GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-3 SECTOR)
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Dated: 07.07.2023

MINUTES OF THE 54th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON 28th JUNE, 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 53rd 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. Accordingly, the MoM were confirmed.

Agenda No. 54.1

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, Bala village, Mangalore Taluka, Dakshina Kannada District, Karnataka by M/s BASF India Ltd. – Amendment in EC

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

1. The proposal is for amendment in the Environmental Clearance (EC) granted by the Ministry vide letter no. J-11011/456/2008-IA-II(I) dated 6.11.2008 for 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, Bala village, Mangalore Taluka, Dakshina Kannada District, Karnataka by M/s BASF India Ltd.

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

S. No.	Para of EC issued by MoEF & CC	Details as per the EC	To be revised/read as	Justification/reasons
1.	Para 2	Dyes - 4,225 TPA, Textile Auxiliary - 13,000 TPA, Dispersions - 70,000 TPA	Manufacturing of formulation products such as Additives (Sovermol & Loxanol) - 10,000 TPA, Mining Auxiliaries - 5,000 TPA; along with existing formulation products such as Micronutrients - 15,000 TPA, Synthetic Specialty Coatings and CED emulsions - 19,000 TPA, Precious Metal Slurry Catalyst - 230 TPA, Paint, textile and leather auxiliaries - 10,000 TPA; and Dyes - 4,225 TPA, Textile Auxiliary - 13,000 TPA, Dispersions - 70,000 TPA	The Fformulation products such as Micronutrients, Synthetic Specialty Coatings and CED Emulsions, Precious Metal Slurry Catalyst, Paint, Textile and leather Auxiliaries, Additives and Mining Auxiliaries will be manufactured within the existing plant which has obtained Environmental Clearance dated 06.11.2008.
2.	Para 3	Effluents from process, washings, Domestic and utility blow downs are treated in effluent treatment plant and treated effluent shall be sent for marine disposal.	• The effluent from manufacturing process shall be treated in Effluent Treatment Plant of 850 KLD and disposed to sea. • The domestic sewage of 130 KLD shall be treated in proposed STP of 150 KLD followed by Reverse Osmosis. This RO reject should be used for gardening after blending with RO Permeate of STP treated water and RO Permeate of treated blowdowns from cooling tower and boiler. • The boiler and cooling tower blowdown shall be treated in RO plant and the RO reject shall be disposed to sea. This RO Permeate, along with RO Permeate of STP treated water shall be used for boiler and cooling tower makeup and gardening.	The industry was treating trade effluent and domestic sewage in Combined ETP and disposing the treated water to sea. As per the Committee's suggestion, the industry have decided to treat domestic sewage in STP and boiler and cooling tower blowdowns in RO and to use the treated water within the industry.

3. **Deliberations by the EAC:**

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

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

- Detailed Greenbelt development plan.
- Revised water balance and details of STP.

The PP submitted the revised/updated information/documents of the same and the EAC found it to be satisfactory.

4. After detailed deliberations, the EAC **recommended** the amendment in EC, subject to the following additional conditions:

(i) The PP shall develop Greenbelt over an area of minimum 33% by planting 11520 number of saplings within a period of one year of grant of EC. The saplings selected should be of sufficient height, preferably 6-ft (about 2 m). The budget of Rs. 57.60 Lakhs 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) Industry shall install Sewage Treatment Plant (STP) for treatment of domestic sewage and treated water shall be used for gardening, whereas the industrial effluent such as cooling tower and boiler blowdown shall be treated in ETP and disposed to sea. The industry should also explore possibility to reuse the blowdowns.

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

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

Agenda No. 54.2

Proposed expansion of API & Intermediates Manufacturing Unit with production capacity from 999.7 TPA to 1282.70 TPA located at Plot No. F-112, Chincholi MIDC, Taluka-Mohol, District- Solapur, Maharashtra by M/s Glenmark Life Sciences Limited - Consideration of Environmental Clearance

[Proposal No. IA/MH/IND3/417737/2023, File No. IA-J-11011/516/2021-IA-II(I)

1. The proposal is for environmental clearance for the Proposed expansion of API & Intermediates Manufacturing Unit with production capacity from 999.7 TPA to 1282.70 TPA located at Plot No. F-112, Chincholi MIDC, Taluka-Mohol, District- Solapur, Maharashtra by M/s Glenmark Life Sciences Limited.

2. The project/activity is covered under Category 'B' of Item 5(f), Synthetic Organic Chemicals Industry of Schedule of EIA Notification, 2006 (as amended). However, GIB sanctuary is located about 3.32 Km in ESE direction from the project site in Chincholi MIDC, the project attracts the general condition and considered as Category 'A' at Centre.

3. The standard ToR was issued by the Ministry, vide letter no. IA-J-11011/516/2021-IA-II(I) dated 22.12.2022. 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 54th EAC meeting on 28th June, 2023, wherein the PP along with accredited Consultant, M/s. Perfact Enviro Solutions Pvt. Ltd [Accreditation number NABET/EIA/2225/RA0284, valid upto 26.11.2025] 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 expansion shall be carried out within the existing plot of **161,875** m^2 (**16.1875** ha), therefore the land use & land cover of the site will not be changed due to this proposed expansion. The land is given on lease to M/s Glenmark Life Sciences Limited by Maharashtra Industrial Development Corporation for the time period of Ninety-five years. The PP reported the product details as follows:

S. No.	Products/ By-Product Name	Hazardous/ Non Hazardous & CAS No.	Existing Capacity (TPA)	Proposed Capacity (TPA)	Total after Expansion (TPA)	End Use of Product
Group A - Active Pharmaceutical Ingredients (APIs)						
1	Perindo prilarginine	612548-45-5	3	0	3	Antihypertensive
2	Amiodarone	1951-25-3	100	-64	36	Antiarrhythmic

3	Azelaic Acid	123-99-9	85.38	-20.99	64.38	Acne Therapy
4	Olmesartan Medoxomil	144689-63-4	16.6	0	16.6	Anti-Hypertensive
5	Etoricoxib	202409-33-4	47	0	47	Anti-inflammatory agent; Analgesic
6	Tadalafil	171596-29-5	2.31	0	2.31	Treatment of hypertension; Treatment of erectile dysfunction; Treatment of female sexual dysfunction
7	Lithium Carbonate	554-13-2	36	0	36	Bipolar Disorder
8	Deferasirox	201530-41-8	6.35	0	6.35	Chelators Antidotes
9	Gabapentin Enacarbil	478296-72-9	8.3	0	8.3	Treatment of Restless legs Syndrome
10	Esomeprazole Magnesium Trihydrate	161796-78-7	2.4	0	2.4	Antiulcer agent
11	Dabigatran	211915-06-9	18.9	0	18.9	Anticoagulant
12	Ursodiol	128-13-2	8.8	0	8.8	For the treatment of primary biliary cirrhosis(PBC)
13	Dimethyl Fumarate	624-49-7	3.5	0	3.5	Multiple Sclerosis
14	Perindopril Erbumine	107133-36-8	1.43	0	1.43	Antihypertensive
15	Ticagrelor	274693-27-5	2.06	0	2.06	Anti thrombotic
16	Sertaconazole DMF	99592-39-9	1.19	0	1.19	Antifungal
17	Mirabegron	223673-61-8	0.83	0	0.83	For treatment of overactive bladder

18	Desloratadine	100643-71-8	1.2	0	1.2	Antihistaminic
19	Solriameftol HCL	NA	0.24	0	0.24	Narcolepsy
20	Deferasirox	201530-41-8	0	0	0.002	Chelators Antidotes
21	Rivaroxaban	366789-02-8	2.18	0	2.18	Anti plasmodic
22	Rosuvastatin	287714-41-4	48	0	48	Antilipemic drug
23	Ezetimibe	163222-33-1	4.2	0	4.2	Antihyper Lipoprotein Mic
24	Efinaconazole	164650-44-6	0.14	0	0.14	Antifungal.
25	Colistimethate Sodium	8068-28-8	1.25	0	1.25	Antibacterial
26	Elagolix	834153-87-6	2	0	2	Gynecological disorders, Treatment of endometriosis
27	Nintedanib Esylate	656247-18-6	2	0	2	Pulmonary fibrosis
28	Telmisartan	144701-48-4	10	0	10	Antihypertensive
29	Lifitegrast	1025967-78-5	0.03	0	0.03	Treatment of the signs and symptoms of dry eye disease
30	Apremilast	608141-41-9	0.2	0	0.2	Anti-inflammatory
31	Dapagliflozin Amorphous	461432-26-8	0.17	0	0.17	Antidiabetic
32	Sucralfate	54182-58-0	500	-212	288	Treatment of Gastric and Duodenal Ulcer
33	Voriconazole	137234-62-9	1	0	1	Antifungal agent
34	Brivaracetam	357336-20-0	0.15	0	0.15	Anticonvulsants
35	Tavaborole	174671-46-6	0.03	0	0.03	Antifungal.
36	Ospemifene	128607-22-7	0.02	0	0.02	It is an estrogen agonist/antagonist indicated for

						the treatment of moderate to severe dyspareunia, a symptom of vulvar and vaginal atrophy, due to menopause.
37	Dipyridamole	58-32-2	0.71	0	0.71	Antiplatelet Agent
38	Verapamil	52-53-9	3.5	0	3.5	Calcium Channel blocker
39	Teriflunomide	108605-62-5	0.03	0	0.03	Antirheumatic
40	Omeprazole	73590-58-6	61.45	-0.004	61.45	Antiulcer agent
41	Teneligliptin	1572583-29-9	0.09	0	0.09	Antidiabetics
42	Imiquimod	99011-02-6	0.06	0	0.06	Antiviral agent
43	Potassium Chloride	7440-09-7	10	0	10	Hypokalemia
44	Fluconazole	86386-73-4	7	0	7	Anti-Fungal
Total			**999.7**	**-297**	**702.7**	
Group B-INTERMEDIATE PRODUCTS						
S. No.	**Products/By-Product Name**	**Hazardous/Non Hazardous & CAS No.**	**Existing (TPA)**	**Proposed (TPA)**	**Total After Expansion(TPA)**	**End Use of the Product**
1	Apixaban Intermediate	503612-47-3	-	5	5	Anticoagulants
2	Cilazapril	92077-78-6	-	10	10	Antihypertensive
3	Ivacaftor Intermediate ST Final (S131)	873054-44-5	-	5	5	Cystic fibrosis
4	Ivacaftor Intermediate ST Final (S103)	873054-44-5	-	5	5	Cystic fibrosis
5	Canagliflozin Intermediate -	842133-18-0	-	5	5	Antidiabetics

	Final					
6	Mirabegron Intermediate Stage	521284-19-5	-	20	20	Beta-3 adrenergic agonists
7	Lomitapide Mesylate	2059395-52-5	-	5	5	Lipid-Lowering Agents
8	Lacosamide S078	175481-36-4	-	20	20	Anticonvulsants
9	Loronxicam	70374-39-9	-	2	2	Anti-inflammatory
10	Edoxbantosylate	480449-71-6	-	5	5	Anti-Coagulants
11	Luliconzole	187164-19-8	-	5	5	Antifungal
12	Fingolimod Hydrochloride	162359-56-0	-	5	5	Immunomodulators
13	Cilosazol Stage C	73963-72-1	-	30	30	antiplatelet drug
14	Ospemifene Intermediate GGL S-166	128607-22-7	-	2	2	Selective Estrogen Receptor Modulators
15	Ospemifene Intermediate GGL S211		-	2	2	Selective Estrogen Receptor Modulators
16	Bupropion Hydrochloride Stage A	31677-93-7	-	50	50	Antidepressants
17	Ezetimibe Intermediate S083	272778-12-8	-	20	20	Lipid-Lowering Agents
18	Vildazodone Intermediate	163521-20-8	-	16	16	Antidepressant agent
19	Etoricoxib R018B	202409-33-4	-	48	48	Anti Inflammatory
20	Glimepiride A	93479-97-1	-	6	6	Antidiabetic
21	Rizatriptan Stage C	145202-66-0	-	12	12	Antimigraine Agents
22	Bilastine Intermediate B	202189-78-4	-	10	10	Antihistamine
23	Solifenacin Succinate -	1619-34-7	-	15	15	Anticholinergics

	Stage E					
24	Diroximal Intermediate	2231299-63-9	-	15	15	Immunomodulatory Agents
25	Vildagliptin Intermediate	23500-10-9	-	20	20	Anti-diabetic drug
26	Olmesartan Stage C	879562-26-2	-	20	20	Antihypertensive
27	Lacosamide D048	175481-36-4	-	20	20	Anticonvulsants
28	Perindopril Stage A	107133-36-8	-	25	25	Antihypertensive
29	Perindopril Stage D	107133-36-8	-	25	25	Antihypertensive
30	Pregabalin Intermediate	181289-33-8	-	5	5	Anticonvulsant drug
31	Ezetimibe Intermediate S082	272778-12-8	-	23	23	Lipid-Lowering Agents
32	Rosuvastatin Calcium Intermediate S085	154026-95-6	-	20	20	Lipid-Lowering Agents
33	Rosuvastatin Calcium Intermediate S091	154026-95-6	-	20	20	Lipid-Lowering Agents
34	Adapalene Stage C	106685-40-9	-	10	10	Anti-inflammatory
35	Rosvastatin Calcium Intermediate Stage D	154026-95-6	-	12	12	Lipid-Lowering Agents
36	Elagolix Sodium Intermediate	239087-06-0	-	10	10	Gonadotropin-releasing hormone antagonists
37	Tofacitinib Stage Final		-	10	10	treat rheumatoid arthritis
38	Olmesartan A003 Stage C	144689-63-4	-	20	20	Antihypertensive
39	Tetrabenzyl Pyrophosphate (TTBP)	990-91-0		2	2	used in the treatment of viruses, cancer, and anti-emetics

40	Briveracetam Intermediate Stage Final	**357336-20-0**	-	5	5	Anticonvulsants
	Total (B)		**0**	**565**	**565**	
GROUP- C: R&D PRODUCT						
41	R&D Product	-	-	15	15	Please Provide
	Grand TOTAL	**-**	**999.7**	**283**	**1282.7**	

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 earlier EC was issued for Active Pharmaceutical Ingredients (API) vide letter no. **IA-J-11011/516/2021-IA-II(I)** dated **31.05.2022**. The project has already been granted Consent to Establish (CTE) Vide letter **No.0000143331/CE/2211001351** by MPCB **dated 17.11.2022**.

7. The PP reported that IRO Nagpur conducted a site visit on 22.5.2023 and observed that the PP has not initiated any construction work except boundary wall.

8. The PP reported that the Great Indian Bustard Sanctuary is situated within 3.32 Km in ESE direction from project boundary. Schedule-I species i.e., Antilope cervicapracervicapra (Indian blackbuck), *Canis lupus pallipes* (Indian wolf), *Varanus bengalensis* (Monitor Lizard), *Ardeotis nigriceps*(Great indian bustard),*Pavo cristatus*(Common peafowl), were observed in the 10 km radius from the proposed project for which Conservation plan has been prepared and submitted to DFO on 24.2.2022. Some of the waterbodies are Ujjani Left Bank Canal is at a distance of 0.80 km WSW, Canal near Darphal Bibi - 1.14 km NNE, Nannaj Odha- 1.21km NW, Talab near Darphal Bibi- 3.04 km NNE, Pond near Magazine- 3.52 km SSE, Nala near Panki- 5.05 km SSE, Sina River- 5.41 km SSW, Pond near Lamboti- 5.81 km WNW, Pond near Kondi- 6.13 kkm SE, Pond near Ranmasle- 7.20 km N, Pond near Gulvanchi Tanda- 7.83 km SE, Vangira Odha- 8.88 km NW, Ekruk Lake- 11.31 km ESE Ekruk Right Bank Canal- 11.44 km SE, Adila Nala 12.43 km SE.

