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

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Dated: 07.06.2021

MINUTES OF THE 11th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD DURING 31st MAY, 2021 & 1st JUNE, 2021

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

DAY 1 - 31st MAY, 2021 (MONDAY)

(i) Opening Remarks by the Chairman

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

Prof. Pandit, also appreciates the efforts of the Ministry's Team (Industry 3 Sector) for preparation and uploading the agenda of the EAC meeting very systematic and timely on Parivesh Portal.

(ii) Details of Proposals and Agenda by the Member Secretary

Dr. R. B. Lal, Scientist 'E' & Member Secretary, EAC appraised to the Committee about the details of Agenda items to be discussed during this EAC meeting.

(iii) Confirmation of the Minutes of the 10th Meeting of the EAC (Industry-3 Sector) held during 18-19, May, 2021 at MoEFCC through VC.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (Industry-3 Sector) members on the minutes of its **10th Meeting of the EAC (Industry-3) held on May 18-19, 2021** conducted through Video Conferencing (VC), and as such no request has been received for any modifications, in the minutes of the project/activities, **confirmed the same.**

After welcoming the Committee Members, discussion on each of the agenda items was taken up ad-seriatim.

Details of the proposals considered during the meeting **conducted through Video Conferencing (VC)**, deliberations made and the recommendations of the Committee are explained in the respective agenda items as under:-

Consideration of Environmental Clearance

Agenda No. 11.1

Expansion of Existing Production with addition of new Products by M/s Atul Limited, located at Survey No. 5, 6, 29, 30, 33 to 38, 80, 81, 84, 85, 91, 96 to 105, 108, 112 to 117, 142, 144 to 148, of Atul village and 274, 275, 276, 315, 316 and 321 of Haria village, Taluka & Dist.: Valsad, Gujarat- Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/211612/2018, File No. J-11011/108/2015-IA II (I)]

The project proponent and the accredited Consultant M/s. San Envirotech Pvt. Ltd., made a detailed presentation on the salient features of the project and informed that:

The proposal is for Environmental Clearance to the project for expansion of Dyes, Chlor-Alkali, Pesticide, Bulk Drug & Pharmaceutical, Resins, Flavors & Fragrances, Other Chemicals & Co-Products manufacturing unit at Survey No. 5, 6, 29, 30, 33 to 38, 80, 81, 84, 85, 91, 96 to 105, 108, 112 to 117, 142, 144 to 148 of Atul village and 274, 275, 276, 315, 316 and 321 of Haria village, Taluka & District Valsad, Gujarat by M/s. Atul Limited.

The project/activities are covered under Category 'A' of item 5(b) 'Pesticides industry and pesticide specific intermediates', 5(f) 'Synthetic Organic Chemicals Industry' and 4(d) 'Chlor-Alkali Industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and appraised at Central Level by Expert Appraisal Committee (EAC).

The standard ToR has been issued by Ministry vide letter dated 22/01/2019. Public Hearing for the expansion project has been conducted by the Gujarat Pollution Control Board on 01.01.2021 which was presided over by the Additional District Magistrate. The main point raised during the public hearing were related to employment, proper mitigation measures as well as and proper utilization of CER/CSR fund. No Litigation is pending against the proposal.

The Ministry had issued EC earlier vide letter no. IA-J-11011/108/2015-IA-II(I), dated 11.02.2019 to the existing project in favour of M/s. Atul Limited. Certified Compliance Report of existing EC is obtained from IRO-MoEFCC, Bhopal vide letter no. 18-A-30/2019 (SEAC)/201, dated 09.03.2020.

The details of products and capacity are as under:

Product Group

S. No.	Product Group	Category	Capacity (TPM)		
			Existing	Proposed	Total
A	Dyes	5(f)	1884.13	9286	11170.13
B	Chlor-Alkali	4(d)	7500	21133.29	28633.29
C	Pesticides Tech	5(b)	2915.28	11370.59	14285.87
D	Bulk Drug and Pharmaceuticals	5(f)	350.6	1979	2329.6
E	Resins	5(f)	3432.57	17000	20432.57

F	**Other Chemicals** Total Production Capacity of this group Sodium Thio sulphate (dry basis)	5(f)	22094.267	40516.86	62611.127
	Other Chemicals Total Production Capacity of this group Sodium Thio sulphate (wet basis)	5(f)	23094.267	42316.86	65411.127
G	Flavors & Fragrances	5(f)	733.3	6500	7233.3
H	Co Products:	-	417	3	420
	Total Production Capacity with Sodium Thio sulphate (dry basis)		39327.15	107788.74	147115.887
	Total Production Capacity with Sodium Thio sulphate (wet basis)		40327.15	109588.74	149915.887

Detailed Product List

S. No.	Product	Category	CAS No.	Capacity (TPM)		
				Existing	Proposed	Total
A	**Dyes**					
1	Azo dyes	5(f)	2898-84-2	550	0	550
2	Sulfur Black		1326-82-5	833.33	1667	2500.33
3	Sulfur Dyes range		1326-40-5	25	0	25
4	Naphthol range		132-68-3	75	0	75
5	Fast Color Bases		17333-83-4	40	0	40
6	Disperse dyes		2872-48-2	118.5	0	118.5
7	Optical Brighteners		12224-03-2	10	0	10
8	Reactive Dyes		61951-85-7	127.3	834	961.3
9	Vat dyes		129-09-9	105	0	105
10	Indigo		482-89-3	0	500	500
11	Manganese sulphate		10034-96-5	0	1000	1000
12	40 % Manganese sulphate solution		10034-96-6	0	2500	2500
13	Pigments		4378-61-4	0	200	200
14	1-Aminoanthraquinone		82-45-1	0	417	417
15	H-acid		90-20-0	0	500	500
16	4-amino-phenyl-4-beta hydroxy ethyl sulphone sulphate ester, Para base ester		2494-89-5	0	834	834

17	DNCB (Di Nitro Chloro Benzene)		97-00-7	0	834	834
Total Production Capacity of Dyes				**1884.13**	**9286**	**11170.13**
B	**Chlor-Aklali**	4(d)				
18	Caustic soda/potash & sodium sulfide		1310-73-2 & 7783-28-0	4000	11100	15100
19	Liquid Chlorine /HCl		7782-50-5 7647-01-0	3500	9768	13268
20	Hydrogen		1333-74-0	0	265.29	265.29
Total Production Capacity of Chlor-Alkali				**7500**	**21133.29**	**28633.29**
C	**Pesticides Tech**					
21	Carbamate group of Agrochemicals (Indoxacarb Tech, Propoxur etc.)	5(b)	144171-61-9	43.3	66.7	110
22	Diuron		330-54-1	220	200	420
23	Trichlo Carbon		79-01-6	8.3	0	8.3
24	Cartap HCl		15263-53-3	50	0	50
25	Carbendazim		10605-21-7	20.9	180.1	201
26	Phenoxy Herbicides (e.g. 2,4-D & related products)		94-75-7	2170	2750	5670
27	4-chloro-2-methyl phenoxy- acetic acid (MCPA)		94-74-6		750	
28	Pyridine based insecticides & Herbicides chemical e.g. Imidacloprid		138261-41-3	29.16	95.84	125
29	Triazole based Fungicide		60207-90-1	1.67	100.33	102
30	Pyrethroids		91465-08-6	10	0	10
31	Sulphonyl urea		57-13-6	35.25	34.75	70
32	Glyphosate		1071-83-6	65	2935	3000
33	Isoprothiolane		50512-35-1	18.3	81.7	100
34	Fipronil		120068-37-03	5	25	30
35	Formulations		--	200	2000	2200
36	Buprofezin		69327-76-0	4	0	4
37	Imazethapyr		81335-77-5	1.83	0	1.83
38	Kresoxim Methyl		143390-89-0	2.08	0	2.08
39	Fenoxaprop		71283-80-2	0.83	0	0.83
40	Cyhalofop		122008-85-9	0.83	0	0.83
41	Mesotrione		104206-82-8	0	300	300

42	Sulcotrione		99105-77-8	0	300	300
43	Glycin		56-40-6	0	1000	1000
44	Pyrazosulfurone		93697-74-6	0.5	29.5	30
45	BisPyribac Sodium		125401-92-5	0.83	29.17	30
46	Azoxystrobin		603-524-3	2.08	147.92	150
47	Quizalofop		100646-51-3	1.25	48.75	50
48	Thiamethoxam		153719-23-4	10	90	100
49	Metribuzin		21087-64-9	10	50	60
50	Diafenthiuron		80060-09-9	4.17	25.83	30
51	Chlorantraniliprole		500008-45-7	0	70	70
52	5-Chloro 1-Indanone		42348-86-7	0	60	60
	Total Production Capacity of Pesticides			**2915.28**	**11370.59**	**14285.87**
D	**Bulk Drug and Pharmaceuticals**					
53	Mebendazole	5(f)	31431-39-7	2	0	2
54	Tolbutamide		64-77-7	2.5	0	2.5
55	Quiniodochlor		130-26-7	15	0	15
D1	**Bulk Drugs & Intermediates**					
56	Dapsone-API	5(f)	80-08-0	9.6	65	194.6
57	Valacyclovir HCl		124832-27-5			
58	Celecoxib		169690-42-5			
59	Desvenlafixine		93413-62-8			
60	Mirabegron		223673-61-8			
61	Vildagliptin		1133208-42-0			
62	Venlafaxine Hydrochloride		99300-78-4			
63	5-Hydroxy methyl thiazole (5-HMT)		38585-74-9		20	
64	Thiophene-2-carboxaldehyde (2-TC)		98-03-3		90	
65	1-Chloroacetyl-2-carbonitrile pyrrolidine (CACP)		207557-35-5		10	
66	Diclofenac sodium / potassium		15307-79-6 (Na)	2.5	0	2.5
67	Atenolol		29122-68-7	1.7	0	1.7
68	Furosemide		54-31-9	1.3	0	1.3
69	Trimethoprim		738-70-5	0.9	0	0.9
70	Para hydroxy acetophenone		99-93-4	1.7	0	1.7
71	Para hydroxy phenyl acetamide		103-90-2	3	0	3

72	Acyclovir		59277-89-3	5.2	0	5.2
73	Bethanechol		590-63-6	5.2	0	5.2
D2	**Pharma Intermediates & Chemicals**			300		2094
74	4,4 Diamino diphenyl sulphone		80-08-0		250	
75	4,4 Dichloro diphenyl sulphone		80-07-9		1000	
76	3,3 Diamino diphenyl sulphone		599-61-1		44	
77	DHDPS & Other sulfones		127-63-9		500	
Total Production Capacity of Bulk Drug and Pharmaceuticals				**350.6**	**1979**	**2329.6**
E	**Resins**					
78	Epoxy Resin	5(f)	25085-99-8	2600	15000	17600
79	Vinyl Ester Resins		100-42-5	37.5	0	37.5
80	Ketone Formaldehyde Resins & Sulphonamide, Formaldehyde Resins		--	20.8	0	20.8
81	UF/MF/PF/Di Cyandiamide Resins		461-58-5	270.9	0	270.9
82	Polyamide resins		63428-84-2 68082-29-1	161.7	0	161.7
83	Polygrip TPU based		9009-54-5	41.67	300	341.67
84	Polygrip rubber based		9003-35-4	300	1700	2000
Total Production Capacity of Resins				**3432.57**	**17000**	**20432.57**
F	**Other Chemicals**					
85	Anthraquinone, Naphthalene, Benzene Intermediates. (Including Beta – Naphthol & BON Acid)	5(f)	92-50-2	740	0	740
86	Resorcinol (Meta hydroxy phenol)	5(f)	108-46-3	460	600	1060
87	Carbamite	5(b)	85-98-3	30	0	30

88	Chlorzoxazone & other related products	5(f)	95-25-0	5	0	5
89	4 Ethyl 2,3 – Diorcopiperazino carbonyl Chloride	5(f)	59703-00-3	3.3	0	3.3
90	Imino Dibenzyl 5 carbonyl Chloride	5(f)	33948-19-5	0.8	0	0.8
91	Formaldehyde and base products	5(f)	50-00-0	3200	12000	15200
92	Sulfuric Acid/Oleum/ Chlorosulphonic Acid & Salts	-	7664-93-9	11550	0	11550
93	Sulpha Drug Intermediate	5(f)	119018-29-0	193.8	0	193.8
94	Acetyl Sulphanilyl Chloride and its derivatives	5(f)	121-60-8	1500	0	1500
95	Acetanilide	5(f)	103-84-4	500	0	500
96	Sulpha Methyl Phenazole Sodium	5(f)	60-80-0	1.1	0	1.1
97	Pyrazole Base	5(f)	288-13-1	10.5	0	10.5
98	Sulphanilic acid	5(f)	121-57-3	25	0	25
99	Bis Phenol A	5(f)	80-05-7	416.7	0	416.7
100	Hexamine	5(f)	100-97-0	150	0	150
101	Epoxy Intermediates	5(f)	28064-14-4	23.8	0	23.8
102	Hardners and auxiliaries	5(f)	19900-65-3	500	3500	4000
103	Hardener Intermediates	5(f)	19900-65-3	700	0	700
104	Bisphenol S & Intermediate Chemicals	5(f)	80-09-1	16.6	0	16.6
105	Sodium Thio sulphate (Dry basis)	---	7772-98-7	900	1600	2500
106	Sodium Thio sulphate (Wet basis)	---	10102-17-7	1900	3400	5300
107	Phosgene	5(f)	75-44-5	416.667	416.16	832.827
108	HX-13059	5(f)	212201-70-2	5	0	5
109	Alkyl ketene dimer	5(f)	144245-85-2	0	500	500
110	Anisole	5(f)	100-66-3	166	140	306
111	PF Resin	5(f)	9003-35-4.	0	200	200

