solids (258 - 1946 mg/l), Total Hardness (122 – 596.4 mg/l), Chlorides (12.4 – 539.3 mg/l), Fluoride (<0.05 – 0.48 mg/l) and Zinc (<0.05 – 0.12 mg/l). **Surface Water quality** monitoring was carried out at 4 locations during 1st October 2022 to 31st December 2022 and the baseline data indicates the ranges concentrations as: pH (7.29 – 7.79), Dissolved Oxygen (6.40 – 7.28 mg/l), Chemical Oxygen Demand (5.14 – 10.90 mg/l), Bio-Chemical Oxygen Demand (1.62 – 3.41 mg/l). **Soil quality** monitoring was carried out at 8 locations during 1st October 2022 to 31st December 2022 and the baseline data indicates the ranges as pH (7.47 – 8.18), Nitrogen (435.4 – 1706.3 mg/kg), Phosphorus (5.09 – 18.08 mg/kg), Potassium (<0.5 – 9.73 mg/kg) and Electric Conductivity (0.19 – 1.59 mS/cm). **Noise** level monitoring was carried out at 7 Residential locations, 5 Industrial locations during 1st October 2022 to 31st December 2022. The baseline data indicates the Industrial Location Leq (Day) (62.8 – 70.3 dB) A)) and Leq (Night) (62.4 – 67.9 dB(A)) for Residential Location Leq (Day) (50.2 – 54.8 dB) A)) and Leq (Night) (38.2 – 44.9 dB(A)).

8. The PP reported that the Total water requirement is 1740 m^3/day of which fresh water requirement of 1016 m^3/day will be met from GIDC Water Supply, rest 724 m^3/day water will be recycled water. Effluent of 984 m^3/day quantity will be treated as per below treatment description **Process High TDS Effluent** From the process High TDS & High COD 736 m^3/day effluent are being collected in dedicated tank, then it is being transferred to Neutralization tank, where effluent are being neutralize by using 48 % caustic lye and Hydrated Lime and the neutral effluent are transferred to Clariflocculator for solid- liquid separation, in the Clariflocculator for flocculation and coagulation PAC and poly electrolyte are used , clear supernatant are collected in separate tank and bottom sludge from Clariflocculator are being transferred to sludge thickener tank to feed in to Super decanter for dewatering, 65 MT converted in to sludge, final sludge from super decanter are filled in bags and stored at Hazardous waste storage area and finally disposed at TSDF site. From Clear filtrate effluent 120 m^3/day is disposed to CMEE of Detox and rest of 531 m^3/day + 131 m^3/day RO Reject = 662 m^3/day Feed to in-house stripper, followed by MEE & ATFD, Condensate from MEE 476 m^3/day collected in Low COD Tank and Concentrated 186 m^3/day feed to ATFD, condensate of ATFD 131 m^3/day collected in Low COD Tank and solid from ATFD 55 MT is disposed to TSDF site. MEE + ATFD condensate 607 m^3/day are pumping to Biological system for further treatment Low TDS & Low COD Effluent Dilute stream like effluent from washing and floor cleaning 100 m^3/day, Boiler blow down 60 m^3/day and cooling tower blow down 58 m^3/day is mixed with MEE condensate and 825 m^3/day feed to Biological system for Bio degradation and after biological treatment again polishing treatment are given for removal of suspended solid, clear effluent from tertiary clarifier 825 m^3/day are feed to Reverse Osmosis plant, 694 m^3/day overall RO permeate water is being recycle in Process washing/ Boiler/Cooling tower for reuse. 30 m^3/day Domestic Effluent from canteen and toilet is collected and feed to STP Plant for biodegradation and treated effluent is being used for the Gardening purpose. The plant is not based on the total zero liquid discharge system.

9. Power requirement will be 8000 KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Unit will have 3 Nos. DG sets of 2000 KVA each capacity; additionally, DG sets are used as standby during power failure. Stack (height 42 m) will be provided as per CPCB norms to the proposed DG sets.

10. Unit will have 10 TPH of 1 No. of IBR Boiler, 25 TPH of 2 Nos. of Coal Fire Boiler (1 No. of Standby), 4 Lakh Kcal/hr of 3 No. of Thermic Fluid Heater will be installed. E.S.P with Bag Filter and wet Scrubber, CEMS, Venturi Scrubber, Droplet Separator, Demister pad, High Stack for more dispersion with Stack Height of 42 & 44 Meter will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the proposed boilers.

11. Details of Process Emissions Generation and its Management:

Flue Gas Emission

S. No.	Stack Attached to	Quantity of Fuel	Height (Meter)	APCM	Pollutants
1	IBR Boiler-1 (Capacity - 10 TPH)	NG: 25000 Sm3/day	30	High Stack provided for more dispersion	PM
					SO_2
					NO_x
2	Boiler-2 (Coal Fire-Capacity-25.0 TPH)	Briquettes – 450 MT/Day or Imported Coal –305 MT/Day	44	E.S.P, Bag Filter, Wet Scrubber, CEMS	PM
					SO_2
					NO_x
3	Boiler-3 (Coal Fire-Capacity-25.0 TPH)- Standby				PM
					SO_2
					NO_x
4	Fume Incinerator	NG: 7500 Sm3/day	30	Venturi Scrubber, Droplet Separator, Demister pad	PM
					SO_2
					NO_x
5	D G Set (2000 KVA)-03 Nos (stand by)	Diesel-1250 Liter/Hrs.	30	High Stack provided for more dispersion	PM
					SO_2
					NO_x
6	Thermic Fluid Heater-01 Nos (4 lac kacl/hr)	NG: 5000 Sm3/day	26	High Stack provided for more dispersion	PM
					SO_2
					NO_x
7	Thermic Fluid Heater-02 Nos (4 lac kacl/hr)		26	High Stack provided for more dispersion	PM
					SO_2
					NO_x
8	Thermic Fluid Heater-03 Nos (4 lac kacl/hr)		26	High Stack provided for more dispersion	PM
					SO_2
					NO_x

Process Gas Emission

Sr. No	Process Stack No	APCM	Stack Height (From G.L)	Permissible Limit	
1	Process Stack No-1	Alkali + Water Scrubber	30 Meter	HCl	20 mg/Nm^3
				Cl_2	9 mg/Nm^3
2	Process Stack No-2	Alkali + Water + Hypo	30 Meter	HCl	20 mg/Nm^3
				Cl_2	9 mg/Nm^3
3	Process Stack No-3	Alkali Scrubber	30 Meter	Bromine	30 mg/Nm^3
4	Process Stack No-4	water Scrubber	30 Meter	Ammonia	175 mg/Nm^3
5	Process Stack No-5	Alkali Scrubber	30 Meter	Cl_2	9 mg/Nm^3
6	Process Stack No-6	Alkali + Water Scrubber	30 Meter	HCl	20 mg/Nm^3
7	Process Stack No-7	Alkali + Water Scrubber	30 Meter	HCl	20 mg/Nm^3
8	Process Stack No-8	Alkali Scrubber	30 Meter	SO_2	30 mg/Nm^3
9	Process Stack No-9	Alkali + Water Scrubber	30 Meter	HCl	20 mg/Nm^3
				Cl_2	9 mg/Nm^3
10	Process Stack No-10	Alkali + Water	30 Meter	HCl	20 mg/Nm^3
				HF	6 mg/Nm^3
11	Process Stack No-11	Alkali + Water Scrubber	30 Meter	HF	6 mg/Nm^3
12	Process Stack No-12	Alkali + Water Scrubber	30 Meter	HCl	20 mg/Nm^3
				Cl_2	9 mg/Nm^3
13	Process Stack No-13	Alkali + Water + Hypo	30 Meter	HCl	20 mg/Nm^3
				Cl_2	9 mg/Nm^3
14	Process Stack No-14	Alkali Scrubber	30 Meter	Bromine	30 mg/Nm^3
15	Process Stack No-15	water Scrubber	30 Meter	Ammonia	175 mg/Nm^3
16	Process Stack No-16	Alkali Scrubber	30 Meter	Cl_2	9 mg/Nm^3
17	Process Stack No-17	Alkali + Water Scrubber	30 Meter	HCl	20 mg/Nm^3
18	Process Stack No-18	Alkali + Water Scrubber	30 Meter	HCl	20 mg/Nm^3
19	Process Stack No-19	Alkali + Water Scrubber	30 Meter	HCl	20 mg/Nm^3
				Cl_2	9 mg/Nm^3
20	Process Stack No-20	Alkali + Water	30 Meter	HCl	20 mg/Nm^3
				HF	6 mg/Nm^3
21	Process Stack No-21	Alkali Scrubber	30 Meter	SO_2	30 mg/Nm^3

22	Process Stack No-22 Coal Mill	Alkali + Water Scrubber	30 Meter	HF	6 mg/Nm^3

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

Sr. No	Type of Waste	Source of Generation	Category No.	Qty. (MT/Annum)	Method of Disposal
1	Spent Solvent	Solvent Distillation	20.2	2800	Mix solvent - Collection, Storage Transportation and disposal by sell to authorized user who are having authorization with valid CCA and Rule-9 permission to receive this waste.
2	Distillation Residue	Solvent Distillation	20.3	2000	Collection, Storage, Transportation and disposal To CHWIF Site / Sell to Cement Industry.
3	Process waste/Residue containing acid, toxic metals, organic compound	Process	26.1	1070	Iron Waste: Collection, Storage, Transportation and disposal to TSDF/ Cement Industry
4	Process waste/Residue containing acid, toxic metals, organic compound	Process	26.1	1600	Process Waste/ Residue: Collection, Storage, Transportation and disposal to CHWIF Site / sell to Cement Industry
5	Spent Acid	Process	26.3	12000	HCL & Sulphuric Acid Captive consumption/ Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste

6	Spent Catalyst	Process	28.2	90	Spent Raney Nickel- Captive consumption within unit/ Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste
7	Spent Solvent	Process	26.4	3100	Butyl acetate - Captive consumption within unit / Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste
8	Spent Solvent	Process	28.6	15227	Xylene, Dichloromethane, Hexane, Methanol, Toluene, Isoprene, DMF, EDC, Propionic Toluene, Picolin, Acetic acid etc. - Captive consumption within unit/Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste
9	Spent Solvent	Process	28.6	12000	Isopropyl Alcohol - Captive consumption within unit/ Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste

10	Spent Solvent	Process	28.6	3450	Formic Acid - Captive consumption within unit/ Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste
11	Empty Barrels/Containers /Bags/Liners contaminated with hazardous chemicals/waste	Process & Raw Material	33.1	1050	Disposal by send it to authorized decontamination facility/ recycler or reuse or send back to supplier
12	Chemical sludge from wastewater treatment	ETP	35.3	25000	ETP Chemical Sludge - Collection, storage and transport to Cement Industry or nearest TSDF site, or Fertilizer Industries
13	Chemical sludge from wastewater treatment	MEE	35.3	20000	MEE Salt- Collection, storage and transportation to Coprocessor/ Pre-processor / Cement Industry or nearest TSDF site. /Sell to Actual End Users applied for Rule-09 permission or having permission under Rule-09 to receive this waste
14	Incinerator Ash and flue gas cleaning residue	Fume Incinerator	37.2	600	Collection, storage, transportation and disposal to TSDF Site.
15	Used Oil	Machinery	5.1	95	Collection, storage, transportation and disposal by reuse in plant & machinery as lubricant or sell to authorized re-refiners/recyclers

16	Ammonia	Process	A10	7300	Liquid Ammonia (12%) +NH_4Cl + NH_4SO_2 - Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste
17	Inorganic Acids	Process	B15	5350	HBr in acetic acid, HBr Solution - Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste
18	Inorganic Acids	Process	B15	5000	NaBr Solution, Propionic Acid Solution - Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste
19	Inorganic Acids	Process	B15	8000	$AlCl_3$ Solution (20 % to 22 %) - Disposal by sell out to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste
20	Metal Hydrogen Sulphates	Process	B23	3550	$NaHSO_3$ -Collection, storage and transport to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste
21	Metal Hydrogen Sulphates	Process	B23	3650	Inorganic Salt-Collection, storage

					and transport to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste
22	Sodium Hypochlorite Solution	Process	35.1	30000	10 % Sodium Hypochlorite solution - Collection, Storage and Transport to authorized users who are having authorization with valid CCA and Rule-9 permission to receive this waste
23	Date Expired & Off Specification Products and RM	Process	29.3	4000	Collection, Storage, Transportation and disposal to Common Incineration Site / Pre-processing or Co-processing
24	Solvent from Stripper of MEE	Solvent Stripper	28.6	12000	Collection, Storage, Transportation and disposal to Common Incineration Site/ Pre-processing or Co-processing
25	Plastic Waste	Raw Material & Equipment Packaging	--	50	Collection, Storage, Transportation and disposal to register plastic recycler.
26	E-Waste	Electrical and Instrumental Equipment	--	10	Collection, Storage, Transportation and disposal to register recycler.
27	Bio-medical waste	OHC	--	1	Collection, Storage, Transportation and disposal to BMW waste treatment facility
28	Fly Ash	From Boiler	--	5400	Collection, Storage, Transportation and

					disposal to Brick Manufacturer.
29	Insulation Waste	Plant Maintenance	--	150	Collection, storage, transportation and disposal to nearest TSDF site.

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 108 Crore (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 150 Crore per annum. Industry proposes to allocate Rs. 12.9 Crores towards Corporate Social Responsibility.

14. Industry will develop Greenbelt over an area of 40% i.e., 13825 m^2 out of total area of the project.

15. The PP reported that the project, being in notified industrial area (Notification No.GHU-78-20-GID-1977-660-CH dated 01.02.1978), is exempted from the public hearing as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006 and O.M. No. J-111011/321/2016-IA. II(I) dated 27.04.2018

16. The PP proposed to set up an Environment Management Cell (EMC) by engaging COO- EHS & site head – Enviornment Head- senior manager- Manager- executive- senior shift in charge – ETP operators- MEE operators- RO operators- casual workers for the functioning of EMC.

17. The PP reported that the carbon sequestration details are as:

Base case impacts in global warming (t CO_2 eq.)	864980.272 t CO_2 eq.
Proposed case impacts in global warming (t CO_2 eq.)	410660.48 t CO_2 eq.
% reduction in global warming	52.52%

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

19. The estimated project cost is Rs. 430 Crores. Total Employment will be 400 persons as direct.

20. **Deliberations by the EAC:**

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

The EAC noted that the PP has given an undertaking to the effect that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and 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 fuel, plant layout, compliance of OM dated 18.5.2023, compliance to CPA OM dated 31.10.2019, solvent recovery details, wastewater generation and advised the PP to submit the following:

- Undertaking for fuel in Boiler.
- Revised Plant layout showing the Greenbelt area in periphery of the Project boundary.
- Supporting documents of the compliance of OM dated 18.5.2023 regarding the verification of the consultant.
- Revised compliance and action plan for the additional safeguard measures prescribed in the Ministry/s OM dated 31.10.2019 for critically polluted area.
- Revised Solvent Recovery Details.
- Waste water generation details mentioning the plant is not based on the zero liquid discharge system.