9. The PP reported that **Ambient air quality** monitoring was carried out at 8 locations during March 2022 to May 2022 and the baseline data indicates the ranges of concentrations as: PM_{10} (54.68 $\mu g/m^3$ to 56.92 $\mu g/m^{3,}$ $PM_{2.5}$ 2 3.09 $\mu g/m^3$ - 24.11 $\mu g/m^3$, SO_2 14.01 $\mu g/m^3$ - 14.60 $\mu g/m^3$, NOx 18.86 $\mu g/m^3$ - 19.67 $\mu g/m^3$) Ambient air quality results for primary pollutants and specific pollutants as under show that the quality of air in the study area conforms to the NAAQS, 2009 . **Noise Quality** Monitoring was carried out at 8 locations and the results showed that Core Zone Leq values ranged from 54.6 dB(A) to 54.8 dB(A) for the day time and 47.7 dB(A) to 47.9 dB(A) for the Night time.and for the Buffer Zone the values ranged from: 55.8 dB(A) to 67.7 dB(A) for the day time and 47.2 dB(A) to 62.1 dB(A). for the night time. It may be concluded that ambient noise level during day time at the proposed project site varies from 54.6 dB (A) to 54.8 dB (A) which are within the day time standard limit of Industrial area ~ 75 dB (A). During night the noise level at the project site ranged from 47.7 dB (A) to 47.9 dB (A)

which are within the night time standard limit of Industrial area 70.0 dB (A) and in Buffer zone it is slightly higher than the limit due to residential activity and vehicular activity. **Ground water** quality monitoring was carried out at 8 locations; **Core Zone data shows that** all the parameters (Color, odour,Turbidity, pH Value, Temperature, Conductivity, TDS, Chloride, Fluoride, Total Hardness, Ca, Mg, SO_4, Na, K, TSS, Alkalinity, Nitrate Nitrogen are within the drinking water standards and water quality in the buffer zone ranged as pH: 7.5-7.67, Total Hardness: 312-616 mg/l, Chlorides: 102-240 mg/l, TDS: 436-1429 mg/l. **The Surface water** Quality Monitoring was carried out at 6 locations and **Buffer Zone: pH:** 7.7-7.9 **; DO:** 4.8-5.8 **mg/l and BOD:** 2-8.3 **mg/l, COD:** 4-32 **mg/l.** The surface water quality of locations Ujjani Left Bank Canal, Canal near Darphal Bibi, Talab Near Darphal Bibi & Nala Near Panki are meeting the criteria defined by Class "A" as per IS 2296/ CPCB water quality criteria for designated best use. Whereas, the water quality of the locations Nannaj Odha, 1.21 km NW is meeting the criteria defined by Class "C" i.e. Drinking water sources after conventional treatment and disinfection as per IS 2296/ CPCB water quality criteria for designated best use. The **Soil Quality** monitoring was carried out at 9 locations and the analysis showed that Core Zone samples had Texture- [Sand% (24.2), Silt % (17.3), Clay % (58.4)], Organic Matter-0.49 %, Available Nitrogen (mg/kg)- 88.2, Available Potassium (mg/kg)- 17.3, Available Phosphorus (mg/kg)- 8.6. Whereas, the for the Buffer Zone these were: Texture- [Sand% (3.6-18.2), Silt % (17.6-41.7), Clay % (39-78.7)], Organic Matter-0.23-1.04 %, Available Nitrogen (mg/kg)-54.6-119, Available Potassium (mg/kg)- 18.6-41.9, Available Phosphorus (mg/kg)- 12.2-16.4. It may be concluded that the soil is average fertile in the study area due to availability of low amounts of available nitrogen and available potassium.

10. The PP reported that the after expansion the total water requirement will be 2034 KLD out of which fresh water requirement shall be 1154 KLD and will be sourced from MIDC. There is no change in the water requirement due to the proposed expansion; The Domestic Effluent 104 m^3/day will be treated in STP having capacity of 125 m^3/day and the treated sewage of 100 m^3/day shall be used for horticulture development. High strength (high TDS high COD) effluent from process 481 m^3/day shall be mixed with scrubber waste water 30 m^3/day and raw water reject of 80 m^3/day in Multiple effect evaporator of 1000 m^3/day and the 706 m^3/day condensate from evaporator shall be sent to ETP. Low strength stream (Low COD and Low TDS streams i.e. all other industrial wastewater other than process as above) of 283 m^3/day is mixed with MEE condensate 706 m^3/day i.e. a total of 989 m^3/day effluent and treated in ETP (primary treatment followed by bioreactor and tertiary treatment and three stage RO system), the RO permeate 780 m3/day and this water is reused in Cooling tower makeup, scrubber etc so that 100% of water is reused in process. RO Reject 176 m^3/day shall be treated with high strength stream and the plant shall comply with Zero Liquid Discharge (ZLD) norms.

11. The PP reported that the Power requirement after expansion will be 6000 KW and will be sourced from Maharashtra State Electricity Board (MSEB).DG sets of 2 x 1500 kVA acoustic enclosures are being used as standby during power failure with maximum stack height of 30 m as per CPCB norms. Existing power supply will be sufficient for the proposed expansion.

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

Source & Capacity	STACK ID	APCS (with media if applicable)	Stack Height in m	Stack Diameter (m)	Velocity m/s	Pollutant and its emission standard
DG Sets- 2 Nos. of 1500 kVA (One W & one S)	STACK 01 & 02	According to CPCB, The stack height should be 30 m	30	0.4	10	PM- 150 mg/Nm^3 SO2- 100 mg/Nm^3 NOX- 50 mg/Nm^3
DG Set Fuel: HSD 330 liters/hr						
Boiler- 2 Nos. of 15 TPH (One W & one S)	STACK03	Dust Collectors	30	0.8	13.3	PM- 150 mg/Nm^3 SO2- 100 mg/Nm^3 NOX- 50 mg/Nm^3
Boiler Fuel: Briquette- 90 MT/Day **OR** Bio diesel- 21.6 KL/Day **OR** Natural Gas - 27000 SCM/Day						

Stack Name	Stack ID	APCS (with media if applicable)	Diameter (m)	Stack Height (m)	Velocity m/s	Temperature of stack (K)	Emission limits mg/Nm^3
Process Scrubber	STACK 04	Adequate Stack Height with Alkali Scrubber	0.35	15	10	Ambient	Acid mist- 35 mg/Nm^3 Ammonia mist-135 mg/Nm^3
Process Scrubber	STACK 05	Adequate Stack Height with Alkali Scrubber	0.35	15	10	Ambient	Acid mist- 35 mg/Nm^3 Ammonia mist-135 mg/Nm^3

Process Scrubber	STACK 06	Adequate Stack Height with water Scrubber	0.35	15	10	Ambient	Acid mist- 35 mg/Nm^3 Ammonia mist-135 mg/Nm^3

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

Category	Type of Waste	Existing (Kg/day)	Proposed (Kg/day)	Total after expansion (Kg/day)	Disposal / Management
Biodegradable	Organic Waste	150	0	150	Disposed through MIDC Solid Waste Management
	Canteen Sludge	12	0	12	to be used as manure
Non-Biodegradable	Recyclable Waste (paper, wood, glass, Office paper waste ,etc)	312	0	312	Sale to Authorized Recyclers
	Total	**474**	**0**	**474**	

Hazardous Waste

S.No.	Hazardous Waste	Category (as per HWM Rules,2016)	Existing (TPA)	Proposed (TPA)	Total after expansion (TPA)	Disposal / Management
1	Chemical Sludge from Wastewater Treatment, Evaporator salts from ATFD	35.3	20,907	0	20,907	Collection, Storage, Transportation and final disposal at common CHWTSDF/Coprocess site.
2	Discarded Containers/ Drums/ Barrels Discarded liners/ Bags	33.1	50,000 nos.	10,000 nos.	60,000 nos.	Collection, Storage, Decontamination, Transportation, Reuse / Sale to authorised traders.

3	Spent Catalyst	28.2	73	40	113	Collection, Storage, Decontamination, Transportation, Reuse / Sale to authorised traders.
4	Spent carbon	28.3	149	179	328	Collection, Storage, Transportation and final disposal at common CHWTSDF /Coprocess site.
5	Spent Oil/Used Oil	5.1	5 kl	0	5 kl	Collection, Storage, Transportation, Sale to register re-processors/ Co-Processing for cement industries.
6	Process Residue & waste (from Aqueous ML from process)	28.1	3,078	346	3,424	Collection, Storage, Transportation and final disposal at common CHWTSDF/Coprocess site.
7	Distillation Residue	20.3	11,008	1,744	12,752	Collection, Storage, Transportation and final disposal at common CHWTSDF/Coprocess site.
8	Date expired, discarded and Off Specification Drugs / Products / RMs	28.5	7	0	7	Collection, Storage, Transportation and final disposal at common CHWTSDF/Coprocess site.
9	Off-Specification Drugs / Products / RMs	28.4	5	0	5	Collection, Storage, Transportation and final disposal at common CHWTSDF/Coprocess site.
10	Glass wool/ Insulation waste	28.1	80	0	80	Collection, Storage, Transportation and final disposal at

						common CHWTSDF/Coprocess site./ Authorized Person.
11	Resins from DM plant	35.2	2	0	2	Collection, Storage, Transportation and final disposal at common CHWTSDF/Co-process site.
12	RO Membrane	35.2	1	0	1	Collection, Storage, Transportation and final disposal at common CHWTSDF/Co-process site.
13	Spent Acid	D-2	10	0	10	Collection, Storage, Transportation and final disposal at common Coprocess/ authorised recyclers site.
14	Stripper Solvent from Striper	28.6	6,205	0	6,205	Sale to authorised distillation unit under Rule 9/ Collection, Storage, Transportation and final disposal at common CHWTSDF/Co-process site.
15	Spent Solvent	28.6	4,157	1,746	5,903	Collection, Storage, Transportation and final disposal at common CHWTSDF/Co-process site.
16	Sludge from scrubber	36.1	12	0	12	Sale to authorised distillation unit under Rule 9/ Collection, Storage, Transportation and final disposal at common CHWTSDF/Co-

						process site.
17	Recovered solvent/distilled solvent	28.6	53668	16,132	69800	Collection, Storage, Transportation and final disposal at common Coprocess/ authorised recyclers site.

Non Hazardous Waste

Non Hazardous Process Waste	Existing (TPA)	Proposed (TPA)	Total after expansion (TPA)	Treatment / Disposal
Sewage sludge	10.8	0	10.8	used as manure for green belt / sold as a manure
Boiler Ash	3240.0	0	3240.0	Sale to Brick Manufacture/ cement industry.
Packing Waste	480.0	0	480.0	Sale to Authorized Recycler
Total	**3730.8**	**0**	**3730.8**	

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 3980 Lakhs (capital) and the Recurring Cost (operation and maintenance) is about ₹ 616.5 lakhs/annum Industry proposes to allocate Rs. 550 Lakhs towards Corporate Social Responsibility.

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

16. The PP proposed to set up an Environment Management Cell (EMC) for the functioning of EMC.

17. Green belt/greenery will be developed along most of the periphery of the project area. Green area of **54632** m^2 will be developed (**33.75 %** of the plot area) with a tree density of **2500** trees/ ha within **12** months of project implementation.

18. The PP reported that the During the peak operations, the total CO_2 emissions will be 27988.1 MT eq. CO_2 /annum which is equivalent to 67.9 MT CO_2 eq / MT Production. Through development of a green belt having a total area of **54626** m^2 having **13657** trees there will be natural sequestration of CO_2 emissions. The Company will sequester 16,350 MT eq.CO_2/annum (58%) through greenbelt development and solar power every operational year. **Therefore, at** peak production the Residual Gate to Gate CO_2 emissions from the proposed plant will be 11,638 MT eq. CO_2/ annum which is about 28.2 MT CO_2 eq. /MT production.

19. The estimated project cost after expansion is INR 550 Crores and the proposed expansion shall not require any additional investment because this is only a change in product mix cum expansion without change in any plant and machinery etc. The PP reported that Total Employment given is for 750 persons out of which 650 are skilled workers, 100 staff employees which shall remain same after expansion as well.

20. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the schematic diagram of the sewage treatment plant, Comparitive assesment of carbon footprint and additional mitigation measures to minimize the incremental load of environment and advised the PP to revise the same. The PP submitted the revised information/documents and the EAC found these to be satisfactory.

The EAC noted that the PP has not initiated the green belt development and hence, recommended that the PP shall undertake the green belt development (@2500 per hectare), in consultation with forest department and submit the details of species, number of plantations, aerial photographs and video.

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

Agenda No. 54.3

Setting up of a API manufacturing unit with production capacity of 147 MT/M & Solvent Distillation Unit for Recovery of 12.0 KLD of solvent located at Plot no. T-30, located at MIDC Tarapur, Tehshil and District Palghar, Maharashtra by M/s. Bajaj Healthcare Ltd. – Consideration of Environmental Clearance

[Proposal No. IA/MH/IND3/248397/2021; File No. IA-J-11011/552/2021-IA-II(I)]

1. The proposal is for the environmental clearance for Setting up of a API manufacturing unit with production capacity of 147 MT/M & Solvent Distillation for Recovery 12.0 KLD located at Plot no T-30, located at MIDC Tarapur, Tehshil and District – Palghar, Maharashtra by M/s. Bajaj Healthcare Ltd.

2. The project/activity is covered under Category '**B**' of item 5(f) Synthetic Organic Chemicals Industry **of** Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). However, since the **project site is located within a Critically Polluted Area (CPA),** the project attracts the general condition and considered as Category '**A'** at Centre.

3. 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 54th EAC meeting on 28th June, 2023, wherein the PP along with accredited Consultant, M/s. Sadekar Enviro Engineers Pvt. Ltd [Accreditation number NABET/EIA/2124/SA 0146 dated valid till 19.9.2023] 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 for the proposed project is 2729 m^2 land and no R& R is involved in the Project. The details of products to be manufactured are as follows:

S. No.	Name of Product & Therapeutic uses	CAS No.	Total Quantity	UOM
A	**Anthelmintic**			
1	Albendazole,	54965-21-8	105	MT/M
2	Mebendazole,	31431-39-7		
3	Ricobendazole,	54029-12-8		
4	Oxibendazole,	20559-55-1		
5	Fenbendazole and similar API	43210-67-9		
B	**Iron chelating Agent**			
6	Deferasirox and similar API	201530-41-8	25.0	MT/M
C	**H2 Blockers**			
7	Lafutidine and similar API	118288-08-07	6.0	MT/M
D	**Antirheumatic**			
8	Leflunomide and similar API	75706-12-6	2.0	MT/M
E	**Anti - coagulant**			
9	Apixaban,	503612-47-3	4.0	MT/M
10	Rivaroxaban and similar API	366789-02-8		
F	**Anti – convulsant**			
11	Lacosamide,	175481-36-4	4.0	MT/M
12	Brivaracetam And similar API	357336-20-0		
G	**R&D Product (API)**	--	1.0	MT/M
	Total	**--**	**147**	**MT/M**
H	**Solvent Distillation for Recovery**	**--**	**12.0**	**KL/Day**
The existing activity of mixing and blending will be stopped.				

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, Wild life Corridors etc. within 10 km distance from the project site. Upper Banganga river is flowing at a distance of 2.15 km in North direction. There is no forest land involved in the proposed project.

7. The PP reported that the total water requirement is 237.11 m^3/day of which fresh water requirement will be met from Tarapur MIDC. Total Industrial Effluent of 91.4 CMD & domestic 8 CMD will be generated. Out of the 79 CMD of HCOD/HTDS effluent generated

from process, around 50 CMD effluent will be treated in in-house Stripper followed by MEE and ATFD having treatment capacity of 60 CMD at Plot No. T-30 and after primary treatment, 29 CMD HCOD/HTDS will be sent to common effluent treatment facility of M/s Bajaj Healthcare ltd located at plot no L-11 in the Tarapur MIDC for treatment. The Low TDS / COD effluent (12.4 CMD) along with MEE condensate treated in in-house full-fledged ETP with primary, secondary and tertiary treatment. The treated effluent from ETP will be passed through RO system. RO permeate (40.84 CMD) will be used for cooling tower make-up and the RO reject will be sent to plot no L-11 for further treatment. Sewage 8 CMD from the same plot will be treated in STP of 10 CMD which will be provided at plot no. T-30. Treated sewage will be used for gardening purpose and sludge will be used as manure. Thus, the total effluent sent to plot no L-11 is 42.57 CMD comprising of 29 CMD high COD/TDS effluent generated from process, 10.21 CMD RO reject from in-house RO system and 3.36 CMD RO reject from RO system present at plot no L-11. The treated effluent from Plot no L-11 will be sent back to the said premises and will be reused in cooling tower.

8. The Total power requirement for proposed project 910 KVA and will be met from Maharashtra State Electricity Distribution Company limited (MSEDCL). Proposed unit has 1 D.G. set of 510 KVA capacity will be used as standby during power failure. Stack height of 6.0 m will be provided as per CPCB norms to the proposed DG set.

9. The proposed unit will require 1 no. of 3.0 TPH & 1 no. of 2.0 TPH boilers fired by Briquette or Coal and 2.0 Lakh Kcal/Hr Thermopack fired by LDO will be installed. Cyclone separator with bag filter with a stack of height of 32m and 30m for steam boilers and thermopack respectively will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers.