112	CMC (Carboxy methyl cellulose)	5(f)	9004-32-4	0	2000	2000
113	HMMM (Hexa Methoxy Methyl Melamine)	5(f)	3089-11-0	0	40	40
114	m-Amino phenol	5(f)	591-27-5	0	250	250
115	Mono chloro benzene	5(f)	108-90-7	0	2500	2500
116	Propionyl chloride	5(f)	79-03-8	0	200	200
117	Resorcinol derivatives	5(f)	108-46-3	0	100	100
118	RF Resin (Resoform P-18,19,20)	5(f)	65876-95-1 135020-80-3	85	320	405
119	Trichloro acetyl chloride	5(f)	76-02-8	0	200	200
120	Thio glycolic acid	5(f)	68-11-1	0	200	200
121	Thionyl chloride	--	9/7/7719	0	1000	1000
122	1,3 Cyclohexanedione	5(f)	504-02-9	80	40	120
F1	**Agro, Pharma intermediates, Isocyanats & Carbonat Esters, etc.**					
123	Trans-4-MCHI	5(f)	32175-00-1	315	0.0	2230
124	p-Anisyl chloroformate		7693-41-6			
125	Di-Tert-Butyl Dicarbonate (Boc. anhydride)		24424-99-5			
126	N, N-Disuccinimidyl Carbonate		74124-79-1			
F1.1	**Chloroformate**					
127	1-Chloro ethyl chloroformate (1-CECF)		50893-53-3	100	800	
128	4-Nitrophenyl chloroformate (4-NPCF)		7693-46-1			
129	n-Pentyl chloroformate (n-PCF)		638-41-5			
130	Isobutyl chloroformate (IBCF)		543-27-1			
131	2 Ethyl Hexyl Cholroformate (2-EHCF)		24468-13-1			

132	Phenyl Chloroformate (PCF)		1885-14-9			
133	Benzyl Chloroformate (BCF)		501-53-1			
134	Methyl chloroformate (MCF)		79-22-1			
135	n-Hexyl chloroformate (n-HCF)		6092-54-2			
F1.2	**Carbonate**					
136	Di-tert-butyl dicarbonate (DIBOC)		24424-99-5		100	
137	Bis (4-Nitrophenyl) Carbonate (Bis-NPC)		5070-13-3		10	
138	Diphenyl carbonate (DPC)		102-09-0		50	
139	Dimethyl carbonate (DMC)		616-38-6		50	
140	1,1'-Carbonyldiimidazole (CDI)		530-62-1		20	
F1.3	**Isocyanates**					
141	p-Toluene sulphonyl isocyanate (PTSI) and other Isocyanates		4083-64-1		300	
F1.4	**Acid Chlorides**					
142	N-Methylpiperazinyl carbamoyl chloride Hydrochloride (NPCCL)		55112-42-0		50	
143	(Chlormethylene)dimethylammonium chloride (VMR)/ Phosgeniminium chloride and other Acid chlorides		3724-43-4		75	
144	N,N-Dimethyl carbamoyl chloride (DMCCl)		79-44-7		60	

145	Hexaethyl guanidinium chloride (HEGCl)		50-01-1		50	
F1.5	**Urea**					
146	Tetrabutyl Urea (TBU)		4559-86-8		75	
147	Tetramethyl Urea (TMU)		632-22-4		75	
F1.6	**Carbodiimide**					
148	N,N'-Dicyclo hexylcarbodiimide (DCC)		538-75-0		100	
149	Sodium sulphite		7757-83-7		3261	3261
150	30% HCl		7732-18-5		4622.5	4622.5
151	Sodium hypochlorite solution (10%)		7681-52-9		1853.7	1853.7
152	Potassium chloride		7447-40-7		740	740
153	Sodium Chloride		7647-14-5		2418.5	2418.5
Total Production Capacity of this group Including Sodium Thio sulphate (dry basis)				**22094.27**	**40516.86**	**62611.127**
Total Production Capacity of this group Including Sodium Thio sulphate (wet basis)				**23094.27**	**42316.86**	**65411.127**
G	**Flavors & Fragrances**		50-28-2			
G1	**Allyl Esters such as**	5(f)				
154	Allyl Caproate		123-68-2	0	250	250
155	Allyl cyclohexyl propionate		2705-87-5	0	250	250
156	Allyl Heptanoate		142-19-8	0	150	150
157	Cyclogalbanate		68901-15-5	0	25	25
G2	**Styrene Based derivatives such as**	5(f)				
158	Phenyl Ethyl Alcohol (PEA)		60-12-8	0	850	850
159	PE acetate		103-45-7	0	250	250
160	PEME (Phenyl ethyl methyl ether)		3558-60-9	0	200	200
161	Pommerol (Phenyl ethyl isoamyl ether)		56011-02-0	0	100	100
162	Styrene oxide		96-09-3	0	500	500
163	Phenyl ethyl phenyl acetate (PEPA)		102-20-5	0	100	100

164	Phenyl acetaldehyde dimethyl Acetal		101-48-4	0	250	250
165	Styrallyl acetate		93-92-5	0	500	500
G3	**Coumarin derivatives such as**	5(f)				
166	Coumarin		91-64-5	0	500	500
167	Dihydrocoumarin		119-84-6	0	100	100
G4	**Sunscreen products such as**	5(f)				
168	Avobenzone		70356-09-1	83.3	0	83.3
169	Octocrylene		6197-30-4	83.3	0	83.3
170	Octyl Methoxy Cinnamate		5466-77-3	200	0	200
G5	**Others such as**					
171	Peonile	5(f)	10461-98-0	0	50	50
172	Mugetanol	5(f)	68901-15-5	0	25	25
173	Salicylaldehyde	5(f)	90-02-8	0	500	500
174	Evernyl	5(f)	4707-47-5	0	200	200
175	Heliotropin	5(f)	120-57-0	0	250	250
176	Helional	5(f)	1205-17-0	0	500	500
177	1,2 Hexane Diol	5(f)	6920-22-5	0	200	200
178	Indoflor	5(f)	18096-62-3	0	50	50
179	Floral	5(f)	63500-71-0	0	50	50
180	Cyclohexyl Salicylate	5(f)	25485-88-5	0	100	100
181	Methyl Anthranilate	5(f)	134-20-3	0	300	300
182	Dihydroanethole	5(f)	104-45-0	0	50	50
183	Benzylideneacetone	5(f)	122-57-6	0	100	100
184	Hexenyl -3 -Cis-Benzoate	5(f)	31508-11-8	0	25	25
185	Hexenyl Hexenoate, Cis-3	5(f)	61444-38-0	0	25	25
186	Citronellyl Oxyacetaldehyde	5(f)	7492-67-3	0	25	25
187	Karmaflor	5(f)	873888-83-4	0	25	25
188	Anethole	5(f)	4180-23-8	166.7	0	166.7
189	Raspberry Ketone	5(f)	5471-51-2	100	0	100
190	P-Aninyl Propanal	5(f)	5462-06-6	100	0	100
Total Production Capacity of this group				**733.3**	**6500**	**7233.3**
H	**Co Products**					
191	Phenol		108-95-2	0	3	3
192	30% HCl (By product)		7732-18-5	417	0	417

Total Production Capacity of this group		**417**	**3**	**420**
Total Production including Sodium Thio sulphate (dry basis)		**39327.15**	**107788.74**	**147115.887**
Total Production Including Sodium Thio sulphate (wet basis)		**40327.15**	**109588.74**	**149915.887**

PP reported that the existing land area is 1126078.27 m^2. No additional land will be required for proposed expansion. Expansion will be done within the existing unit. Industry has already developed greenbelt in an area of 36.32% i.e. 409030 m^2 out of total area of the project. The estimated project cost is Rs. 1789.03 Crore excluding existing investment of Rs. 956.2 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 451.81 Crore and the Recurring cost (operation and maintenance) will be about Rs. 138.43 Crore per annum. Total additional employment will be of 100 persons as direct and 200 persons indirect after expansion. Industry proposes to allocate Rs. 8.472 Crore towards Corporate Environmental Responsibility.

There are no National Parks, Wildlife Sanctuaries, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. Parnera Reserve Forest is at 0.62 km from project site. Par River is at a distance of 0.25 km in SE direction from project site. Pond of Hariya Village is at a distance of 0.07 km in W direction.

Ambient air quality monitoring was carried out at 8 locations during October, 2018 to December, 2018 and the baseline data indicates the ranges of concentration as: PM_{10} (51.7 - 82.3 µg/m^3), $PM_{2.5}$ (20.7 – 36.1 µg/m^3), SO_2 (8.5 – 9.2 µg/m^3), NOx (16.9 – 17.8 µg/m^3). AAQ modeling study for point source emission indicated that the maximum incremental GLCs after the proposed project would be 3.19 µg/m^3, 0.46 µg/m^3, 0.10 µg/m^3, 3.89 µg/m^3, 0.04 µg/m^3, 0.81 µg/m^3, 0.44 µg/m^3 and 0.194 µg/m^3 with respect to PM_{10}, SO_2, NOx, Ammonia, Cl_2, H_2S, HCl and Phosgene. The resultant concentrations are within the national ambient air quality standards (NAAQS).

Total water requirement is 42236 m^3/day of which fresh water requirement of 18050 m^3/day will be met from Surface Water Source – Par River. 9335 m^3/day will be recycled/treated water, 11778 m^3/day will be Treated STP water from Valsad/Pardi Nagarpalika, 3073 m^3/day will be water from Rain water harvesting.

Total effluent generation will be 34866 KLD including domestic effluent (323 KLD). 443 KLD high TDS effluent will be taken to MEE, 99 KLD of high COD w/w will be incinerated in incinerator. 27143 KLD of low COD, low TDS effluent; out of which 19379 KLD will be treated in ETP and 7764 KLD will further passed through RO after treatment followed by MEE. 4480 KLD utility w/w generation; out of which 2500 KLD taken to RO followed by MEE and 1980 KLD w/w is direct disposal. So total 22513 KLD of effluent [323 Domestic sewage, 433 KLD MEE Condensate, 19379 KLD process effluent, 2378 Washing effluent] will be treated in ETP and propose to discharge 24493 KLD. The operations in the unit shall be managed further better and the total effluent shall be restricted to 20514 KLD for discharge to Estuary Zone of Par River through 4 km long pipeline from Industry.

Power connected load is 56000 kVA, which will be sourced from Dakshin Gujarat Vij Company Limited (DGVCL) and Captive Power Plant. No additional requirement of power. Unit has installed 2 D.G. Sets of 1010 kVA and 1500 kVA capacity for the power backup. Stack height of 11 m is provided as per CPCB norms to the proposed DG Set.

At present, flue gas emission is from stack attached to Coal/Lignite fired Boilers, PNG operated Hot Oil Unit, Oil Burner and Thermic Fluid Heater (6 L Kcal/hr). Electrostatic Precipitators with stack of different heights are installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 for the existing boilers. There will be no addition of any flue gas stack in proposed expansion. Details of flue gas stacks are given below.

Table 1: Flue Gas stacks

Sr. No.	Stack attached to	Fuel Type	Stack Height (m)	APC measures	Probable emission
Flue Gas Stacks- Existing					
➢ **East Site**					
1	FBC Boiler E1 (34 TPH)	Coal /Lignite (8.5 T/hr.)	56	Electrostatic precipitator	SPM<100 mg/Nm^3 SO_2<600 mg/Nm^3 NO_X<600 mg/Nm^3
2	FBC boiler E2 (34 TPH)	Coal /Lignite (8.5 T/hr.)	56	Electrostatic precipitator	
3	FBC boiler E3 (50 TPH)	Coal /Lignite (12.5 T/hr.)	80.3	Electrostatic precipitator	
4	Hot Oil Unit (Resorcinol Plant (17 L Kcal/Hr)	PNG (27 sm^3/hr)	32.5	Adequate stack height	SPM<150 mg/Nm^3 SO_2<100 ppm NO_X<50 ppm
5	DG set (Standby) (1010 kVA)	Diesel	10	Adequate stack height	
➢ **West Site**					
6	FBC Boiler W1 (45 TPH)	Coal /Lignite (11.3 T/hr.)	70	Electrostatic precipitator	SPM<100 mg/Nm^3 SO_2<600 mg/Nm^3 NO_X<600 mg/Nm^3
7	Hot Oil Plant (Shed B) (10 L Kcal/Hr)	PNG (27 sm^3/hr)	19	Adequate stack height	SPM<150 mg/Nm^3 SO_2<100 ppm NO_X<50 ppm
8	Oil burner (Shed B) (Stand By) (10 L Kcal/Hr)	PNG (27 sm^3/hr)	17	Adequate stack height	SPM<150 mg/Nm^3 SO_2<100 ppm NO_X<50 ppm
9	Boilers (2 Nos., W_2 & W_3) (50 TPH each)	Coal/Lignite (12.5 T/hr.)	106	Electrostatic precipitator	SPM<50 mg/Nm^3 SO_2<600 mg/Nm^3

Sr. No.	Stack attached to	Fuel Type	Stack Height (m)	APC measures	Probable emission
					NO_X<300 mg/Nm^3 Hg<0.03 mg/Nm^3
10	DG set (Standby) (1500 kVA)	Diesel	11	Adequate stack height	SPM<150 mg/Nm^3 SO_2<100 ppm NO_X<50 ppm
➢ **North Site**					
11	Thermic fluid heater of DCO/DAP Plant (6 L Kcal/Hr)	PNG (20 sm^3/hr)	12	Adequate stack height	SPM<150 mg/Nm^3 SO_2<100 ppm NO_X<50 ppm
Flue Gas Stacks- Proposed					
Additional flue gas stack is not required for proposed expansion					

PP reported that at present, process emission generation is from 57 nos. of stacks/vents. There will be addition of 32 process stacks in the proposed expansion project. Air pollution control measures like bag filter, cyclone, water, alkali, acid, caustic scrubbers will be provided as separate or in the combination. Details of process gas stacks are given below.