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

The EAC deliberated the Onsite and Offsite Emergency plans and also the various mitigation measures proposed during the 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 the 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.

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

(i) Adequate stack height as per CPCB/SPCB guidelines shall be provided. Stack emission levels shall be stringent than the existing standards.

(ii) CEMS shall be installed and connected to SPCB/CPCB Server.

(iii) Raw materials shall be stored in isolated storage area and shall be kept tightly closed system. LDAR program shall be prepared. All bulk storage tanks shall have breather valve and flame arrestor. Industry shall recover 99 % of solvents to reduce the fugitive emissions. Effective fugitive emission control measures shall be adopted in the process, transportation, packing etc.

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

(v) Agrobriquettes shall be used as a primary fuel for boilers imported coal shall be used as a secondary fuel during the emergency and in next coming 5 years imported coal shall be replaced to the Grener fuel from the project commisioning.

(vi) The best available technology shall be used.

(vii) The PP shall develop greenbelt over an area of at least 13825 m^2 (*40 % of the total plot area), within one year of grant of EC*. The saplings (3465 number of trees shall be planted in 2023 and 692 in the year 2024) 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 PP shall plant 6000 No. of trees nearby village Uchhali, Ankleshwar.

(ix) Assessment of carrying capacity of transportation load on roads inside the industrial premises shall be maintained. If the roads required to be widened, shall be prescribed as a condition.

(x) 694 KL/Day of RO Permeate shall be reused for Washing, Cooling and Boiler for reuse. 30 KL/Day Domestic Effluent from canteen and toilet shall be collected and feed to STP Plant for biodegradation and treated effluent shall be used for the Gardening purpose.

(xi) Continuous monitoring system for effluent quality/ quantity shall be connected to CPCB server.

(xii) The rainwater from rooftop shall be used for utilities purpose and shall be sent for further treatment

(xiii) 120 KL/Day of High TDS effluent shall be shared to Common MEE system at Detox India Pvt. Ltd, Ankleshwar.

(xiv) 30 KL/Day Domestic Effluent from canteen and toilet shall be collected and feed to STP Plant for biodegradation and treated effluent shall be used for the Gardening purpose

(xv) The PP shall dispose fly ash to brick manufacturer and hazardous waste to GPCB approved TSDF/CHWIF site.

(xvi) Waste generated having high Calorific value of distillation residue shall be sent for Co-processing & low Calorific value waste as ETP Sludge shall will be either sent for Incineration or to TSDF site.

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

(xviii) As proposed, an amount of ₹ 12.92 Crore shall be allocated towards CER for Tree Plantation, Rain water Harvesting, Education Environment & Sustainability, Health & Sanitation Rural Development.

(xix) 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 COO- EHS & site head – Enviornment Head- senior manager- Manager- executive- senior shift in charge – ETP operators- MEE operators- RO operators- casual workers. 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.

(xx) 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 Crore (Capital

cost) and ₹ 150 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.

(xxi) The Total water requirement is 1740 m^3/day of which fresh water requirement of 1016 m^3/day shall be met from GIDC Water Supply, rest 724 m^3/day water shall 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.

(xxii) 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.

(xxiii) 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.

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

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

(xxvi) 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.

(xxvii) 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.

(xxviii) 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.

(xxix) 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.

(xxx) 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.

(xxxi) 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.

(xxxii) 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.

(xxxiii) 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. 52.11

Proposed Single Super Phosphate (400 MTPD) and Granulated Single Super Phosphate Manufacturing (300 MTPD) Plant located at Plot No. T-53/6, Kagal-Hatkanangale Five Star Industrial Area, MIDC, Kolhapur, Maharashtra by M/s Delta Irrigation LLP - Consideration of EC

[Proposal No. IA/MH/IND3/429495/2023; File No. IA-J-11011/69/2023-IA-II(I)]

The PP vide email dated 30.5.2023 informed that due to the absence of the authorized signatory, they would be unable to attend the meeting and requested to defer the proposal.

The proposal was accordingly, **deferred.**

Agenda No. 52.12

Proposed specialty organic chemicals manufacturing unit of production capacity 6150 TPM located at Plot No. 296, IInd Phase, GIDC, Vapi – 396 195, Valsad, Gujarat by M/s. Nath Industries Limited (Unit: 3) - Consideration of ToR

[Proposal No. IA/GJ/IND3/421494/2023; File No. IA-J-11011/112/2023-IA-II(I)

1. The proposal is for the issue of ToR for preparation of EIA/EMP for the proposed specialty organic chemicals manufacturing unit of production capacity 6150 TPM located at Plot No. 296, IInd Phase, GIDC, Vapi – 396 195, Valsad, Gujarat by M/s. Nath Industries Limited (Unit: 3). **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/IND3/421494/2023**. The proposal is considered in the 52nd EAC meeting held on 30th -31st May, 2023 wherein the PP and the accredited Consultant M/s. En-vision Enviro Technologies Pvt. Ltd having NABET Accreditation vide letter No. NABET/EIA/2023/RA 0212 (Rev.01) Valid till 7.12.2023 made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

S. No.	Product	CAS No.	Capacity (TPM)	End Use of products
1	3,5 Dimethyl Benzoyl Chloride	6613-44-1	3,000	Intermediate for Itraconazole /Pharma industries.
2	2 -Ethyl Hexanoyl Chloride	760-67-8		Use in pharma industries
3	Para Toluoyl Chloride	874-60-2		Intermediate for Decitabine
4	Iso Butyryl Chloride	79-30-1		Pirfenidone-Idiopathic pulmonary fibrosis intermediate
5	Isophthaloyl Chloride	99-63-8		Used as stabilizer in polymer manufacturing
6	Terephthaloyl Chloride	100-20-9		Used as stabilizer in polymer manufacturing
7	Propionyl Chloride	79-03-8		Used in synthesis of semi crystalline ether - slide derivatives
8	Pivoloyl Chloride	3282-30-2		Intermediate in agricultural products manufacturing
9	4-Chloro Butyryl Chloride	4635-59-0		Used as intermediate in API manufacturing
10	Octanoyl Chloride	111-64-8		Used as therapeutic agent
11	N-Octyl Chloride	111-85-3		Manufacturing of organometallic compound synthesis and other chemicals
12	N-Hexyl Chloride	544-10-5		Intermediate for Clotrimazole – Anti Inflammatory

13	Benzoyl Chloride	98-88-4		Intermediate for Azithromycin – Antibiotic
14	N-Valeroyl Chloride	638-29-9		Used in organic chemical synthesis
15	N-Butyryl Chloride	141-75-3		Intermediate for Telmisartan – To treat hypertension
16	Cetyl Chloride	4860-03-1		Raw Material for Acetyl Chloride & Chloro acetyl chloride
17	N - Butyl Chloride	109-69-3		API of Tetracycline
18	Isononanoyl Chloride	36727-29-4		API of Butethamine
19	Decanoyl Chloride	112-13-0		Production of organic peroxides, pharmaceuticals, pesticides, Dyes
20	Neo Decanoyl Chloride	40292-82-8		Active intermediate in organic peroxide initiators.
21	Methoxy Acetyl Chloride	13831-31-7		Used for preparation of esters and amides
22	Di Methyl Sulphate	77-78-1	1,500	Methylating agent in pharma & in fragrance industries
23	Di Methyl Aniline	121-69-7	300	Use in pharma industries
24	Di Ethyl Sulphate	64-67-5	750	Use in pharma industries
25	Di Ethyl Aniline	91-66-7	300	Use in special food colour industries
26	Benzene Sulphonyl Chloride	98-09-9	300	Use in paper and colour industries
TOTAL			**6,150**	
By-Product				
1	Sulphur Dioxide Gas	7446-09-5	1,803	Use Pharma and other industrial uses

4. The PP reported that the 9,500 m^2 land area will be utilized for the proposed project.

5. The PP reported that Reserved forest is located a distance of 6.9 km in SW direction & at 5.9 km in north direction from the project site, there are no national parks, wildlife sanctuaries, Tiger/Elephant Reserves, Wild life Corridors etc. within 10 km distance from the project site. River/ water body Daman Ganga River is flowing at a distance of 3.6 km in South West direction.

6. The PP reported that the total water requirement is 156.73 m^3/day of which fresh water requirement of 155.34 m^3/day will be met from GIDC water supply. Effluent of 25.33 KL/day quantity will be treated through the ETP consisting of primary treatment and treated effluent sent to common MEE/SD.

7. The power requirement will be 1,000 kVA and will be met from Dakshin Gujarat Vij Company Ltd. DG sets of 500 kVA capacity will be required. DG sets will be used as standby during power failure. Stack (height) will be provided as per CPCB norms to the proposed DG sets.

8. The PP reported that the project, being in notified industrial area (Notification No.GHU-75-45-GID-1974-4084 (I0) CH dated 06.05.1975), is exempted from the public hearing as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006 and O.M. No. J-111011/321/2016-IA. II(I) dated 27.04.2018

9. Industry will develop greenbelt over an area of 40% i.e. 3,800 m^2 out of total area of the project for the compliance of CEPI mechanism.

10. The estimated project cost is Rs. 39.35 crores. The PP reported that Total Employment will be 42 persons as direct & 56 persons indirect for proposed project.

11. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the by - products, Details of SO_2 gas generation during the manufacturing in Group 01 products, carbon sequestration and advised the PP to submit the following.

- Incorporating SO_2 gas as By-product instead of Hazardous Waste.
- Details of SO_2 gas generation during manufacturing in Group 01 products (Product no. 1 to 21), its SOP for handling and safety and its end users.
- Details of reference literature for carbon sequestration calculated.

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

12. 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) Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains in constructed reservoirs. The rain water shall not be put into groundwater strata.

(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 Greenbelt over an area of 40% i.e. 3,800 m^2. 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) The PP shall utilize oxygen separated in the Nitrogen plant for sale or use in ETP.

(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. 52.13

Proposed Integrated Paint Manufacturing Facility of production capacity (86000 MTPA) along with synthetic organic manufacturing facility of production capacity (31550 MTPA) located at Plot No. 2802 & 2803, GIDC Industrial Estate, Taluka Ankleshwar, District Bharuch, Gujarat by M/s. Asian Paints Limited - Consideration of ToR

[Proposal No. IA/GJ/IND3/427899/2023; File No. IA-J-11011/196/2023-IA-II(I)]

1. The proposal is for the issue of ToR for preparation of EIA/EMP for proposed Integrated Paint Manufacturing Facility of production capacity (86000 MTPA) along with synthetic organic manufacturing facility of production capacity (31550 MTPA) located at Plot No. 2802 & 2803, GIDC Industrial Estate, Taluka Ankleshwar, District Bharuch, Gujarat by M/s. Asian Paints Limited.

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic Organic Chemicals industry and 5(h) Integrated Paint 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/IND3/427899/2023**. The proposal is considered in the 52nd EAC meeting held on 30th -31st May, 2023 wherein the PP and the accredited Consultant M/s. Kadam Environmental Consultants having NABET Accreditation vide letter No. **NABET/EIA/2023/SA0164** Valid till 13.6.2023 made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

Sr. No.	Name of Products	Production Quantity, MTPA
A	**5(h): Integrated paint industry**	
1	Paints	24000
2	Wood Finish	30000
3	Synthetic resin & Emulsions (Total Solid Resin)	32000
	Total (A)	**86000**

B	**5(f): Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)**	
4	Adhesives	20000
5	Thickeners	1800
6	Polyurethane disperser (PUD)	1750
7	Biocides	3000
8	Admixtures	5000
	Total (B)	**31550**
	Grand Total (A+B)	**1,17,550**

4. The PP reported that the 67270.78 m^2 land area will be utilized for the proposed project.

5. 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. Amla Khadi). is flowing at a distance of 3.03 in SW direction.

6. The PP reported that the total water requirement is 337 m^3/day of which fresh water requirement of 250 m^3/day will be met from GIDC water supply system Effluent of 100 m^3/day quantity will be treated through ETP. The plant will be based on Zero Liquid discharge system.

7. The power requirement after expansion will be 5000 KVA and will be met from Dakshin Gujarat Vij Company Ltd. (DGVCL). Unit will have 5 nos. DG set of 2 x 1250KVA, 2x1000 KVA & 1x750 KVA are used as standby during power failure. Stack (30 m) will be provided as per CPCB norms to the proposed DG sets.

8. The PP reported that the project, being located in notified industrial area (**Notification No.GHU-78: 20: GID :1977:660 dated 1.2.1978), is** exempted from the public hearing as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006 and O.M. No. J-111011/321/2016-IA. II(I) dated 27.04.2018

9. Industry will develop greenbelt over an area of 15.51 % i.e., 10431.6 m2 out of total area of the project.

10. The estimated project cost is Rs. 100 Crores. The PP reported that Total Employment will be 100 to 150 persons as direct & indirect for proposed project.

11. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the plant layout with additional greenbelt, water balance, raw materials, product wise mass balance and advised the PP to submit the following.

- Revised layout plan incorpoarting 20.5% greenbelt within plot and detailed greenbelt development plan.
- Revised water balance.
- Revised Raw materials.
- Product wise mass balance.

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

12. 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.

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

(xx) 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.

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

(xxii) 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.

(xxiii) 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.

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

(xxv) 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.

(xxvi) 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.

(xxvii) 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.

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

(xxix) 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.

(xxx) Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains in constructed reservoirs. The rain water shall not be put into groundwater strata.

(xxxi) 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.

(xxxii) The PP should develop Greenbelt over an area of 40% i.e. (20.5% inside the plant premise + 20% outside the plant premises) 8072 (4036- inside the plant premises + 4036- outside the plant premises 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.

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

(xxxiv) 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.

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

(xxxvi) 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. 52.14

Proposed Expansion of Technical Pesticides of production capacity (4000 MT/Month (-2000 + 200) to 2200 MT/Month) in Existing Synthetic Organic Chemicals Manufacturing Plant at Plot No. D2/CH/55, GIDC Industrial Estate, Dahej-2, Tal: Vagra, Dist: Bharuch Gujarat by M/s. Majdha Industries Private Limited. - Consideration of EC

[Proposal No. IA/GJ/IND3/427735/2023; File No. IA-J-11011/71/2021-IA-II(I)

1. The proposal is for the environmental clearance Proposed Expansion of Technical Pesticides of production capacity (4000 MT/Month (-2000 + 200) to 2200 MT/Month) in Existing Synthetic Organic Chemicals Manufacturing Plant at Plot No. D2/CH/55, GIDC Industrial Estate, Dahej-2, Tal: Vagra, Dist: Bharuch Gujarat by M/s. Majdha Industries Private Limited.