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

Sr. No.	Name of the Gas	Quantity in Kg/Day	Treatment Method
1	Chlorine vapours	28	Scrubbed with dilute sulphuric acid solution
2	Methyl Mercaptan	18.3	Scrubbed in caustic scrubber
3	SO2 gas +Hydrochloric acid	10	Scrubbed in caustic scrubber
4	HCl	67	Scrubbed in caustic scrubber
5	Acetic acid	4.666	Scrubbed in caustic scrubber
6	H2	1	Vented out through catchpot

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

Sr. No	Description	Cat. of waste	UOM	Total	Method of Disposal
1	Used / Spent Oil	5.1	MT/M	0.2	Sale to Authorized Vendor /Re-processor / Co-processor /

					CHWTSDF
2	Spent Organic Solvent	28.6	MT/M	173	Sale to Authorized Vendor /Re-processor / Co-processor / CHWTSDF
3	Distillation Residue	20.3	MT/M	8.5	Sale to Authorized Vendor /Re-processor / Co-processor / CHWTSDF
4	ETP Sludge*	35.3	MT/M	60	Sale to Authorized Vendor /Re-processor / Co-processor / CHWTSDF
5	Process dust	28.4	MT/M	0.1	Sale to Authorized Vendor /Re-processor / Co-processor / CHWTSDF
6	Filter & Filter Material which have organic liquid	36.2	MT/M	0.2	Sale to Authorized Vendor /Re-processor / Co-processor / CHWTSDF
7	Evaporation Residue (ATFD Salt) #	37.3	MT/M	282	Sale to Authorized Vendor /Re-processor / Co-processor / CHWTSDF
8	Spent acid	28.1	MT/M	21	Sale to Authorized Vendor /Re-processor / Co-processor / CHWTSDF
9	Off specification product	28.4	MT/M	1.0	Sale to Authorized Vendor /Re-processor / Co-processor / CHWTSDF
10	Spent carbon	28.3	MT/M	1.0	Sale to Authorized Vendor /Re-processor / Co-processor / CHWTSDF
11	Spent catalyst	28.2	MT/M	0.2	Sale to Authorized Vendor /Re-processor / Co-processor / CHWTSDF
12	Sodium hydrosulfide	--	MT/M	180	Sale to Authorized Vendor /Re-processor / Co-processor / CHWTSDF
13	Hydrochloric acid	--	MT/M	29	Sale to Authorized Vendor /Re-processor / Co-processor / CHWTSDF
14	Sodium sulphate	--	MT/M	1.5	Sale to Authorized Vendor /Re-processor / Co-processor / CHWTSDF
15	Empty barrels/ containers/ liners contaminated with hazardous chemicals / wastes	33.1	Nos/M	1000	Sale to Authorized Vendor /Re-processor / Co-processor / CHWTSDF

16	Spent Resin	35.2	MT/M	0.005	Sale to Authorized Vendor /Re-processor / Co-processor / CHWTSDF
Schedule I of The Hazardous and Other Wastes (Management and Trans boundary Movement) Rule, 2016. Industry shall ensure disposal to the Actual user having permissions under Rule 9 of Hazardous and Other Waste (M & TM) Rules, 2016. **# Evaporation Residue (ATFD Salt) will be generated and disposed from Plot no T-30 & Plot no L-11.** *** ETP Sludge will be generated and disposed from plot no L-11 and plot no T-30**					

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 421.21 Lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 591.98 Lakhs/annum. Industry proposes to allocate Rs. 39.28 Lakhs towards Corporate Social Responsibility.

14. Industry developed greenbelt over an area of 77.27 % i.e., 2108.79 m^2 out of the total area of the project. Greenbelt over an area of 719.23 Sq. m. (26.35 %) is developed inside the plot premises and greenbelt over an area of 297.36 Sq. m. (10.89 %) is developed within the area available between the MIDC internal road and plot boundary near the gate. The additional greenbelt area of 1092.2 sq. m. (40%) has been developed in the Open Space received from the MIDC on Plot No. OS-57. The distance between Plot No. T-30 and developed greenbelt on OS-57 is 915 meter.

15. 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 MIDC Tarapur which is declared as notified industrial area vide Notification No. IDC 2180/102842/2385/UDHYOG-14 dated 2.7.1980.

16. The PP proposed to set up an Environment Management Cell (EMC) by engaging Managing Director- Factory manager- site incident controller- QC –HR- Production- Commercial and logistic- EHS officer for the functioning of EMC.

17. The PP reported that the total carbon sequestration per year (Kg CO2) – 1015814.0 Kg CO_2, Global Warming Potential (GWP) kg CO_2 eq. – 3390809.717 kg CO_2 eq. Thus, considering the total percentage of carbon sequestration is 29.94 %.

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

19. The estimated proposed project cost is Rs 9.82 Crores. Total Employment will be 150 persons as direct & 50 persons indirect for proposed project.

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 deliberated on the compliance of OM dated 18.5.2023 regarding the verification of the consultant and found to be satisfactory. The EAC inter-alia, deliberated on the fuel and green belt and advised the PP to submit the following:

- Commitment letter for use of coal as fuel only during the non-availability of agro-briquettes for max. 3 years.
- Revised green belt development plan

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

v. Agro Briquettes shall be proposed as a primary fuel and during the unavailability of agro briquettes, coal shall be used for a maximum period of 3 years from commencement of the project. After 3 years, Agro Briquettes shall only be used for operation of the boilers.

vi. The best available technology shall be used.

vii. The PP shall develop greenbelt over an area of of **2108.79 sq. m** i.e. 719.23 Sq. m. inside the plant premises, 297.36 Sq. m. near the plant boundary and the remaining greenbelt area accounting to 1092.2 Sq. m. on the MIDC allotted land viz. O.S.-57 within one year of grant of EC. The saplings (705 no.) 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 develop the additional greenbelt area over an area of 1092.2 sq. m. (40 %) in the Open Space received from the MIDC on OS-57.

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. Out of the 79 CMD HCOD/HTDS effluent, around 50 CMD effluent shall be treated in in-house Stripper followed by MEE and ATFD having treatment capacity of 60 CMD and the remaining 29 CMD HCOD/HTDS shall be sent to common effluent treatment facility of M/s Bajaj Healthcare Ltd. located at plot no L-11 in the Tarapur MIDC for treatment. The Low TDS / COD effluent (12.33 CMD) along with MEE condensate treated in in-house full-fledged ETP with primary, secondary and tertiary treatment. The treated effluent from ETP shall be passed through RO system. RO permeate (40.84) shall be used for cooling tower make-up and the RO reject will be sent to plot no L-11 for further treatment. The total effluent shall be sent

to plot no L-11 is 42.57 CMD comprising of 29 CMD high COD/TDS effluent generated from process, 10.21 CMD RO reject from in-house RO system and 3.36 CMD RO reject from RO system present at plot no L-11. The treated effluent from Plot no L-11 shall be sent back to the said premises and shall be reused in the cooling tower.

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

xii. The company has 1 No. of storage tank of capacity 30 KL for collecting rain water. This rain water shall be used for cooling tower make up water during rainy season.

xiii. Sewage (8 CMD) from the same plot shall be treated in STP of 10 CMD which will be provided at plot no. T-30. Treated effluent shall be used for gardening purpose and sludge shall be used as manure.

xiv. Dumping of waste (fly ash, slag, red mud, etc.) shall be permitted only at designated locations approved by SPCBs/ PCCs.

xv. The PP shall dispose the hazardous waste as per Hazardous Waste Management Rules, 2016. All the recyclable wastes suitable for co-processing having good calorific value shall be identified and utilized in co-processing.

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

xvii. As proposed, an amount of ₹ 39.28 Lakhs shall be allocated towards CER.

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 Managing Director- Factory manager- site incident controller- QC –HR- Production- Commercial and logistic. 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 proposed under EMP is 421.21 Lakhs (Capital cost) and ₹ 591.98 Lakhs/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 shall not exceed 237.11 m^3/day of which fresh water requirement shall be met from Tarapur MIDC. The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawn only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.

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 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.

xxiii. The project proponent shall comply with the environment norms for 'Pharmaceutical' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 541 (E), dated 6.7.2021 under the provisions of the Environment (Protection) Rules, 1986.

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.

Agenda No. 54.4

Proposed expansion of API manufacturing Unit with production capacity from 86.7 MT/M to 176 MT/M located at Plot No. N-216&217, MIDC Tarapur, Tehsil: Palghar, District: Palghar, Maharashtra by M/s. Bajaj Healthcare Ltd. – Consideration of Environmental Clearance

[Proposal No. IA/MH/IND3/248159/2021; File No. IA-J-11011/551/2021-IA-II(I)]

1. The proposal is for the environmental clearance to the proposed expansion of API manufacturing Unit with the production capacity from 86.7 MT/M to 176 MT/M located at Plot No. N-216&217, MIDC Tarapur, Tehsil: Palghar, District: Palghar, Maharashtra by M/s. Bajaj Healthcare Ltd

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

3. 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 54th EAC meeting on 28th June, 2023, wherein the PP along with accredited Consultant, M/s. Sadekar Enviro Engineers Pvt. Ltd [Accreditation number NABET/EIA/2124/SA 0146 dated valid till 19.9.2023] 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 1600 m^2, no land will be acquired for the 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 Product	CAS NO.	Existing Quantity	Proposed Quantity	Total Quantity	UOM
A	**Vitamin Supplements**					
1	Calcium Citrate Malate	142606-53-9	18	83	160	MT/M
2	Calcium Citrate	5785-44-4	8			
3	L-Lysine Monohydro chloride USP	9657-27-2	50			
4	DL Methionine.	59-51-8	1			
B	**Bronchodilator**					
5	Acefylline piperazine	18833-13-1	2	13	15	MT/M
C	**Anti- Oxidant**					
6	L-Glutamic Acid	56-86-0	0.5	0	Production will be stopped	MT/M
7	Calcium Dobesilate	117552-78-0	4			
D	**Anti-Convulsant**					
8	Oxcarbazepine .	28721-07-5	3.2	0	Production will be stopped	MT/M
E	**R&D Product (API)**	-	-	1	1	MT/M
	Total		**86.7**	**97**	**176**	**MT/M**

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 Industry has obtained CTO vide no. Format 1.0/BO/AS(T)/TN-5862-15/CC Cell/R/CC-6990 dated 22.06.2015 valid upto 31.05.2020 for the production of 1. L-Lysine Monohydro Chloride USP, 2. Acephylline Piprazine, 3. Calcium Citrate, 4. L-Glutamic acid, 5. Calcium Citrate Malate, 6. Calcium Dobesilate, 7. Oxcarbamizapine and 8. D.L. Methione with maximum production quantity of 50 MT/M, 2 MT/M, 8 MT/M, 0.5 MT/M, 18 MT/M, 4 MT/M, 3.2 MT/M and 1 MT/M.

7. The recent CTO obtained by M/s Bajaj Healthcare Ltd. vide no. Format1.0/AS(T)/UAN No. 0000092654/CR2105000802 dated 18.05.2021 and valid upto 31.05.2025 for production of 1. L-Lysine Monohydro Chloride 8. USP, 2. Acephylline Piprazine, 3. Calcium Citrate, 4. L-Glutamic acid, 5. Calcium Citrate Malate, 6. Calcium Dobesilate, 7. Oxcarbamizapine and 8. D.L. Methione with maximum production quantity of 50 MT/M, 2 MT/M, 8 MT/M, 0.5 MT/M, 18 MT/M, 4 MT/M, 3.2 MT/M and 1 MT/M.

8. The Certified Compliance report to the conditions of CTO has been obtained from Maharashtra Pollution Control Board vide no - MPCB/ROT/1174 dated 04/03/2022.

9. 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. Lower Banganga river is flowing at a distance of 2.1 km in South direction. There is no forest land involved in the proposed project.

10. The PP reported that the total water requirement is 94.45 m^3/day of which fresh water requirement of 39.609 m^3/day will be met from Tarapur MIDC. Industrial Effluent of 21.08 CMD out of which 19.26 CMD will be sent to Plot No. L-11 and 1.82 CMD to Plot No. N-219 for treatment. Effluent will be treated through Stripper, MEE followed by ATFD and full-fledged ETP comprising of primary, secondary and tertiary treatment and R.O plant. The effluent will be treated at plot no. L-11 and Plot no. N-219, Tarapur MIDC wherein the treated effluent will be entirely recycled back to the plant premises. The treated effluent from ETP will be passed through RO system. RO permeate (16.58 CMD) will be used for cooling tower make-up and the RO reject will be sent to plot no L-11 for further treatment. The treated effluent (1.729 CMD) from ETP located at Plot No. N-219 will be recycled and reused in same plot for Boiler Operation. Sewage 6.2 CMD from the same plot will be treated in STP of 7 CMD which will be provided at plot no. N-216 & 217. Treated sewage will be used for gardening purpose and sludge will be used as manure.

11. The Power requirement after expansion will be 350 KVA including existing 188 KVA and will be met from Maharashtra State Electricity Distribution Company limited (MSEDCL). Existing unit has 1 D.G. set of 320 KVA capacity (***Note: It will be scrap out after expansion),*** additionally 1 D.G. set of 500 KVA capacity will be used as standby during power failure. Stack height of 4.0 m has been provided for the existing D.G Set and stack height of 6.0 m will be provided as per CPCB norms to the proposed DG sets.

12. The Existing unit has 1 no. of 2.0 TPH boiler fired by Coal, additionally 1 no. of 3 TPH boiler fired by Agri-briquette or Coal respectively will be provided at our sister concern at unit plot no. N-219. 33m height stack has been provided for existing 2 TPH boiler, after expansion existing 33m height stack will be used as a common stack for existing 2 TPH capacity boiler and proposed 3 TPH capacity boiler. For Existing Scrubber 1 separate stack of 8 m height above roof is provided to the scrubbers. (Existing scrubber is sufficient to mitigate the emissions from proposed expansion.)

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

Sr. No.	Description	Cat. of waste	UOM	Existing	Proposed	Total	Method of Disposal
1	Used / Spent Oil	5.1	MT/M	0	0.06	0.06	Sale to Authorized Vendor/ Re-processors / Co-processor / CHWTSDF
2	ETP Sludge*	35.3	MT/M	0.12	18.2	18.32	Sale to Authorized Vendor/ Re-processors

							/ Co-processor / CHWTSDF
3	Process dust	28.4	MT/M	0	0.1	0.1	Sale to Authorized Vendor/ Re-processors / Co-processor / CHWTSDF
4	Filter & Filter Material which have organic liquid	36.2	MT/M	0	0.01	0.01	Sale to Authorized Vendor/ Re-processors / Co-processor / CHWTSDF
5	Evaporation Residue (ATFD Salt) #	37.3	MT/M	0	39	39	Sale to Authorized Vendor/ Re-processors / Co-processor / CHWTSDF
6	Spent carbon	28.3	MT/M	0.7	4.6	5.3	Sale to Authorized Vendor/ Re-processors / Co-processor / CHWTSDF
7	Spent Resin	35.2	MT/M	0.001	0.005	0.006	Sale to Authorized Vendor/ Re-processors / Co-processor / CHWTSDF
8	Off specification product	28.4	MT/M	-	1.0	1.0	Sale to Authorized Vendor/ Re-processors / Co-processor / CHWTSDF
9	Empty barrels/ containers/ liners contaminated with hazardous chemicals / wastes	33.1	Nos/M	50	150	200	Sale to Authorized Vendor/ Re-processors / Co-processor / CHWTSDF
	Schedule I of The Hazardous and Other Wastes (Management and Trans boundary Movement) Rule, 2016. ***Industry shall ensure disposal to the Actual user having permissions under Rule 9 of Hazardous and Other Waste (M & TM) Rules, 2016.*** ***# Evaporation Residue (ATFD Salt) will be generated and disposed from Plot no L-11.*** **** ETP Sludge will be generated and disposed from plot no N-216 & 217, L-11 and N-219.***						

Non-Hazardous Waste Details						
Sr. No.	**Description**	**UOM**	**Existing Quantity**	**Proposed Quantity**	**Total Quantity**	**Method of Disposal**
1	Boiler Ash	MT/M	3.6 MT/M	21.4 MT/M	25 MT/M	Sale to Brick manufacturer
2	General scrap (Polythene bags, Empty containers, Glass waste, Wood waste and Metal waste)	MT/A	0 MT/A	08 MT/M	08 MT/M	Sale to Authorized party
3	Contaminated glassware	MT/A	0 MT/A	0.2MT/A	0.2MT/A	Sale to Authorized party
4	Plastic waste	MT/M	0 MT/A	0.4 MT/M	0.4MT/M	Sale to Authorized party

E-Waste Waste Details						
Sr. No.	**Description**	**Category of waste**	**Existing Quantity**	**Proposed Quantity**	**Total Quantity**	**Method of Disposal**
1	E-waste	ITEW2, ITEW3, ITEW6	0 MT/A	0.1MT/A	0.1 MT/A	Sale to Authorized Recycler

Battery waste details					
Sr. No.	**Description**	**Existing Quantity**	**Proposed Quantity**	**Total Quantity**	**Method of Disposal**
1	Battery waste	0	0.1 MT/A	0.1 MT/A	Sale to Authorized Recycler

Biomedical Waste Details						
Sr. No.	**Description**	**Category of waste**	**Existing Quantity**	**Proposed Quantity**	**Total Quantity**	**Method of Disposal**
1	Biomedical waste	Yellow	0	0.1 MT/A	0.1 MT/A	CBWTF

Quantification of hydraulic load and pollution load from the effluent

EFFLUENT POLLUTION LOAD	
Hydraulic Load (KLD)	**Pollution Load (Kg/Day)**

				High conc.		Low conc.		Sewage		Total Pollution	
Effluent Water	**High conc. stream**	**Low conc. stream**	**Sewage**	**TDS**	**COD**	**TDS**	**COD**	**TDS**	**COD**	**TDS**	**COD**
27.28	3.25	17.83	6.2	325	162.5	48.06	120.15	2.79	5.518	375.85	288.168

15. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 90.36 Lakhs and the Recurring Cost (operation and maintenance) will be about ₹ 92.1 Lakhs per annum) Industry proposes to allocate Rs. 5 Lakhs towards Corporate Social Responsibility.