Table 2: Process Gas stacks

Sr. No.	Stack attached to	Stack Height (m)	APC measures	Permissible limit
Process Gas Stack-Existing				
Atul East Site				
1.	New Phosgene plant-Furnace	15	Alkali & water scrubber	PM-150 mg/Nm^3
2.	New Phosgene plant-Reactor	15	Alkali & water scrubber	Phosgene-0.1 ppm
Caustic Chlorine Plant				
3.	Dechlorination Plant (Hypo unit)	35	Alkali Scrubber	Cl_2-9.0 mg/Nm^3 HCl-20.0 mg/Nm^3
4.	Common stack of HCl Sigri unit 1&2	25	Alkali Scrubber	Cl_2-9.0 mg/Nm^3 HCl-20.0 mg/Nm^3
Sulfuric Acid (East Site)				
5.	Sulfuric Acid plant	30	Water scrubber with DCDA system	SO_2-2.0 kg/T Acid Mist-50.0 mg/Nm^3
6.	Chloro Sulfonic Acid plant reactor	11	Caustic and water scrubber	Cl_2-9.0 mg/Nm^3 HCl-20.0 mg/Nm^3
FCB plant				
7.	Foul Gas Scrubber	26.5	Caustic scrubber	SO_2-40.0 mg/Nm^3 NOx-25.0 mg/Nm^3

Incinerator				
8.	Incinerator	40	Alkali and water scrubber	PM-150 mg/Nm^3 SO_2-40 mg/Nm^3 NOx-25 mg/Nm^3
NI Plant				
9.	Foul Gas Scrubber	26.5	Caustic scrubber	SO_2-40 mg/Nm^3 NOx-25 mg/Nm^3
NBD Plant				
10.	Spray Dryer	21	Water scrubber	PM-150 mg/Nm^3
11.	Scrubber S-902	25	Caustic scrubber	Phosgene-0.1 ppm
12.	Scrubber S-801/802	25	Caustic scrubber	HCl-20 mg/Nm^3 NOx-25 mg/Nm^3
Resorcinol Plant				
13.	Spray Dryer (Resorcinol plant)	20	Water scrubber	PM-150 mg/Nm^3
14.	Scrubber Vent (Resorcinol plant)	15	Caustic scrubber	SO_2-40 mg/Nm^3
2-4-D & related Products				
15.	Common Scrubber; 2,4D Plant	5	Caustic scrubber	Cl_2-9 mg/Nm^3 HCl-20 mg/Nm^3 Phenol--
16.	Dryer-1	26.5	Bag filter, water scrubber	PM with Pesticide compound-20 mg/Nm^3
17.	Dryer-2	26.5	Cyclone, bag filter, caustic scrubber	PM with Pesticide compound-20 mg/Nm^3
18.	Dryer-3	26.5	Cyclone, bag filter, caustic scrubber	PM with Pesticide compound-20 mg/Nm^3
19.	Dryer-4	26.5	Cyclone, bag filter, caustic scrubber	PM with Pesticide compound-20 mg/Nm^3
20.	Dryer-5	26.5	Cyclone, bag filter, caustic scrubber	PM with Pesticide compound-20 mg/Nm^3
MPSL Plant				
21.	Phosgene Scrubber at MPSL	7	Caustic scrubber	Phosgene-0.1 ppm
22.	Central Scrubber at MPSL	7	Caustic scrubber	Phosgene-0.1 ppm
NICO Plant				
23.	Central scrubber at Nico Plant	12	Water scrubber	Acetonitrile, IPA
Ester Plant				
24.	Scrubber at Ester plant for Glyphosate	12	Water scrubber	Formaldehyde-10 mg/Nm^3
Other				
25.	MCPA	19	Alkali & water	Cl_2-9 mg/Nm^3

			scrubber	HCl-20 mg/Nm^3 SO_2-40 mg/Nm^3
26.	Fipronil	19	Alkali & water scrubber	SO_2-40 mg/Nm^3 HCl-20 mg/Nm^3
27.	Imidacloprid	20	Water followed by alkali scrubber	NH_3-175 mg/Nm^3
28.	Pyrathroids	19	Alkali & water scrubber	SO_2-40 mg/Nm^3 HCl-20 mg/Nm^3
29.	Stack at Amine Plant	5	Caustic scrubber	NH_3-175 mg/Nm^3
30.	Central Scrubber MCPA Plant	19	Caustic scrubber	HCl-20 mg/Nm^3
31.	MPP plant scrubber	21	Water & Alkali Scrubber	HCl-20 mg/Nm^3 Phosgene-0.1 ppm
32.	Flavors & Fragrances Plant	21	Water scrubber Followed by caustic scrubber	HCl-20 mg/Nm^3
33.	Sulfur Black Plant	19	Alkali & water scrubber	H_2S -- NH_3-175 mg/Nm^3
34.	Sulfur Dyes plant	19	Alkali & water scrubber	H_2S -- NH_3-175 mg/Nm^3
Atul West Site				
35.	Shed A05/03/44	19	Caustic scrubber	Cl_2-9 mg/Nm^3 HCl-20 mg/Nm^3
36.	Shed B2/12/24 Reaction Vessel	19	Caustic scrubber	Cl_2-9 mg/Nm^3 HCl-20 mg/Nm^3
37.	Shed B18/02/24 Fan	19	Caustic scrubber	SO_2-40 mg/Nm^3 Cl_2-9 mg/Nm^3 HCl-20 mg/Nm^3
38.	Shed C5/20/15 Chlorinator	19	Alkali & water scrubber	Cl_2-9 mg/Nm^3 HCl-20 mg/Nm^3
39.	Shed D Niro Spray dryer No. 45	19	Water scrubber	PM-150 mg/Nm^3
40.	Shed D Niro Spray dryer No. 50	19	Water scrubber	PM-150 mg/Nm^3
41.	Shed E 7/12/49 Spray Dryer	19	Water scrubber	PM-150 mg/Nm^3
42.	Shed F 6/1/15 Reaction Vessel	19	Alkali & water scrubber	Cl_2-9 mg/Nm^3 HCl-20 mg/Nm^3
43.	Shed G 10/8/1 (receiver)	19	Alkali & water scrubber	Cl_2-9 mg/Nm^3 HCl-20 mg/Nm^3
44.	Shed H 11/6/17 Chlorinator	19	Alkali & water scrubber	Cl_2-9 mg/Nm^3 HCl-20 mg/Nm^3
45.	Shed K K-13/3/4 Final of Sulfuric acid plant	19	Alkali & water scrubber	SO_2-2.0 kg/T Acid Mist-50.0 mg/Nm^3
46.	Shed J15/09/25	19	Alkali & water scrubber	HBr- -- SO_2-40 mg/Nm^3
47.	Shed J12/01/42	19	Alkali & water	SO_2-40 mg/Nm^3

			scrubber	Cl_2-9 mg/Nm^3 HCl-20 mg/Nm^3
48.	Shed J12/03/36	19	Caustic scrubber	SO_2-40 mg/Nm^3 HCl-20 mg/Nm^3
49.	Shed N Scrubber Fan N20/08/24	19	Caustic scrubber	Cl_2-9 mg/Nm^3 HCl-20 mg/Nm^3
50.	Shed N Scrubber Fan N20/02/41	19	Alkali & water scrubber	SO_2-40 mg/Nm^3
Atul North Site				
51.	N-FDH Plant Catalytic Incinerator	31.5	Bag filter	PM-150 mg/Nm^3 SO_2-40 mg/Nm^3 NOx-25 mg/Nm^3 Formaldehyde-10mg/Nm^3
52.	PHIN Plant	15.5	Water scrubber followed by two stage caustic scrubber with Ammonia/ steam injection at stack	Phosgene-0.1 ppm
53.	DDS (Pharma Plant)	20	Water followed by acid scrubber	NH_3-175 mg/Nm^3
54.	SPIC II Plant (DCDPS)	30	Alkali & water scrubber	SO_3 ---
55.	SPIC I Plant	30	Water scrubber followed by two stage caustic scrubber with Ammonia/steam injection at stack	NH_3-175 mg/Nm^3
56.	SPIC IV Plant	2	Alkali & water scrubber	NH_3-175 mg/Nm^3
		2		SO_3 ---
57.	PHIN II Plant	21	Water scrubber followed by two stage caustic scrubber with Ammonia/steam injection at stack	HCl-20 mg/Nm^3 Phosgene-0.1 ppm
Process Gas Stack-Proposed				
1	Sulfer Black Plant	19	Water Scrubber and Caustic scrubber	H_2S -45 mg/Nm^3 NH_3 -175 mg/Nm^3
2	Carbamite group of acgrochemical, Diuron and Carbendazim	25	Water scrubber followed by Caustic scrubber	Phosgene-0.1 ppm HCl-20 mg/Nm^3
3	Common scrubber:	25	Caustic scrubber	HCl-20 mg/Nm^3

	Mesotrione, Sucrotrione, Triazole based fungicide			
4	Herbicides (2-4 D & related products)-SFD	25	SFD	PM-150 mg/Nm^3
5	Herbicides (2-4 D & related products)-Common Caustic scrubber	25	Caustic scrubber	Cl_2-9 mg/Nm^3 HCl-20 mg/Nm^3
6	MCPA-Chlorination scrubber	25	Caustic scrubber	Cl_2-9 mg/Nm^3 HCl-20 mg/Nm^3
7	MCPA-SFD	25	SFD	PM-150 mg/Nm^3
8	Glyphosate-Common Caustic scrubber	25	Caustic scrubber	HCl-20 mg/Nm^3
9	Glyphosate-SFD	25	SFD	PM-150 mg/Nm^3
10	Glycine	25	Water scrubber followed by Caustic scrubber	NH_3 -175 mg/Nm^3 HCl-20 mg/Nm^3
11	Pyrazosulfurone, Bis Pyribac sodium, Quizalafop, Chlorantraniliprole: common scrubber	25	Water scrubber followed by Caustic scrubber	Phosgene-0.1 ppm HCl-20 mg/Nm^3 SO_2-40 mg/Nm^3
12	Metribuzine, Diafenthiurone: Common scrubber	25	Caustic scrubber	SO_2-40 mg/Nm^3
13	Azozystrobin; Thiamthoxam-Common scrubber	25	Caustic scrubber	NOx-25 mg/Nm^3
14	Alkyl ketene dimer	20	Water scrubber followed by caustic scrubber	HCl-20 mg/Nm^3 SO_2-40 mg/Nm^3
15	PF Resin	20	Water scrubber followed by caustic scrubber	HCl-20 mg/Nm^3
16	Caustic- Chlorination	20	Water scrubber followed by caustic scrubber	HCl-20 mg/Nm^3 Cl_2 -9 mg/Nm^3
17	Caustic-Hypo unit	20	Water scrubber followed by caustic scrubber	HCl-20 mg/Nm^3 Cl_2 -9 mg/Nm^3
18	m-Amino phenol- Hot oil generator	20	Water scrubber followed by caustic scrubber	SO_2 -40 mg/Nm^3 NO_X -25 mg/Nm^3
19	m-Amino phenol-process	20	Water scrubber followed by caustic scrubber	SO_2 -40 mg/Nm^3
20	Mono chloro benzene	20	Water scrubber followed by caustic scrubber	HCl-20 mg/Nm^3
21	Propionyl chloride	20	Water scrubber followed by	HCl-20 mg/Nm^3 SO_2 -40 mg/Nm^3

			caustic scrubber	
22	Resorcinol-Hot oil generator	20	Water scrubber followed by caustic scrubber	SO_2 -40 mg/Nm^3 NO_X -25 mg/Nm^3
23	Resorcinol-Process	20	Water scrubber followed by caustic scrubber	SO_2 -40 mg/Nm^3
24	Trichloro acetyl chloride	20	Water scrubber followed by caustic scrubber	HCl-20 mg/Nm^3 SO_2 -40 mg/Nm^3
25	Thionyl chloride	20	Water scrubber followed by caustic scrubber	SO_2 -40 mg/Nm^3
26	Ammonia system (at Sulfone)	6	Water Scrubber	NH_3 -175 mg/Nm^3
27	Scrubber Blower Discharge (at PHIN III)	20	Water scrubber followed by caustic scrubber	Phosgene-0.1 ppm
28	Scrubber Blower Discharge (at PHIN IV)	20	Water scrubber followed by caustic scrubber	Phosgene-0.1 ppm
29	New Phosgene plant-Furnace	15	Alkali and water scrubber	PM-150 mg/Nm^3
30	New Phosgene plant - Reactor	15	Alkali and water scrubber	Phosgene-0.1 ppm
31	Hardner Plant	12	Water scrubber followed by caustic scrubber	HCl-20 mg/Nm^3
32	Epoxy plant	8	Caustic scrubber	Toluene / ECH---

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

There are around 83 types of hazardous waste will be generated after expansion. These wastes will be managed and disposed as per the Hazardous & Other Waste (Management and Trans-boundary Movement) Rules 2016 as amended till date. Details of hazardous wastes generation and their management are given below.