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

3. The Standard ToR was issued by the Ministry, vide letter no. No. IA-J-11011/71/2021-IA-II(I), dated 5.3.2021. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a **Expansion case.** The proposal is placed in this 52nd EAC meeting on 30th-31st May, 2023, wherein the PP along with accredited Consultant, M/s. Aqua-Air Environmental Engineers Pvt. Ltd [Accreditation number NABET/EIA/2225/RA 0280 valid till 07th October, 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 existing land area is 10000 m^2, no additional land will be used for proposed expansion and no R& R is involved in the Project. The details of products to be manufactured are as follows:

S. No.	Name of Products	CAS No.	Existing	Proposed	Total
			Production Capacity (MT/Month)		
1	2,4 Di Chloro Aniline	554-00-7	4000	-2000	2000
2	Ortho Nitro Chlorobenzene	88-73-3			
3	Para Nitro Chlorobenzene	121-73-3			
4	Meta Nitro Chlorobenzene	100-00-5			
5	Ortho Nitro Bromobenzene	577-19-5			
6	Para Nitro Bromobenzene	586-78-7			
7	Meta Nitro Bromobenzene	585-79-5			

8	Ortho Di Chlorobenzene	95-50-1			
9	Para Di Chlorobenzene	106-46-7			
10	Ortho Anisidine	90-04-0			
11	Para Anisidine	104-94-9			
12	Ortho Nitro Anisole	91-23-6			
13	Para Nitro Anisole	100-17-4			
14	Ortho Toluidine	95-53-4			
15	Para Toluidine	106-49-0			
16	Meta Di Chlorobenzene	541-73-1			
17	Ortho Chloro Aniline / Meta Chloro Aniline	95-51-2			
18	Para Chloro Aniline	106-47-8			
19	Ortho Nitro Aniline	88-74-4			
20	Para Nitro Aniline	100-01-6			
21	Pivaloyl Chloride/Benzoyl Chloride	3282-30-2/ 98-88-4			
22	Valeroyl chloride	638-29-9			
23	Chloro Acetyl Chloride / Tri Chloro Acetyl Chloride	79-04-9			
24	2 Chloro Valeroyl Chloride	1575-61-7			
25	2-Ethyl Hexanoyl Chloride	760-67-8			
26	Chlorination Derivatives				
	Mono Chloro benzene	108-90-7			
	Di Chloro benzene	95-50-1			
	Tri Chloro benzene	120-82-1			
27	2,6 Di Chloro Phenol	87-65-0			
28	2,4 Di Chloro Phenol	120-83-2			
29	Hexaconozole (T)	79983-71-4			

30	Tebuconazole (T)	107534-96-3	0	200	200
31	Propiconazole (T)	60207-90-1			
32	Difenoconazole (T)	119446-68-3			
33	Prothioconazole (T)	178928-70-6			
34	Azoxystrobin (T)	131860-33-8			
35	Tricyclozole (T)	41814-78-2			
36	Epoxiconazole (T)	133855-98-8			
37	2,4 D (T) and its salt	94-75-7			
38	Glyphosate (T)	1071-83-6			
39	Pendimethalin (T)	40487-42-1			
40	Metamitron (T)	41394-05-2			
41	Metribuzin (T)	21087-64-9			
42	Atrzine (T)	1912-24-9			
43	Sulfentrazone	122836-35-5			
44	Metiram (T)	9006-42-2			
45	Transfluthrin (T)	118712-89-3			
46	Deltamethrin (T)	52918-63-5			
47	Cyfluthrin & Beta isomer (T)	68359-37-5			
48	Bifenthrin (T)	82657-04-3			
49	Permethrin (T)	52645-53-1			
50	Alpha Cypermethrin (T)	67375-30-8			
51	Cypermethrin (T) & Beta/Zeta/ Theta Isomer (T)	52315-07-8			
52	Chlorpyriphos (T)	2921-88-2			
53	Lambda Cyhalothrin (T)	91465-08-6			
54	Imidacloprid (T)	138261-41-3			
55	Acetamiprid (T)	135410-20-7			

56	Flubendiamide (T)	272451-65-7			
57	DV Acid Chloride (CMAC)	52314-67-7			
58	Meta Phenoxy Benzaldehyde (T)	39515-51-0			
59	Lambda Cyhlothric Acid	72748-35-7			
60	Diclofincsodium / Diclofincpotasium	15307-79-6			
	Total		**4000**	**(-2000)** **(+200)**	**2200**

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 (SEIAA Gandhinagar) had issued EC earlier vide letter no. SEIAA/GUJ/EC/5(f)/300/2020 dated 6/04/2020 to the existing project for Synthetic Organic Chemicals manufacturing unit of capacity 4000 MT/Month in favour of M/s. Majdha Industries Pvt. Ltd. Certified EC Compliance Report from IRO- Gandhinagar, MoEF&CC has been obtained vide file no. J-11/25-2023-IROGNR Dated 20/03/2023. All the conditions are complied.

7. The PP reported that There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance from the project site. River Narmada is flowing at distance of 5.5 Km in South direction. There is no forest land involved in the proposed project. Schedule-I species i.e Oriental honey buzzard, Black kite, Shikra, Indian peafowl, Black-shouldered kite, were observed in the 10 km radius from the proposed project for which Conservation plan has been prepared and suvmitted to DFO dated 20.4.2023.

8. The PP reported that **Ambient air quality** monitoring was carried out at 9 locations during 1st March, 2022 to 31st May, 2022 and the baseline data indicated the ranges of concentrations as: PM_{10} (75.10 – 79.55 µg/m^3), $PM_{2.5}$ (43.83 – 46.38 µg/m^3), SO_2 (15.40 – 18.25 µg/m^3) and NO_x (17.30 – 19.65 µg/m^3) respectively. AAQ modeling study for point source emissions indicated that the maximum incremental GLCs after the proposed project would be 0.122 µg/m^3, 0.364 µg/m^3 and 0.132 µg/m^3 with respect to PM_{10}, SO_2 and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Ground water quality** monitoring was carried out at 9 locations during 1st March, 2022 to 31st May, 2022 and the baseline data indicated the ranges as: pH (7.39 – 7.96), TSS (<10 - 12 mg/l), Total Hardness (194.7 – 560.6 mg/l), Total Dissolved Solids (586 – 1958 mg/l) & Chlorides (148.6 – 589.7 mg/l). The resultant concentrations are within the Indian Standard (IS 10500:2012). **Surface water quality** monitoring was carried out at 4 locations during 1st March, 2022 to 31st May, 2022 and the baseline data indicates the ranges of concentations as: pH (7.71 - 8.40), DO (6.21

- 6.42 mg/l), COD (8.56 – 17.52 mg/l) & BOD (2.38 - 4.87 mg/l). **Noise quality** monitoring was carried out at 8 locations during 1st March, 2022 to 31st May, 2022 and the baseline data indicated the rangesas : Leq (Day) (47.6 – 54.7 dB (A)), Leq (Night) (39.3 – 44.2 dB (A)). **Soil quality** monitoring was carried out at 9 locations during 1st March, 2022 to 31st May, 2022 and the baseline data indicated the ranges as: pH (7.12 – 8.64), Nitrogen (1338.24 – 3668.9 mg/l), Phosphorus (18.56 – 36.57 mg/l), Potassium (163.9 – 872.9 mg/l) & Electric Conductivity (0.23 – 2.47 mS/cm).

9. The PP reported that the total water requirement is 565 m^3/Day of which fresh water requirement of 482 m^3/Day will be met from GIDC Water Supply letter no. GIDC/DEE(WS)BRH/837, Dated: 07/11/2019. Effluent of 347.5 m3/day quantity will be treated through Primary ETP, Solvent Stripper followed by MEE. Stream-I: 108 KL/Day low COD & TDS stream (from Process, Boiler, cooling, washing) will be treated in ETP and then sent for deep sea discharge via CETP. Stream-II: 87 KL/Day high COD & TDS stream (from process) will be sent to Solvent Stripper. 1.5KL/Day Spent Solvent residue generate from solvent stripper will disposed to common incineration site & remaining 85.5 KL/Day effluent will be given by primary treatment and then sent to In-house MEE. 19 KL/Day distilled water from process will be recovered & reuse by process distillation in process water. 125.5 KL/Day scrubbing media will be sold to authorized end user registered under Rule-9. Domestic waste water (8 KL/day) will be treated in STP and reuse in Gardening and Domestic. The plant is not based on the total zero liquid discharge system.

10. Power requirement after expansion will be 1000 KVA including existing KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has 1 No. of DG set (1500 KVA) Capacity, additionally DG set will be used as standby during power failure. Stack (height 10 m) is provided as per CPCB norms to the DG sets.

11. Existing unit has 16 TPH Steam Boiler, Thermic Fluid Heater (4.0 Lac K. Cal/Hr), Thermic Fluid Heater (6.0 Lac K. Cal/Hr). Additionally, no boiler will be installed. ESP with water scrubber, Adequate stack height, with stack height of 30 m & 20 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the proposed boilers.

12. **Details of Process Emissions Generation and its Management: Flue Gas Stack Existing**

Sr. No.	**Source of Emission With Capacity**	**Stack Height (Meter)**	**Type of Fuel**	**Quantity of Fuel MT/Day**	**Type of Emissions I.E. Air Pollutants**	**Air Pollution Control Measures (APCM)**
1	Steam Boiler	30	Briquettes of Bio-coal/Coal	45 MT/Day	PM SO_X NO_X	ESP with water scrubber

	(16 TPH-1 Nos.)					
2	Thermic Fluid Heater (4.0 LAC K.CAL/Hr)	20	Natural Gas	1200 SCM/Day	PM SOX NOX	Adequate Stack height
3	Thermic Fluid Heater (6.0 LAC K.CAL/Hr)	20	Natural Gas	1800 SCM/Day	PM SOX NOX	Adequate Stack height
4.	D.G. Set (1500 KVA x 1 Nos.) Stand By	10	HSD	400 Liter /Day	PM SOX NOX	Adequate Stack height

Note: No Additional Boiler will be required in Proposed Expansion. It will remain same as per existing EC.

1) Process Stack

Sr. No.	**Specific Source of Emission**	**Type of Emission**	**Stack/Vent Height (Meter)**	**Air Pollution Control Measures (APCM)**
Existing				
1.	Process Vent -1 (Valeroyl Chloride/2-Ethyl Hexanoyl Chloride)	HCl SO_2	12	Two Stage Water + Alkali Scrubber
2.	Process Vent -2 (Nitro Chloro benzene/Nitro Bromo benzene)	NOx	12	Two Stage Alkali Scrubber
3.	Process Vent -3 (Chlorination-MCB/DCB/TCB)	Cl_2	12	Two Stage Water + Chilled Water Scrubber + Alkali Scrubber

4.	Process Vent -4 (Ortho/Para nitro aniline)	NH_3	12	Two Stage Water Scrubber
Proposed				
1.	Process Vent – 5	HBr	12	Two Stage Water Scrubber

13. Details of Solid Waste/ Hazardous Waste Generation and its Management: 23 Categories of Hazardous/Solid Wastes and their management. **Hazardous/Solid Wastes**

S. no.	**Type/Name of Hazardous waste**	**Specific Source of generation (Name of the Activity, Product etc.)**	**Category and Schedule as per HW Rules.**	**Existing Quantity**	**Proposed Quantity**	**Total Quantity**	**Management of HW**
				(MT/Annum)			
1	Used/Spent oil	Machineries/ Utilities	SCH-I/5.1	0.3 KL	--	0.3 KL	Collection, Storage, Transportation and reused for Machine Lubrication / Given to GPCB registered Reprocessor
2	Spent Solvent	Process	SCH-I/28.6 & SCH-I/29.4	5640	(-2820) & (+ 16584)	19404	Collection, Storage, In-house distillation and reuse within premises.
3	Distillation Residue	Distillation	SCH-I/ 20.3	600	(-300) & (+340)	640	Collection, Storage, Transportation and sell to co-processing or

							send to Common Incineration Facility
4	Residual Salts from MEE	MEE	SCH-I/35.3	900	(-180)	720	Collection, Storage, Transportation and dispose to Landfill at TSDF
5	Sludge from ETP	ETP	SCH-I/35.3	180	+144	324	Collection, Storage, Transportation and dispose to Landfill at TSDF
6	Spent Residue from Stripper	Solvent Stripper	SCH-I/35.3	54	--	54	Collection, Storage, Transportation and sell to co-processing or send to Common Incineration Facility
7	Used Containers						Collection, Storage, Transportation and sold to GPCB authorized dealer after decontaminatio n
	Drums	RM/FG	SCH-I/33.1	108	--	108	
	Bags and Liners	RM/FG	SCH-I/33.1	12	--	12	

8	Spent Catalyst	Process	SCH-I/28.2 & SCH-I/29.5	180	(-90) & (+30)	120	Collection, Storage, Transportation and send to regenerator who is having Rule-9.
9	Spent Sulphuric Acid (25%)	Process	SCH-I/28.1	2880	(-1440)	1440	Collection, Storage, Transportation and sell to end user who is having Rule-9.
10	HCl (30%)	Scrubber	SCH-I/28.1 & SCH-I/29.6	39000	(-19500) & (+6862)	26362	Collection, Storage, Transportation and sell to end user who is having Rule-9.
11	$AlCl_3$ Soln. (25%)	Process	SCH-I/28.1	2016	(-1008) & (+12960)	13968	Collection, Storage, Transportation and sell to end user who is having Rule-9.
12	Sodium Sulfite (22%)	Scrubber	SCH-I/28.1	27000	(-13500) & (+4865)	18365	Collection, Storage, Transportation and sell to end user who is having Rule-9.
13	Liquor Ammonia (24%)	Scrubber	SCH-I/28.1	6600	(-3300)	3300	Collection, Storage, Transportation and sell to end user who is having Rule-9.

14	Ammonium Chloride (20%)	Process	SCH-I/28.1	3264	(-1632) & (+4207.2)	5839.2	Collection, Storage, Transportation and sell to end user who is having Rule-9.
15	Sodium Nitrate (25%)	Scrubber	SCH-I/28.1	1800	(-900)	900	Collection, Storage, Transportation and sell to end user who is having Rule-9.
16	Ash	Boiler	--	600	--	600	Sell to brick manufacturer
17	Sodium Hypo Chlorite	Scrubber	SCH-II/B-36	50	(-25)	25	Collection, Storage, Transportation and sell to end user who is having Rule-9.
18	Potassium Bromide (30%)	Process	SCH-I/28.1	--	936	936	Collection, Storage, Transportation and sell to end user who is having Rule-9.
19	Hydro bromic Acid (28%)	Process	SCH-I/28.1	--	2136	2136	Collection, Storage, Transportation and sell to end user who is having Rule-9.
20	Formic Acid	Process	SCH-I/28.1	--	696	696	Collection, Storage, Transportation and sell to end user who is having Rule-9.