16. Industry will develop greenbelt over an area of 63.02 % i.e., 1008 m^2 out of total area of the project. Around 309.01 sq. m. (19.31 %) of greenbelt will be developed inside the plot premises and about 59.44 sq. m. (3.71 %) of greenbelt outside the plot premises. Remaining greenbelt development of 640 sq. m. (40 %) will be developed in the Open Space received from the MIDC on Plot No. OS-58 which is at an aerial distance of approximate 116 meters.

17. 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 MIDC Tarapur which is declared as notified industrial area vide Notification No. IDC 2180/102842/2385/UDHYOG-14 dated 2.7.1980.

18. The PP proposed to set up an Environment Management Cell (EMC) by engaging Managing Director- Factory manager- site incident controller- QC –HR- Production- Commercial and logistic- EHS officer for the functioning of EMC.

19. The PP reported that the Total carbon sequestration per year (Kg CO_2) – 484680.1 Kg CO_2, Global Warming Potential (GWP) kg CO_2 eq. – 1404783.909 kg CO_2 eq. Thus, considering the total percentage of carbon sequestration is 34.50 %.

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 7.48 Crores including existing investment of Rs 4.98 crores. Total Employment will be 55 persons as direct & 25 persons indirect after expansion.

22. **Deliberations by the EAC**

The EAC deliberated on the compliance of OM dated 18.5.2023 regarding the verification of the consultant and found to be satisfactory. The EAC inter-alia, deliberated on the fuel and advised the PP to submit a commitment letter for use of coal as fuel only during the non-availability of agro-briquettes for max. 3 years. The PP submitted the same and the EAC found it to be satisfactory.

The EAC noted that the certified compliance of the existing CTO has been obtained from Maharashtra Pollution Control Board vide letter no. MPCB/ROT/1174 dated 04/03/2022. As per the O.M. dated 8.6.2022, the CCR issued by the concerned Authority shall be valid for a period of one year from the date of inspection of the project. The submission of CCR beyond older than one year from the date of inspection shall not be accepted for carrying out the appraisal process.

In view of above, the proposal was **deferred** for submission of a valid CCR of the existing CTO as per the said O.M.

Agenda No. 54.5

Proposed Expansion of Pesticides, Pesticides Specific Intermediates & Speciality Chemicals Manufacturing Plant with production capacity from 7260 MT/Month to 8111.0 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 Environmental Clearance

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

1. The proposal is for the environmental clearance for the Proposed Expansion of Pesticides, Pesticides Specific Intermediates & Speciality Chemicals Manufacturing Plant with 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.

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 Standarad ToR was granted by the Ministry, vide letter no. IA-J-11011/437/2017-IA-II(I) dated 23.1.2023. 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 54th EAC meeting on 28th June, 2023, wherein the PP along with accredited Consultant, M/s. Aqua-Air Environmental Engineers Pvt. Ltd. (NABET Accreditation No.: NABET/EIA/2023/SA0196 Valid up to 08 April, 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 79,999.0 m^2 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

Sr. No.	Products	CAS Nos.	LD50 (mg/kg)	Quantity (MT/Month)			
				As Per EC Granted	As Per CCA	Additional	Total

	Pesticides/Insecticides						
1	Propargite	2312-35-8	> 5.0 g/kg	50.0	0.0	400.0	450.0
2	Permethrin	52645-53-1	>500 mg/kg		0.0		
3	Alphamethrin	67375-30-8	>5000 mg/kg		0.0		
4	Cyfluthrin& Beta Isomers	68359-37-5	960 mg/kg		0.0		
5	Diethyl Phenyl Acetamide	2431-96-1	825 mg/kg		0.0		
6	Fipronil	120068-37-3	97 mg/kg		0.0		
7	Transfluthrin.	118712-89-3	-		0.0		
8	Zeta Cypermethrin	52315-97-08	-		0.0		
9	Spirodiclofen	283594-90-1	> 2,000 mg/kg		0.0		
10	Acetamiprid	160430-64-8	417 mg/kg		0.0		
11	Chlorantraniliprole	500008-45-7	> 5000 mg/kg		0.0		
12	Pyrifroxypane	95737-68-1	> 5,000 mg/kg		0.0		
13	Imidacloprid	138261-41-3	> 4,820 mg/kg		0.0		
14	Thiomethoxam	52918-63-5	>2,250 mg/kg		0.0		
15	Deltamethrin	24017-47-8	2730 mg/kg		0.0		
16	Cyanthraniliprople	736994-63-1	> 5,000 mg/kg	0.0	0.0	450.0	
17	Cyclaniliprope	1031756-98-5	> 2,000 mg/kg	0.0	0.0	450.0	
18	Acephate	30560-19-1	945 mg/kg	900.0	0.0	-400.0	500.0

19	Chloropyriphos	2921-88-2	222 mg/kg		0.0		
20	Profenofos	41198-08-7	358 mg/kg		150		
21	Abamecin	71751-41-2	10 mg/kg	0.0	0.0	500.0	
22	Emamectin Benzoate	155569-91-8	63 mg/kg	0.0	0.0		
	Fungicides						
23	Azoxystrobin	131860-33-8	> 2000 mg/kg	50.0	0.0	350.0	400.0
24	Kresoxim methyl	143390-89-0	> 2000 mg/kg		0.0		
25	Cymoxanil	57966-95-7	1200 mg/kg		0.0		
26	Picoxystrobin	117428-22-5	-		0.0		
27	Triclopyricarb	902760-40-1	-		0.0		
28	Fluoxastrobin	361377-29-9	>5000 mg/kg		0.0		
29	Flufenoxystrobin	918162-02-4	-		0.0		
30	Pyraclostrobin	175013-18-0	5000 mg/kg		0.0		
31	Trifluoxystrobin	141517-21-7	>5,050 mg/kg		0.0		
32	Fenoxanil	115852-48-7	300 mg/kg		0.0		
33	Thiafluzamide	130000-40-7	>6500 mg/kg	20.0	0.0	20.0	40.0
34	Boscalid	188425-85-6	1490 mg/kg		0.0		
35	Cyazofamid	120116-88-3	> 5,000 mg/kg		0.0		
36	Difenthuron	80060-09-9	1950 mg/kg		20		

37	Dodine	2439-10-3	> 1500 mg/kg		0.0		
38	Propineb	12071-83-9	300 mg/kg	400	0.0	0.0	400.0
39	Tricyclazole	41814-78-2	250 mg/kg	200	100	50.0	250.0
40	Mancozeb	8018-01-7	>5000mg/kg	4000	0.0	0	4000.0
41	Maneb	12427-38-2	6750 mg/kg	200	0.0	0.0	200.0
42	Zineb	12122-67-7	1.850 mg/kg	200	0.0	0.0	200.0
43	Imazalil	3554-44-0	-	50.0	0.0	350.0	400.0
44	Bromuconazole	116255-48-2	365 mg/kg		0.0		
45	Azaconazole	60207-31-0	2730 mg/kg		0.0		
46	Difenoconazole	119446-68-3	1453 mg/kg		0.0		
47	Epoxiconazole	133855-98-8	5000 mg/kg		0.0		
48	Hexaconazole	79983-71-4	> 2000 mg/kg		0.0		
49	Tebuconazole	107534-96-3	3352 mg/kg		50		
50	Fenfuconazole	114369-43-6	5628 mg/kg		0.0		
51	Ipconazole	125225-28-7	1,338 mg/kg		0.0		
52	Metconazole	125116-23-6	5.620 mg/kg		0.0		
53	Tetraconazole	112281-77-3	1.248 mg/kg		0.0		
54	Cyproconazole	94361-06-5	1020 mg/kg		0.0		
55	Prothioconazole	178928-70-6	1.320 - 6.690 mg/kg		0.0		

56	Fluquinconazole	136426-54-5	1.320 - 6.690 mg/kg		0.0		
57	Myclobutanil	88671-89-0	2500.86 mg/kg		50		
58	Propiconazole	60207-90-1	2105 mg/kg				
59	Triadimenol	55219-65-3	700 mg/kg		0.0		
60	Triadimefol	43121-43-3	2828 mg/kg		0.0		
61	Triticonazole	131983-72-7	>2000 mg/kg		0.0		
62	Quinoxyfen	124495-18-7	>2000 mg/kg	20.0	0.0	30.0	50.0
63	Clorothalanil	1897-45-6	10000mg/kg		0.0		
64	Fluazinam	79622-59-6	1782 mg/kg		0.0		
65	Famoxadone	131807-57-3	5800 mg/kg		0.0		
66	Metalaxyl	57837-19-1	> 2000 mg/kg		0.0		
67	Benalaxyl	71626-11-4	4.200 mg/kg		0.0		
68	Mandiporpamid	374726-62-2	>2000 mg/kg	0.0	0.0	50.0	
69	Fluopicolide	239110-15-7	>2000 mg/kg	0.0	0.0		
70	Fluxapyroxad	907204-31-3	>2000 mg/kg	0.0	0.0		
71	Benzovindiflupyr	1072957-71-1	>2000 mg/kg	0.0	0.0		
	Herbicides						
72	Pendimethalin	40487-42-1	1050 mg/kg	350.0	0.0	-200.0	150.0
73	2,4 Di Chloro phenoxy Acetic Acid	94-75-7	375 mg/kg		0.0		

74	Glyphosate Tech and its Intermediates Volume	1071-83-6	5600 mg/kg		0.0		
75	Aciflurofen	50594-66-6	1370 mg/kg	50.0	0.0	200.0	250.0
76	Bispyribac	125401-75-4	41110 mg/kg		0.0		
77	Carfentrazone	128621-72-7	-		0.0		
78	Clethodine	99129-21-2	> 500 mg/kg		0.0		
79	ClodinafopPropargyl	105512-06-9	1.392 mg/kg		0.0		
80	Fenoxaprop P Ethyl	66441-23-4	2357 mg/kg		0.0		
81	Fluazifop P Butyl	79241-46-6	>5000 mg/kg		0.0		
82	Dicamba	1918-00-9	1.039 mg/kg		0.0		
83	CloquintocetMexyl	99607-70-2	1.320 - 6.690 mg/kg		0.0		
84	Fomesafen	72178-02-0	1250-2000mg/kg		0.0		
85	Chlomethoxyfen	32861-85-1	18 gm/kg		0.0		
86	Oxyflurofen	42874-03-3	>5000 mg/kg		0.0		
87	Cyhalofop Butyl	122008-85-9	300 mg/kg		0.0		
88	FluroxypyrMeptyl	81406-37-3	>5000 mg/kg		0.0		
89	Pichloram	1918-02-1	4,200 mg/kg		0.0		
90	Pretilachlor	81690-06-4	6099 mg/kg		0.0		
91	Metamitron	41394-05-2	2000 mg/kg		0.0		

92	Metribuzine	21087-64-9	1865 mg/kg		0.0		
93	Metamifop	256412-89-2	300 mg/kg		0.0		
94	Quizalofop Ethyl	76578-14-8	1480 mg/kg		0.0		
95	Sulfentrazone	122836-35-5	1750 mg/kg		0.0		
96	TriclopirButotyl	64700-56-7	1,400 mg/kg		0.0		
97	Glufosinate Ammonium	77182-82-2	1510 mg/kg	0.0	0.0	250.0	
98	Pyroxasulfone	447399-55-5	>2000 mg/kg	0.0	0.0		
99	Nicosulfuron	111991-09-4	>2000 mg/kg	0.0	0.0		
100	Tribenuron Methyl	101200-48-0	>5000 mg/kg	0.0	0.0		
101	Metsulfuron methyl	74223-64-6	>5000 mg/kg	0.0	0.0		
102	Mesosulfuron Methyl	400852-66-6	>5000 mg/kg	0.0	0.0		
103	Iodosulfuorn	144550-36-7	>2000 mg/kg	0.0	0.0		
104	Thifensulfuron	79277-27-3	>5000 mg/kg	0.0	0.0		
105	Rimsulfuron methyl	122931-48-0	>5000 mg/kg	0.0	0.0		
106	Bensulfuron Methyl	83055-99-6	>5000 mg/kg	0.0	0.0		
107	Flazasulfuron	104040-78-0	>5000 mg/kg	0.0	0.0		
108	Trifloxysulfuron	145099-21-4	>2000 mg/kg	0.0	0.0		
109	Ethoxysulfuron	126801-58-9	> 3270 mg/kg	0.0	0.0		
110	Clomazone	81777-89-1	2077 mg/kg	0.0	0.0		

111	Orthosulfamuron	213464-77-8	>5000 mg/kg	0.0	0.0		
112	Propaquizafop	111479-05-1	>4640 mg/kg	0.0	0.0		
113	Tembotirone	335104-84-2	>2000 mg/kg	0.0	0.0		
114	Quinclorac	84087-01-4	> 3,500 mg/kg	0.0	0.0		
115	Mesotrione	104206-82-8	>5000 mg/kg	0.0	0.0		
116	Flufenacet	142459-58-3	> 589 mg/kg	0.0	0.0		
	Pesticides Specific Intermediates						
117	1,2,4-Triazole	288-88-0	1350 mg/kg	50.0	0.0	500.0	550.0
118	3-Methyl-1,2,4-triazole	7170-01-6	300 mg/kg		0.0		
119	Diphenyl Ether	101-84-8	3370 mg/kg		0.0		
120	4-Phenoxy Phenol	10181-94-9	--		0.0		
121	3,4 Dimethyl Diphenyl Ether	--	--		0.0		
122	3-Phenoxy Toluene	3586-14-9	2509 mg/kg		0.0		
123	2,3-Dichloro phenol	576-24-9	2376 mg/kg		0.0		
124	2,5-Dichloro Pheno	583-78-8	946 mg/kg		0.0		
125	3,4- Dichloro Phenol	95-77-2	1685 mg/kg		0.0		
126	3,5-Dichloro Phenol	591-35-5	2389 mg/kg		0.0		
127	4-Bromo-2-Chloro Phenol	3964-56-5	--		50		
128	4-Bromo-2,5 Dichloro Phenol	1940-42-7	300 mg/kg		0.0		

129	4-Fluoro Phenol	371-41-5	293 mg/kg		0.0		
130	2 - Fluoro Phenol	367-12-4	5628 mg/kg		0.0		
131	O-Cyano Phenol	611-20-1	--		0.0		
132	2-methyl phenol	84989-04-8	--		0.0		
133	3-Chloro Phenol	108-43-0	570 mg/kg		0.0		
134	P-Chloro-m-Cresol	59-50-7	1.830 mg/kg		0.0		
135	P-Chloro-m-Xylenol	88-04-0	3830 mg/kg		0.0		
136	4,6- Dichloro - 2-Amino Phenol	527-62-8	--		0.0		
137	2-Cyano-3,4,5,6-Tetrachloro Benzoic Acid Methyl Ester	--	--		0.0		
138	3- Amino 4 -Methyl Benzoic Acid	56-91-7	--		0.0		
139	3-Amino-4-Chloro Benzotrifluoride	121-50-6	--		0.0		
140	3-Amino Benzotrifluoride	98-16-8	480 mg/kg		0.0		
141	3,4-Diamino Toluene	496-72-0	--		0.0		
142	2,3-Dichloro Aniline	608-27-5	250 mg/kg		0.0		
143	2, 5-Dichloro Aniline	95-82-9	1600 mg/kg		0.0		
144	3, 4-Dichloro Aniline	95-76-1	815 mg/kg		0.0		
145	3, 5-Dichloro Aniline	626-43-7	--		0.0		
146	3-Iso Propoxy Aniline	41406-00-2	--		0.0		
147	2-Chloro-1,4-Phenylene Diamine	615-66-7	150 mg/kg		0.0		

148	2, 5-Dichloro-1, 4-Phenylene Diamine	6393-01-7	--		0.0		
149	2-Chloro-5-Methyl-1, 4-Phenylene Diamine	5307-03-9	--		0.0		
150	2, 5-Dimethyl-1, 4-Phenylene Diamine	6393-01-7	--		0.0		
151	2,4-Dichlorobuterophenone	--	--		0.0		
152	6-Methyl-5-Amino Benzimidazolone	67014-36-2	--		0.0		
153	2, 4-Dichloro Acetophenone	937-20-2	--		0.0		
154	2, 5-Dichloro Acetophenone	2476-37-1	--		0.0		
155	4-Fluoro Acetophenone	403-29-2	--		0.0		
156	2,4-Dichloro-5-Fluoro Acetophenone	704-10-9	> 2000 mg/kg		0.0		
157	2,4-Dichloro Phenacyl Chloride	4252-78-2	--		0.0		
158	5-Amino Benzimidazol -2-One	--	--		0.0		
159	4-Nitro-2,5-Dichloro Aniline	--	1500 mg/kg		0.0		
160	2-Nitro-4-Methyl Aniline	89-62-3	--		0.0		
161	4-Nitro-2,5-Dimethyl Aniline	--	--		0.0		
162	4-Nitro-5-Chloro-2-Methyl Aniline	--	--		0.0		
163	6-Nitro-3,4-Dichloro Aniline	--	--		0.0		
164	3-Nitro-4-Chloro-Benzotrifluoride	121-17-5	1075 mg/kg		0.0		
165	2-Nitro-5-Chloro-Phenol	--	--		0.0		
166	DMPAT	17321-47-0	980 mg/kg	500.0	0.0	50.0	