Sr. No.	Type of Waste	Category as per HWM rules, 2016	Quantity			Method of Disposal
			Existing	Proposed	Total	
1.	Used oil	5.1	2 KL/month	0.0 KL/month	2.0 KL/month	Collection, Storage, Transportation, sell to registered refiners /recyclers
2.	Wastes/residues	5.2/33.3	0.01 MT/mon	00	0.01 MT/mon	Collection, Storage, Transportation, Disposal by

	containing oil /contaminate cotton rags or other cleaning material		th		th	Incineration at own Incinerator
3.	Sludge & filters contaminated with oil	5.2	0.05 MT/month	00	0.05 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator
4.	Membranes	16.2	6 MT/month	45 MT/month	51 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
5.	Waste Resin	16.2	0.05 MT/month	00	0.05 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
6.	Sulfurized Carbon	16.2	0.003 MT/month	00	0.003 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
7.	Activated Carbon	16.2	0.0104 MT/month	00	0.0104 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL

8.	Brine purification sludge	16.3	242.50 MT/month	405 MT/month	647.5 MT/month	Collection, storage, Transportation, disposal at own TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
9.	Sulphur sludge	17.1	5.83 MT/month	00	5.83 MT/month	Collection, Storage, Transportation, Disposal at TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
10.	Hot Gas filter Ash	17.1	0.0208 MT/month	00	0.0208 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
11.	Bottom Sludge after recovery of Sulphur Sludge	17.1	0.5 MT/month	00	0.5 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
12.	Waste Catalyst	17.2	0.083 MT/month	00	0.083 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
13.	Spent Solvents	20.2	5 KL/month	00	5 KL/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user
14.	Various type of Residue	20.3	10 MT/month	00	10 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at

						SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
15.	OCBC/OCT distillation residue	20.3	154.042 MT/month	00	154.042 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
16.	Waste residue Bulk Intermediate (meta hydroxy phenol) (Tar)	20.3	15 MT/month	00	15 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
17.	Waste residue, (from Resorcinol Plant)	20.3	15 MT/month	00	15 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
18.	Distillation Residue (BI)	20.3	0	266.75 MT/month	266.75 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
19.	Gypsum (From	20.4	840 MT/mon	7004.75	7844.75 MT/mon	Collection, Storage, Transportation, Disposal at

	meta hydroxy phenol Plant)		th	MT/month	th	own TSDF OR selling to actual user OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
20.	Sodium Sulphite	20.4	550 MT/month	00	550 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR selling to actual user OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
21.	Waste/Salt Lime Dust	35.3	5 MT/month	00	5 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
22.	Waste from Urea Formaldehyde Polymer product	23.1	0.25 MT/month	00	0.25 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
23.	Sludge containing higher amino compound	23.1	0.417 MT/month	00	0.417 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
24.	Filter cake of Epoxy resins with resin	23.1	131.123 MT/month	277.5 MT/month	408.623 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing

	contamination					at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
25.	Aluminum Hydroxide	26.1	15.417 MT/month	00	15.417 MT/month	Collection, storage, Transportation, disposal at own TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
26.	Iron sludge	26.1	80 MT/month	00	80 MT/month	Collection, storage, Transportation, disposal at own TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
27.	Brass residue	26.1	0.667 MT/month	00	0.667 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
28.	Still/Other residue	26.1	8.67 MT/month	00	8.67 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
29.	Darco/filter aid sludge	26.1	2.083 MT/month	00	2.083 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
30.	Iron	26.1	62.5	00	62.5	Collection, storage,

	Residue		MT/month		MT/month	Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
31.	Hyflo sludge	26.1	0.5 MT/month	00	0.5 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
32.	PER crystal residue	26.1	0.4 MT/month	00	0.4 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
33.	Filter aid sludge for Hg recovery	26.1	1.0 MT/month	00	1.0 MT/month	Collection, Storage, Transportation for recovery of mercury
34.	Aluminum Ash	26.1	2.6 MT/month	00	2.6 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
35.	N.B. Tar/ODCB Tar	26.1	5 MT/month	00	5 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL

36.	ONT Tar	26.1	15 MT/month	00	15 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
37.	Copper Hydroxide Wet cake	26.1	40 MT/month	00	40 MT/month	Collection, storage, Transportation and sale to authorized industry having permission under Rule-9 of Hazardous & other wastes (Management & Transboundary Movement) Rule, 2016
38.	Cu sludge	26.1	0	38 MT/month	38 MT/month	Recover as $Cu(OH)_2$
39.	Process Waste	26.1	0	1.0 MT/month	1.0 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
40.	Dust from Air Filtration System	26.2	0.001 MT/month	00	0.001 MT/month	Collection, Storage, Transportation for reprocessing and reusing
41.	Spent Acid	26.3, 29.6, C2	4400 MT/month	1404 MT/month	5804 MT/month	Collection, storage, transportation and sell to authorized industry having permission under Rule-9 of Hazardous & other Wastes (Management & Transboundary Movement) Rule-2016 Or sell to: M/s. Shree Cement Ltd., located at Village: Ras, Jaitaran Dist: Pali & at Bangurnagar, Beawar Dist: Ajmer, Rajasthan

42.	Spent Organic solvent	26.4, 28.6 29.4	24.75 MT/month	100 MT/month	124.75 MT/month	Collection, storage, Transportation and sale to authorized industry having permission under Rule-9 of Hazardous & other wastes (Management & Transboundary Movement) Rule, 2016
43.	Waste Residue (Phin)	28.1	2 MT/month	00	2 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
44.	DCDPS waste	28.1	30 MT/month	00	30 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
45.	Waste from Pharma intermediates	28.1	28.97 MT/month	00	28.97 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
46.	Process Residue Waste (Isomers & distillation residue)	28.1	0	132 MT/month	132 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR selling to actual user OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at

						GGEPIL OR disposal at common facility.
47.	Spent Carbon catalyst	28.2	0.250 MT/month	00	0.250 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
48.	Spent carbon	28.3	40 MT/month	23.2475 MT/month	63.2475 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
49.	Date expired, Discarded and off-specification product	28.5	0.08 MT/month	00	0.08 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
50.	Spent Mother liquor	28.6	19.75 KL/month	00	19.75 KL/month	Collection, Storage, Transportation for recovery and reusing
51.	Spent solvent	28.6	19.75 KL/month	00	19.75 KL/month	Collection, Storage, Transportation for recovery
52.	Still/Other residue Pyridine based insecticides & herbicides (Darco/Filt	29.1	83.43 MT/month (63.66+ 3.62+ 14.27+ 1.28+ 0.6)	205.84 MT/month	289.27 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at

	er aid Sludge)					common facility at BEIL
	Sulfonyl Urea (Residue)					
	Triazole based Fungicides (Residue)					
	Pyrethroid es (Residue)					
53.	Dust (Agro plant)	29.1	3.0 MT/mon th	00	3.0 MT/mon th	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
54.	Hyflo	29.1	15.75 MT/mon th	137.71 17 MT/mo nth	153.461 7 MT/mon th	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
55.	Process Waste (Filtration)	29.1	0	79.227 5	79.2275	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
56.	Lime sludge	29.1	0	40.525	40.525	Collection, storage, Transportation, disposal at OWN TSDF OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
57.	Dust from Air Filtration System	29.2	0.008 MT/mon th	00	0.008 MT/mon th	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at

						common facility at BEIL
58.	Liners/Bags, NOs	33.1	9500 nos./ month	16500 nos./ month	26000 nos./ month	Collection, Storage, Transportation and sell after decontamination OR Collection, Storage, Transportation and sell to authorized party/vendor OR Reuse after decontamination
59.	Drums/HDPE Carboys	33.1	250 nos./ month	450 nos./ month	700 nos./ month	
60.	Chemical containing residue from decontamination and disposal	34.1	0.08 MT/month	00	0.08 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator.
61.	Flue gas cleaning residue	35.1	0.008 MT/month	00	0.008 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
62.	Toxic metal containing residue from used-ion exchange material; in water purification	35.2	0.001 MT/month	00	0.001 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
63.	Sludge from ETP, Gypsum from ETP, Chemical Gypsum, Sludge from waste water treatment	35.3	4978.66 MT/month	900 MT/month	5878.66 MT/month	Collection, storage, Transportation, disposal at OWN TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
64.	MEA distillation residue	36.1	1.667 MT/month	00	1.667 MT/month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing

						at RSPL, Panoli OR co-processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
65.	Spent Catalyst	36.2	0.002 MT/month	00	0.002 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
66.	Sludge from wet scrubber	37.1	0.02 MT/month	00	0.02 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
67.	Incineration ash	37.2	4.62 MT/month	00*	4.62 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
68.	Salt from MEE	37.3	1678.71 MT/month	223.14 MT/month	1901.85 MT/month	Collection, storage, Transportation, disposal at OWN TSDF OR selling to actual reuser OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
69.	Dilute $MnSO_4$	B15	50 MT/day	00	50 MT/day	Collection, Storage, Transportation, Disposal at M/s Atul Limited, Plot No. 297, GIDC Estate, Ankleshwar, Bharuch
70.	2,6 Dichloro phenol	--	94.355 MT/month	00	94.355 MT/month	Collection, storage, Transportation, disposal by selling to actual reuser OR co- processing at RSPL, Panoli OR co- processing at

						cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
71.	2,4,6 Trichloro phenol	20.3	45.925 MT/month	00	45.925 MT/month	Collection, storage, Transportation, disposal by selling to actual reuser OR co- processing at RSPL, Panoli OR co- processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
72.	p-CBSA/Na-Salt	28.1	127 MT/month	00	127 MT/month	Collection, storage, Transportation, disposal by selling to actual reuser OR co- processing at RSPL, Panoli OR co- processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
73.	High TDS/ High COD effluent	--	100 KLD	00	100 KLD	Collection, storage, Transportation, disposal to our own MEE/Incinerator and/or at common GPCB approved facility
74.	KCl	--	0	500 MT/month	500 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
75.	Distillation Residue (Aromatic High Boiler Waste)	20.3	0	1246.3 MT/month	1246.3 MT/month	Sell to Actual users
76.	$CaCl_2$	--	0	945.4 MT/month	945.4 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR selling to actual user OR send to

						cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
77.	Sodium Sulphate	--	0	1385.9 MT/month	1385.9 MT/month	Collection, Storage, Transportation, Disposal at own TSDF OR selling to actual user OR send to cement industry for co-processing OR disposal at common TSDF at SEPPL OR disposal at common TSDF at BEIL
78.	Tula resin	--	0	30 MT/month	30 MT/month	Collection, storage, Transportation, disposal by selling to actual reuser OR co- processing at RSPL, Panoli OR co-processing at cement industry OR co-processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
79.	Ammonium Hydroxide (5%)	--	0	407 MT/month	407 MT/month	Collection, storage, reuse in in-house production or sell to actual user
80.	Ammonia Solution (25%)	--	0			
81.	Aq. Methanol	20.2	0	67.3 MT/month	67.3 MT/month	Collection, Storage, Transportation for recovery Or disposal by selling to actual reuser OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
82.	Spakler filter pad	23.1	0	36 nos./ month	36 nos./ month	Collection, Storage, Transportation, Disposal by Incineration at own Incinerator OR co-processing at RSPL, Panoli OR co-processing at cement

						industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
83.	ACP tar low boiler	23.1	0	93.15 MT/month	93.15 MT/month	Collection, Storage, Transportation for recovery Or disposal by selling to actual reuser OR co-processing at RSPL, Panoli OR co- processing at cement industry OR co- processing at SEPPL OR co-processing at GGEPIL OR disposal at common facility at BEIL
Solid Waste						
1.	Ash from Boiler	--	16400 MT/month	0.0	16400 MT/month	Sale to cement industry/ brick manufacturers/at own brick manufacturing plant

Deliberations in the EAC:

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

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

The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental status and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee also deliberated on the activities/action plans and found them addressing to the issues in the public hearing. The Committee suggested that the storage of toxic/explosive raw materials shall be in bare minimum quantity and inventory. The Committee appreciated the greenbelt development in the unit complex and suggested PP to develop greenbelt in other areas and involve forest department/villages in this regard. The Committee pointed out that the effluent quantity to be discharged shall be within the prescribed limit as per the CRZ clearance and any increase in the effluent load or changes in pipeline attracts the provisions of the CRZ Notification, 2011. The Committee also noted that Ministry had issued EC earlier vide letter dated 11th February, 2019 to the existing projects. The certified Compliance Report of existing EC forwarded by the Ministry's IRO, Bhopal vide letter dated 09.03.2020 was found to be satisfactory.

The Committee noted that, in response to the Committee's observations, the project proponent vide letter dated 31st May, 2021 has submitted detailed action plan to dense and develop the greenbelt in the complex and adjoining areas. Further the PP shall take plantation activities in the Parnera hill and other areas. The Action plan submitted for controlling the particulate emissions in the factory and preventive action to control accidents were found to be satisfactory. The project proponent informed that the current permitted effluent discharge to the Par river is 20514 KLD as per earlier EC and CTO. The Committee noted that CRZ clearance was granted on 17th January, 1998 for laying a 4-km long pipeline for effluent discharge. The project proponent submitted an undertaking that the effluent quantity mentioned in the CRZ clearance application and the NIO report was 23790 KLD, and the total discharge quantity shall not exceed 20514 KLD. The Committee found the additional information submitted by the project proponent to be satisfactory and addressing to the concerns of the Committee.

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

Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:

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

The EAC, after detailed deliberations, **recommended the project for grant of environmental clearance, *subject to comments of the CRZ Sector on the requirement of fresh CRZ clearance, if any, for the pipeline*, and subject to the compliance of terms and conditions as under, and general terms and conditions given in the Annexure**:-

(i). No banned pesticides/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.

(ii). 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.

(iii). The treated effluent of 20514 KLD proposed to discharge to the estuary of Par river through pipeline, shall conform to the standards prescribed under the Environment

(Protection) Act, 1986. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

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

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

(vi). Occupational health centre for surveillance of the workers' 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.

(vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall also be provided to employees.

(viii). The unit shall make arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Action plan proposed shall be implemented in letter and spirit.

(ix). 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.

(x). The Action plan submitted for controlling the particulate emissions in the factory shall be satisfactorily implemented.

(xi). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled up to 99.99% with effective chillers/modern technology.

(xii). Total fresh water requirement, proposed to be met from Par River shall not exceed 18050 cum/day, Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

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

(xv). The green belt of at least 5-10 m width shall be developed/strengthened over nearly 33% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing. Trees have to be planted with spacing of 2m x 2m and number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration. The action plan proposed in this regard shall be implemented.

(xvi). As proposed, the project proponent shall undertake plantation activities (10,000 plant) in the Parnera hill and other areas with the support of State Forest Department/Village Administration.

(xvii). As committed, at least Rs 5 lakhs shall be allocated for conservation of Schedule I species. The implementation report shall be submitted to the IRO, MoEFCC.

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

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

Agenda No. 11.2

Setting up of API manufacturing unit of capacity 177 MTPM by M/s SVG Life Sciences located at Plot No. F - 40 / 1, F - 40 / 2, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra- Environmental Clearance - reg.

[Proposal No. IA/MH/IND2/204779/2021, File No. J-11011/218/2021-IA II (I)]

The project proponent and the Accredited Consultant M/s.Equinox Environments (I) Pvt. Ltd. made a detailed presentation on the salient features of the project and informed that:

The proposal is for Environmental Clearance to the project proposed for Setting up of API manufacturing unit of capacity 177 MTPM by M/s SVG Life Sciences located at Plot No. F-40/1, F-40/2, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra.