21	Potassium Chloride	Process	SCH-I/28.1	--	1200	1200	Collection, Storage, Transportation and sell to end user who is having Rule-9.
22	Potassium Bisulphate	Process	SCH-I/28.1	--	571	571	Collection, Storage, Transportation and sell to end user who is having Rule-9.
23	Organic Residue	Process	SCH-I/29.1	--	1228	1228	Collection, Storage, Transportation and sell to co-processing or send to Common Incineration Facility

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 5.48 Crores (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 10.49 Crores per annum. Industry proposes to allocate Rs. 7 lakhs towards Corporate Social Responsibility.

15. Industry has already developed greenbelt over an area of 33% i.e. 3300 m^2 out of 10000 m^2.

16. The PP reported that the Public Hearing is exempted as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006 as Unit is located in Notified Industrial Area of GIDC, Dahej which is fall in PCPIR. PCPIR has obtained EC vide File no. 21-49/2010-IA-III Dated 14th September, 2017

17. The PP proposed to set up an Environment Management Cell (EMC) by engaging Site manager – Senior Manager EHS- Executive EHS- Officer EHS- Operators and helpers for the functioning of EMC.

18. The PP reported that the following w.r.t carbon sequestration:

Base case impacts in global warming ($t CO_2$ eq.)	**2113407.500 t CO_2 eq.**

Proposed case impacts in global warming ($t CO_2$ eq.)	**236834.100 t CO_2 eq.**
% for Global Warming reduction	**88.79%**

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

20. The estimated project cost is Rs. 50 Crore. Total Employment will be 70 persons as direct & 30 persons as indirect after 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 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 fuel, Greenbelt developmnent plan plant layout, water balance, compliance of OM dated 18.5.2023, Comparative study between Briquettes and Imported Coal for Carbon Foot Print, List of Person Present during the meeting and advised the PP to submit the following:

- Undertaking for fuel in Boiler.
- Commitment for plantation of trees
- Revised Plant layout showing the Greenbelt area in periphery of the Project boundary
- Revised Water Balance Diagram.
- Supporting documents of the compliance of OM dated 18.5.2023 regarding the verification of the consultant.
- Comparative study between Briquettes and Imported Coal for Carbon FootPrint.
- List of Persons Present during the meeting

The PP submitted the above information/documents and the EAC found these 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, 3300 m^2 by planting 990 number of trees within a period of one year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2 m). The budget earmarked for the plantation shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of the expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(ii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage Site manager – Senior Manager EHS- Executive EHS- Officer EHS- Operators. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office

of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget propose under EMP is ₹ 5.48 Crores Crore (Capital cost) and ₹ 10.49 Crore per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iv) As committed by the PP, Agro briquette shall be used as the primary fuel, during the unavailability imported coal shall be used in case of emergency and in the nexy five years imported coal shall be replaced by biofuel from the project comissioning.

(v) The total water requirement shall not exceeed 565 m^3/day (Fresh water - 336 m^3/day and Recycled water -229 KL/Day) (**Revised quantity based on the recommendation of EAC**) and shall be met from GIDC supply. The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawn only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(vi) Effluent of 347.5 m^3/day quantity shall be treated through Primary ETP, Solvent Stripper followed by MEE. Stream-I: 108 KL/Day low COD & TDS stream (from Process, Boiler, cooling, washing) shall be treated in ETP and then sent for deep sea discharge via CETP. Stream-II: 87 KL/Day high COD & TDS stream (from process) shall be sent to Solvent Stripper. 1.5 KL/Day Spent Solvent residue generate from solvent stripper shall be disposed to common incineration site & remaining 85.5 KL/Day effluent shall be sent for primary treatment and then sent to In-house MEE. 19 KL/Day distilled water from process shall be recovered & reused by process distillation in process water. 125.5 KL/Day scrubbing media shall be sold to authorized end user registered under Rule-9. Domestic wastewater (8 KL/day) shall be treated in STP and reuse in Gardening and Domestic

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

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

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

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

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

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

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

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

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

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

(xvii) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors.

(e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

Agenda No. 52.15

Proposed Expansion of the Specialty Chemicals of production capacity (Organic Products: from 2955 MT/Annum to 3020 MT/Annum) and no change of Inorganic Products: 60300 MT/Annum & CPP in existing unit located at Plot No: 2, 4 to 13, 14/1, 2, 3, 19, 20 to 58, Surat Navsari Road, Village: Bhestan, Tehsil: Chorasi, District: Surat, State: Gujarat by M/s. Navin Fluorine International Ltd - Consideration of EC

[Proposal No. IA/GJ/IND3/429642/2023; File No. IA-J-11011/181/2022-IA-II(I)]

1. The proposal is for the environmental clearance for the proposed expansion of Specialty Chemicals of production capacity (Organic Products: from 2955 MT/Annum to 3020 MT/Annum) and no change Inorganic Products: 60300 MT/Annum & CPP in existing unit located at Plot No: 2, 4 to 13, 14/1, 2, 3, 19, 20 to 58, Surat Navsari Road, Village: Bhestan, Tehsil: Chorasi, District: Surat, State: Gujarat by M/s. Navin Fluorine International Ltd.

2. The project/activity is covered under Category 'A' of Item 5(f), Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) of Schedule of Environment Impact Assessment (EIA) Notification2006 (as amended).

2. The Standard ToR has been issued by the Ministry, vide letter no. IA-J-11011/181/2022-IA-II(I) dated 10.6.2022. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is an **Expansion case.** The proposal is placed in this 52nd EAC meeting on 30th-31st May, 2023, wherein the PP along with accredited Consultant, M/s. Aqua-Air Environmental Engineers Pvt. Ltd [Accreditation number NABET/EIA/2225/RA 0280 valid till 07th October, 2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

3. The PP reported that Existing land area is 5,04,532.69 m^2, no additional land will be used for proposed expansion project and no R& R is involved in the Project. The details of products to be manufactured are as follows:

S. No	Group No	Name of Products	CAS No.	Quantity (MT/Annum)			End Use
				Existing	Proposed	Total After Expansion	
Organic products							

	1	**Fluorotoluene derivative**		140	0	140	Speciality and fine chemicals
1		Para Fluoro Toluene	352-32-9				
2		Orthofluoro toluene	95-52-3				
3		Metafluoro toluene	352-70-5				
4		Fluoro Benzene	462-06-6				
5		Difluoro Benzene	372-18-9				
6		**Chlorofluorotoluene derivative**					
7		2-Chloro 4-Fluoro Toluenes	452-73-3				
8		2-Chloro 6-Fluoro Toluenes	443-83-4				
9		Trifluoro Benzene	367-23-7				
10		4-Chloro-2-fluorotoluene	452-75-5				
	2	**Fluorobenzaldehyde derivative**		60	0	60	Speciality and fine chemicals
11		4 Fluoro Benzaldehyde	446-52-6				
12		2 Fluoro Benzaldehyde	459-57-4				
13		4 Fluoro Benzyl Chloride	352-11-4				
14		3 Fluoro Benzoyl chloride	1711-07-5				
15		4 fluoro 3 Phenoxy Benzaldehyde	68359-57-9				
16		5 Bromo 2 Fluoro Benzaldehyde	93777-26-5				
17		2-amino-3,4-difluorobenzaldehyde	1602097-79-9				
18		2,6-Difluorobenzylchloride	18063-02-0				
19		2-Fluorobenzoylchloride	393-52-2				
	3	**Bromofluorobenzene derivative**		425	0	425	Speciality and fine chemicals

20		1 Bromo 4 fluoro benzene	460-00-4				
21		2 Bromo 4 fluoro Aniline	1003-98-1				
22		2 Bromo 6 fluoro Aniline	65896-11-9				
23		2 bromo 5 trifluoro methyl aniline	454-79-5				
24		2 Methoxy 5 Trifluoro Methyl Aniline	349-65-5				
25		4 Bromo 2 Fluoro Aniline	367-24-8				
26		3 Bromo Benzotrifluoride	401-78-5				
27		TFBB (3,4,5 Tri Fluoro Bromo Benzene)	138526-69-9				
28		BFAA (2 Bromo 4 Fluoro Acetanilide)	1009-22-9				
29		3 bromo 1,1,1 Trifluoro acetone	431-35-6				
30		1,1,1,Trifluoro acetyl acetone	367-57-7				
31		2,6-Difluorobenzylbromide	85118-00-9				
32		5-Bromo-1,3-dichloro-2-fluorobenzene	17318-08-0				
	4	**Fluoro Anilines**		60	0	60	Speciality and fine chemicals
33		4 Fluoro Aniline	348-54-9				
34		3 ,5 Bis (trifluoro Methyl) Aniline	328-74-5				
35		3-Trifluoromethyl-4-cyano aniline	654-70-6				
36		3-Fluoro-4-morpholinoaniline	93246-53-8				
37		4 Chloro 2Tri Fluoro Acetyaniline HCL Hydrate	173676-59-0				
38		2-fluoro-4-bromo Aniline	367-24-8				

39		4-fluoro-2-bromo Aniline	1003-98-1				
40		3,5 difluoro aniline	372-39-4				
41		2-Tri Fluoro Methoxy Aniline	1535-75-7				
42		2 Methyl 3(TFM) Aniline	54396-44-0				
43		2,6 Dichloro 4 Fluoro Tri Fluoro Methyl aniline	24279-39-8				
44		2-Methoxy-5-trifluoromethyl aniline	349-65-5				
45		Parafluoroisopropylaniline	70441-63-3				
46		4-Chloro-3-fluoroaniline	367-22-6				
47		1,1,3-Trimethyl-2,3-dihydro-1H-inden-4-amine	94568-76-0				
48		5,6-dichloro-3-trifluoromethylaniline	24279-39-8				
49		2-(trifluoromethoxy)benzene sulfonamide	37526-59-3				
50		Bromodifluoroaniline	67567-26-4				
51		Bromochloroaniline	873-38-1				
	5	**Fluorobenzotrifluoride / Fluoropyridine / Fluoropyrimidine derivative**		1500	0	1500	Speciality and fine chemicals
51		3-Amino benzotrifluoride	98-16-8				
52		3 Amino-4Chloro Benzotrifluoride	121-50-6				
53		Para chloro benzo-trifluoride	98-56-6				
54		3 Chloro Benzotrifluoride	98-15-7				

55		2 Choloro 5 Amino benzotrifluoride	445-03-4				
56		3 Chloro 4 Fluoro Benzotrifluoride	78068-85-6				
57		4 bromo Benzo trifluoride	402-43-7				
58		2,3,4 Tri fluoro nitrobenzne	771-69-7				
59		3,4 Dichloro 6 trifluoromethyl toluene	74483-51-5				
60		3-Bromo benzotrifluoride	401-78-5				
61		Tri Fluoro Methoxy benzene	456-55-3				
62		Bis (Trifluoro Methoxy) benzene	402-31-3				
63		2,4 Dichloro-3,5, Dinitro BTF	29091-09-6				
64		3,5 Dinitro-2-Bromo BTF	393-75-9				
65		1-chloro-5-fluoro-4-nitro-2-(trichloromethyl)benzene	908009-54-1				
66		5 Chloro 2,3 Difluopyridine	89402-43-7				
67		2-Fluoro pyridine	372-48-5				
68		2-Fluoro-6-Trifluoromethyl pyridine	94239-04-0				
69		2,3-dichloro-5-(trifluoromethyl) pyridine	69045-84-7				
70		5 Fluorouracil	51-21-8				
71		2-Bromo-4-Fluoropyridine	357927-50-5				
72		1,3-Dichloro-2-methyl-4-(trifluoromethyl)benzene	115571-64-7				
73		3-Bromo-4-Fluorobenzotrifluoride	68322-84-9				

74		2-chloro-5-Trifluoromethyl pyridine	52334-81-3				
75		2-fluoro-5-Trifluoromethyl pyridine	69045-82-5				
76		2-Hydroxy-5-trifluoromethyl pyridine	33252-63-0				
77		3-Trifluoromethyl pyridine	3796-23-4				
78		2-Bromo-5-Fluorobenzotrifluoride	40161-55-5				
79		2-(trifluoromethyl)pyridine-3-Carboxylic acid	131747-43-8				
80		3-(trifluoromethyl)pyridine-2-Carboxylic acid	87407-12-3				
81		4-chloro-3,5-Dinitrobenzotrifluoride	393-75-9				
82		2-Chloromethyl-3-methyl-4-(2,2,2-trifluoroethoxy)pyridine.HCl	127337-60-4				
83		3-Cyano-2,6 dichloropyridine	40381-90-6				
84		4-Chloro-6-ethyl-5-fluoropyrimidine	137234-74-3				
85		6-Ethyl-5-Fluoro-4-Hydroxypyrimidine	137234-87-8				
86		2,3-Dichloro-5-Trichloromethyl pyridine	69045-83-6				
87		2-methyl 6-(Trifluoromethyl) pyridine -3 carboxylic acid	261635-93-2				
88		3-Fluorobenzotrifluoride	401-80-9				
89		2,6-Dibromo-4-(trifluoromethoxy)aniline	88149-49-9				

90		3-(Trifluoromethyl) acetophenone	349-76-8				
91		5-Fluoro-4-hydrazino-2-methoxypyrimidine	166524-64-7				
92		4-Chloro-5-fluoro-2-methoxy pyrimidine	1801-06-5				
93		Disodium-3-(TFM)phenyl propoanedioate	1443330-02-6				
94		3,4-Dichlorobenzotrifluoride	328-84-7				
95		5-Fluorocytosine	2022-85-7				
96		3-Methyl-5-fluorocytosine	155-15-7				
97		6-Methyl Uracil	626-48-2				
98		2,3-DI -O-ACETYL-5'-DEOXY-5-FLUOROCYTIDINE	76462-82-3				
99		3,5-dichloro-4-amino benzotrilfuoride	24279-39-8				
100		2,6-Dichloro-4,8-dipiperidinopyrimidino[5,4-d]pyrimidine	1913545				
101		2,6-Dichloro-5-fluoro-3-pyridinecarbonitrile	82671-02-1				
102		5-Bromo-2-pyridinecarboxylic acid	30766-11-1				
103		2-Bromo-6-Trifluoromethyl Pyridine	189278-27-1				
104		5 Chloro-2,3-difluoropyridine	89402-43-7				
105		8-Chloro-6-(trifluoromethyl)imidazo[1,2-a]pyridine-2-carboxylic acid	353258-35-2				