167	2-Amino Diphenyl Ether	2688-84-8	--	20.0	0.0	200	220.0
168	Resorcinol Di (Beta-Hydroxy Ethyl) Ether	--	--		0.0		
169	Metaphenoxybenzyl Alcohol	13826-35-2	1496 mg/kg	200.0	0.0	20.0	
170	3-phenoxyBenzaldehyde	39515-51-0	1222 mg/kg		0.0		
171	1R Hightrans CMA	52314-67-7	--		0.0		
172	HydroxyBenzo Furan	4790-80-1	--		0.0		
173	m-Bromo Anisole	2398-37-0	--		0.0		
174	m-Bromo Nitrobenzene	586-78-7	--		0.0		
175	4-PhenoxyBenzaldehyde	67-36-7	--		0.0		
176	DV Acid Chloride	52314-67-7	--		0.0		
177	High Trans CMA and CMAC	52314-67-7	--		0.0		
178	High Cis CMA and CMAC	52314-67-7	--		0.0		
	Flourine Chemistry						
179	2,4-Difluorobenzylamine	72235-52-0	--	0.0	0.0	50.0	50.0
180	2,6-Difluorobenzonitrile	1897-52-5	--		0.0		
181	2-Fluoronitrobenzene	1493-27-2	--		0.0		
182	3,4-Difluoronitrobenzene	369-34-6	--		0.0		
183	4-Fluoronitrobenzene	350-46-9	--		0.0		

184	5-Chloro-2,3-difluoropyridine	89402-43-7	--		0.0		
185	1-Fluoronapthalene	321-38-0	--		0.0		
186	2,3- Dichloro-5-(trifluoromethyl)-pyridine	69045-84-7	--		0.0		
187	4-Fluoroanisol	459-60-9	--		0.0		
188	2,3,6-Trifluorophenylacetic acid	114152-23-7	--		0.0		
189	3(R)-tert-Butoxycarbonylamino-4-(2,4,5-trifluoro-phenyl)-butyric acid	486460-00-8	--		0.0		
190	R & D Activities	--	--	0.0	0.0	1.0	1.0
		Grand Total		**7260.0**	**370.0**	**851.0**	**8111.0**
	Formulations						
191	Liquid Formulations	-		0	0	5000	5000 KL/Year
192	Powder Formulations	-		0	0	2000	2000 MT/Year

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

6. The PP reported that the Ministry had issued EC earlier vide letter No. IA-J-11011/437/2017-IA-II(I) Dated: 22nd February ,2019, Further First EC Amendment was granted by the ministry, vide letter No. IA-J-11011/437/2017-IA-II(I) Dated: 15th February ,2021, second EC Amendment was granted by the ministry issued vide letter No. IA-J-11011/437/2017-IA-II(I) Dated: 19th July, 2022.

7. The PP reported that Certified Compliance Report from IRO Gandhinagar was issued vide letter dated 15.5.2023 and Action taken Report for Partly or not Complied Conditions was submitted on 20.06.2023.

8. 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 6.7 Km in South direction. There is no forest land involved in the proposed project. Schedule-I species i.e., Shikra, Indian Peafowl, 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 7.2.2023.

9. The PP reported that **Ambient air quality** monitoring was carried out at 10 locations during March, 2022 to May, 2022 and the baseline data indicates the ranges of concentrations as: PM_{10} (75.91 – 79.55 µg/m^3), $PM_{2.5}$ (43.83 – 46.38 µg/m^3), SO_2 (15.4 – 18.25 µg/m^3) and NO_2 (17.26 – 19.65 µg/m3) respectively. AAQ modeling study for point source emissions indicated that the maximum incremental GLCs after the proposed project would be 0.01 µg/m^3, 0.03 µg/m^3, 0.14 µg/m^3 and 0.04 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_2 and NO_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise quality** monitoring was carried out at 27 locations during March, 2022 to May, 2022 and the baseline data indicates the ranges of as: Leq (Day) (49.6 – 54.7 dB (A)), Leq (Night) (40.4 – 44.3 dB (A)). **Ground water** quality monitoring was carried out at 10 locations during March, 2022 to May, 2022 and the baseline data indicates the ranges as: pH (7.41 – 7.96), TSS (<10.0 - 12 mg/l), Total Hardness (116.5 – 582.8 mg/l), Total Dissolved Solids (348 – 1958 mg/l) & Chlorides (26.24 – 589.7 mg/l). The resultant concentrations are within the Indian Standard (IS 10500:2012). **Surface water** quality monitoring was carried out at 5 locations during March, 2022 to May, 2022 and the baseline data indicates the ranges as: pH (7.71 – 8.52), DO (6.19 – 6.37 mg/l), COD (8.15 – 17.52 mg/l) & BOD (2.26 – 4.87 mg/l). **Soil quality** monitoring was carried out at 10 locations during March, 2022 to May, 2022 and the baseline data indicates the ranges as: pH (7.12 – 8.64), Nitrogen (N) (1338.2 – 2814.7 mg/l), Phosphorus (P) (18.56 – 36.57 mg/l), Potassium (K) (151.6 – 264.9 mg/l) & Electric Conductivity (0.23 – 2.47 mg/l).

10. The PP reported that the total water requirement is 2150 KL/Day of which fresh water requirement of 535 KL/Day and will be met from GIDC Water Supply letter no. GIDC/BRH/DEE/WS/544 vide dated 18/08/2017. Effluent will be treated in: total wastewater generation after treatment is 1059 KLD. Wastewater will be segregated in 3 different streams i.e. Domestic Wastewater of 40 KLD Treated in STP and treated sewage will be reuse in greenbelt development. High COD/High TDS waste water 575 KLD from Process & RO Reject 344 KLD from RO will be treated in ETP followed by Solvent stripper + MEE + ATFD ultimately the MEE Condensate i.e. 704 KL/Day will be send to ETP for Further Treatment. MEE salt will be sent to TSDF site. Low COD/Low TDS Stream waste water of 444 KLD (From Process 250.0 KLD, washing: 20.0 KLD, Boiler Blow Down: 74.0 KLD, Cooling Blow Down: 75.0 KLD, scrubbing: 25.0 KLD) and MEE Condensate 704.0 KLD Total 1148.0 KLD will be treated in ETP. Out of that 100 KLD wastewater will be sent for CETP discharge, remaining 1048.0 KLD Treated Water will be passed though in RO. RO Treated 704.0 KLD will be reused in industrial Purpose.

11. The Power requirement will be 7500 KVA and will be met from DGVCL. Unit will have 3 Nos. DG sets of 1500 KVA capacity, additionally DG sets are used as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG sets.

12. The Unit will have 3 Nos. of Steam Boilers (15 TPH*2, 6 TPH*1) will be installed. Adequate Stack Height of 40 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the proposed boilers.

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

Flue Gas Stack

S. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Boiler (15 TPH each) – 2 Nos.	40 m	Briquettes /Coal	125 MT/Day or 105 MT/Day	SPM SO2 NOX	ESP + Water Scrubber
2	Boiler (6 TPH each) – 1 Nos.					
3	DG Sets (1500 KVA) – 3 Nos.	30 m	Diesel	900 Lit/hr	SPM SO2 NOX	Adequate Stack height

Process Stack

Sr. No.	Stack Attached to	Stack Height	Air Pollution Control System	Prescribed Standards
1	Specialty Chloro Phenol Reaction Vessel	15 m	Two Stage Alkali Scrubber	$HCl < 20$ mg/Nm^3
2	Herbicide	15 m	Two Stage Water + Alkali Scrubber, HBr Scrubber	$HCl < 20$ mg/Nm^3
				$SO_2 < 40$ mg/Nm^3
				$HBr < 5$ mg/Nm^3
3	Fungicide	15 m	Two Stage Water + Alkali Scrubber	$HCl < 20$ mg/Nm^3
				$SO_2 < 40$ mg/Nm^3

				$CS_2 < 180$ mg/Nm^3
4	Insecticide	15 m	Two Stage Water + Alkali Scrubber, HBr Scrubber	$HCl < 20$ mg/Nm^3
				$SO_2 < 40$ mg/Nm^3
				$HBr < 5$ mg/Nm^3
5	Amino Compound Reaction Vessel	15 m	Two Stage Alkali Scrubber	$HCl < 20$ mg/Nm^3
6	Nitro Plant	15 m	Two Stage Water + Alkali Scrubber	$HCl < 20$ mg/Nm^3
				$SO_2 < 40$ mg/Nm^3
7	Mancozeb/Maneb Plant	15 m	Two Stage Alkali Scrubber	$H_2S < 45$ mg/Nm^3
				$CS_2 < 180$ mg/Nm^3
8	Propineb/Zineb Plant, Dithio Carbamate preparation	15 m	Two Stage Water + Alkali Scrubber	$H_2S < 45$ mg/Nm^3
				$CS_2 < 180$ mg/Nm^3
				$NH_3 < 30$ mg/Nm^3
9	Spray Dryer for Mancozeb Maneb Plant No. 1	31 m	Double Ventury scrubber	$PM_{10} < 90$ mg/Nm^3 $PM_{2.5} < 60$ mg/Nm^3
10	Spray Dryer for Mancozeb Maneb Plant No. 2	31 m	Double Ventury scrubber	$PM_{10} < 90$ mg/Nm^3 $PM_{2.5} < 60$ mg/Nm^3
11	Spray Dryer for Propineb and Zineb Plant	31 m	Double Ventury scrubber	$PM_{10} < 90$ mg/Nm^3 $PM_{2.5} < 60$ mg/Nm^3
12	Fluoro compounds	15 m	Two Stage water + Alkali scrubber, HBr Scrubber	$HCl < 20$ mg/Nm^3
				$SO_2 < 40$ mg/Nm^3

				Br_2 < 2 mg/Nm^3
				HBr < 5 mg/Nm^3

14. **Details of Solid Waste/ Hazardous Waste Generation and its Management:** 40 Categories of Hazardous/Solid Wastes and their management & 2 Nos. of Non-Hazardous waste.

Hazardous/Solid Wastes

S. No.	Type of Waste	Category	Quantity (MT/Month)				Mode Of Disposal
			As Per EC	As Per Valid CCA Existing	Additional	Total	
1	ETP Sludge	35.3	300	50.0	150	450	Collection, Storage, Transportation and Disposal at Nearest TSDF
2	Process Waste Sludge (Iron Sludge and residual process salt)	29.1	550	100	1294.7	1844.7	Collection, Storage, Transportation and Disposal at Nearest TSDF or co-processing in Cement Industries
3	Used Oil	5.1	2,000 Lit./Month	300	200	2200 Lit./Month	Collection, Storage, Transportation and Selling to authorized recyclers
4	Discarded liners / Bags Carboy Drums	33.1	10	1500 Nos./Month	2	12	Collection, Storage, Transportation, Decontamination and Selling to

							authorized recyclers
5	Salt from MEE	37.3	1,000	300	320	1320	Collection, Storage, Transportation and Disposal at Nearest TSDF
6	Distillation Residue	36.1	200	30	585.94	785.94	Collection, Storage, Transportation and Sent to Cement Industries for Co-processing OR incineration at Common Incineration Site
7	Organic Impurities	29.1	0	0	441.21	441.21	Collection, Storage, Transportation and Sent to Cement Industries for Co-processing OR incineration at Common Incineration Site
8	Spent Carbon	28.3	5	2.0	8.75	13.75	Collection, Storage, Transportation and Co-processing in Cement Industries or incineration at Common

							Incineration facility
9	Process Inorganic Salt	-	150	20.0	40.35	190.35	Collection, Storage, Transportation and Disposal at Nearest TSDF facility
10	Ammonium Sulphate Salt	C1	500	0.0	0	500	Collection in woven sag bags, Sell to licensed factory and after purification used
11	Formic Acid	-	100	100	0.0	100	Collection in HDPE tank and Sell to formulation industry
12	HBr Solution 20%	-	2000	2000.0	0.0	2000	Collection in HDPE tank and Sell to Dyes industry or In-House Bromine Recovery
13	Hydrochloric Acid (10 to 20%)	C2	400	700.0	2007.21	2407.21	Collection in HDPE tank and Sell to Dyes/Calcium Chloride industry
14	KCl Powder	-	200	0.0	50	250	Collection in woven sag bags and Sell to agro chemical industry

15	Manganese Carbonate ($MnCO_3$)	-	400	0.0	0.0	400	Collection in woven sag bags, Sell to agro chemical industry which converts it to MnSO4 soln. and use
16	NH_4Cl Powder	-	250	0.0	393.9.	643.93	Collection in HDPE tanks and Sell to Dyes industry or recycle in agro chemical industry
17	Potassium Bromide	-	215	215.0	553.64	768.64	Collection in HDPE tanks and Sell to Dyes industry or recycle in agro chemical industry
18	Potassium Fluoride Salt	-	500	0.0	0.0	500	Collection in HDPE tank, Evaporation to Powder and Sell to Dyes industry/recycle in agro chemical industry
19	Recovered Solvent	-	40	5.0	60	100	Storage in MS/SS tanks, Purification in plant and Residue send in drums to nearest

							TSDF for incineration
20	Sodium Bi Sulphite Salt	-	400	0.0	333.1	733.1	Collection in HDPE tank, Evaporation to Powder and Sell to Dyes industry/recycle in agro chemical industry
21	Sodium Bromide 20 % Solution	-	150	150.0	862.43	1012.43	Collection in HDPE tank, Evaporation to Powder and Sell to Dyes industry/recycle in agro chemical industry
22	Sodium Fluoride 20 % Solution	-	100	0.0	0.0	100	Collection in HDPE tank, Evaporation to Powder and Sell to Dyes industry/recycle in agro chemical industry
23	Sodium Sulfite Powder	-	500	0.0	500	1000	Collection in woven sag bags and Sell to Dyes/textile/was hing powder industry
24	Sodium Sulphate (Na_2SO_4)	-	1200	0.0	400	1600	Collection in woven sag bags and Sell to Dyes/textile/was

							hing powder industry
25	Spent Sulphuric Acid	C2	100	20.0	4554.52	4654.52	Collection in HDPE tanks, Neutralized in factory and Send to nearest TSDF for land filling or Sell to converting Sulphate salt industry
26	Formaldehyde 10 to 15 % solution	-	100	0.0	0.0	100	After Formaldehyde Recovery and reused, rest of aqueous ML will be treated in ETP
27	Sodium Chloride Salt	-	400	0.0	100	500	Collection, Storage, Transportation and Disposal at Nearest TSDF
28	Sodium hydroxide	-	0	0	2653.36	2653.36	Collection, Storage, Transportation & Sell to end user having rule-9 permission or reuse within plant premises.
29	Aluminium chloride	-	0	0	9723.91	9723.91	
30	Sodium carbonate	-	0	0	260	260	
31	Sodium bicarbonate	-	0	0	83.1	83.1	
32	sodium methyl sulphonate	-	0	0	254.9	254.9	

33	Potassium bisulphate	-	0	0	95.2	95.2	
34	Potassium bicarbonate	-	0	0	12.3	12.3	
35	Potassium carbonate	-	0	0	112	112	
36	Magnesium Bromide	-	0	0	116.8	116.8	
37	triphenyl phosphanone	-	0	0	386.4	386.4	
38	sodium methyl sulphide	-	0	0	419.2	419.2	
39	Sodium acetate	-	0	0	298.6	298.6	
40	Cypermethrin isomer	-	0	0	180.45	180.45	

Non-Hazardous Waste

S. No.	Name of waste	Sources	Category	Quantity (MT/Month)	Mode of Disposal
1	Fly Ash	Utility	-	2500	Collection, Storage, Transportation and sell to brick manufacturers
2	STP sludge	In-house STP	-	2	Used in organic manure for green belt.

15. The Budget earmarked towards the Environment Management Plan (EMP) is ₹ 12.23 Crores (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 1131.31 Lakhs per annum. Industry proposes to allocate Rs. 0.5 Crore towards Corporate Social Responsibility.

16. Industry will develop Greenbelt over an area of 33% i.e., 26400 m^2 out of total area of the project. Total 79999 sq. meter land area is available at site; out of this area about 26400 sq. meter (33 %) area will be covered as greenbelt.

17. The PP reported that the Public hearing is exempted as per the Para 7.III. Stage (3) (i) (b) of the EIA Notification, 2006 Project site is located at Dahej-III GIDC Industrial Estate which is covered under PCPIR Region (Petroleum, Chemical & Petrochemical Investment Region) & PCPIR has obtained Environmental Clearance and CRZ Clearance vide File No. 21-49/2010-IA-III dated 14th September, 2017

18. The PP proposed to set up an Environment Management Cell (EMC) by engaging Head Environment- Manager Environment- Asst. Manager (Env)- Asst. Manger documentation- Manager lab/QC- shift in cahrge exceutive- Lab executive environment – shift operations- Assistant chemist for Environment lab for the functioning of EMC.