The details of products and capacity as under:

No	Product	Quantity (MT/M)	CAS No.	Chemical Formula
1.	Domperidone	15	57808-66-9	$C_{22}H_{24}ClN_5O_2$
2.	Omeprazole	15	73590-58-6	$C_{17}H_{19}N_3O_3S$
3.	Albendazole	25	54965-21-8	$C_{12}H_{15}N_3O_2S$
4.	Febendazole	5	43210-67-9	$C_{15}H_{13}N_3O_2S$
5.	Triclabendazole	5	68786-66-3	$C_{10}H_7N_3S$
6.	Pantoprazole Sodium	5	138786-67-1	$C_{16}H_{14}F_2N_3NaO_4S$
7.	Clorsulon	3	60200-06-8	$C_8H_8Cl_3N_3O_4S_2$
8.	Febantel	2	58306-30-2	$C_{20}H_{22}N_4O_6S$
9.	Mebendazole	5	31431-39-7	$C_{16}H_{13}N_3O_3$
10.	Ricobendazole	3	54029-12-8	$C_{12}H_{15}N_3O_3S$
11.	Cyproheptadine	2	129-03-3	$C_{21}H_{21}N$
12.	Loperamide	1	34552-83-5	$C_{29}H_{33}ClN_2O_2$
13.	Amitriptyline	5	549-18-8	$C_{20}H_{23}N$
14.	Nortritptline	5	72-69-5	$C_{19}H_{21}N$
15.	Aceclofenac	30	89796-99-6	$C_{16}H_{13}Cl_2NO_4$
16.	Loratadine	5	79794-75-5	$C_{22}H_{23}ClN_2O_2$
17.	Telmisartan	10	144701-48-4	$C_{33}H_{30}N_4O_2$
18.	Valsartan	5	137862-53-4	$C_{24}H_{29}N_5O_3$
19.	Oxyclozanide	25	2277-92-1	$C_{13}H_6Cl_5NO_3$
20.	Haloperidol	1	52-86-8	$C_{21}H_{23}ClFNO_2$
21.	Esomeprazole	5	161796-78-7	$C_{17}H_{19}N_3O_3S$
	Total	**177**		

The project is covered under Category B2 of item 5(f) 'Synthetic, Organic Chemicals Industry' of the Environment Impact Assessment (EIA) Notification, 2006 & its amendment dated 27.03.2020 and 15.10.2020. Due to applicability of general condition (presence of GIB sanctuary within 5 Km from Project Site in MIDC), the project requires appraisal at Central level by the Sectoral Expert Appraisal Committee (EAC) in the Ministry.

The Proposed Project Site in MIDC Chincholi is located 2.41 Km from the boundary of GIB Sanctuary. Further, ESZ for GIB is finalized vide notification No. 596 dated 11/02/2020. Project Site is 2.13 Km from Notified ESZ. River Sina is at a distance of 7 Km on South West from the project site. It was informed that no litigation is pending against the proposal.

Total plot land area is 22,000 m^2 and built-up area is 3031 m^2. Industry will develop Green Belt in an area of 7261.89 m^2 (33% out of total plot area). The estimated proposed establishment project cost is Rs.8 Crores. Total capital cost earmarked towards environmental pollution control measures under proposed project is Rs.3.55 Crores and the

Recurring cost (operation and maintenance) will be about Rs.0.41 Crores per annum. Total Employment under proposed project would be 40 persons (as direct). Industry proposes to allocate Rs.29 Lakh towards Corporate Social Responsibility.

Total water requirement for proposed project will be 168 CMD of which fresh water will be sourced from MIDC Water supply scheme at Ujani Dam on Bhima river. ETP & STP treated effluent will be recycled thereby reducing fresh water demand. Effluent of 76 m^3/day will be generated and same will be segregated as strong and weak streams and treated through two separate ETP streams. The treated effluent will be recycled thereby achieving Zero Liquid Discharge. STP will be provided for treating domestic effluent of 2.5 CMD. Treated water will be recycled for flushing.

Power requirement for proposed project will be 250 KW and taken from MSEDCL. One DG set of 250 KVA capacity will be installed as standby during power failure. Stack of height 8m AGL will be provided as per CPCB norms to the DG sets. For steam requirement, Industry will install 4 TPH boiler and Thermopack of 10 Lakhs Kcal/Hr. Fuel Briquettes/Coal will be used for same. MDC followed by Bag Filter with a stack of height of 30 M will be installed for controlling the particulate emissions within the statutory limit of 115 mg/$Nm^3$for the proposed boiler.

Details of Process emissions generation and its management:

Process emissions in the form of acidic, alkaline and solvent vapours will be generated from the process. The emissions from the process would be taken care through 05 Nos. Scrubbers and scrubbed material will be forwarded to ETP for treatment.

Table: Details of Scrubber with Disposal Facility

No	Attached to Process Plant	Dia. (M)	Ht. (M)	Packing Material	Mode of regeneration of the packing material	Scrubbing Media	Disposal/ Recycle/ Reuse
1	lfg. Block (Acidic / solvent vapours)	0.4	10	PP Poll Rings	Not Applicable	Water/NaOH	To ETP
2		0.4	10			Water	
3		0.3	10			Water	
4	Warehouse, QA & QC block Acidic / solvent vapours)	0.3	10			Water/NaOH	
5		0.2	10			Water	

Table: Process Emissions Quantification & Treatment Details

S.No	Emissions	Qty. (kg / Day)	Treatment Method
1	H_2	16.05	iffused by using Nitrogen through Flame Arrestor
2	O_2	341.70	ispersed into the Atmosphere

3	N_2	25.29	ispersed into the Atmosphere
4	CO_2	612.96	ispersed into the Atmosphere
5	SO_2	666.79	crubbed by using Water Media
6	NH_3	235.81	crubbed by using Chilled Water Media
7	HCl	555.03	crubbed by using C.S. Lye Solution
8	HBr	7.10	crubbed by using C.S. Lye Solution
9	CH_3Cl	107.92	crubbed by using Water Media

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

Details of Solid Waste Generation & its Management

No	Description	Quantity		Disposal
		MT/M	Kg/Day	
1	Boiler Ash	60	2400	Sale to Brick manufacture
2	Plastic, Glass, Ferrous, Wooden, Metal Scrap	10	400	Sale to Authorized Recyclers
3	Packing Material	30	1200	
4	Battery Waste	2	80	
5	E-Waste	1	40	
6	Empty Containers & Drums	1000 Nos./M	40 Nos./D	

Details of Hazardous Waste Generation & its Management

No	Description	Cat.	Quantity		Disposal Facility
			MT/M	Kg/Day	
1	Used / Spent Oil	5.1	100 Lit./M	4.00 Lit./D	Authorized Party / Recycler / CHWTSDF
2	Distillation Residues	20.3	25	1000	CHWTSDF
3	Process Residue & wastes	28.1	60	2400	CHWTSDF
4	Spent Catalyst	28.2	0.50	20	CHWTSDF / Co processing / Authorized Re-processor / Recycler
5	Spent Carbon	28.3	2	80	CHWTSDF / Co processing / Authorized Re-processor / Recycler
6	Off-specification products	28.4	5	200	CHWTSDF / Reprocessing
7	Date-expired products	28.5	5	200	CHWTSDF
8	Spent Solvents	28.6	10	400	Authorized Party / Recycler / Co processing / CHWTSDF

No	Description	Cat.	Quantity		Disposal Facility
			MT/M	Kg/Day	
9	Empty Barrels/ containers/ liners contaminated with Hazardous Chemicals / Waste	33.1	40 Nos. / M	1.60 Nos. / D	Authorized Party / Recycler / Re-processor / CHWTSDF
10	Chemical Sludge from Waste Water Treatment	35.3	25	1000	Authorized Party / CHWTSDF / Co processing
11	Sludge from wet scrubber	37.1	50	2000	Authorized Party / CHWTSDF / Co processing
12	Sludge from MEE system	37.3	100	4000	Authorized Party / CHWTSDF / Co processing

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

Quantification of Pollutants' Load w.r.t. Effluent Generation:

Pollutants Waste Water	Conc. of Pollutants generated (Mass / Volume) (mg / lit)	Qty. of Pollutants generated (Mass / Day) (kg / Day)
	Stream - I (High COD & High TDS Effluent) Raw Effluent - 66 CMD	
pH	6 - 7.5	--
BOD	5000 - 7000	462
COD	13000 - 15000	990
TDS	23000 - 25000	1650
	Stream - II (Low COD & Low TDS Effluent) Raw Effluent - 10 CMD	
pH	5 - 9	--
BOD	400 - 600	6
COD	800 - 1000	10
TDS	2000 - 2500	25

Quantification of Pollutants' Load wrt Hazardous Waste Generation

Kg / Day			
Organic SW	**Inorganic SW**	**Spent Carbon**	**Distillation Residue**
820	7000	80	3400

Quantification of Pollutants' Load wrt Process Emissions

Kg / Day	
Process Emission	**Fugitive Emission**
2568.65	300

Kg / Day								
H_2	**O_2**	**N_2**	**CO_2**	**SO_2**	**NH_3**	**HCl**	**HBr**	**CH_3Cl**
16.05	341.70	25.29	612.96	666.79	235.81	555.03	7.10	107.92

Summary of Pollution Load

Kg / Day														
	Effluent Water								**Solid Waste**					
Water Input	**Effluents**	**Inorganics in Effluent**	**Organics in Effluent**	**TDS**	**COD**	**HTDS**	**LTDS**	**Total Effluent**	**Organic SW**	**Inorganic SW**	**Spent Carbon**	**Distillation / Process Residue**	**Process Emission**	**Fugitive Emission**
168000	78500	1675	468	1675	1000	1650	25	1675	820	7000	80	3400	2568.65	500

Deliberations by the EAC:

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

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

The Committee was further informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load. The EAC also deliberated on the pollution load as estimated by the PP/Consultant.

The Committee noted that the PFR/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee

deliberated on the action plan and budget allocation for green belt development and suggested to complete plantation with-in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested to use coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available**.** The Committee also 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 Committee suggested for increase in the use percentage of recycled water.

The EAC deliberated on the proposal with due diligence using 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 also found the proposal in order and recommended for the grant of environmental clearance.

Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:

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

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

(i). 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 PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Fugitive emissions shall be controlled at 99.98% with effective chillers. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular VOCs monitoring should be carried out.

(iii). 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.

(iv). As already committed by the project proponent, Zero Liquid Discharge (ZLD) shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.

(v). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.

(vi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(vii). Total fresh water requirement shall not exceed 168 CMD and shall be sourced from MIDC Water supply scheme at Ujani Dam on Bhima river. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(viii). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

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

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

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

(xii). Process organic residue and spent carbon, if any, shall be sent or other Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

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

(xiv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and the number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

(xvi). A separate Environmental Management Cell (having qualified person 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.

Agenda No. 11.3

Setting up of API manufacturing unit 840 TPA capacity by M/s Svan Chemicals Pvt Ltd located at Plot No. F-30, MIDC Chincholi, Taluka: Mohol, District Solapur, Maharashtra - Environment Clearance – reg.
[Proposal No. IA/MH/IND2/206460/2021, File No. J-11011/220/2021-IA II (I)]

The Project Proponent and the accredited Consultant M/s. Enviro Resources, made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for setting up of API manufacturing unit of 840 TPA capacity by M/s Svan Chemicals Pvt Ltd located at Plot No. F-30, MIDC Chincholi, Taluka: Mohol, District Solapur, Maharashtra.

The details of products and capacity as under:

S. No.	Products	Proposed Quantity (TPA)	Total Quantity (TPA)
1	Losartan Potassium	360	360
2	Telmisartan	120	120
3	Gabapentin	120	120
4	Meteprolol Succinate	120	120
5	Paroxetine	60	60
6	Pregabilin	60	60
	Total	**840**	**840**
7	By-Product (Trityl Alcohol)	235.2	235.2

The project is covered under Category B2 of item 5(f) 'Synthetic, Organic Chemicals Industry' of the Environment Impact Assessment (EIA) Notification, 2006 & its amendment dated 27.03.2020 and 15.10.2020. Due to applicability of general condition (presence of GIB

sanctuary within 5 km distance from the project site, the project requires appraisal at Central level by the Sectoral Expert Appraisal Committee (EAC) in the Ministry. No Litigation Pending against the proposal.

Total land area of project is 10,528 m^2. Industry will develop greenbelt in an area of 33.05% i.e., 3,479.05 m^2 out of total area of the project. The estimated project cost is Rs.9.55 Cr. Total capital cost earmarked towards environmental pollution control measures is Rs.2.79 Cr and the Recurring cost (operation and maintenance) will be about Rs.1.5843 Cr per annum. Total Employment will be of 50 persons as direct. Industry proposes to allocate Rs.19.10 Lakh towards Corporate Social Responsibility.

The Great Indian Bustard Wildlife Sanctuary is within 5 km distance from the project site. Sina River is flowing at a distance of 6.8 km in SW direction.

Total water requirement is 236.6 m^3/day of which fresh water of 138.88 m^3/day will be met from MIDC Chincholi. Effluent of 83.2 m^3/day quantity will be treated by segregating high COD & Low COD Streams, HCOD effluent will be treated by using Stripper MEE followed by ATFD; however low COD effluent will be treated in conventional ETP consist of Primary, Secondary and Tertiary treatment facility. The plant will be based on Zero Liquid discharge system.

Power requirement of proposed project will be 1000 kVA and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). Additionally 1x500 kVA DG set is used as standby during power failure. Stack (4.5 m above roof) will be provided as per CPCB norms to the proposed DG sets. 1 nos X 2.0 TPH & 4.0 TPH Boiler and 1 nos X Thermic Fluid Heater of 2 Lac Kcal per Hour will be installed. Multi Cyclone Separator followed by Bag Filter with a stack of height of 32 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers.

Details of Process emissions generation and its management: The process emission from process activity will be subject to Acid/Alkali Scrubber of 3 nos x 1000 CFM capacities.