106		8-chloro-N-((2-chloro-5-methoxyphenyl)sulfonyl)-6-(trifluoromethyl)imidazo[1,2-a]pyridine-2-carboxamide	1254304-22-7				
107		Benzotrifluoride	98-08-8				
108		2-Amino-5-chlorobenzotrifluoride	445-03-4				
109		(Trifluoromethyl)tetrahydrotriazolo[4,3-a]pyrazine hydrochloride	762240-92-6				
110		4-piperidine carbothioamide, 1-[2-[5-methyl-3-(trifluoromethyl)-1H-pyrazole-1-acetyl]-piperidine-4-carbothiomide) (QEU76)	1003319-95-6				
111		Hydroxymethoxypicolinic acid(X-476)	210300-09-7				
112		Chloro(dioxo(trifluoromethyl)dihydropyrimidinyl)fluoro-N-(N-isopropyl-Nmethylsulfamoyl)benzamide (M-486)	854122-75-1				
113		Flupicolide (2,6 Dichloro-N-[[3-chloro-5-(trifluoromethyl)-2-pyridinyl]methyl]benzamide)	239110-15-7				
114		2-Aminomethyl-3-chloro-5-(trifluoromethyl) pyridine hydrochloride	175277-74-4				
115		2,6-Difluoropyridine	1513-65-1				
116		2-Fluoro-6-Methoxypyridine	116241-61-3				
117		Amino(trifluoromethyl)picolinonitrile	573762-62-6				

118		Fluoronitropyridine	54231-35-5				
119		6-trifluoromethylpyridine-2-carboxylic acid	131747-42-7				
120		2-amino-5-fluoropyridine	21717-96-4				
121		Picoxystrobin	117428-22-5				
122		Chlorobenzotrifluoride	88-16-4				
123		4-Amino-6-bromo-3-chloro-5-fluoropyridine-2-carboxylic acid (BFAP)	2413551-80-9				
124		2-Amino-3-Chloro-5-(trilfuoromethyl) Pyridine (FPU44)	79456-26-1				
125		2-Chloro-6-(trichloromethyl) Pyridine (CTCP)	1929-82-4				
126		Chlorofluoropurine	1651-29-2				
127		Aminochlorobenzotrifluoride	320-51-4				
	6	**Fluoronitrobenzene derivative**		50	0	50	Speciality and fine chemicals
128		4 Fluoro Nitro Benzene	350-46-9				
129		2 Fluoro Nitro Benzene	1493-27-2				
130		2,4 DiFluoro NitroBenzene	446-35-5				
131		3,4 Difluoro Nitro Benzene	369-34-6				
132		2,6-Dinitro-3-Chloro-4-(Trifluoromethyl) aniline	959235-57-5				

133		Fluoronitrobenzenesulfonamide	406233-31-6				
	7	**Fluorophenol / Fluoroanisol derivative**		450	0	450	Speciality and fine chemicals
134		4 Fluoro 3 Trifluoro Methyl Phenol	61721-07-1				
135		4 Fluoro Phenol	371-41-5				
136		2 Fluoro Phenol	367-12-4				
137		4 Fluoro Anisol	459-60-9				
138		4 Amino 3 Fluoro Phenol	399-95-1				
139		5 bromo 2 chloro 4 fluoro phenol	148254-32-4				
140		Tri fluoro Anisole	456-49-5				
141		4-fluorothiophenol	371-42-6				
142		2-(Trifluoromethoxy)phenol	32858-93-8				
143		4-(Trifluoromethoxy)phenol	828-27-3				
144		4-chloro-2fluoro-5-[(2,2,2-trifluoroethyl)sulfanyl]phenol					
145		2-Trifluoromethyl Benzamide	360-64-5				
146		5-Amino-2-chloro-4-fluorophenol	84478-72-8				
147		2,4-Difluorophenol (2,4-DFP)	367-27-1				

		Fluorobenzylamine / Fluorobenzamide / Fluorobenzonitrile derivative					
148		4FBenzylamine	140-75-0				
149		2,6,Di Fluoro Benzamide	18063-03-1				
150		2,4,Di Fluoro Benzamide	85118-02-1				
151		Di fluoro benzyl amine	72235-52-0				
152		4 F Benzonitrile	1194-02-1				
153		4-Fluorobenzoylacetonitrile	4640-67-9				
154	8	2,4-Difluorobenzonitrile	3939-09-1	170	0	170	Speciality and fine chemicals
155		2,4-Dichlorobenzonitrile	6574-98-7				
156		4-Chloro-3-(trifluoromethyl)phenyl isocyanate	327-78-6				
157		3-(Trifluoromethyl)phenyl acetonitrile	2338-76-3				
158		2-(2,2-Difluoro-1,3-benzdioxol-5-yl) acetonitrile	68119-31-3				
159		2,4,6-Trifluorobenzylamine	214759-21-4				
160		4-Bromomethyl-2-Cyano Biphenyl (Bromo OTBN)	114772 - 54 - 2				
161		4-Amino-2-fluoro-N-methylbenzamide	915087-25-1				
162		Aminofluorobenzamide	609783-45-1				

163		Tri Fluoro Ethanol	75-89-8				
164		2,3,5,6-Tetra Fluoro Benzyl Alcohol	4084-38-2				
165		2,3,5,6 Tetrachloro Terpthaloonitrile	1897-41-2				
166	9	4-(Trifluoromethyl)benzyl alcohol	349-95-1	30	0	30	Speciality and fine chemicals
167		2,2,3,3-Tetrafluoropropanol	76-37-9				
168		perfluorooctanesulfonic acid potassium salt (PFOS)	2795-39-3				
169		Hexafluorobutanol	2378-02-1				
		Fluoroacetate / Fluorobenzoate / Fluoroacetic acid derivative					
170		Ethyl 4 4 4 trifluoro Aceto Acetate	372-31-6				
171		ETFA (Ethyl 2,2,2 trifluoro Acetate)	383-63-1				
172		EBDFA (Ethyl Bromo Difluoro Aceto Acetate)	667-27-6				
173	**10**	Ethyl difluoro Acetate	454-31-9	30	0	30	Speciality and fine chemicals
174		Ethyl Difluoro Aceto acetate	352-24-9				
175		4-(trifluoro methyl) salicylic acid	328-90-5				
176		Methyl 2-Fluoro Propionate	2366-56-5				
177		4'-Isobutylacetophenone	38861-78-8				

178		5-Azoniaspiro[4.5]decane hydrogen difluoride	1803551-73-6				
179		2,3,5-trifluorophenyl acetic acid	132992-28-0				
180		3-Trifluoromethyl-1-methyl-1HPyrazol-5-ol	122431-37-2				
181		3-Difluoromethyl-1-methyl-1H-Pyrazol-4-carboxylic acid	176969-34-9				
182		3-Difluoromethyl-1-methyl-1H-Pyrazol-4-carboxamide	925689-10-7				
183		Fluvastatin Intermediate	93957-54-1				
184		Gemcitabine Intermediate	134790-39-9				
185		N-[4-Fluorophenyl)-2-Hydroxy-N-Isopropyl acetamide	54041-17-7				
186		1-aminocyclopropane carboxylic acid	22059-21-8				
187		3-Oxocyclobutane carboxylic acid	23761-23-1				
188		Methyl-2-fluoro-6-hydroxybenzoate	72373-81-0				
189		Methyl-2-Fluoro-6-methoxybenzoate	178747-79-0				
190		Methyl 2,4-Difluorobenzoate	106614-28-2				
191		2-Chloro-1-(5-fluoro-2-methoxyphenyl)ethanone	854036-06-9				
192		2-Methyl-4-(Trifluoromethyl) thiazole-5-carboxylic acid	117724-63-7				
193		4-(Trifluoromethoxy) isobutyrophenone	56425-84-4				

194		Tri Fluoro Acetyl Chloride (TFAC)	354-32-5				
195		4-ethoxy-1,1,1-trifluoro-3-buten-2-one (ETFBO)	17129-06-5				
196		Fluorodimethyl(3-(methylsulfonyl)propyl)silane (SX-01)	2254230-89-0				
197		Difluoroethylamine	430-67-1				
198		1-(3,5-Dichloro-4-fluoro-phenyl)-2,2,2-trifluoroethanone	1190865-44-1				
199		3-(3,3,3,-trifluoro-2,2-dimethylpropoxy)-1h-pyrazole	2229861-15-6				
200		2-Fluoroacetophenone	445-27-2				
201		3,5-Difluorophenol	2713-34-0				
202		Trifluoroacetaldehyde	75-90-1				
203		Trifluoro acetamide	354-38-1				
204		5-fluoro-1-alkyl-3-fluoroalkyl—H-pyrazole-4-carbonyl fluoride	1255735-07-9				
205	11	5 Difluoro Methoxy 2 Mercapto 1 H Benzimidazole	97963-62-7	20	0	20	Speciality and fine chemicals
206		4,4 Difluorocyclohexane carboxylic acid	122665-97-8				
207		Ethyl (3S)-3(4,4 difluorocyclohexane-1-carboxamido)-3 phenyl propanoate	376348-76-4				
208		Ezetimibe intermediate	1076200-08-2				

209		6-Fluoro-2-Methylindole	40311-13-5				
210		2-Butyl-4-chloro-5-formyl Imidazole	83857-96-9				
211		4-Chloro-2-fluorophenyl dimethyl carbamate	2375567-46-5				
212		2-amino-5-chloro-2-fluorobenzophenone	784-38-3				
213		4,4'-(Hexafluoroisopropylidene) diphthalic anhydride (Amanone) or (6-FDA)	1107-00-2				
		Fluorobenzoic acid derivative					
214		3-trifluoromethylcinnamic Acid	779-89-5				
215		Chloro Fluoro Benzoic acid	446-30-0				
216		Di fluoro Benzoic acid	1583-58-0				
217		Fluoro propionic acid	6087-13-4				
218	12	2-Fluoro-4-Nitro Benzoic Acid	403-24-7	20	0	20	Speciality and fine chemicals
219		4-Bromo-2-fluorobenzoic acid	112704-79-7				
220		3,4-difluorophenylboronic acid	168267-41-2				
221		5-(4-Fluorophenyl)-5-Oxopentanoic acid	149437-76-3				
222		2-Fluoro-6-hydroxybenzoic acid	67531-86-6				
223		2,3,4,5-Tetrafluorobenzoic Acid	1201-31-6				

224		2,3,4,5-Tetrafluorobenzoyl chloride	94695-48-4				
225		2-Chloro-5-(trifluoromethyl)benzoic acid	657-06-7				
226		2-Fluoro-4-nitrobenzoic acid	403-24-7				
227		3-Bromo-2-fluorobenzoic acid	161957-56-8				
228		3H-perfluoro-3-[(3-methoxy-propoxy)propanoic acid]	958445-44-8				
229		Trifluorobenzoic Acid	28314-80-9				
230	13	Fluorinated R&D/development products		0	5	5	Speciality and fine chemicals
231	14	Pilot plant products		0	60	60	Speciality and fine chemicals
		Total(Organic)		**2955**	**65**	**3020**	
Inorganic Products							
1		**SULPHURIC ACID**	7664-93-9				
2	1	**Oleum 23 %**	8014-95-7	28000	0	28000	Reaction agent for in house production
3		**Oleum 65%**	8014-95-7				
4	2	**Hydrofluoric acid**	7664-39-3	10800	0	10800	Fluorinating agent
		Metal Fluoride derivative					
5		Aluminium Fluoride	7784-18-1				
6	3	Sodium Aluminium Fluoride	15096-52-3	5800	0	5800	Speciality and fine chemicals
7		Potassium Alluminium Fluoride	14484-69-6				

8		Potassium fluoride	7789-23-3				Fluorinating agent
9		Sodium fluoride	7681-49-4				
10		Magnesium fluoride	7783-40-6				Speciality and fine chemicals
11		Cadmium fluoride	7790-79-6				
12		Barium fluoride	7787-32-8				
13		Nickel fluoride	10028-18-9				
14		Silicon fluoride	7783-61-1				
15		Potassium fluoborate	14075-53-7				
16		Sodium hexafluoro Phosphate	21324-39-0				
17		Potassium hexafluoro phosphate	17084-13-8				
18		phosphorous pentafluoride	7647-19-0				
19		potassium zirconium fluoride	16923-95-8				
20		Ammonium Silico Fluoride	16919-19-0				
21		Copper Fluoborate	38465-60-0				
22		Tetrabutyl ammonium Fluoride	429-41-4				
23		Calcium Silico Fluoride	16925-39-6				
24		Barium Silico Fluoride	17125-80-3				

25		Magnesium Silico fluoride	16949-65-8 18972-56-0				
26		Potassium Silico Fluoride	16871-90-2				
27		Lithium Fluoride	7789-24-4				
28		Fluoboric acid	7732-18-5				
29		Sodium silico fluoride	16893-85-9				
30		hexa fluoro silicic	16961-83-4				
31		Frosting Powder	7789-29-9				
32		Lithiumtetrafluoroborate	14283-07-9				
33		potassium fluorotitanate	240-969-9				
		Metal Chloride derivative					
34		Potassium chloride	7440-09-7				Speciality and fine chemicals
35		Copper chloride	7447-39-4				
		Metal Bromide derivative					
36		Sodium bromide	7647-15-6				Speciality and fine chemicals
37		Copper bromide	7787-70-4				
		Metal oxide derivative					
38		Copper oxide	1317-38-0				Speciality and fine chemicals

39		Sodium monofluorophosphate	10163-15-2				
40		Antimony trifluoride	7783-56-4				
41		Potassium bifluoride	7789-29-9				
42		Calcium fluoride	7789-75-5				
43		Fluorotitanic acid	17439-11-1				
44		Fluorozirconic acid	12021-95-5				
45		sodium bifluoride	1333-83-1				
46		Lithium Cryolite	13821-20-0				
47		Lead hexafluorosilicate solution	25808-74-6				
48		strontium fluoride	7783-48-4				
49		tin fluoride	7783-47-3				
50		barium fluoride	7787-32-8				
51		potassium fluozirconate	16923-95-8				
52		zinc fluoride	7783-49-5				
53		sodium fluoborate	13755-29-8				
54		cadmium fluborate solution	14486-19-2				

55		lead fluoborate solution	13814-96-5				
56		Nickel fluoborate solution	14708-14-6				
57		zinc fluoborate solution	13826-88-5				
58		potassium hexafluorotitanate	16919-27-0				
59		tin fluoroborate	13814-97-6				
60		zinc fluorosilicate solution	16871-71-9				
61		Lithium hexafluorophosphate	21324-40-3				
	4	**Mafron gas (HCFC / HFC / HFO refrigerant gases)**		9000	0	9000	Refrigerant gas
62		Mafron 22	75-45-6				
63		Mafron 134a	811-97-2				
64		Mafron 32	75-10-5				
65		Mafron 125	354-33-6				
66		HFO-1336	66711-86-2				
67		HFO-1234yf	754-12-1				
68		HFO-1234ze	29118-24-9				
69		M-410a	75-10-5/354-33-6				
70		M-407c	354-33-6,75-10-5, 811-97-2				