19. The PP reported that the total Carbon Sequestration in Year 2023-2024 Total 32% i.e 30,430.0 TON CO_2/Year.

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. 151 Crores. Total Employment will be 350 persons as direct**.**

22. **Deliberations by the EAC:**

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

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

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

The EAC deliberated on the compliance of OM dated 18.5.2023 regarding the verification of the consultant and found to be satisfactory.

The EAC inter-alia, deliberated on the fuel, Greenbelt, ETP, details of CER and advised the PP to submit the following:

- Undertaking for the Fuel.
- Undertaking for the greenbelt development.
- Revised ETP diagram.
- Revised CER details.

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 the implementation also of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

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

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

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

(i) The PP shall develop Greenbelt over an area of at least, 17,600 m^2 by planting 5640.0 number of trees within a period of two months 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. PP shall engage Head Environment- Manager Environment- Asst. Manager (Env)- Asst. Manger documentation- Manager lab/QC- shift in cahrge exceutive- Lab executive environment – shift operations- Assistant chemist for Environment lab. 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 ₹ 12.23 Crores (Capital cost) and 1131.31 Lakhs per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iv) Agrobriquette shall be used as the primary fuel, during it's unavailability imported coal shall be used in case of emergency, PP shall use agrobriquette over the next five years after commissiojning of the project.

(v) Industry shall find suitable CER activities for eco development of surrounding area and shall submit the details for the same to the concerned regulatory authority.

(vi) The total water requirement shall not exceed 2150 KL/Day of which fresh water requirement of 535 KL/Day shall be met from GIDC Water Supply. The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawn only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(vii) Domestic Wastewater of 40 KLD shall be treated in STP and treated sewage shall be reused in the greenbelt development. **High COD/High TDS waste water 575 KLD** from Process & **RO Reject 344 KLD** from RO shall be treated in ETP followed by Solvent stripper + MEE + ATFD ultimately the MEE Condensate i.e. 704 KL/Day shall be send to ETP for Further Treatment. MEE salt shall be sent to TSDF site. **Low COD/Low TDS Stream** waste water of **444 KLD** (From Process 250.0 KLD, washing: 20.0 KLD, Boiler Blow Down: 74.0 KLD, Cooling Blow Down: 75.0 KLD, scrubbing: 25.0 KLD) and **MEE Condensate 704.0 KLD Total 1148.0 KLD** shall be treated in ETP. Out of that 100 KLD wastewater shall be sent for CETP discharge, remaining 1048.0 KLD Treated Water shall be passed though in RO. **RO Treated 704.0 KLD shall be reused in industrial Purpose.**

(viii) 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.

(ix) 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.

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

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

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

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

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

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

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

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

solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

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

Agenda No. 54.6

Proposed Expansion in Pesticide Technical and Pharma/API/Intermediates Manufacturing Unit [upto the production capacity of 48,075 MTPA (excluding formulation) & formulation - 90000 MT/Annum] located at Plot No 3133-3139, 3231-3245, 3330-3351, 3571-3524, GIDC Panoli, Bharuch, Gujarat by M/s PI Industries Limited - Consideration of Environmental Clearance

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

1. The proposal is for environmental clearance for the proposed Expansion in Pesticide Technical and Pharma/API/Intermediates Manufacturing Unit [upto the production capacity of 48,075 MTPA (excluding formulation) & formulation - 90000 MT/Annum] located at Plot No 3133-3139, 3231-3245, 3330-3351, 3571-3524, GIDC Panoli, Bharuch, Gujarat M/s PI Industries Limited.

2. The project/activity is covered under Category 'B' of Item 5(b) Pesticides Industry and Pesticide Specific Intermediates 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 the Ministry vide letter No; IA-J-11011/168/2022-IA-II(I) dated 8.8.2022. 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 EC case.** The proposal is placed in this 54th EAC meeting on 28th June, 2023, wherein the PP along with accredited Consultant, M/s EQMS Global Pvt. Ltd [Accreditation number NABET/EIA/ 1922/RA0197 dated valid till 2.8.2023 made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

5. The PP reported that the existing land area is 158742.92 sqm. The Proposed expansion is planned within the existing premises and no R& R is involved in the Project. The details of products and capacity are as follows:

S. No.	Product	IUPAC Name	CAS No	Group wise Quantity

				(MT/Annum)
(A)	**Pesticides Active Ingredients and Intermediates [5(b) Category]**			**43,275**
1	Valifenalate	methyl 3-(4-chlorophenyl)-N-[[(1-methylethoxy)carbonyl]-L-valyl]-β-alaninate	283159-90-0	
2	Fluindapyr	3-(difluoromethyl)-N-(7 fluoro-2,3-dihydro-1,1,3-trimethyl-1H-inden-4-yl)-1-methyl-1H-pyrazole-4-carboxamide	1383809-87-7	
3	BXL Technical/RXL Technical	methyl N-(2,6-dimethylphenyl)-N-(phenylacetyl)-DL-alaninate	71626-11-4	
4	FDTM / FDTM Sulphate (IAS)	7-fluoro-1,1,3-trimethyl-2,3-dihydro-1H-inden-4-amine	936474-09-8	
5	FNXL	mixture of 85% (2R)-N-[(1RS)-1-cyano-1,2-dimethylpropyl]-2-(2,4-dichlorophenoxy)propanamide and 15% (2S)-N-[(1RS)-1-cyano-1,2-dimethylpropyl]-2-(2,4-dichlorophenoxy)propanamide	115852-48-7	
6	Triforine (TRFRN)	N,N′-{piperazine-1,4-diylbis(2,2,2-trichloroethylidene)}diformamide	26644-46-2	
7	SSF-126/OXIME	(2E)-2-(methoxyimino)-N-methyl-2-(2-phenoxyphenyl)acetamide	133408-50-1	
8	ADCP	2′,3′-dichloro-4′-hydroxy-1-methylcyclohexanecarboxanilide	126833-17-8	
9	DFBA / ATFMD/ TJD-85	N-(3′,4′-difluorobiphenyl-2-yl)-3-(trifluoromethyl) pyrazine-2-carboxamide	942515-63-1	
10	ICF	3-[(3,4-dichloroisothiazol-5-yl) methoxy]-1,2-benzisothiazole 1,1-dioxide	957144-77-3	
11	KTZ (Kitazin)	S-benzyl O,ODiisopropylPhosphorothioate	26087-47-8	

12	TFSN/DP-PCST	methyl (2E)-(methoxyimino)(2-{[({(1E)-1-[3-(trifluoromethyl) phenyl]ethylidene}amino)oxy] methyl}phenyl)acetate	141517-21-7	
13	HMPA	{[2-({(3S,7R,8R,9S)-7-benzyl-9-methyl-8-[(2-methylpropanoyl)oxy]-2,6-dioxo-1,5-dioxonan-3-yl}carbamoyl)-4-methoxy-3-pyridyl]oxy}methyl 2-methylpropanoate	517875-34-2	
14	MEP/ Pendimethalin	N-[4-methyl-6-(prop-1-ynyl)pyrimidin-2-yl]aniline	110235-47-7	
15	CCIM/CZF	4-chloro-2-cyano-N,N-dimethyl-5-p-tolylimidazole-1-sulfonamide	120116-88-3	
16	ISTS	3-[(3-bromo-6-fluoro-2-methyl-1H-indol-1-yl)sulfonyl]-N,N-dimethyl-1H-1,2,4-triazole-1-sulfonamide	348635-87-0	
17	6-FMI/6-MFI	6-fluoro-2-methyl-1H-indole	40311-13-5	
18	M-Alcohol (Intermediate of Tetraconazole)	(RS)-2-(2,4-dichlorophenyl) -3-(1H-1,2,4-triazol-1-yl)propyl 1,1,2,2-tetrafluoroethyl ether	112281-77-3	
19	Q1X41	(5RS)-5-(2,6-difluorophenyl)-4,5-dihydro-3-[2-(1-{[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]acetyl}-4-piperidyl)thiazol-4-yl]isoxazole	1003318-67-9	
20	BCPA /BCC	N-[(1RS,4SR)-9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4-methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide	1072957-1-1	
21	PYME/ FDFA/ CYMT	3-chloro-4-(2,6-difluorophenyl)-6-methyl-5-phenylpyridazine	1358061-5-8	

22	PYCL /P1B/ CYPL/SH118	1-(3-chloro-4,5,6,7-tetrahydropyrazolo[1,5-a]pyridin-2-yl)-5-[methyl(prop-2-ynyl)amino]-1H-pyrazole-4-carbonitrile	158353-15-2	
23	DMI/DMAI	1,3-Dimethyl-2-imidazolidinone	80-73-9	
24	747 Ether / AE302 / AE014	2-Chloro-4-(methyl sulfonyl)-3[(2, 2, 2-trifluoroethoxy) methyl]Benzoic acid	60-29-7	
25	TMBT/ 2C6SMT	2-[2-chloro-4-(methylsulfonyl)-3-[(2,2,2-trifluoroethoxy) methyl] benzoyl]- 1,3-cyclohexanedione	335104-84-2	
26	AE-513 and AE- 473 (TFT)	2-[2-chloro-4-(methylsulfonyl)-3-({[(2RS)-tetrahydro-2-furyl]methoxy}methyl)benzoyl]cyclohexane-1,3-dione	473278-76-1	
27	CMSBA	2-chloro-4-(methyl sulfonyl) benzoic acid	53250-83-2	
28	Triketone (TKTN) / BZCN	(1RS,5RS)-3-[2-chloro-4-(methylsulfonyl)benzoyl]-4-(phenylthio)bicyclo[3.2.1]oct-3-en-2-one	156963-66-5	
29	2C6SMT	2-{2-chloro-4-(methylsulfonyl)-3-[(2,2,2-trifluoroethoxy)methyl]benzoyl}cyclohexane-1,3-dione	335104-84-2	
30	BIOD	(1R,5S)-3-[hydroxy-[2-(2-methoxyethoxymethyl)-6-(trifluoromethyl)pyridin-3-yl]methylidene]bicyclo[3.2.1]octane-2,4-dione	352010-68-5	
31	Ethoxy Phenyl (Lake Palace)	2,5-dichloro-4-{[(5,5-dimethyl-4,5-dihydroisoxazol-3-yl) sulfonyl]methyl}phenyl ethyl ether	639826-16-7	
32	KPP (Pentoxazone)	3-[4-chloro-5-(cyclopentyloxy)-2-fluorophenyl]-5-isopropylideneoxazolidine-2,4-dione	110956-75-7	
33	Bispyribac sodium salt (BPS)	2,6-bis[(4,6-dimethoxypyrimidin-2-yl)oxy]benzoic acid	125401-75-4	

34	MON 7400 Technical	methyl 2-{[(4-methylpyrimidin-2-yl)carbamoyl]sulfamoyl}benzoate	175076-90-1	
35	AMSC	2-{[(4,6-dimethoxypyrimidin-2-yl)carbamoyl]sulfamoyl}-4-{[(methylsulfonyl)amino]methyl} benzoic acid	400852-66-6	
36	MTAA / DMTFI	2′-[(4,6-dimethoxy-1,3,5-triazin-2-yl)carbonyl]-1,1,6′-trifluoro-N-methylmethanesulfonanilide	874195-61-6	
37	FLSN and MSSN -Me intermediates/ADMP-C/CTFMPE	N-[(4,6-dimethoxypyrimidin-2-yl)carbamoyl]-3-(trifluoromethyl)pyridine-2-sulfonamide	104040-78-0	
38	FRSF (Foramsulfuron) / ISDN-R (iodosulfuron)	2-{[(4,6-dimethoxypyrimidin-2-yl)carbamoyl]sulfamoyl}-4-(formylamino)-N,N-dimethylbenzamide	173159-57-4	
39	ASDN/ BSM	2-{[(4,6-dimethoxypyrimidin-2-yl)carbamoyl]sulfamoyl}-N,N-dimethylpyridine-3-carboxamide	111991-09-4	
40	ACZN	4-amino-N-tert-butyl-3-isopropyl-5-oxo-4,5-dihydro-1H-1,2,4-triazole-1-carboxamide	129909-90-6	
41	PZA (TESA)	1-(3-chloro-2-pyridyl)-4′-cyano-2′-methyl-6′-(methylcarbamoyl)-3-{[5-(trifluoromethyl)-2H-tetrazol-2-yl]methyl}-1H-pyrazole-5-carboxanilide	1229654-66-3	
42	ETMD / MCH /Cis-H	cis-3-(2,5-dimethylphenyl)-8-methoxy-2-oxo-1-azaspiro[4.5]dec-3-en-4-yl ethyl carbonate	203313-25-1	
43	THM/ Thiocyclam/ MTH	Dimethyl (1,2,3-trithian-5-yl) amine	31895-21-3	
44	OBB/ 3-AZBC	3-azabicyclo[3,2,1]octane Hydrochloride	279-82-3	

45	COX	mixture comprised of 80–100% 4-[(5S)-5-(3,5-dichloro-4-fluorophenyl)-5-(trifluoromethyl)-4,5-dihydroisoxazol-3-yl]-N-[(4R)-2-ethyl-3-oxoisoxazolidin-4-yl]-2-methylbenzamide and 20–0% of the (5R,4R), (5R,4S) and (5S,4S) isomers	2061933-85-3	
46	Flub/ Tetraniliprole	N2-[1,1-dimethyl-2-(methylsulfonyl)ethyl]-3-iodo-N1-[2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl]phthalamide	272451-65-7	
47	2-Methyl 1-Methylthio-2-Propanamine (MMTPA/SAA)	2-Methyl 1-Methylthio-2-Propanamine	36567-04-1	
48	PMTZ	2-Hydrazinopyridine	4930-98-7	
49	DNTFRN (Dinotefuran)	(EZ)-(RS)-1-methyl-2-nitro-3-[(tetrahydro-3-furyl)methyl]guanidine	165252-70-0	
50	Thiamethoxam (TMT)/ Clothianidin/MNO	(EZ)-3-[(2-chlorothiazol-5-yl)methyl]-5-methyl-N-nitro-1,3,5-oxadiazinan-4-imine	153719-23-4	
51	MTN	S-[(5-methoxy-2-oxo-1,3,4-thiadiazol-3(2H)-yl)methyl] O,O-dimethyl phosphorodithioate	950-37-8	
52	DDVP	(Z)-2-chloro-1-(2,4-dichlorophenyl)vinyl dimethyl phosphate	67628-93-7	
53	Ethion Technical	O,O,O′,O′-tetraethyl S,S′-methylene bis (phosphorodithioate)	563-12-2	
54	Profenophos Technical	(RS)-[O-(4-bromo-2-chlorophenyl) O-ethyl S-propyl phosphorothioate]	41198-08-7	
55	BPCA	1-(dimethylcarbamoyl)-5-methyl-1H-pyrazol-3-yl dimethylcarbamate	644-64-4	
56	DPX/ YB449 / Q4039/ Compound D	N,N'-4-xylylenebis(pyridinium)	14208-10-7	

57	Bifenthrin Technical	(2-methylbiphenyl)-3-ylmethyl (1RS)-cis-3-[(Z)-2-chloro-3,3,3-trifluoroprop-1-enyl]-2,2-dimethylcyclopropanecarboxylate	82657-04-3	
58	Fenvalerate Technical & Intermediates	(αRS)-α-cyano-3-phenoxybenzyl (2RS)-2-(4-chlorophenyl)-3-methylbutanoate	51630-58-1	
59	Flucythrinate Technical & Intermediates	(RS)-α-cyano-3-phenoxybenzyl (S)-2-[4-(difluoromethoxy)phenyl]-3-methylbutyrate	915101-98-3	
60	FMTQ/ APBP/ PQO	2-ethyl-3,7-dimethyl-6-[4-(trifluoromethoxy)phenoxy]-4-quinolyl methyl carbonate	875775-74-9	
61	Thiocloprid Technical/CIT	{(Z)-3-[(6-chloro-3-pyridyl)methyl]thiazolidin-2-ylidene}cyanamide	111988-49-9	
62	PRZ/EMTC/PRZF/PRZY/TMC/DP-FPSN/DMPO/MSPC	2-[1-Methyl-2-(4-phenoxyphenoxy)ethoxy]pyridine	95737-68-1	
63	MTP/ PRSF(Octopussy)	3-[[5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)pyrazol-4-yl]methylsulfonyl]-5,5-dimethyl-4H-1,2-oxazole	447399-55-5	
64	TLF (Tolfenpyrad)	4-chloro-5-ethyl-2-methyl-N-[[4-(4-methylphenoxy)phenyl] methyl]pyrazole-3-carboxamide	129558-76-5	
65	IBA	N-[4-(1,1,1,3,3,3-hexafluoro-2-methoxypropan-2-yl)-3-(2-methylpropyl)phenyl]-1,3,5-trimethyl-N-(2-methylpropanoyl)pyrazole-4-carboxamide	926914-55-8	
66	BDB	N-[2-(3,4-dichlorophenyl)-4-fluorophenyl]-3-(difluoromethyl)-1-methylpyrazole-4-carboxamide	581809-46-3	