Details of Solid waste/ Hazardous waste generation and its management are as follows:

Non-Hazardous Waste

S.No	WASTE	QUANTITY	DISPOSAL
1	Dry Garbage	2 Kg/day	Hand over to authorized recyclers
2	Wet Garbage	2 Kg/day	Vermi Composting (off-site)
3	Ash	2.57 TPD	Sold to Brick Manufacturers

Hazardous Waste

CAT.	TYPE OF WASTE	SOURCE	QTY.	METHOD OF DISPOSAL
35.3 Sch – I	ETP Sludge	Primary & Secondary Treatment	22 MTA	CHWTSDF @ Ranjangaon

5.1 Sch – I	Used Lubricants	Plant & Machineries	1 KL/A	CHWTSDF @ Ranjangaon
33.1 Sch – I	Used Containers (Metal & Plastic)	Raw Material Storage	17895 (Nos/A)	Decontamination & Re-use or sell
	HDPE/ LDTE/ Gunny Bags	Raw Material Storage	5880 (Nos/A)	Decontamination & Re-use or sell
37.3 Sch – I	MEE Residue	Effluent Evaporation	10.5 MTD	CHWTSDF @ Ranjangaon
28.1 Sch – I	Process Residue & Waste	Reactor Waste	510.11 MTA	CHWTSDF @ Ranjangaon
36.1 Sch-I	Distillation Residue	Solvent Distillation	988.6 MTA	CHWTSDF @ Ranjangaon
36.2 Sch-I	Spent Carbon	Waste Carbon in Reactor	73.2 MTA	CHWTSDF @ Ranjangaon
28.6 Sch – I	Organic Distillate	Stripper MEE	40% concentrate - 4.08 KLD	Authorized Recyclers
28.6 Sch – I	Organic Distillate	Recovered Mix solvent from chillers	1.13 KLD	Authorized Recyclers

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

Kg Per Day														
	EFFLUENT WATER								**SOLID WASTE**					
Water Input	**Effluent Water**	**Inorganics In Effluent**	**Organics In Effluent**	**TDS**	**COD**	**HTDS**	**LTDS**	**Total Effluent**	**Organic Solid waste**	**Inorganic Solid waste**	**Spent Carbon**	**Distillation Residue**	**Process emissions**	**Fugitive loss**

236600	83200	10505.6	1322.7	10505.6	2875.5	10469.3	36.3	83200	1773.3	10469.3	244	3295.2	1646.6	526

HAZARDOUS SOLID WASTE DETAILS

Kg Per Day			
SOLID WASTE			
Organic Solid	**Inorganic Solid**	**Spent Carbon**	**Distillation Residue**
1773.3	10469.3	244	3295.2

EMISSION DETAILS

Kg Per Day	
Process Emissions	**Fugitive Emissions**
1646.6	526

Kg Per Day					
VOC	**CO_2**	**N_2**	**HCl**	**O_2**	**SO_2 From Coal consumption in Boiler**
1126	225.2	107	144.6	43.2	206.08

Deliberations by the EAC:

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

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

The Committee was further informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load and the EAC also deliberated on the pollution load as estimated by the PP/Consultant.

The Committee noted that the PFR/EMP reports reflect the present environmental concerns and the projected scenario for all the environmental components. The Committee

deliberated on the action plan and budget allocation for green belt development and suggested to complete plantation in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested to use coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also 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 Committee suggested increase in use percentage of the recycled water and also proper mitigation of VOCs.

The EAC deliberated on the proposal with due diligence using 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 also found the proposal in order and recommended for the grant of environmental clearance.

Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:

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

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

(i). 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 PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Fugitive emissions shall be controlled at 99.98% with effective chillers. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular VOCs monitoring should be carried out.

(iii). 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.

(iv). As already committed by the project proponent, Zero Liquid Discharge (ZLD) shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.

(v). 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. Mock drill shall be conducted regularly.

(vi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(vii). Total fresh water requirement shall not exceed 138.88 m^3/day and shall be sourced from MIDC Chincholi. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(viii). As committed by the PP, coal having ash content less than 15% shall be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

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

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

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

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

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

(xiv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within the first year.

(xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

(xvi). A separate Environmental Management Cell (having qualified person 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.

Agenda No. 11.4

Setting up of API manufacturing unit of capacity 2184 MTPA by M/s PBL Lifecare Pvt. Ltd. located at Plot No: F-27 at MIDC Chincholi, Village Chincholi, Taluka Mohol, District Solapur, Maharashtra- Environment Clearance – reg.

[Proposal No. IA/MH/IND2/206367/2021, File No. J-11011/210/2021-IA II (I)]

The Project Proponent and the accredited Consultant M/s Enviro Analyst and Engineers Pvt. Ltd, made a detailed presentation on the salient features of the project and informed that:

The proposal is for the environmental clearance to the project for setting up of API manufacturing unit of capacity 2184 MTPA by M/s. PBL Lifecare Pvt. Ltd. located at Plot No: F-27 at MIDC Chincholi, Village Chincholi, Taluka Mohol, District Solapur, Maharashtra.

The project is covered under Category B2 of item 5(f) 'Synthetic, Organic Chemicals Industry' of the Environment Impact Assessment (EIA) Notification, 2006 & its amendment dated 27.03.2020 and 15.10.2020. Due to applicability of general condition (presence of GIB sanctuary within 5 Km from Project Site in MIDC), the project requires appraisal at Central level by the Sectoral Expert Appraisal Committee (EAC) in the Ministry. The Great Indian Bustard Sanctuaries within 1.8 km from the project location.

Total land area is 12012 m^2. Industry will develop greenbelt in an area of 33 % i.e., 3964 m^2 out of total area of the project. The estimated project cost is Rs.16.92Cr. Total capital cost earmarked towards environmental pollution control measures is Rs.1.5 Cr. and the Recurring cost (operation and maintenance) will be about Rs.0.53 Cr. per annum. Total Employment will be of 50 persons. Industry proposes to allocate Rs.0.33 crores towards Corporate Environmental Responsibility within 2 years of completion of project.

The Great Indian Bustard Sanctuary is located within a distance 5 km. ESZ of the Great

Indian Bustard Sanctuary is located within a distance 1.8 km. Sina River is flowing at a distance of about 7.0 km in SW direction.

Total water requirement is 122 m^3/day of which fresh water requirement is 100 m^3/day and will be met from MIDC Chincholi. Effluent of 73 m^3/day quantity will be treated through ETP on site and will be sent to CETP MIDC Chincholi for final disposal. Sewage will treated in STP and will be reused for gardening.

Power requirement will be 500 kVA and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). Unit has proposed 1 D.G. sets of 250 kVA capacity, will be used as standby during power failure. 18 m tall Stack will be provided meeting CPCB norms for DG sets. Unit has proposed one 2.0 TPH FO fired boiler. Multi cyclone separator followed by bag filter with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers.

Details of Process emissions generation and its management:
The process emission from process activity will be subjected to Acid/Alkali Scrubber of 03 Nos of 7000 CFM will be installed to mitigate process emissions

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

Non-Hazardous Solid Waste

S. No.	WASTE	QUANTITY	DISPOSAL
1.	Dry Garbage	10 Kg/day	Handover to authorized recyclers
2.	Wet Garbage	10 Kg/day	Vermi Composting
3.	Ash	5 kg/d	Sold to Brick Manufacturers
4.	HDPE/LDTE/ Gunny Bags	25 per ay	Re- use or sell to Scrap vendors

Hazardous Waste

CAT.	TYPEOFWASTE	QTY.	METHOD OFDISPOSAL
35.3 Sch – I	ETP Sludge	25Kg/D	CHWTSDF @ Ranjangaon
5.1 Sch – I	Used Lubricants	one drum per	Authorized recyclers
33.1 Sch – I	Used Containers (Metal & Plastic)	25 Nos.	Decontamination & Re- use or sell to Scrap vendors
37.3 Sch – I	MEE Residue	few kgs/d	CHWTSDF @ Ranjangaon
28.1 Sch – I	Process Residue	50Kg/D	CHWTSDF @ Ranjangaon
36.1 Sch-I	Distillation	25 Kg/D	CHWTSDF @ Ranjangaon
36.2 Sch-I	Spent Carbon	50 Kg/D	CHWTSDF @ Ranjangaon

Deliberations by the EAC:

The Committee expressed their disappointment on the PFR/EMP reports submitted to the Ministry by the PP/Consultant. The Committee noted large variation in data which the consultant was unable to justify the change in the values of the report. **The**

Committee noted that the distance of the GIB mentioned different at various report, as 7.34 km East direction (in Form-I), 1.8 km in brief, and 2.0 km in presentation. The distance of GIB Sanctuary is the sole criteria to appraise the project at Central Level or State Level. PP could not explain and tried to mislead the EAC with incorrect information. The EMP report is very weak and is not addressing the concerns of the Committee as per provisions of the EIA Notification, 2006.

After detailed deliberations by the Committee members, the consultant agreed the errors/mistakes as identified by the experts in water balance, waste water treatment scheme amongst others. **The Committee took a serious note on the discrepancies and desired that an apology letter may be submitted to the EAC and recommended to issue a show cause notice to the consultant [M/s Enviro Analyst and Engineers Pvt. Ltd.] for their casual approach in preparation of PFR/EMP report and presentations.**

The committee, accordingly, <u>returned</u> the proposal in the present form and suggested to submit revised proposal with updated Form-I/PFR/EMP reports.

<u>Agenda No. 11.5</u>

Proposed expansion project for manufacturing of various Dyes, Dye intermediates, Polymers and Pharmaceutical Products by M/s. S. V. Dychem Pvt. Ltd. at Survey No. 389, Village: Neja, Vaduchi Mata Mandir Road, Taluka: Khambhat, Dist: Anand, Gujarat- Consideration of Environment Clearance

[Proposal No. IA/GJ/IND3/192834/2019, File No.IA-J-11011/965/2007-IA-II(I)]

The project proponent and the accredited Consultant M/s San Envirotech Pvt. Ltd., made a detailed presentation on the salient features of the project and informed that:

The proposal is for Environmental Clearance to the project for manufacturing various Dyes, Dye Intermediates, Polymers and Pharmaceutical Products @ 160.5 TPM at Survey No. 389, Village Neja, Vaduchi Mata Mandir Road, Taluka Khambhat, District Anand, Gujarat by M/s. S. V. Dychem Pvt. Ltd.

The details of products and capacity are as under:

Sr. No.	Name of Products	Qty. (MT/month)		
		Existing as per CCA	Proposed	Total
A	**Base**			
1	Fast Blue B Base	20	-10	10
2	Fast Red B Base	0.0	30	30
3	Fast Scarlet G Base			
4	Fast Bordeaux GP Base			
5	Fast MNPT Base			
B	**Naphthols**			

1	Naphthol AS	0.0	30	30
2	Naphthol ASG			
3	Naphthol ASBS			
4	Naphthol ASBO			
5	Naphthol ASOL			
C	**Carbomers Series**			
1	Acrylic Acid Homopolymers	0.0	40	40
2	Acrylic Acid Copolymers			
3	Acrylic Acid Interpolymers			
4	Methacrylic Co-Polymer Type-A			
5	Methacrylic Co-Polymer Type-B			
6	Methacrylic Co-Polymer Type-C			
7	Methacrylic Acid Co-Polymer Aqueous			
D	**Pharmaceutical Products**			
1	Lidocaine Base/HCl	0.0	50.0	50.0
2	Bupivacaine HCl			
3	L-Bupivacaine			
4	Rupivacaine			
5	Prilocaine			
6	Meloxicam			
7	BisPhenol			
8	Bisacodyl			
9	Sodium Picosulfate			
10	Diclofeniac Sodium			
11	Diclofeniac Dietylamine			
12	Aceclofenac			
13	Pentoxyfylline			
14	Pentaprazole Sodium			
15	Glibenclamide			
16	Pyroxicam			
17	Mesalamine			
18	Carvedilol			
19	Clotrimazole			
20	Ketoconazole			
21	Fluconazole			
22	Bezocaine			
23	R&D products	0.0	0.5	0.5
	Total	**20**	**+140.5**	**160.5**

The project/activities are covered under category A of item 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The standard ToR has been issued by Ministry vide letter No. IA-J-11011/965/2007-IA-II (I); dated 22/01/2020. Public Hearing for the expansion project has been conducted by the Gujarat Pollution Control Board on 06.10.2020. The main issues raised during public hearing are related to employment to local people and upliftment of surrounding area. No Litigation is pending against the proposal

The Ministry had issued EC earlier vide letter no. IA-J-11011/965/2007-IA-II(I), dated 20.08.2008 to the existing project in favour of M/s. S. V. Dychem Pvt. Ltd. Certified Compliance Report of EC is obtained from GPCB vide letter no. GPCB/CCA-AND-87(3)/ID-12735/ 588074, dated 08.04.2021.

Existing land area is 4350 m^2. No additional land will be required for proposed expansion. Expansion will be done within the existing unit. Industry has already developed greenbelt in an area of 770 m^2 and after expansion it will be 1435 m^2 (33%) of the total area of the project. The estimated project cost is Rs. 3.75 Crore including existing investment of Rs. 0.75 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 0.94 Crore and the Recurring cost (operation and maintenance) will be about Rs. 1.21 Crore per annum. Total employment will be of 40 persons. Industry proposes to allocate Rs. 4.5 Lakhs towards Corporate Environmental Responsibility.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. Pond of Lunej Village is at a distance of 1.7 km in NW direction from project site.

Ambient air quality monitoring was carried out at 8 locations during December, 2019 to February, 2020 and the baseline data indicates the ranges of concentration as: PM_{10} (66.4 – 76.1 µg/m^3), $PM_{2.5}$ (37.7 - 46.7 µg/m^3), SO_2 (13.4 - 16.8 µg/m^3), NOx (17.4 - 20.2 µg/m^3). AAQ modeling study for point source emission indicated that the maximum incremental GLCs after the proposed project would be 1.685 µg/m^3, 0.721 µg/m^3, 0.463 µg/m^3, and 0.042 µg/m^3 with respect to PM_{10}, SO_2, NOx and HCl. The resultant concentrations are within the national ambient air quality standards (NAAQS).

Total water requirement is 69.0 m^3/day of which fresh water requirement of 42.0 m^3/day will be met from Ground Water Source – Bore well. 27.0 m^3/day will be recycled/treated water. Total industrial effluent (38.5 KLD) will be taken into ETP, after primary treatment entire effluent passed through RO. RO permeate (37.0 KLD) will be reused within premises and RO reject (11.5 KLD) will be spray dried into in-house spray dryer. Thus, unit proposed to achieve Zero Liquid Discharge (ZLD). Sewage (4.0 KLD) will be disposed into soak pit though septic tank.