71		M-404a	354-33-6, 420-46-2, 811-97-2				
72		M-422d	1115-70-4				
73		M-417a	811-97-2, 354-34-6, 106-97-8				
74		M-438a	354-33-6, 811-97-2, 64197, 106-97-8, 78-78-4				
75		M-513a	754-12-1, 811-97-2				
76		M-514a	692-49-9, 156-60-5				
77		M-449a	811-97-2, 754-12-1, 354-33-6, 64197				
78		M-452a	354-33-6, 754-12-1, 75-10-5				
79		M-452b	354-33-6, 754-12-1, 75-10-5				
80		M-23	75-46-7				
81		Fluoropropene	116-15-4				
82		Fluoropropane	690-39-1				
83		Fluorobutene	66711-86-2				
84		Fluorocyclobutane	666-16-0				

		Miscellaneous fluoride derivative					
85		BF3	7637-07-2				Lewis acid catalyst
86		ABF	1341-49-7				Glass etching
87		AF	1478-61-1				
		BF3 adducts					
88		BF3+ Ether	109-63-7				Lewis acid catalyst
89		BF3+THF	462-34-0				
90		BF3+Acetonitrile,	420-16-6				
91		BF3+Ethyl Acetate	461-44-9				
92		BF3 Acetate	373-61-5				
93	5	BF3 + Phenol	462-05-5	6700	0	6700	
94		BF3 + Methanol	373-57-9				
95		BF3+Ethyl Amine	75-23-0				
		HF adducts					
96		HF + Urea	7664-39-3				Fluorinating agent
97		HF+Pyridine	62778-11-4				
98		Hexafluoro Phosphoric acids	16940-81-1				
99		HF Triethyl Amine	73602-61-6				
100		Tetra Butyl Ammonium Fluoride in THF	429-41-4				
101		Tetrafluoroboric acid diethyl ether complex	67969-82-8				

102		Boron trifluoride dihydrate Complex	13319-75-0				
103		Boron trifluoride - Dibutyl etherate complex	593-04-4				
104		Borontrifluoride-Dimethyl sulfide complex (BF3-DMS)	353-43-5				Lewis acid catalyst
105		Borontrifluoride-2-Methyl tetrahydrofuran complex	462-34-0				
106		BF3.Dimethyl carbonate Complex	7637-07-2				
107		ammonium polyfluoride	1341-49-7				Glass etching
108		Elemental fluoride (F2)	7782-41-4				
109		Sulfur Hexafluoride (SF6)	2551-62-4				Fluorinating agent
110		Iodine Pentafluoride (IF5)	7783-66-6				
111		ammonium fluoroborate	13826-83-0				
112		Methylchlorohydrate	132228-87-6				Speciality and fine chemicals
		Total(Inorganic)		**60300**	**00**	**60300**	
113		Electricity (CPP-1 & CPP-2)	--	2800000 Unit/Month	00	2800000 Unit/Month	
114		Steam from (CPP-1 & CPP-2)	--	2880 MT/Month	00	2880 MT/Month	
115		Thermal Oxidation of HFC -23		88 Kg/Hr	00	88 Kg/Hr	
Total (Organic + R&D + Pilot Plant + Inorganic)				**63255**	**65**	**63320**	

Co-products							
1	1	Gypsum / Gypsum Plaster	10101-41-4	38800	0	38800	
2	2	$CaCl_2$	7440-70-2	12145	0	12145	
3		$FeCl_3$	7705-08-0				
4		PAC	1327-41-9				
5		NH_4Cl	12125-02-9				
		Total (Side products)		**79283**	**0**	**79283**	

4. 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.

5. The PP reported that existing unit did not required EC, company has a CC&A before 14.09.2006. Unit has obtained valid CCA-Amendment Order No: AWH- 118538; date of issue 05/05/2022 valid up to 01/01/2025.

6. Certified Compliance Report of the CC&A (as amended) was provided by the IRO, Gandhinagar based on the Site Visit carried out on 09/07/2022 and Out of total 75 conditions, it may be seen that 37 conditions are complied, 04 conditions are partly complied, 17 conditions are agreed to comply by Project Proponent, 05 conditions are not applicable, and 12 conditions are noted by the unit. Action taken report for the Non complied or partially complied conditions has been submitted to the IRO on 10.1.2023.

7. The PP reported that there are no National parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River Tapi is flowing at a distance of 7.85 km in North-West direction. There is no forest land involved in the proposed project. Schedule-I species i.e Grey mongoose, Shikra, Indian peafowl, Barn Owl, Indian ratsnake, Indian cobra, were observed in the 10 km radius from the proposed project for which Conservation plan has been prepared and submitted to PCCF and chief wildlife warden dated 20.4.2023.

8. The PP reported that **Ambient air quality** monitoring was carried out at 12 locations during 1st March 2022 to 31st May 2022 and the baseline data indicated the ranges of concentrations as: PM_{10} (73.08 – 87.52 $\mu g/m^3$), $PM_{2.5}$ (42.58 – 46.29 $\mu g/m^3$), SO_2 (14.1 – 17.24 $\mu g/m^3$) and NO_2 (16.11 – 19.55 $\mu g/m^3$). AAQ modeling study for point source emissions indicates that the

maximum incremental GLCs after the proposed project would be 0.084 μg/m^3, 0.033 μg/m^3 and 0.020 μg/m^3 with respect to PM_{10}, SO_2 and NO_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Ground Water quality** monitoring was carried out at 12 locations during 1st March 2022 to 31st May 2022 and the baseline data indicates the ranges as: pH (7.1 – 7.99), Total Dissolved Solids (276 - 1912 mg/l), Total Hardness (116.4 – 722.9 mg/l), Chlorides (24.1 – 659.7 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 4 locations during 1st March 2022 to 31st May 2022 and the baseline data indicated the ranges as: pH (7.90 – 8.18), Dissolved Oxygen (6.94 – 7.14 mg/l), Chemical Oxygen Demand (5.82 – 12.67 mg/l), Bio-Chemical Oxygen Demand (1.66 – 3.62 mg/l). **Soil quality** monitoring was carried out at 12 locations during 1st March 2022 to 31st May 2022 and the baseline data indicated the ranges as: pH (7.55 – 8.59), Nitrogen (652.2 – 2301.7 mg/kg), Phosphorus (8.02 – 23.62 mg/kg), Potassium (1.94 – 8.76 mg/kg) and Electric Conductivity (0.11 – 1.89 mS/cm). **Noise level** monitoring was carried out at 11 Residential locations, 7 Industrial locations during 1st March 2022 to 31st May 2022. The baseline data indicated the ranges sound levels as for Industrial Location Leq (Day) (60.1 – 67.8 dB) A)) and Leq (Night) (61.3 – 64.8 dB(A)). Residential Location Leq (Day) (50.1 – 58.5 dB) A)) and Leq (Night) (39.7 – 45.7 dB(A)).

9. The PP reported that the total water requirement is 4051.96 m^3/day of which fresh water requirement of 2051.96 m^3/day will be met through Narmada water resources, water supply and Kalpsar Department and recycled water (2000 m^3/day) from SMC STP (Hydraulic Department). Effluent of 3658.24 m^3/day quantity will be treated as per below treatment description Total 3658.24 m^3/day (Industrial: 3468.24 m^3/day + Domestic: m^3/day) of effluent shall be generated. Industrial wastewater (3468.24 m^3/day) along with Domestic wastewater (190 m^3/day) will treat in Effluent Treatment Plant (Primary, secondary & tertiary treatment), treated wastewater – 3658.24 m^3/day will discharge into the SMC drain for sending to Treatment Plant and upto maximum extent possible (2000 m^3/day) treated water from STP is reused in plant premises. This unit is not total zero liquid discharge unit.

10. The Power requirement after expansion will be 28,00,000 units /Month including existing KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has DG sets (2 Nos.) 100 KVA & 600 KVA Capacity, additionally D.G. set used as standby during power failure. Stack (height 11 m) is provided as per CPCB norms to the DG sets.

11. Existing unit has 1 No. of Boiler (5 TPH), 1 No. of Thermic Fluid Heating System, 2 No. of CPP 1 Gas engine, 2 No. of CPP 2 Gas engine,1 No. of HF kiln heating furnace No.270, 1 No. of HF kiln heating furnace No.248, 1 No. of Alumina Drying, 1 No. of Captive Incineration (200 Kg/Hr), 1 No. of Boiler, 2 Nos. of D.G. Set. There will be no additional flue gas emission sources after proposed expansion & will remain same as existing. Low NOx burner, Cyclone separator bag filter with scrubber system, two stage alkali scrubber with the stack height of 35 m, 30 m & 30 m respectively are installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the boilers.

12. **Details of Process Emissions Generation and its Management: Flue Gas Emission** Company is using the Natural Gas as a fuel in Boiler, THF, CPP, HF kiln heating furnace and alumina dryer which is clean fuel. There are 10 nos. of flue gas emissions in existing unit. After total expansion, there will be no increase in the flue gas emissions.

S. No	Stack Attached To	Stack Height (meter)	Fuel Name & Quantity	APCM	Pollutants	Permissible Limit
1	Boiler (SM-50)	35	Natural Gas 360 m^3/hr	Low Nox Burner	PM SO2 NOx	150 mg/Nm3 100 ppm 50 ppm
2	Thermic Fluid Heating System	30	Natural Gas 25 m^3/hr	--		
3	For CPP 1 Gas engine (2 Nos.)	30	Natural Gas 625 m^3/hr	--		
4	For CPP 2 Gas engine(2 Nos.)	30	Natural Gas 625 m^3/hr	--		
5	HF kiln heating furnace No.270	19.5	Natural Gas 315 m^3/hr	--		
6	HF kiln heating furnace No.248	19.5	Natural Gas 100 m^3/hr	--		
7	Alumina Drying	30	Natural Gas 35 m^3/hr	Cyclone Separator Bag Filter With Scrubber System	PM	150 mg/Nm3
8	Captive Incineration (200 Kg/Hr)	30	Natural Gas 50 m^3/hr	Two Stage Alkali Scrubber	PM	150 mg/Nm3
					SO2	200 mg/Nm3

					NOx	400 mg/Nm3
					HCl	50 mg/Nm3
					Cl2	9 mg/Nm3
					HF	4 mg/Nm3
					CO	100 mg/Nm3
					TOC	20 mg/Nm3
					HBr	30 mg/Nm3
					Br2	02 mg/Nm3
9	Boiler	35	Natural Gas 21.66 m^3/hr	Low Nox Burner	PM	150 mg/Nm3
10	DG sets 2 – Nos.	11	Diesel 500 Liter/Day	---	SO2 NOx	100 ppm 50 ppm

Note: There will be no additional flue gas emission sources after proposed expansion & will remain same as existing.

Process Gas Emission

13 nos. of process gas emission in existing unit and 1 no. of process gas emission will be added after expansion. so, after total expansion, there will be 14 nos. of process gas emission.

Sr. No	**Vent Attached To**	**Vent Height (meter)**	**APCM**	**Pollutants**	**Permissible Limit,**
Existing					
1	For Thermal Oxidation Venting (Cdm)	30	Scrubbing System	PM	100 mg/Nm^3
				SO_2	40 mg/Nm^3
				NOx	25 mg/Nm^3
				HF	06 mg/Nm^3

				HCl	20 mg/Nm^3
				Cl_2	9 mg/Nm^3
2	Sulfuric Acid Plant	40	Demister pad & caustic scrubber	SO2	2 kg/T of conc. (100 %) Acid produced
				Acid Mist	25 mg/Nm^3
3	Hf Plant Off Gases Scrubber	30	Packed tower & Venturi Scrubber	HF	06 mg/Nm^3
				SO_2	40 mg/Nm^3
4	Alf3 Plant	25	Packed tower & Venturi Scrubber	PM	100 mg/Nm^3
				HF	06 mg/Nm^3
5	Cryolite Plant	25	Bag filter & Spray tower	PM	40 mg/Nm^3
				HF	06 mg/Nm^3
6	Miscellaneous Fluoride Plant (Bf3 Plant)	12	Packed column & Venturi scrubber	PM	40 mg/Nm^3
				HF	06 mg/Nm^3
7	Mafron (Refrigerant Gases)	21	Packed column & Venturi Scrubber	HF	06 mg/Nm^3
				Cl2	9 mg/Nm^3
				HCl	20 mg/Nm^3
8	Flouro Toluene	12	Packed column & Venturi Scrubber	HF	06 mg/Nm3
	Fluoro Benzene			NOx	25 mg/Nm^3
9	4 Fluoro Benzyle Chloride,4 Fluoro Benzaldehyde	12	Packed column & Venturi Scrubber	HCl	20 mg/Nm^3
				Cl_2	9 mg/Nm^3
				NOx	25 mg/Nm^3
	1 Bromo 4 Fluorobenzene			HBr	30 mg/Nm^3
				Br2	02 mg/Nm^3

				HF	06 mg/Nm^3
10	4 Fluoro Acetophenone	12	Packed column & Venturi Scrubber	HCl	20 mg/Nm^3
				Cl2	9 mg/Nm^3
	4 Fluoro Benzoic Acid			NOx	25 mg/Nm^3
	4,3 Di fluoro Benzophenone				
11	Fluoro Aniline	12	Packed column & Venturi Scrubber	HCl	20 mg/Nm^3
	Benzotrifluoride			Cl2	9 mg/Nm^3
	Parachloro Benzo Tri Fluoride			NOx	25 mg/Nm^3
	Amino Benzotrifluoride			SO2	40 mg/Nm^3
				HF	06 mg/Nm^3
12	Tri fluoro Acetic Acid	12	Packed column & Venturi Scrubber	HCl	20 mg/Nm^3
				Cl2	9 mg/Nm^3
				HF	06 mg/Nm^3
13	PAC/FeCl3/NH4Cl/ CaCl2 - 2 Nos	12	Packed tower and venturi scrubbers	HCl	20 mg/Nm^3
				Cl2	9 mg/Nm^3
Additional					
14	Process Vent (Pilot Plant)	12	Scrubbing System	PM	100 mg/Nm^3
				SO2	40 mg/Nm^3
				NOx	25 mg/Nm^3
				HCl	20 mg/Nm^3
				Cl2	9 mg/Nm^3
				HF	4 mg/Nm^3
				HBr	30 mg/Nm^3

				Br2	2 mg/Nm^3
				NH3	175 mg/Nm^3

14. **Details of Solid Waste/ Hazardous Waste Generation and its Management:** 20 Categories of Hazardous/Solid Wastes are/will be generated from this Unit.