67	IPCZ	2-[(4-chlorophenyl)methyl]-5-propan-2-yl-1-(1,2,4-triazol-1-ylmethyl) cyclopentan-1-ol	125225-28-7	
68	MYDO / HYPE/TTP	2-(3-chloropyridin-2-yl)-N-[4-cyano-2-methyl-6-(methylcarbamoyl)phenyl]-5-[[5-(trifluoromethyl) tetrazol-2-yl]methyl] pyrazole-3-carboxamide	1229654-66-3	
69	Fenpyroximate Technical	tert-butyl 4-[[(E)-(1,3-dimethyl-5-phenoxypyrazol-4-yl)methylideneamino] oxymethyl]benzoate	134098-61-6	
70	ACNDB	5-bromo-2-(3-chloropyridin-2-yl)-N-[4-cyano-2-methyl-6-(methylcarbamoyl) phenyl] pyrazole-3-carboxamide	736994-63-1	
71	ATPC	5-amino-1-[2,6-dichloro-4-(trifluoromethyl)phenyl]-4-(ethylsulfinyl)-1H-pyrazole-3-carbonitrile	181587-01-9	
(B)	**Performance chemicals [5(b) Category]**			**1050**
72	BPoDA	4,4'-[biphenyl-4,4'-diylbis(oxy)]bis (2-benzofuran-1,3-dione)	53303-54-1	
73	3,3BISDA / 4,4BISDA	3,3'(Isopropylidenediphenoxy) bisphthalic dianhydride/ 4,4'(Isopropylidenediphenoxy) bisphthalic dianhydride	38103-06-9	
74	6-FDA	5,5'-(1,1,1,3,3,3-hexafluoropropane-2,2-diyl)bis(2-benzofuran-1,3-dione)	1107-00-2	
75	2,4-DFA/4-FPH/ Fluoro Aromatics	Benzenamine	5509-65-9	
(C)	**Electronic chemicals [5(b) Category]**			**1000**
76	2,3-DHN	2,3-Dihydroxynaphthalene Naphthalene-2,3-diol	92-44-4	
77	2-ADN/ 5H2AND	tricyclo[3.3.1.13,7]decan-2-one	122760-84-3	
78	13-DMDA	1,3-Dimethyladamantane	702-79-4	
79	3CT / LC242	3-Chlorothiophene	17249-80-8	

80	Q2CA/ ECCA	Quinoline-2-carboxylic acid	93-10-7	
81	HPHA	6-[(4-hydroxyphenyl)oxyl]hexyl acrylate	161841-12-9	
82	TCDA	Cyclohexane-1,4-dicarboxylic acid	1076-97-7	
83	SX-01	Fluorodimethyl(3-(methylsulfonyl)propyl) silane	865-46-3	
84	HFPO	2,2,3-trifluoro-3-(trifluoromethyl)oxirane	428-59-1	
85	PCBM	1-(4-Chlorophenyl)-2-Methyl-2-(Morpholin-4-yl) Propan-1-one	88324-57-6	
(D)	**R&D Products [5(b) Category]**			
	R&D Products	--		250
Sub Total (Pesticides Active Ingredients and Intermediates, Performance chemicals, Electronic chemicals & R&D Products)				45575
(E)	**Pesticide Formulation**			
	Formulation	--		90000
(F)	**Pharma API & Intermediates [5(f) Category]**			**2000**
88	ATS8	(4R,6R)-tert-Butyl-6-cyanomethyl-2,2-dimethyl-1,3-dioxane-4-acetate	125971-94-0	
89	NBBA / Sitagliptin	(3R)-3-amino-1-[3-(trifluoromethyl)-6,8-dihydro-5H-[1,2,4]triazolo[4,3-a]pyrazin-7-yl]-4-(2,4,5-trifluorophenyl)butan-1-one	486460-32-6	
90	D5 (Rosuvastatin Intermediate)	t-Butyl (4R-cis)-6-[(acetyloxy)methyl]-2,2-dimethyl-1,3-dioxane-4-acetate	154026-95-6	
91	Z7 (Rosuvastatin Intermediate)	N-[4-(4-fluorophenyl)-5-(hydroxymethyl)-6-(propan-2-yl)pyrimidin-2-yl]-N-methylmethanesulfonamide	147118-36-3	
92	TBBA(Rosuvastatin KSM)	t-Butylbromoacetate	5292-43-3	
93	TFPAA (Sitagliptin KSM)	2-(2,4,5-trifluorophenyl)acetic acid (TFPAA)	209995-38-0	

94	Triazol (Sitagliptin KSM)	3-(trifluoromethyl)-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrazine hydrochloride	762240-92-6	
95	SABAM-HCL (Intermediate for Levtetiracetam)	L-2-Aminobutanamide hydrochloride	7682-20-4	
96	Cyclohexyl Cynaoacid (Intermediate for Gabapentin)	1-Cyanocyclohexaneacetic Acid	133481-09-1	
97	Atorvastatin	(3R,5R)-7-[2-(4-fluorophenyl)-3-phenyl-4-(phenylcarbamoyl)-5-propan-2-ylpyrrol-1-yl]-3,5-dihydroxyheptanoic acid	134523-00-5	
98	Rosuvastatin	(E,3R,5S)-7-[4-(4-fluorophenyl)-2-[methyl(methylsulfonyl)amino]-6-propan-2-ylpyrimidin-5-yl]-3,5-dihydroxyhept-6-enoic acid	287714-41-4	
99	Gabapentin	2-[1-(aminomethyl)cyclohexyl]acetic acid	60142-96-3	
100	Pregabalin	(3S)-3-(aminomethyl)-5-methylhexanoic acid	148553-50-8	
101	Duloxetine	(3S)-N-methyl-3-naphthalen-1-yloxy-3-thiophen-2-ylpropan-1-amine	116539-59-4	
102	Montelukast	2-[1-[[(1R)-1-[3-[(E)-2-(7-chloroquinolin-2-yl)ethenyl]phenyl]-3-[2-(2-hydroxypropan-2-yl)phenyl]propyl]sulfanylmethyl] cyclopropyl]acetic acid	158966-92-8	
103	Levetiracetam	(2S)-2-(2-oxopyrrolidin-1-yl)butanamide	102767-28-2	
(G)	**Pharma Enzymes [5(f) Category]**			500
104	Halohydrin dehalogenase	2-haloacid dehalogenase[ambiguous]	37289-39-7	
105	Ketoreductase	Keto reductase enzyme	9028-12-0	
106	Glucose dehydrogenase	Glucose 1-dehydrogenase	9028-53-9	

107	Transaminase	Aspartate Transaminase	9000-97-9	
108	Nitrilase	Nitrile aminohydrolase	9024-90-2	
Sub Total (Total Pharma API, Intermediates & Pharma Enzymes)				**2500**
Total Production (excluding formulation)				**48075**
Pesticide Formulation				**90000**

14. 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.

15. The PP reported that the unit has obtained Environmental Clearance from MOEF&CC vide file number J-11011/308/2008-IA-II[I] dated 8.12.2008. However, the project was not implemented. As of now, this unit is manufacturing formulation products, for which Environment clearance is not applicable for the existing unit.

16. The PP reported that the Existing unit has valid consolidated consent granted from Gujarat Pollution Control Board vide order no AWH-56873 dated 21st October 2022. Certified Compliance Report (CCR) as per Inspection carried out by Regional Office, Ankleshwar dated: 23/01/2023 w.r.t. earlier CCANo.AWH-56873 & AWH-43834. All the conditions are complied except the condition 3.5 which is partially complied regarding the domestic sewage.

17. 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. Wand Khadi (1.62 Km, NW), Amla Khadi (2.84 Km, E) and Canal (5.80 Km, SE). 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.

18. The **Ambient air quality** monitoring was carried out at eight (8) locations Dec,2021-Feb,2022. The baseline data indicates the ranges of concentrations as: PM_{10} (51-130 $\mu g/m^3$), $PM_{2.5}$ (20-66 $\mu g/m^3$), SO_2 (5.9- 11.1 $\mu g/m^3$) and NO_x (9.3-33.3 $\mu g/m^3$), CO (0.25-1.19 mg/m^3). The PM_{10} and $PM_{2.5}$ is higher at few locations due to industrial activities, vehicular movement in the area. AAQ modeling study for point source emissions indicates the maximum incremental GLC after proposed project would be 3.95 $\mu g/m^3$, 2.76 $\mu g/m^3$, 0.665 $\mu g/m^3$, 1.129 $\mu g/m^3$ and 0.526 $\mu g/m^3$ with respect to PM10, PM2.5, NOx, Cl2 and HCl. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS) except PM10 and PM2.5. **Ambient noise quality** Noise level values varied from 50.4 to 65.2 dB(A) during day and 38.2 to 56.8 dB(A) during night-time. The noise levels observed in the project site and study area are within prescribed limits except the location national High School (N-7) and Jayaben Modi Hospital (N-8). The noise level exceeded at this location due to commercial activities and extensive traffic at NH-48. **Soil quality** monitoring was done at four (4) locations during the study period. As per the grain size distribution the percentage of Sand in all sampled soil varied from 58.4% to 65.5%. Silt varied from 17.6% to 24.3% and Clay from 15.8% to 19.1% during study season. Thus, the soil texture is Sandy loam. The Organic Carbon content of sampled soil during study

seasons varied from 0.55% to 0.68%, thereby indicating the organic Carbon is "Medium" in nature. Available nitrogen content in the surface soils ranges between 148 kg/ha to 214 kg/ha thereby indicating that soils are low in available nitrogen content. Available phosphorus content ranges between 14.6 kg/ha to 17.4 kg/ha thereby indicating that soils are Medium in available phosphorus content. Available potassium content in these soils' ranged between 148 kg/ha to 272 kg/ha thereby indicating that the soils are medium in potassium content. **Groundwater quality** monitoring was done at eight (8) locations during the study period. The pH values of all analyzed samples ranged between 7.18 – 7.86. TDS levels were observed to be in the range from 178 to 652 mg/l. Total hardness levels were observed to be in the range of 118 to 290 mg/l. Dissolved Oxygen values ranged between 5.9 to 7.6 mg/l. The chlorides level was observed to be in range of 35 to 217 mg/l. Sulphate level were found to be ranging from 10 to 48 mg/l. Nitrate levels were found to be observed within the range of 6.6 to 16.5 mg/l. Total Coliform levels were found to be in the range of $1.7*10^3$ to $2.7*10^4$ MPN/100 ml. Biochemical Oxygen Demand (BOD) was observed to be in range of 1.4 to 5.6 mg/l. Overall, the parameters in ground water sample were well within the permissible limit of Indian Standard IS: 10500-2012 all location. **Surface water quality** monitoring was done at seven (7) locations during study period. Comparing the values as per classification for designated best use water quality criteria by CPCB, all surface water locations were classified under "Class C- Drinking water source after conventional treatment and disinfection" except the location SW-1 & SW-2 which were classified under "Class D- Propagation of Wildlife and Fisheries".

19. The PP reported that the existing total water requirement of the plant is 160 KLD. Fresh water is being met through GIDC supply. After expansion, total water requirement shall increase to 2847.5 KLD out of which 1897.5 KLD freshwater requirement shall met through GIDC Supply and rest 950 KLD from in-house treatment schemes i.e., ETP, MEE, RO and STP. Existing effluent generation from plant is 55 KLD (Domestic: 50 + Industrial: 5). Domestic effluent is being treated in existing STP and Industrial/Toxic effluent of 5 KL/Day containing pesticides from decontamination activity plant and equipment is segregated and incinerated in approved common Incineration. The Waste eligible for co-incineration is segregated and sent for Co-incineration in an approved facility. After expansion, the effluent generation will increase to 1590 KLD (Domestic: 80 + Industrial:1510). The source of effluent will be Domestic use, Process, APCM scrubbers, utility, and cooling towers.

20. The existing power requirement of the plant is 500 KVA, being sourced through Dakshin Gujarat Vij Company Limited (DGVCL). For Power backup, DG sets of capacity 1 x 500 is already installed in existing unit. After expansion, the power requirement of the whole plant will be 7500 KVA. Additional four DG sets of 2000 kVA shall be installed after expansion. Stack height as per CPCB shall be provided to all stacks. It is proposed to install Boiler of 2 x 6 TPH & 1x 17 TPH capacity. Stack of 54 m is proposed for Boiler.

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

Process Emission & Management						
Stack No.	**Stack attached to**	**Air Pollution Control**	**Stack Height in Meter**	**Dia.(m)**	**Parameter**	**Permissible limit**

		Measure (APCM)				
Existing						
1	Formulation 1	Charcoal Bed	30	0.5	PM	150 mg/NM3
					HC	15 ppm
2	Formulation 2	Charcoal Bed	30	0.5	PM	150 mg/NM3
					HC	15 ppm
Proposed						
3	Process Stack-1	Water scrubber followed by Alkali scrubber	30	0.8	PM	150 mg/NM^3
4	Process Stack-2		30	0.8	NOx	25 mg/ NM^3
5	Process Stack-3		30	0.8	HCl	20 mg/ NM^3
6	Process Stack-4		30	0.8	Cl_2	9 mg/ NM^3
7	Process Stack-5		30	0.8		
8	Process Stack-6		30	0.8		
9	Plant Pharma Plant- 1	Water scrubber followed by Alkali scrubber	30	0.8		
10	Plant Pharma Plant- 2		30	0.8		

Vent No.	**Vent attached to**	**Vent Type**	**Stack Height (in meter)**	**Air Pollution Control Measure (APCM)**	**Parameter**	**Permissible Limit**
Existing						
1	Process vent attached to Solid Formulation	Local Vent	11	Filter Bag	-	-
2	Process vent attached to Solid Formulation	Local Vent	11	Filter Bag	-	-

Flue Gas Emission							
S. No.	**Stack Attached to**	**Stack Height in**	**Fuel**	**Temp (C)**	**Expected Parameters**	**Permissible Limits**	**Control Measures provided**

		Meter					
Existing							
1	DG Set – 500 KVA	18	HSD	30 to 50	Particulate Matter	150 mg/Nm3	Adequate Stack Height
					SO2	100 ppm	
					NOx	50 ppm	
Proposed							
1	Thermic Fluid Heater (6,00,000 Kcal/Hr.)	40	Natural Gas/LDO	100-150	Particulate Matter	150 mg/Nm3	Adequate Stack Height
					SO2	100 ppm	
					NOx	50 ppm	
2	Boiler (2 x 6 TPH & 1x 17 TPH)	54	Natural Gas/LDO	100-150	Particulate Matter	150 mg/Nm3	Adequate Stack Height
					SO2	100 ppm	
					NOx	50 ppm	
3	DG Sets - 4 Nos (4 X 2000 KVA)	30	HSD	30-50	Particulate Matter	150 mg/Nm3	Adequate Stack Height

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

Sr. No.	**Name of Hazardous Waste**	**Category as per HWM Rule**	**Existing Qty (MT/Year)**	**Proposed Qty (MT/Year)**	**TotalQty (MT/Year)**	**Facility**	**Mode of Disposal & Remarks**
1	Spent Solvents	29.4	0	18000	18000	Collection, Incineration, Disposal, Storage, Transportation	Disposal by sell out to authorized users who is having authorization under rule 9 permission to receive this waste or incineration in common

							incinerator or send for co-processing at cement industries or common approved pre-processing facilities.
2	Spent Solvents	28.6	0	18000	18000	Collection, Incineration, Disposal, Storage, Transportation	Disposal by sell out to authorized a user who is having authorization under rule 9 permission to receive this waste or incineration in common incinerator or send for co-processing at cement industries or common approved pre-processing facilities.
3	Process wastes or residues	29.1	360	59640	60000	Collection, Incineration, Disposal, Storage, Transportation	Disposal by incineration in common incinerator or send for co-processing at cement industries or common approved pre-processing facilities.
4	Process wastes or residues **(NaBr/ MgBr/ HBr)**		0	60000	60000	Collection, Incineration, Disposal, Storage,	Disposal by sell out to authorized a user who is having