Power requirement after expansion will be 200 kVA including existing 100 kVA, which will be sourced from Madhya Gujarat Vij Company Limited (MGVCL). Unit proposed to install one D.G. Set of 250 kVA capacity for the power backup. Stack height of 11 m will be provided as per CPCB norms to the proposed DG set.

Existing unit has Agro Briquettes fired one Boiler (0.5 TPH) and one Hot Air Generator. After expansion, there will be addition of one Agro Briquettes fired Boiler (1.0 TPH). Cyclone and

Bag filter with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 for the proposed utilities.

At present, process emission generation will be from vent attached with Spray Dryer (for effluent). Cyclone separator followed by wet scrubber is installed as APCM on Spray Dryer. After expansion, 2 vents will be added – one vent of Reaction Vessel and one vent of Fluid Bed Dryer (200 kg/hr.). Water & Alkali Scrubber will be provided as APCM for Reaction Vessel and in built bag filter will be provided as APCM for Fluid Bed Dryer.

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

Sr. No.	Type of Waste	Category as per Haz waste rules, 2016	Quantity (MT/Month)			Method of Disposal
			Existing	Proposed	Total After Expansion	
1.	ETP Waste	35.3	1.5	48.5	50.0	Collection, Storage, Transportation, disposal at TSDF Site
2.	Salt of Spray Dryer	35.3	2.0	13.0	15.0	Collection, Storage, Transportation, disposal at TSDF Site
3.	Used Oil	5.1	0.8 MTPA	--	0.8 MTPA	Collection, storage, transportation & use within premises as a lubricant/sell to registered recycler.
4.	Discarded Containers & Bags/Liners	33.1	100 Nos/ Month 0.5 MTPM	500 Nos/ Month 0.5 MTPM	600 Nos/ Month 0.5 MTPM	Collection, Storage, reuse for packing, in case of excess, it will be sold to approved recycler or traders.
5.	Distillation Residue	20.3	0.0	20.0	20.0	Collection, Storage, Transportation, Disposal at CHWIF or Co-processing in cement plant.
6.	Used Carbon /Hyflow	28.3	0.0	2.5	2.5	Collection, Storage, Transportation, Disposal at CHWIF or Co-processing in cement plant.
7.	Spent Sulphuric Acid	26.3	0.0	140	140	Sold to actual users as per Rule-9 of HAZ Rules.

	(60-65 %)					
8.	Acetic Acid (90 to 98%)	26.3	0.0	14.0	14.0	Captive use for our other products manufacturing; and Sold to actual users as per Rule-9 of HAZ Rules in case of excess.
9.	HCl (20-25%)	26.3	0.0	25.0	25.0	Captive use for our other products manufacturing; and Sold to actual users as per Rule-9 of HAZ Rules in case of excess.
10.	Sodium Bromide	--	0.0	14.0	14.0	Sold to actual users as per Rule-9 of HAZ Rules.
11.	Sodium Acetate	--	0.0	125.0	125.0	Sold to actual users as per Rule-9 of HAZ Rules.
12.	Off specification products	28.4	0.0	Whatever generated	Whatever generated	Collection, Storage, Transportation, Disposal by Incineration at CHWIF or Co-processing.
13.	Date-expired products	28.5				

Deliberations in the EAC:

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

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

The Committee noted that the EIA/EMP reports are in order and compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project. The Committee deliberated the action plan on mitigation measures on various impacts due to project. The Committee also deliberated on the activities/action plans and found to be addressing the public hearing issues. The Committee suggested that the storage of toxic/explosive raw materials shall be bare

minimum in quantity and inventory. The Committee also suggested the PP to increase the greenbelt density and improve the rainwater harvesting system. The Committee noted that the PP submitted an undertaking to provide greenbelt in 33% area. The Committee noted that Ministry had issued EC dated 20.08.2008 to the existing project. The project proponent submitted the certified Compliance Report issued by the Gujarat PCB vide letter no. GPCB/CCA-AND-87(3)/ID-12735/ 588074, dated 08.04.2021. The Committee deliberated on the certified compliance report and the additional details submitted by the PP and found the same in order.

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

Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:

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

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

(i). 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.

(ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

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

(iv). 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.

(v). 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/masks for personal protection.

(vi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees. The project proponent shall ensure safety awareness programme for employees and nearby villagers.

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

(viii). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pumps shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified 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 vent condensers with chilled brine circulation.

(ix). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.996% with effective chillers/modern technology.

(x). Total fresh water requirement shall not exceed 42 cum/day, proposed to be met from borewell. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA and renewed from time to time.

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

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

(xiii). The green belt of at least 5-10 m width shall be developed over nearly 33% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and the number of trees shall have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xiv). As proposed, at least Rs 2 lakhs shall be allocated for the conservation plan for Schedule- I species.

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

(xvi). A separate Environmental Management Cell (having qualified person 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.

Agenda No. 11.6

Proposed expansion of the manufacture of Agrochemical & Agrochemical Intermediate Products in existing Unit (From 1265 MTPM To 2350 MTPM To 1802 MTPM) located at Plot No. 43/1 & 43/3, GIDC Dahej, Taluka: Vagra, Dist. – Bharuch, Gujarat by M/s. Tagros Chemicals India Pvt. Ltd. - Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND2/52237/2016, File No. J-11011/122/2016- IA II(I)]

The Project Proponent and the accredited Consultant M/s. Aqua-Air Environmental Engineers Pvt. Ltd. made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Expansion of Agrochemical & Agrochemical Intermediate Products from 1265 TPM to 1802 TPM at Plot No. 43/1 & 43/3, GIDC Dahej, Taluka Vagra, District Bharuch, Gujarat by M/s Tagros Chemicals India Pvt. Ltd.

The details of products and capacity as under:

S. No.	Product Name	Existing (MT/MONTH)	**Existing (MT/MONTH)	TOTAL PROPOSD (MT/MONTH)	CAS NOS.	LD_{50} (mg/kg)
PESTICIDES & PESTICIDES INTERMEDIATES						
1	DV Acid Chloride	200	250	751	52314-67-7	4123
2	Sulfentrazone	100	100		122836-35-5	>2855
3	Meta Phenoxy Benzaldehyde	200	250		39515-51-0	1222
4	Meta Phenoxy	100	100		13826-	2040

	Benzyl Alcohol				35-2	
5	RRCMA	30	30		59042-50-8	>2000
6	Permethrin Tech.	75	100		52645-53-1	430 to 4000
7	Thiamethoxam	50	100		153719-23-4	>2000
8	Ethofumesate	50	100		26225-79-6	>8743
9	Cypermethrin Tech.	150	200	200	52315-07-8	Oral - >355 Dermal - >2000
	OR					
	Phoenix	-	0	431	447399-55-5	>5000
10	Alphamethrin Tech.	50	75	75	67375-30-8	Oral - >400 Dermal - >2000
11	Dicamba	50	500	100	1918-00-9	>2740
12	Deltamethrin Tech.	10	30	30	52918-63-5	>2000
13	Carfentrazone	100	150	50	128621-72-7	>4000
14	Metamitron	100	150	150	41394-05-2	>4000
15	Bio Pesticides	-	215	215	-	-
	TOTAL	**1265**	**2350**	**1802**		
INORGANIC PRODUCTS (NOT COVERED UNDER EIA NOTIFICATION,2006)						
15	PAC/$AlCl_3$	572.50	656.75	2114.18	1327-41-9	2000
16	Sodium Sulphite Powder	560.7	747.6	694.68	7757-83-7	820
17	NH_4Cl Powder	162.7	216.6	492.15	12125-02-9	1300
18	KCl Powder	124.4	137.5	629.6	7447-40-7	3020
	TOTAL	**1420.3**	**1758.45**	**3930.61**		
BY PRODUCTS:						
1	HCl Solution	606.51	606.51	1622.2	7647-01-0	238-277
2	Cu $(OH)_2$ Powder	2.10	2.63	7.89	20427-59-2	200
3	Spent Acid	3333.7	7618	12783.34	7664-93-9	2440

TOTAL	3942.31	8227.14	14413.43		
** - Environmental Clearance granted by the Ministry vide letter dated 25th February, 2019 vide letter no. J-11011/122/2016–IA II (I) 25th February, 2019 and its amendment obtained vide letter no. J-11011/122/2016–IA II (I) dated 25th February, 2020 & again its amendment vide letter no. J-11011/122/2016–IA II (I) dated 11th December, 2020					

The project/activities are covered under category 'A' of item 5(b) 'Pesticides industry and pesticide specific intermediates' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The Standard ToR has been issued by Ministry vide letter dated 16th April 2021. Unit is located in Notified Industrial estate. Hence, Public hearing is exempted. There is no litigation pending against the proposal.

The Ministry had issued EC earlier vide letter no. J-11011/122/2016–IA II (I) Dated 25th February, 2019 for Expansion of Agrochemical and Agrochemical Intermediates to the existing project in favor of M/s Tagros Chemicals India Ltd. EC amendment obtained vide letter dated 25th February, 2020 & amendment vide letter dated 11th December, 2020. Unit have obtained EC for expansion from 1265 MTPM to 2350 MTPM but have not yet implemented that EC and now proposed expansion from 1265 MTPM to 2350 MTPM to 1802 MTPM. Final Production quantity required after proposed expansion will be 1802 MTPM. PP obtained Certified Compliance Report from RO, MoEFCC Bhopal vide letter dated 27/11/2017.

Existing land area is 102126.81 m^2, no additional land will be used for proposed expansion. Industry will develop Greenbelt in an area of 33% i.e., 33937 m^2 out of 102126.81 m^2 of area of the project. Ultimately overall green belt will be 33% i.e. 33937 m^2 out of 102126.81 m^2 total area of the project. The estimated project cost is Rs. 378.41 Crores including existing investment of Rs. 171.41 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 60.07 Crores and the Recurring cost (operation and maintenance) will be about Rs. 49.3 Crores per annum. Total Employment will be 345 persons as direct 300 persons indirect after expansion. Industry proposes to allocate Rs. 1.55 Crores (approx.) in next 4 years towards Corporate Environment Responsibility
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/ waterbody Narmada is flowing at distance of 5.30 Km in South direction.

Ambient air quality monitoring was carried out at 8 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentrations as: PM10 (74.42 – 78.12 µg/m3), PM2.5 (43.35 – 46.68 µg/m3), SO2 (15.59 – 17.72 µg/m3) and NO2 (16.76 – 19.48 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.49 µg/m3, 2.43 µg/m3 and 0.76 µg/m3 with respect to PM, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 2353 m3/day and will be met from GIDC Water Supply. The wastewater generation after proposed expansion will be 1474 KL/day. Effluent generated

shall be treated in ETP consisting of primary, secondary and tertiary treatment facility followed by MEE Unit. Total treated wastewater generated i.e. 1474 KL/day shall be sent to GIDC effluent pipeline for final disposal into deep sea.

Power requirement after expansion will be 9 MW including existing 5.5 MW and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Additionally, 6 Nos. DG sets 1010 KVA x 3 Nos. & 2250 KVA x 3 Nos. capacity are used as standby during power failure. Stack (height 10 m & 30 m) will be provided as per CPCB norms to the proposed DG sets.

Additionally, 3 Nos. of 16 TPH & 2 Nos. of 30 TPH Boilers, 2 Nos. of Thermopack, 9 Nos. of Spin Flash Dryers, 6 Nos. of DG Sets & 9 Nos. of Process Vents will be installed. Adequate Stack Height with a stack of height of 45 m, 30 m, 16 m & 10 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the proposed boilers.

Details of Process emissions generation and its management.

Flue Gas Stack

S. NO.	STACKS ATTACHED TO	HEIGHT FROM GROUND LEVEL (m)	CONSUMPTION OF FUEL (KL/hr)	DIAMETER (m)	EXPECTED POLLUTANTS
1.	Boiler-1, 2 & 3 (Capacity 16 TPH each)	45*	Coal	1.5	SPM, SO_2, NO_X
	Boiler- 4 & 5 (Capacity 30 TPH each)	45*			
2.	Thermopack – 1, 2 Nos.	30	Bio Mass (Briquettes)	0.90	SPM, SO_2, NO_X
3.	D.G. Set-1, 2 & 3. (1010 KVA)	10	HSD	0.20	SPM, SO_2, NO_X
4.	D.G. Set-4, 5 &6 Nos. (2250 KVA)	30	HSD	0.30	SPM, SO_2, NO_X
5.	Spin Flash Dryer (9 Nos.)	16			PM

Process Stack

S. NO.	PROCESS STACK ATTACHED TO	HEIGHT FROM GROUND (m)	DIAMETER (mm)	AIR POLLUTION CONTROL SYSTEM	EXPECTED POLLUTANTS
1	Multipurpose Plant-1	15	100	Two stage water scrubber followed by alkali scrubber	SO_2, HCl, HBr, Cl_2
2	Multipurpose Plant-2	15	100	Two stage water scrubber followed by alkali scrubber	SO_2, HCl, HBr, Cl_2
3	Multipurpose	15	100	Two stage water scrubber	SO_2, HCl,

	Plant-3			followed by alkali scrubber	HBr, Cl_2
4	Multipurpose Plant-4	15	100	Two stage water scrubber followed by alkali scrubber	SO_2, HCl, HBr, Cl_2
5	Multipurpose Plant-5	15	100	Two stage water scrubber followed by alkali scrubber	SO_2, HCl, HBr, Cl_2
6	Multipurpose Plant-6	15	100	Two stage water scrubber followed by alkali scrubber	SO_2, HCl, HBr, Cl_2
7	Multipurpose Plant-7	15	100	Two stage water scrubber followed by alkali scrubber	SO_2, HCl, HBr, Cl_2
8	Multipurpose Plant-8	15	100	Two stage water scrubber followed by alkali scrubber	SO_2, HCl, HBr, Cl_2
9	Multipurpose Plant-9	15	100	Two stage water scrubber followed by alkali scrubber	SO_2, HCl, HBr, Cl_2

Details of Solid waste/ Hazardous waste generation and its management. 13 Categories of Hazardous/Solid Wastes shall be generated from this Unit.