Sr. No.	Hazardous waste	Cat.	Quantity (MT/Annum)			Mode of Disposal
			Existing	Additional	Total	
1	ETP Sludge	Sch-I 35.3	1937	--	1937	Collection, Storage, Transportation, Disposal at common TSDF.
2	Process Sludge	Sch-I 17.1	187.5	--	187.5	Collection, Storage, Transportation, Disposal at common TSDF.
3	Sulphur Sludge	Sch-I 17.1	50	--	50	Collection, Storage, Transportation, Disposal at common TSDF.
4	Distillation Residue (High Boiling Impurities)	Sch-I 36.1	20	--	20	Collection, Storage, incineration at captive incinerator within unit.
5	Used Oil	Sch-I 5.1	12.4	--	12.4	Collection, Storage, Transportation, disposal by selling to registered Re-refiner.
6	Discarded Containers	Sch-I 33.1	12000	--	12000	Collection, Storage, transportation disposal by selling to Authorized Recycler after decontamination.
7	Spent Catalyst	Sch-I 17.2	12	--	12	Collection, Storage, transportation and sell to reprocessor or send to common incineration facility.

8	Incineration Ash	Sch-I 37.2	3	--	3	Collection, Storage, Transportation, Disposal at common TSDF.
9	Plastic Bags	Sch-I 33.1	3	27	30	Collection, Storage, Transportation, disposal by selling to authorized recycler.
10	Cotton waste/incinerable waste	Sch-I 33.2	12	--	12	Collection, Storage, and disposed off through captive incinerator.
11	E-Waste	--	0.2	0.5	0.7	Collection, Storage, transportation and disposed off to approved E-waste site.
12	Spent Hydrochloric acid	Sch-I 29.6	18900	--	18900	Collection, Storage, transportation and sell to end users/actual users having Rule-9 permission or reused in plant premises.
13	Insulation waste	Sch-III B-2030	24	--	24	Collection, Storage, transportation and disposed off to approved common TSDF site.
14	Containment / spill ups cleaning waste	--	--	30	30	Collection, Storage, transportation and disposed off to approved common TSDF site.
15	Brick refractory	--	--	8	8	Collection, Storage, transportation and disposed off to approved common TSDF site.
16	Used PPE	--	--	5	5	Collection, Storage, transportation and disposed off to approved common TSDF site.

17	Date expired / off-specification material	Sch-I 28.4	--	50	50	Collection, Storage and sent to in-house or outside incineration facility.
18	Oil filter waste	Sch-I 5.1	--	1	1	Collection, Storage and sent to in-house incineration facility.
19	Waste from surface preparation for painting	Sch-I 21.1	--	10	10	Collection, Storage, transportation and disposed off to approved common TSDF site.
20	Spent carbon	Sch-I 28.3	--	5	5	Collection, Storage, transportation and disposed off to approved common TSDF site.

15. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 52.35 Crores (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 13.78 Crores per annum. Industry proposes to allocate Rs. 70 lakhs towards Corporate Social Responsibility.

16. Industry has already developed greenbelt over an area of 48.73% i.e. 2,45,861.3 m^2 out of 5,04,532.69 m^2 total area of the project.

17. The PP reported that the Public Hearing for the proposed project has been conducted by the State Pollution Control Board on on 24/3/2023 which was presided by the The main issues raised during the public hearing are related to Employment, CSR/CER Activity, and other technical issue.

Sr. No.	Name and Address	Point Represented and/or written submission	Reply given by the representative of project proponent and concerned officer	Action Plan along with budgetary allocation
1	Shri Mahendrasinh Jaymalsinh Vansiya Principal, Vanz Primary School, Ta. : Choryasi, Dist. : Surat	• He stated that the company is helping 1500-2000 of Std.1 of 10 schools by providing them educational kits during "Pravesh-Utsav" for	• The representative of the project proponent expressed his gratitude.	--

		the last 10 years. I am thankful to the company for the same. The students of schools of surrounding villages are very poor. The company provides help in their educational development. The company provides school bags, slats, pens, uniforms, guides etc. to the students. I am going to retire from my job after seven months. I expect that the company will continue to provide help to 10 schools of surrounding villages even after my retirement. I am grateful to the company on behalf of the villagers and guardians for providing help and I wish that the company will continue to progress.		
2	Smt. Ashaben Nagjibhai, Principal, Primary School, Bonand Ta. : Choryasi, Dist. : Surat	She stated that students of our school starts their education from Std.-1 with the help of the kits provided by Navin Fluorine company. I am thankful to the company for the same. The students of our government schools are showing their talent at the state level by taking advantage of the infrastructure facilities provided by the	• The representative of the project proponent stated that currently 17 women are working as permanent employee and 39 women are working on contract basis in the company. Being ours is a chemical plant, employment is given based on experience and expertise and priority has been/will be given to increase the	--

		company. Notebooks are provided by the company before the session starts in the month of June every year and all the requirements related to education are fulfilled by the company on time. Today women are contributing in all fields. Women are successfully managing 70% of the schools in our Choryasi four talukas, so I would like to ask the company that how many women are employed in the company? When so many efforts are being made by the government and social organizations for women empowerment, how many positions are there for women in the company?	number of women employment.	
3	Shri Sohel Tailor Principal Eklara Primary School, Ta. : Choryasi, Dist. : Surat.	He stated that the company is providing facilities in our school. I am grateful to the company for the same. Which facilities are being provided by the company for the chemical products manufactured in the company.	• The representative of the project proponent stated that we have chosen the best technology in the world. Our Technology & Design department deployed many engineers from IITs and NITs, we give priority to engineers from IITs, whose ability is very worthy. We look for safety in basic engineering and carry out HAZOP out. Then we carry out detail	--

			engineering and HAZOP. We try to avoid residual hazards in the plant. We cover all hazards with engineering controls. We have administrative controls as well. We provide personal protective equipment (PPE) to all employees for safety and ensure that there are no unsafe conditions in the plant. Our plant has been running since 1967 and no mishap has happened till date.	
4	Shri Rameshbhai Patel, Sarpanch, Vill. : Bhatiya Ta. : Choryasi Dist. : Surat	He stated that how will the company's upcoming project benefit the surrounding village? The company is providing medicine in the surrounding villages through the medical van. Will the company expand the services of the medical van?	• The representative of the project proponent stated that primary health facilities and primary education will be provided as much as possible in the surrounding villages. We try to help as much as possible according to people's needs. We request the villagers to let us know if any assistance is required and we will try to provide assistance to the best of our ability. • We have a critical care ambulance. The doctor goes to the village and provides free medicine. We are going to procure another modern critical care ambulance so that we can reach the villagers as soon as possible. Assistance	• Proper EMP has been planned and will be implemented before and after commissioning of the project. Total Budget of Rs. 70 lakhs for the capital investment for EMP has been allocated. • CER activities are as following: 1.Procure new mobile health van for medical camps and health check-up activities in nearby villages (Cost: Rs. 25 Lakhs & Time period: 1 Year) 2.Installation of water purifying plants in nearby villages for safe drinking water. (Cost: Rs. 10 Lakhs & Time period: 2 Year) 3.Distribution of LED lights/Solar Lights in

			will be provided to the villagers whenever needed.	nearby villages. (Cost: Rs. 10 Lakhs & Time period: 2 Year) 4. Donation to Prayas (NGO) –/Nature Club Engaged in rescue/treatment activity of animals and birds and plantation activities (Cost: Rs. 10 Lakhs & Time period: 1 Year) 5. Distribution of waste collection bins/containers in nearby villages to improve the waste collection activity (Cost: Rs. 5 Lakhs & Time period: 1 Year) 6. Installation of Physical exercise equipment in nearby schools or gardens (Cost: Rs. 5 Lakhs & Time period: 1 Year) 7. Plantation activity on naked lands (in consultation with SMC) (Cost: Rs. 5 Lakhs & Time period: Ongoing task)
5	Shri Pritesh Rameshbhai Parekh Principal, Bhagyoday Vidyalay, Bhestan, Surat	He stated that I have been associated with the school for the last 15 years. Our school has been built on the land donated by Navin Fluorine company. Every year the company imparts knowledge on pollution control to such children in our school. The school	• The representative of the project proponent expressed his gratitude.	--

		encourages children by organizing tree-plantation and fire-safety programs and we expect that the company will continue to do so in the future. I am grateful to the company for the same.		
6	Shri Dhansukhbhai Patel Ex-Sarpanch, Vill. : Umber Ta. : Choryasi, Dist, : Surat	He stated that how many people from the surrounding village are working in the company and what benefits does the company have to offer? According to the surrounding villagers, if this company was not there, many families would have perished. The company has also provided medical facilities and toilet facilities in each village. The company helped a lot during COVID-19 pandemic, so the company is blessed for the poor. The villagers are earning their livelihood through the company. Therefore, I hope that this company will make a lot of progress and help the poor.	• The representative of the project proponent stated that most of the employees are local people in the company. Approx. 90% of the company's employees are from Gujarat and approx. 30% employes are from the surrounding 10 km area. As mentioned earlier, since ours is a chemical plant, employment is provided on the basis of skill and experience and priority will be given to local people in future as well. • We provide medical services through van in surrounding villages, organize eye check-up camps, provided donation to Prayash & Nature Club NGOs for treatment of injured birds, contribution in Dhanvantari Rath operated by Surat Municipal Corporation during COVID pandemic as well and provided an ambulance to Ekta Trust. School	-- • Company will procure new mobile health van for medical camps and health check-up activities in nearby villages within a year (Cost: Rs. 25,00,000/-).

			entrance festival is organized every year in every school, drinking water facilities are provided in every school under Sarva Jal RO project, company fulfills the need of the children of every school & anganwali every year on Day of Sharing. The company has provided audiometric test room to "Ambikaniketan Mukbadhir Vikas Trust". The company is also going to participate in the vision of the H'ble Prime Minister's "TB eliminating drive " of Civil Hospital by the year 2025.	
7	Shri Bakul Maheta, Housing Board, Pandesara, Ta. : Choryasi, Dist, : Surat	He stated that where are the company's products used?	• The representative of the project proponent stated that our products are being used for crop protection to increase agricultural yields. Secondly, we manufacture raw materials for pharmaceutical companies from which lifesaving drugs are being produced and we used to supply key raw materials to produce medicines to cure COVID-19 during the pandemic.	--
8	Shri Natvarbhai Pandya, Vill. : Bhestan, Ta. : Choryasi, Dist, : Surat	He stated that I have been living in Bhestan for the last 25 years. How does the company	• The representative of the project proponent stated that detailed information has been provided for treatment	• Company will Contribute Rs. 52.35 Crore as capital cost of Environment protection measures

		treat and dispose of wastewater?	of wastewater in presentation. Wastewater will be reused after treatment in Effluent Treatment Plant. Treated water will be reused in cooling tower of Effluent Treatment Plant of the company. • Treatment of wastewater at source is more important than end-of-pipe treatment for environmental protection. Wastewater is being treated in the Effluent Treatment Plant having primary, secondary and tertiary treatment facility and it is ensured to comply the norms of GPCB. Wastewater is being recycled in the plant wherever possible, The company has arranged the instrument for early indication.	(includes cost of ETP, Tree Plantation, Evaporator System and etc.) & Rs. 13.78 Crore per annum as recurring cost
9	Shri Rajeshbhai Chhotubhai Patel President, Machhimar Samaj, Vill. : Budiya, Ta. : Choryasi, Dist, : Surat	He stated that as said by Pandya Saheb, the company should treat the water adequately because the livelihood of the fishermen depends on water. The surrounding companies have closed down but Navin Fluorine Company has been operating for the past 50 years. I agree with the opinions expressed by everyone earlier. The local people	• The representative of the project proponent stated that we currently give preference to local employment and will continue to do so in the future. At present, advertisement is being given in newspaper for employment.	• Company has provided employment to the local people and will keep on providing opportunities as per the requirement

		affected by the company's pollution, so I suggest that the local people should be given priority in employment.		
10	Shri Jayantibhai D. Patel Vill. : Bhestan, Ta. : Choryasi, Dist, : Surat	He asked that in what percentage area has the company developed green belt?	• The representative of the project proponent stated that the greenbelt is developed in 48.73% of the total plot area and planted carbon dioxide absorbing and oxygen providing trees like neem, pipal etc. and horticulture specialist is consulted for the same. In the future, if there is any request for tree plantation from the neighboring village, we will help as requested. There are currently 66,000 trees in the greenbelt on the project site.	• Total 5,04,532.69 sq. meter land area is available at site; out of this area about 2,45,861.3 sq. meter (48.73%) of the total land area is already developed as greenbelt. Company will do plantation activities in consultation with SMC. (Cost: Rs. 5,00,000/-).
11	Shri Abdul Raheman Malbari Ekta Trust, Chowk Bazar, Surat	He stated that this company has provided us with an ambulance to serve the non-inherited people and also provide us with shrouds when required. Let us all work together for the development of the country is the dream of Hon'ble Narendra Modiji and I thank Navin Fluorine for working in the same direction. I hope that the company will develop day by day and continue to provide	• The representative of the project proponent expressed his gratitude.	--

		employment to the locals.		
12	Shri Digvijaysinh Gohil Mosam Highschool, Vill. Bhatiya, Ta. : Choryasi, Dist, : Surat	He stated that I would like to thank the company for its continuous support provided for our schools as mentioned earlier by the principals and teachers. There are some tribal & backward class children studying in our school who cannot even afford a good breakfast in recess. We suggest the company to provide employment to the poor students who completed education from our school. So they can earn their livelihood.	• The representative of the project proponent stated that we currently give preference to local employment and will continue to do so in the future.	--

18. The PP proposed to set up an Environment Management Cell (EMC) by engaging Vice President- General Manager – HSE- Executive Enviornment- Sr. Manager ETP- Assistant Manager – Executive- ETP and incerator operators – ETP & Incerator helpers for the functioning of EMC.

19. The PP reported that the Emissions reduction by current trees is **17267 tCO_2 eq./ year** Total emissions reduction that can be achieved is **18083 t CO_2 eq./ year.** Net emissions = gross emissions – emission reduction. Net emissions = 53859 - 17267 - 18083 = **+18509 t CO_2 eq. / year.** The net emissions of M/s. Navin Fluorine International Limited are +35342 t CO_2 eq. / year. The emission reduction by CER and 50% renewable power contract can be achieved is **49.42%.** Industry will also do plantation every year to reduce our carbon footprint. In future, Industry will be converting total power to renewable energy depending upon government policy.