						Transportation	authorization under rule 9 permission to receive this waste or by common incineration or Co-Processing.
5	Process wastes or residues **(Sodium Propionate ML)**	29.1	0	3000	3000	Collection, Incineration, Disposal, Storage, Transportation	Disposal by sell out to authorized users who is having authorization under rule 9 permission to receive this waste/ common incineration/ Co-Processing or common approved pre-processing facilities.
6	Process wastes or residues **(Spent Aluminum chloride**) (100% Basis)	C-2	0	1000	1000	Collection, Incineration, Disposal, Storage, Transportation	Disposal by sell out to authorized users who is having authorization under rule 9 permission to receive this waste/ common incineration/ Co-Processing or common approved pre-processing facilities.
7	Chemical sludge from wastewater treatment **(ETP Sludge)**	35.3	720	3295	4015	Collection, Incineration, Disposal, Storage, Transportation	Disposal by send it to common TSDF & send to Co-Processing or common approved pre-

							processing facilities.
8	Chemical sludge from wastewater treatment **(MEE Salt)**		0	27010	27010	Collection, Incineration, Disposal, Storage, Transportation	Disposal by send it to TSDF & send to Co-Processing or common approved pre-processing facilities.
9	Empty barrels/containers/Liners Contaminated with hazardous chemicals/wastes	33.1	360	3240	3600	Collection, Decontamination, Generation, Disposal, Reuse, Storage, Transportation	Disposal by send it to authorized decontamination facility/in-house decontamination /recycler or reuse or send back to supplier/ common incineration/ TSDF.
10	Used or Spent oil	5.1	60	240	300	Collection, Disposal, Reuse, Storage, Transportation	Disposal by reuse in plant as lubricant in machineries or sell it to authorized re-refiners & recycler/ who is having authorization under rule 9 permission to receive this waste/ common incineration/ Co-Processing or common approved pre-processing facilities.
11	Date-expired and off-specification pesticides	29.3	125	13,000	13125	Collection, Disposal, Storage,	Collection, storage, Transportation & disposal by

						Transportation	Incineration or in any approved common incineration facility/co-processing facility.
12	Spent Catalyst	29.5	0	600	600	Collection, Disposal, Reuse, Storage, Transportation	Disposal by sell out to authorized users who is having authorization for authorization under rule 9 permission to receive this waste/ common incineration/ Co-Processing.
13	Spent Carbon	28.3	0	600	600	Collection, Disposal, Reuse, Storage, Transportation	Collection, storage, Transportation, disposal by sells to Authorised recyclers/re-processor for recovery or send to any approved common incineration/TSDF or send to co-processing.
14	Spent Resin	35.2	0	100	100	Collection, Disposal, Reuse, Storage, Transportation	Collection, storage, transportation and disposal at any approved common TSDF/Co-processing facility.
15	Spent Carbon or filter medium	36.2	204	46	250	Collection, Disposal, Reuse, Storage,	Collection, storage, transportation and disposal at

						Transportation	any approved common TSDF/ Common Incineration facility.
16	Contaminated cotton rags or other cleaning materials	33.2	5	20	25	Collection, Disposal, Reuse, Storage, Transportation	Collection, storage, transportation and disposal at any approved common TSDF/ Common Incineration facility.
17	Spent Acids	29.6	0	12,000	12,000	Collection, Storage, Transportation. Disposal	Disposal by sell out to a user who is having authorization under rule 9 permission to receive this waste.
18	Distillation residues	20.3	0	1800	1800	Collection, Storage, Transportation	Disposal in common approved incineration facility or co-processing/Pre-processing.
19	NaSH/ Na2S	II-A 13	0	1000	1000	Collection, Storage, Transportation	Disposal by sell out to authorized users who is having authorization under rule 9 permission to receive this waste/ common incineration/ Co-Processing or common approved pre-processing facilities.
Non-Hazardous Waste							

20	Insulation waste	--	0	100	100	Collection, Storage, Transportation.	Collection, Storage, Transportation and Disposal by send it to TSDF site.

23. The Budget earmarked towards the Environment Management Plan (EMP) is ₹ 36.78 Crores (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 119.5 crores per annum. Industry proposes to allocate Rs. 675 Lakhs towards Corporate Social Responsibility.

24. The greenbelt shall be developed within the existing plant and outside plant area. After proposed expansion, green belt area within the plant premises will be approx. 52529 m2 i.e., 33.09 % of total plant area. Beside plant area, PI industries has also purchase land from GIDC of approx. 58,000 sq.m for additional greenbelt plantation having area of 28300 sq. m. Hence, total greenbelt area of 80829 sq.m will be developed by PI Industries.

25. 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 Estate.Panoli which is declarted as notified industrial area vide notification number No. GHU-98 (64)- GID-1098-2094-G dated 18th November, 1998.

26. The PP proposed to set up an Environment Management Cell (EMC) by engaging site head-Environemnt- Site Env. Head- Env Manager- senior officals w.r.t ETP, MEE, incineration, Hazardous waste mgmt. for the functioning of EMC.

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

28. The estimated cost for the proposed project is Rs. 484.08 Crores (Existing:34.08+Proposed:450). Total Employment will be 1000 persons as direct.

29. **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.

EAC deliberated on the compliance of OM dated 18.5.2023 regarding the verification of the consultant and EAC found it to be satisfactory.

The EAC inter-alia, deliberated on the NABET accrediation certificate, layout, sewage treatment plant, details of greenbelt, plantation and its budget, court case, Existing EC granted by the Ministry in 2008 and its implentation status and advised the PP to submit the following:

- NABET Accredition certificates.
- Revised layout plan.
- Inlet and outlet charatctertics of sewage treatment plant.
- Undertaking for the greenbelt plantation.
- Undertaking for NGT court case that no case is pending on the Project proponent.
- Intimation letter regarding non implenttaion of the project.

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.

30. 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. 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 52529 m^2 within one year of grant of EC. The saplings 13135 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 dense greenbelt over an area of 28,300 m^2 outside the plant area in which is about 8490 nos. (7075 (required for 2500 nos./Ha density + 1415 nos additional considering 80% survival rate) of trees shall be planted.

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

x. 900 KLD of treated water shall be reused within the plant after treatment.

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

xii. The Rainwater shall be collected in 140 KL storage tank and reused in plant for preparing scrubbing solution after pre-treatment.

xiii. Domestic sewage shall be segregated into two streams. 40 KLD of toilet/canteen wastewater shall be sent to existing STP and treated water shall be reused for gardening purposes. However, the remaining 40 KLD of wastewater from shower/cloth washing shall be treated in ETP along with industrial effluent.

xiv. Dumping of waste (fly ash, slag, red mud, etc.) may be permitted only at designated location approved by SPCBs/PCCs.

xv. Major Hazardous waste shall be sent for coprocessing to cement industries or authorized preprocessing facilities

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

xvii. As proposed, an amount of ₹ 6.75 Lakhs shall be allocated towards CER activities.

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 site head- Environemnt- Site Env. Head- Env Manager-senior officals w.r.t ETP, MEE, incineration, Hazardous waste mgmt. 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 proposed under EMP is ₹ 36.78 Crores (Capital cost) and ₹ 119.5 crores 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 shall increase to 2770 KLD out of which 1870 KLD freshwater requirement shall met through GIDC Supply and rest 900 KLD from in-house treatment schemes. The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be 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 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.

xxiii. 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.

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. 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. 54.7

Proposed Single Super Phosphate and Granulated Single Super Phosphate Plant with production capacity of 400 MTPD and 300 MTPD located at Plot No. T-53/6, Kagal-Hatkanangale Five Star Industrial Area, MIDC, Kolhapur, Maharashtra- 416122 by M/s Delta Irrigation LLP. - Consideration of Environmental Clearance

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

1. The proposal is for the environmental clearance for the proposed Single Super Phosphate and Granulated Single Super Phosphate Plant with production capacity of 400 MTPD and 300 MTPD located at Plot No. T-53/6, Kagal-Hatkanangale Five Star Industrial Area, MIDC, Kolhapur, Maharashtra- 416122 by M/s Delta Irrigation LLP

2. The project/activity is covered under Category 'B' of item 5 (a)- chemical Fertlizers of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) as General condition is applicable the project site is located at 3.6 km, SE from interstate boundary of Karnataka.

3. The ToR was issued by the Ministry, vide letter no. IA-J-11011/69/2023-IA-II(I) dated 17.3.2023 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 54th EAC meeting on 28th June, 2023, wherein the PP along with accredited Consultant, M/s Gaurang Environmental Solutions Pvt. Ltd. [Accreditation number NABET/EIA/2023/RA0192 valid till 9.12.2023 made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported total land available with M/s Delta Irrigation LLP is 56,000 m^2, however development is proposed in only 19720 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.	Unit	Production Capacity
1	Single Super Phosphate (SSP)	8011-76-5	MTPD	400
2	Granulated SSP (GSSP)	8011-76-5	MTPD	300

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. there is one protected forest at 10.76 Km in NW direction., there are three water bodies in 10 Km radius i.e., Dudhganga Left Canal (0.01 Km, S), Dudhganga River (4.7 Km NNE) and Panchganga River (7 Km, NE). There is no forest land involved in the proposed project. No Schedule-I species were observed in the 10 km radius from the proposed project.

7. The PP reported that Ambient air quality monitoring was carried out at nine (9) locations Oct-Dec, 2022. The baseline data indicates that ranges of concentrations as: PM_{10} (43-94 $\mu g/m^3$), $PM_{2.5}$ (20-54 $\mu g/m^3$), SO_2 (5.0- 10.2 $\mu g/m^3$) and NOx (8-20.8 $\mu g/m^3$). The 98% tile observed to be within the limits of standards prescribed by NAAQS, 2009. AAQ modeling study for point source emissions indicates the maximum incremental GLC after proposed project would be 0.73 $\mu g/m^3$, 0.65 $\mu g/m^3$, 0.736 $\mu g/m^3$, 1.19 $\mu g/m^3$ and 0.068 $\mu g/m^3$ with respect to PM_{10}, $PM_{2.5}$, SOx, NOx and HF. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Ambient noise quality** monitoring was done at eight (8) locations during study period. Noise level values ranged from 50.8 to 62.8 dB(A) during day and 39.4 to 54.8 dB(A) during night-time. The ambient noise quality of the study area is within the prescribed National Ambient Noise Quality Standards.

8. **Groundwater quality** monitoring was done at eight (8) locations during the study period. pH value of the sample varies from 6.98 to 8.15 in all locations, which is well within the specified standard of 6.5 to 8.5. The pH of the ground water in the study area is normal in nature. The hardness values in ground water of the study area ranges between 152 to 310 mg/l which is well within the permissible limit at all locations. Overall, the parameters in ground water sample were well within the permissible limit of Indian Standard IS: 10500-2012 all location. No metallic and bacterial contamination was found in the ground water samples**. Surface water** quality monitoring was done at seven (7) locations during study period. Bacterial and metallic contamination was observed in the surface water sample. However, the surface water was found to meet the Best Designated Use – 'C' Criteria of CPCB (i.e., Drinking water source after conventional treatment and disinfection).

9. **Soil quality monitoring** was done at six (6) locations during the study period. Texturally the soils of study area are observed as Sandy Clay Loam and sandy loam Soils. The bulk density of the soils was found in the range of 1.31 to 1.48 gm/cm3. Water Holding Capacity of study area soils was observed as 22.8 to 34.6%. pH values of the soil sample ranges from 6.73 to 7.11; the nature of the soil is slightly basic in nature. The Organic Carbon content of soil varied from 0.51 to 0.75%, thereby implying that soils are low to medium in organic content. Available nitrogen content in the surface soils ranges between 267 to 314 kg/ha, thereby indicating that soils are low to medium in available nitrogen content. Available phosphorus content ranges between 32.6 & 47.9 kg/ha, thereby indicating that soils are high in available phosphorus content. Available potassium content in these soils ranges between 130 & 164 kg/ha, thereby is indicating that the soils are medium in potassium content. Overall, the soil of the study area is moderately fertile.

10. The PP reported that the total water requirement of the project will be 136 KLD. Out of which, 129 KLD of freshwater will be supplied by MIDC Supply. Water shall be used in SSP Plant, GSSP Plant, domestic purpose, and green belt. The rest of the requirements will be met by reusing scrubbing wastewater and in-house STP treated water. SSP/GSSP process doesn't generated industrial wastewater. Only, there is generation of scrubbing wastewater which will be reused for sprinkling over product SSP or recycled for acid dilution. However, there will be generation of domestic sewage in the plant. 8 KLD domestic sewage will be treated in proposed STP (Capacity-10 KLD). 7 KLD treated water will be reused within the plant for gardening purposes. The project will be Zero-Liquid Discharge project.

11. The power requirement for the plant is 1200 kVA which will be sourced from Maharashtra State Electricity Distribution Company Limited (MSEDCL). 400 Kg/hr of Briquette will be used in Furnace (GSSP). Stack height of 30 m has been proposed for Furnace. For the power backup, 1 no. of DG set of 250 kVA each will be interlocked with critical process-based emission control devices.

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

S. No.	Source of Emission	Fuel	Stack Height (m)	Detail of APCS
1.	SSP Scrubber	None	40	Ventury Scrubber + Multi-stage Scrubbing system Bag Filters in Grinding Section
2.	GSSP (Furnace)	Briquette	30	Multi Cyclone + Bag Filter
3.	DG Sets (1x250 KVA)	HSD	12	Stack

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

Sr. No.	Waste	Source	Waste Category	Quantity	Disposal Method
1.	Discarded Container/Bags /Liners	Storage & Handling of Raw Materials	Sch-I/33.3	14 no. of Bags/day	Collection, Storage, and sale to authorized recycler.
2.	Spent/Used Oil	Machineries/DG Sets	Sch-I/5.1	50 Kg/month	Collection, Storage, Transportation, and sale to authorized recycler.
3.	Filtered Cake & Filtrate as 100% Silica	APCM	17.1	5 MT/day	Reuse as filler. Filtrate will be used to dilute the 98% conc. Acid to 69%.
4.	H_2SiF_6	APCM	Sch-II/ Category 2	26 MT/day	Recycle in SSP Manufacturing for Acid

					Dilution or sprinkling over hot SSP.
5.	Briquette Ash	GSSP Dryer	-	2 MT/day	Sold to Brick Manufacturer.

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 2.37 Crore (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 42 Lakhs per annum. Industry proposes to allocate Rs. 50 Lakhs towards Corporate Social Responsibility.

15. Industry will develop greenbelt over an area of 33% (of 19720 Sqm) i.e., 6508 Sqm of proposed development area i.e., 19720 Sqm.

16. The PP reported that the project, being in notified industrial area (Notification No. IDC 2195/ (2392)/ Industry.14. dated 3.1.1996), 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

17. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environemnt officer- air, water, waste, noise, occupational health, fire and safety, Horticulture incharge for the functioning of EMC.

18. The PP reported that the Co_2 sequestrated lbs/year is 19789.91 and Co_2 sequestrated Tons/year is 88.35. 1625 number of trees are proposed to sequester.

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. 23.47 Crores. Total Employment will be 200 persons as direct.

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

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

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

The EAC noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water,

Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The EAC inter-alia, deliberated on the layout, Greenbelt, water balance, compliance of OM dated 18.5.2023, and advised the PP to submit the following:

- Revised update layout plan as per the revised green area for 33% of the total plot area.
- Greenbelt area to be revised as 33% of the total plot area not only for the development area.
- Updated water balance.

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.

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, 18480 m^2 by planting 5544 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 Rs. 1.08 Crore earmarked for the Greenbelt developmement 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 Environemnt officer- air, water, waste, noise, occupational health, fire and safety, Horticulture incharge. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 2.37 Crore (Capital cost) and ₹ 42 Lakhs per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iv) The Total water requirement of the project shall not exceed from 136 KLD. Out of which, 129 KLD of freshwater shall be supplied by MIDC Supply. The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawn only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(v) 9 KLD domestic sewage (**revised *quantity after the deliberation*)** shall be treated in proposed STP (Capacity-10 KLD). 7 KLD treated water shall be reused within the plant for gardening purposes. The project shall be based on the Zero-Liquid Discharge. Rest 24 KLDout of which 1 KLD shall be used in product and rest 23 KLD shall be used in Evaporation, and 96 KLD out of which 72 KLD shall be used in the acid dilution and 24 KLD shall be used in scrubbing and further acid dilution.

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

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

(viii) The project proponent shall comply with the environment norms for Fertlizer industry as notified by the Ministry of Environment, Forest and Climate Change, *vide* GSR 1607 (E), dated 29.12.2017 under the provisions of the Environment (Protection) Rules, 1986.

(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.

ANNEXURE-I

GENERAL EC CONDITIONS

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

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

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Annexure-II

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

S. No.	Name of 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.	**Prof. (Dr.) Suneet Dwivedi,** Professor in K Banerjee Centre of Atmospheric and Ocean Studies, University of Allahabad, Allahabad - 02 Uttar Pradesh E-mail:dwivedisuneet@rediffmail.com /suneetdwivedi@gmail.com	Member

8.	**Shri Dinabandhu Gouda** Additional Director, DH IPC-I, Room No. 309A, Third Floor, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 110032 E-mail: dinabandhu.cpcb@nic.in	Member
9.	**Shri Sanjay Bisht** Scientist 'E', Room No. 517, Office of the Director General of Meteorology, Indian Meteorological Department, Musam Bhawan, Lodhi Road, New Delhi -110003 E-mail: sanjay.bist@imd.gov.in	Member
10.	**Dr. M. Ramesh** Scientist 'E' Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Room No. V-203, Vayu Wing, Jor Bagh Road, New Delhi-110003 Tel. 011-20819338 E-mail: ramesh.motipalli@nic.in	Member Secretary

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MOM approved by

(Prof. Aniruddha B. Pandit)
Chairman

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