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

21. The estimated project cost is Rs 529.45 Crores including existing investment of Rs 459.98 crores. Total Employment will be 1161 persons as direct & no 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 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, carbon footprint, disposal of treated wastewater, List of Person attended during the meeting, compliance of OM dated18.5.2023 and advised the PP to submit the following:

- Undertaking for the development of 10% extra tree plantation within premises.
- Undertaking for the completion period of reduction in carbon footprint
- Disposal mode of of treated wastewater.
- Supporting documents of the compliance of OM dated 18.5.2023 regarding the verification of the consultant and list of Person attended during the meeting

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

The EAC deliberated the Onsite and Offsite Emergency plans and also the various mitigation measures proposed during the 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 the 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) The PP shall develop Greenbelt over an area of at least, 2,45,861.3 m^2 by planting 69066 number of trees within a period of one year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2 m). The budget earmarked for the plantation shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of the expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(ii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage Vice President- General Manager – HSE- Executive Enviornment- Sr. Manager ETP- Assistant Manager – Executive- ETP and incerator operators – ETP & Incerator helpers In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during 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 52.35 Crore (Capital cost) and ₹ 13.78 Crore per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iv) The Total water requirement is 4051.96 m^3/day of which fresh water requirement of 2051.96 m^3/day will be met through Narmada water resources, water supply and Kalpsar Department and recycled water (2000 m^3/day) from SMC STP (Hydraulic Department). 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) As commmitted by the PP after the deliberation, Total 3658.24 KL/Day (Industrial: 3468.24 KL/Day + Domestic: 190 KL/Day) of effluent shall be generated. Industrial wastewater (3468.24 KL/Day) along with Domestic wastewater (190 KL/Day) shall be treated in Effluent Treatment Plant (Primary, secondary & tertiary treatment). Then treated wastewater (3658.24 KLD) shall be discharged into the SMC drain for sending to Common Sewage Treatment Plant (Bamroli).

(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 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) 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 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.

(xii) 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.

(xiii) 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.

(xiv) 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.

(xv) 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.

(xvi) 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.

(xvii) 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. 52.16

Proposed synthetic organic chemical manufacturing Unit of production capacity 1007 MTPA located at plot No. 81- E, Jigani I Phase Industrial Area, Jigani village, Jigani Hobli, Anekal Taluka, Karnataka by M/s Roshel Omkar Laboratories Pvt. Ltd- Consideration of EC

[Proposal No. IA/KA/IND3/425271/2023; File No. IA-J-11011/227/2022-IA-II(I)

1. The proposal is for the environmental clearancefor the proposed synthetic organic chemical manufacturing Unit of production capacity 1007 MT/PA located at plot No. 81- E, Jigani I Phase Industrial Area, Jigani village, Jigani Hobli, Anekal Taluka, Karnataka by M/s Roshel Omkar Laboratories Pvt. Ltd.

2. The project/activity is covered under Category 'A' of Item 5(f), Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical

intermediates) of Schedule of Environment Impact Assessment (EIA) Notification2006 (as amended).

2. The ToR was issued by the Ministry, vide letter no. IA-J-11011/227/2022-IA-II(I) dated 8.9.2022. The PP applied for Environment Clearance in the Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a **Fresh case.** The proposal is placed in this 52nd EAC meeting on 30th-31st May, 2023, wherein the PP along with accredited Consultant, M/s. Shree Green Consultants [Accreditation number NABET/EIA/2124/IA0072 valid till 24.2.2024] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

3. The PP reported that the total land area fo the proposed project total land is 2019 m^2 and no R& R is involved in the Project. The details of products to be manufactured are as follows:

S. No	Product Name	Quantity In MTPA	CAS No	Therapeutic Use
01	Pregabalin	90.0	148553-50-8	Anticonvulsants. Analgesics and Fibromyalgia agents
02	Tamsulosin	6.0	106133-20-4	Alpha blockers
03	Gabapentin HCL	60.0	60142-96-3	Antiepileptic, To prevent and control Seizures.
04	Lysergol Intermediates	100.0	602-85-7	Bio enhancer for the drugs and nutrients and has antibacterial activity.
05	Paracetamol	300.0	103-90-2	Analgesics and antipyretics
06	Salbutamol	45.0	8559-94-9	Bronchodilators
07	TERT-BUTYL 3-(3-M ETHYLPYRID IN-2 -YL) BENZOATE	45.0	1083057-12-8	KSM FOR LUMCAFTER It may help to improve breathing, reduce the risk of lung infections, and improve weight gain
08	TERT-BUTYL(2S) -2-(PYRIDINE-3-YL) Pl PERIDIN E-1-CARBOXYLATE	50.0	745807-07-2	KSM FOR (S)-ANABASIN industrial use is as an insecticide

S. No	Product Name	Quantity In MTPA	CAS No	Therapeutic Use
09	2,4-Diamino pyrimidine-3-oxide and its intermediates	50.0	74638-76-9	Used in cosmetic products
10	2, 4, Diamine-6-Chloropyrimidine	60	156-81-0	Used in cosmetic products
11	1,3 Cyclohexane dione	60	504-02-9	as a building block
12	Ambraxol Hydrochloride	60	23828-92-4	mucolytics
13	4-aminocyclohexanol	60	27489-62-9	Ambraxol raw material
14	Isoxsuprine Hydrochloride	15	579-56-6	symptomatic treatment of cerebrovascular insufficiency
15	R & D products	6.0	-	-
Total Proposed production capacity		**1007**		

4. 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.

5. The PP reported that there are no Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. The Bannerghatta National Park is about 7.61 km from the project site (NW direction). 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.

6. The PP reported that **Ambient air quality** monitoring was carried out at 8 locations during October 2022 to December 2022 to and the baseline data indicated the ranges of concentrations as: PM_{10} (39.01 – 95.01 μg/m^3), $PM_{2.5}$ (24.1 - 48.0 μg/m^3), SO_2 (9.8 -18.32 μg/m^3) and NO_2 (20.4 - 23.5 μg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be PM: 7.137 μg/m^3, SOx :19.26 μg/m^3 and NOx: 25.54 μg/m^3. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise levels** Ambient noise levels were measured at 8 locations around the proposed project site and also on the project site location. monitoring was done during the day as well as night time. Near the residential area the minimum and maximum noise levels recorded during the day time was 49.2 Leq dB(A) and 54.9 Leq dB(A) and during night time was 40.0 Leq dB(A) and 44.1 Leq dB(A) respectively. It was observed that the noise levels in the study area are well within the prescribed limits as prescribed by the CPCB. **Soil quality** monitoring was carried out at 8 locations and the baseline data indicated the ranges as: pH of the soil samples ranged from 6.13- 8.62 indicating that the soils are almost neutral in nature. Conductivity of the soil samples ranged from 211-312 μS/cm. As the EC value is less than 2000 μS/cm, the soil is found to be non-saline in nature. The water holding capacity of the soil samples varied from 37 - 50 (%). Nitrogen content ranged from 72 to 288 kg/ha

Phosphorous ranged from 0.144 to 0.360 kg/ha Potassium content ranges from 0.288 to 0.648 kg/ha. **Surface water quality** monitoring was carried out at 8 locations and the baseline data indicated the ranges as: The pH of surface water showed a variation in the range of 7.22 – 8.04. TDS levels varied in the range of 355 – 2489 mg/L. Total hardness varied in the range of 90 – 510 mg/L. Coliform bacteria were measured as Total Coliform and varied in the range 4 to 22 MPN/100 ml sample, and E. coli, these bacteria are found at a maximum value of 14 MPN/100 ml for Hulimangala lake to a minimum value were observed to be less than 1.8 MPN/100 ml in the samples of lakes of Jigani, Bande Nallasandra and Hennagara. **Ground water quality** monitoring was carried out at 8 locations and the baseline data indicated the ranges of concntrations as: The pH value the range of 7.33 to 8.21, the Total Dissolved Solids(TDS) the range of 390 mg/l to 1280 mg/l. Total hardness (as CaCO3) value range of140 mg/l to 662 mg/l. Fluoride (as F) value of all GW samples collected is below 1.0 mg/l against an acceptable limit of 1.0 mg/l and permissible limit of 1.5 mg/l. This indicated that the Fluoride (as F) value of all GW samples collected is within acceptable limits.

7. The PP reported that the total water requirement is 58 m^3/day and will be met by the KIADB water supply. The total Domestic & Industrial effluent generation is estimated to be 34 KLD which will be treated up to primary treatment. The partially treated effluent will be disposed to the CETP line. The plant will be based on a CETP discharge system.

8. The power requirement of the project will be 2500 KW and will be met by KPTCL. The unit is proposed to install (2 x 500 KVA) DG Set, Stack height of 3 M will be provided from ARL as per CPCB norms. The unit has proposed to install a process reactor with respect to 30 M AGL stack height to be installed followed by an alkali scrubber. The proposed boiler capacity is 2 TPH (1 TPH is standby) with respect to a stack height of 30 M. The unit has proposed to install of thermic fluid heater (2 Lakhs Kcal/hr) with are proposed Stack Height of 30 Meter respectively for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers. The proposed fuel LDO/Gas/Diesel will be used instead of coal for the proposed Boiler & fired utilities.

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

S. No.	Name of the Gas	Quantity in Kg/Day	Treatment Method
1	Ammonia	28.00	Scrubbed by using chilled water media

2	Hydrogen	12.00	Diffused by using Nitrogen through Flame arrestor to avoid the formation of explosive mixture.
3	Carbon dioxide	240.00	Dispersed into the atmosphere
4	Oxygen	120.00	Dispersed into the atmosphere
5	Nitrogen	35.00	Dispersed into the atmosphere
7	Hydrogen chloride	320.00	Scrubbed by using chilled water media
13	Sulphur dioxide	4.00	Scrubbed by using C. S. Lye solution

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

S. No.	Description	Quantity Tons /Annum	Disposal
1	Used / spent Oil	0.5	Sale to KSPCB Authorized recyclers/used as lubricant.
2	Chemical sludge from ETP	800	TSDF/co-processing in cement kiln
3	Discarded containers / barrels	7	Sale to Authorized party
4	Discarded Liners/Bags	3	Sale to Authorized party
5	Contaminated Cotton rags or other cleaning materials	0.80	TSDF/co-processing in cement kiln
6	Process residues and waste	120	Sale to Authorized party/ TSDF/co-processing in cement kiln

7	Spent catalyst	15	Sale to Authorized party/ TSDF
8	Spent carbon	15	TSDF/co-processing in cement kiln
9	Distillation Residue	90	Sale to Authorized party/ TSDF/co-processing in cement kiln
10	Inorganic solid waste	120	Will be sent to cement industry
11	Organic solid waste	50	Will Cement plant for incineration.

11. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 120 Lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 10.01 Lakhs per annum. Industry proposes to allocate Rs. 30 lakhs towards Corporate Social Responsibility.

12. The industry is being developed the greenbelt over an area of 666.27 m^2 which is 33% out of the total project area. Remaining 7% of the green belt will be developed inside the project site. Total proposed green belt area is 40% which is about 807.60 m^2.

13. The PP reported that the proposed project is located notified industrial area (KIADB Jigani Industrial area- (Notification No. CI 195 SPQ 82 dated 11.07.1985) prior to 2006 and hence in accordance with Clause7(i) (III) Stage (3) (i) (b) of EIA Notification, 2006 and O.M. No. J-11011/321/2016-IA. II(I) dated 27.04.2018

14. The PP proposed to set up an Environment Management Cell (EMC) by engaging Vice President- site head-EHS head- manager safety- Manager EHS- FMO for the functioning of EMC.

15. The PP reported that the Total 204 trees are proposed to be planted in to 19 different species with in the proposed site, with the carbon sequestration potential of 21.53 tons.

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

17. The estimated project cost is Rs 5 Crores. Total Employment under the proposed project will be 30 persons.

18. **Deliberations by the EAC:**

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

The EAC noted that the PP has given an undertaking 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 layout, Greenbelt development plan and undertaking for the same, compliance of OM dated18.5.2023 and advised the PP to submit the following:

- Updated colour coded layout.
- Undertaking for the Greenbelt development plan.
- Supporting documents of the compliance of OM dated 18.5.2023 regarding the verification of the consultant.

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

The EAC deliberated the Onsite and Offsite Emergency plans and also the various mitigation measures proposed during the 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 the 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.

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

i. Adequate stack height as per CPCB/SPCB guidelines shall be provided. Stack emission levels shall be stringent than the existing standards.

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

v. cleaner fuels shall be used as a primary fuel (pet coke/furnace oil/ LSHS shall not be used).

vi. The best available technology shall be used.

vii. The PP shall develop Greenbelt over an area of at least, 807.60 $m^2$by planting 204 number of saplings within a period of one year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2 m). The budget earmarked for the plantation shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of the expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

viii. The Unit shall develop 100 m^2 land area as a greenbelt outside the premises.

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

x. The total Domestic & Industrial effluent generation shall be 34 KLD which shall be treated up to primary treatment. The partially treated effluent shall be disposed to the CETP line. The plant shall be based on a CETP discharge system

xi. Continuous monitoring system for effluent quality/ quantity shall be connected to CPCB server.

xii. The PP shall harvest rain water by rooftop harvesting method from the roof of plant supporting facilities like administration building, plant facilities, storage rooms, canteen, etc. constituting a roof top area of about 1009 m^2

xiii. The total domestic waste water generation will be 1.5 KLD shall be sent to Septic Tank.

xiv. Unit shall send fly ash to brick manufacturing unit as per Fly AshNotification, 2009.

xv. Hazardous waste shall be send to the TSDF site or co-processing at cement industries or to authorized end-users having permission under Rule 9

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

xvii. As proposed, an amount of ₹ 20 Lakhs shall be allocated towards CER for Donation for education in nearest School, Drinking water facility (RO system) in nearest School, Medical health check-up, Assistance in existing health facilities in nearest hospital.

xviii. 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 Vice President- site head-EHS head- manager safety-Manager EHS- FMO. 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.

xix. 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 ₹ 120 Lakhs (Capital cost) and ₹ 10.01 Lakhs per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

xx. The total water requirement is 58 m^3/day and will be met by the 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 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.

xxi. 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.

xxii. 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.

xxiii. 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.

xxiv. 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.

xxv. 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.

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.

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.	**Shri Santosh Gondhalkar** 'Shree' Apartment, Flat 401, Plot No. 22, Tukaram Society, Santnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
5.	**Dr. Suresh Panwar** House No.4, Gayateri Green Society, NH 58 Bypass,Kankerkhera, Meerut, Uttar Pradesh Email-spcppri@gmail.com	Member
6.	**Shri Tukaram M Karne** "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2, PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	Member
7.	**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

8.	**Dr. M. Ramesh** Scientist 'E' Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Room No. V-203, Vayu Wing, Jor Bagh Road, New Delhi-110003 Tel. 011-20819338 E-mail: ramesh.motipalli@nic.in	Member Secretary

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MOM approved by

(Prof. Aniruddha B. Pandit)
Chairman

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