(i). Used Lube Oil @ 670.8 Liters/month which shall be Collected, Stored, Transported & Disposed by sale to GPCB authorized Recyclers.

(ii). Discarded Drums & containers @ 40 MTPM & Discarded liners & cardboards @ 6 MTPM which shall be Collected, Stored, decontaminated, recycled/Reused & transported back to the supplier for reuse or sold to GPCB authorized vendor.

(iii). Cotton wastes/ raw dust / bag filters containing pesticides @ 0.2 MTPM which shall be Collected, Stored, Transported for co-processing at cement industry or common incineration facility.

(iv). Date expired pesticides @ 0.357 MTPM which shall be Collected, Stored, Transported & send back for regeneration or return to suppliers.

(v). Spent catalyst (Reney Nickel Catalyst) @ 97.28 MTPM which shall be Collected, Stored, Transported & send back for regeneration or return to suppliers or sold to authorized vendors.

(vi). Process/ Distillation Residue @ 225 MTPM & MEE Stripper Solvent/ Residual Waste After Process Waste Treatment @ 165 MTPM which shall be Collected, Stored, Transported & disposed by co-processing at AFR cement industries or sent to common incineration facility

(vii). ETP Sludge @ 639.3 MTPM which shall be Collected, Stored & Transported to authorized TSDF for land filling/ Send to NPK Fertilizer manufacturers.

(viii). MEE Salt @ 2400 MTPM, Spent Carbon from ETP @ 250 MTPM & Sludge from wet scrubber @ 2 MTPM which shall be Collected, Stored & Transported to authorized TSDF for land filling.

(ix). Spent Ion Exchange Resins @ 0.184 MTPM which shall be Collected, Stored, Transported, disposed by giving for regeneration or return back to supplier.

(x). Spent Solvent @ 300 MTPM which shall be Collected, Stored, transported & recovered within premises or recovery at other solvent recovery unit or sell to other authorized industry.

(xi). Fly ash (Coal Ash) @ 600 MTPM which shall be Collected, Stored, Transported and Final Disposal at bricks manufacturers or land filling or disposal at common TSDF site.

Deliberations in the EAC:

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

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

The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental status and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee also deliberated on the activities/action plans and found to be addressing the issues in the study area. The Committee suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee suggested that the greenbelt development shall be taken up actively by the PP and at least 8500 trees shall be planted at the intervals of 2m x 2m. The PP informed that the greenbelt was destroyed due to fire accident in the unit earlier. The Committee also suggested PP to implement recycling of water and utilize 40 KLD of domestic water after treatment in STP for greenbelt development. It was also suggested to reduce the effluent quantity upto 30% within a span of five years and to reduce fresh water accordingly. Considering the critical nature of the area, the Committee suggested PP to use natural gas/briquette in place of coal and only during exigency imported coal (Sulphur <0.5%) shall be used. The Committee also noted that Ministry had issued EC earlier dated 11th December, 2020 for expansion from 1265 TPM to 2350 TPM but the same has not been implemented. The certified Compliance Report of existing operation EC forwarded by the Ministry's RO, Bhopal vide letter dated 27/11/2017 was found to be satisfactory.

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

Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:

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

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

(i). No banned pesticides/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.

(ii). 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.

(iii). The treated effluent of 1474 cum/day proposed to send to GIDC effluent pipeline for final disposal into deep sea, shall conform to the standards prescribed under the Environment (Protection) Act, 1986. The project proponent shall achieve improvement in recycle and reuse of the treated water in the unit to reduce the fresh water demand and waste disposal, and there shall be at least 30% reduction in the effluent discharge within five years.

(iv). Domestic effluent of 40 KLD shall be treated in the STP and used for greenbelt development.

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

(vi). 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.

(vii). 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.

(viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

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

(x). Necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents.

(xi). 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.

(xii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.996% with effective chillers/modern technology.

(xiii). Natural gas/briquette shall be used in place of coal, and only during emergency imported coal with sulphur content less than 0.5% shall be used.

(xiv). Total fresh water requirement shall not exceed 2353 cum/day, proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority. The PP shall achieve improvement in recycle and reuse of water every year and over a period of 5 years, PP shall increase recycled quantum to 30% of total water consumption. After 5 years, only 30 % of the present fresh water requirement shall be used.

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

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

(xvii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area (at least 8500 trees), mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees shall have to be increased accordingly. The plant species can be selected that will

give better carbon sequestration and plantation shall be started from first year onwards.

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

(xix). A separate Environmental Management Cell (having qualified person 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.

Agenda No. 11.7

Setting up of Active Pharmaceutical Ingredients API manufacturing unit of capacity 51 TPM by M/s Jet Life Sciences located at Plot No's. 15, 16 & 25, Kadechur Industrial Area, Yadagir Taluk & District, Karnataka- Environment Clearance - reg.

[Proposal No. IA/KA/IND2/206828/2021, File No. J-11011/221/2021-IA II (I)]

The project proponent and the accredited consultant M/s. AM Enviro Engineers, made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of Active Pharmaceutical Ingredients API manufacturing unit of capacity 51 TPM by M/s Jet Life Sciences located at Plot No's. 15, 16 & 25, Kadechur Industrial Area, Yadagir Taluk & District, Karnataka.

The details of products and capacity as under:

S. No	Products	Qty. in TPM	CAS No.	Therapeutic Use
1	Anastrozole	3	120511-73-1	To treat breast cancer
2	Atorvastatin Calcium	5	134523-03-8	To treat cholesterol
3	Bicalutamide	1	90357-06-5	To treat metastatic prostate cancer
4	Bortezomib	1	179324-69-7	Multiple myeloma
5	Busulfan	1	55-98-1	Chronic myelogenous leukemia
6	Clopidogrel Bisulphate	5	120202-66-6	To treat the symptoms of acute coronary syndrome
7	Dolutegravir Sodium	2	1051375-19-9	Anti retroviral (ARV) for treatment of HIV infection
8	Domperidone	3	57808-66-9	Anti-sickness
9	Famotidine	3	76824-35-6	To treat gastritis
10	Gefitinib	2	184475-35-2	Anti cancer (lung cancer)

11	Gemcitabine HCl	2	122111-03-9	Anti cancer
12	Irinotecan HCl	1	136-572-09-3	Topoisomerase I inhibitors
13	Itraconazole	5	84625-61-6	Anti fungus
14	Ivabradine HCl	2	148849-67-6	To treat heart disease
15	Lacosamide	2	175481-36-4	To prevent and control seizures
16	Lenalidomide	1	191732-72-6	To treat anemia
17	Linagliptin	5	668270-12-0	Anti diabetic
18	Linezolid	5		Antibiotic
19	Montelukast Sodium	2	151767-02-1	To prevent wheezing
20	Myrtecaine	5	7712-50-7	Muscle strains, Tendinitis or ligament sprains and Joint pain
21	Nebivolol HCl	5	152520-56-4	To treat high blood pressure
22	Olmesartan	3	144689-63-4	To treat high blood pressure
23	Omeprazole	8	73590-58-6	Indigestion and heartburn and acid reflux
24	Ondansetron HCL Dihydrate	4	103639-04-9	To prevent nausea and vomiting
25	Pantoprazole Sodium	8	138786-67-1	To treat gastritis
26	Rabeprazole Sodium	3	117976-90-6	To treat gastritis
27	Rosuvastatin Calcium	4	147098-20-2	To manage cholesterol
28	Saquinavir Mesylate	1	149845-06-7	HIV medications
29	Sitagliptin Phosphate	2	654671-77-9	To control high blood sugar
30	Sorafenib	1	284461-73-0	To treat cancer
31	Sparfloxacin	3	110871-86-8	Antibiotic
32	Stavudine	1	3056-17-5	Nucleoside reverse transcriptase inhibitors
33	Tadalafil	2	171596-29-5	To treat erection problems
34	Telmisartan	5	144701-48-4	Anti hypertensive
35	Temozolomide	1	85622-93-1	Alkylating agents- To treat brain tumor
36	Thalidomide	1	50-35-1	To treat a skin condition and cancer
37	Topiramate	10	97240-79-4	To prevent migraine headaches
38	Vildagliptin	2	274901-16-5	Antidiabetic
39	Voriconazole	2	137234-62-9	Anti fungus
40	Zoledronic acid	1	165800-06-6	To treat high levels of calcium
	Total	**123**		
	Total (8 Products)	**51 TPM**		

LIST OF BY-PRODUCTS AND ITS QUANTITIES

S . No	**Product**	**By-Product**	**Quantity (Kgs/Day)**
1	Famotidine	Potassium chloride	53.14
2	Pantoprazole Sodium	Potassium Sulphate	60
		Ammonium Phosphate	35

		Sodium Acetate	110
		Ammonium Chloride	72.25
3	Rosuvastatin calcium	Triphenyl phosphine oxide	100.04
4	Telmisartan	Sodium phosphate	150.56
5	Topiramate	Pyridine hydrochloride	130.96
Note: The quantity of By-products based on respective products being manufactured.			

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and its amendment dated 27.03.2020 and 15.10.2020. Due to applicability of general conditions (interstate boundary within 5 km), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposed project will be established in a land area of 4.5 Acres (18,207 Sqm). Industry will develop greenbelt in an area of 6,020 Sqm which is 33% out of the total project area. The proposed project cost is about Rs.10 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.105 Lakhs and the recurring cost (operation and maintenance) will be about Rs.28 lakhs per annum. Total Employment under proposed project will be of 120 persons. Industry proposes to allocate 8 Lakhs towards Corporate Environmental Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Kadechur lake is flowing at a distance of 1.2 km in the North-East direction.

Total water requirement is 187.1 KLD and will be met from KIADB. Generated effluent of 85.7 KLD will be treated through Common Effluent Treatment Plant CETP, Kadechur.

Power requirement of project will be 750 kVA and will be met from GESCOM. The unit is proposed to install 1X250 KVA & 1X500 KVA of DG Set with stack height of 4 & 5m respectively will be provided as per CPCB norms. The unit has proposed to install 1X2TPH & 1X3TPH Briquettes/Coal fired boiler with stack of height 30 m. Multi Cyclone separator will be installed for the boiler for controlling the particulate emissions-(within statutory limit of 115 mg/ Nm^3).

Details of Process emissions generation and its management.

S. No	Name of the Gas	Quantity in Kg/Day	Treatment Method	Disposal Method after treatment
1	Hydrogen chloride	192.78	Scrubbed by using water media	Generated Dil. HCl will be reused within the industry
2	Ammonia	63.47		Generated NH_4OH will be reused within the industry
3	Sulfur dioxide	144.84	Scrubbed by using C.S. Lye solution	Residues from the reaction will be sent to TSDF
4	Hydrogen Bromide	53.56		Residues from the reaction will be sent to TSDF

5	Oxygen	30.91	Dispersed into atmosphere	-
6	Carbon dioxide	347.83		-
7	Nitrogen	5.42		-
8	Hydrogen	17.66	Dispersed into atmosphere through flame arrester	-
9	Pentane	9.199	Dispersed into atmosphere through Nitrogen	-

Details of Solid waste & Hazardous waste generation and its management.

S. No	Category of the HW	Hazardous Waste	Quantity	Disposal Method
Hazardous waste generation from plant				
1	5.1	Waste oils & Grease/ Used Mineral oil	0.4 KL/Annum	Agencies authorized by KSPCB
2	5.2	Oil Soaked Cotton	2 Kgs/month	KSPCB authorized Vendor
3	20.3	Distillation Residue	671 kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing
4	28.1	Process Residues & Waste	3190 kg/day	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
5	28.2	Spent Catalyst	77.2 Kgs/day	Store in secured manner and hand over to authorized recycler
6	28.3	Spent Carbon	217 Kgs/Day	Store in secured manner and hand over to authorized cement industry for Co-processing
7	28.4	Off Specification Products	1 TPM	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
8	28.5	Date expired products	700 Kgs/Month	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
9	33.1	Detoxified-Container & Container Liners of	500 No's/Month	After complete detoxification,

		Hazardous Chemicals and Wastes		shall be disposed to the outside agencies.
10	33.2	Contaminated cotton rags or other cleaning materials	50Kgs/month	Store in secured manner and hand over to KSPCB Authorized Vendor
11	A1160	Used Lead Acid batteries	5No's/Annum	Returned back to dealer/ Supplier
Other & Miscellaneous Solid Wastes				
12	--	Coal ash	2000 kgs/day	Sent to Brick Manufacturers
13		Briquette ash	4200 kgs/day	Sent to Fertilizer industries
14	--	Residue from scrubber	272 kgs/day	Shall be stored in secured manner & handed over to TSDF.
15	--	Used PPE	10 Kgs/ Month	Sent to authorized vendor
16	--	E- Waste	150 Kgs/ Annum	Authorized recyclers
17	--	Plastic Waste	200 Kgs/ Annum	Authorized recyclers
18	--	Metal Scrap	5 TPA	Sale to outside agencies/ recyclers
19	--	Used Filters (HEPA filters, Oil Filters etc.)	50 Nos /year	Sent to TSDF
20	--	Used / Discarded RO Membranes	0.3 TPA	Sent to TSDF

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

Kg per day													
EFFLUENT WATER								**SOLID WASTE**					
Water in put	Water in Effluent	Organics in effluents	TDS	COD	HTDS	LTDS	Total Effluent	Organic	In Organic	Spent carbon	Spent Catalyst	Process Emission	Distillation residue

48995.6	49711.95	909.06	2037	1472.82	37963.9	5604.49	43568.44	2378.55	810.98	216.56	77.16	592.05	671

HAZARDOUS SOLID WASTE DETAILS

Organic solid waste	Inorganic solid waste	Spent Carbon	Distillation Residue
Kg/day	Kg/day	Kg/day	Kg/day
2378.55	810.98	216.56	671

EMISSION DETAILS

Kg/day								
HCl	**CO_2**	**H_2**	**NH_3**	**HBr**	**N_2**	**SO_2**	**O_2**	**C_5H_{12}**
192.78	347.83	17.66	63.47	53.56	5.42	144.84	30.91	9.2

Deliberations by the EAC:

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

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

The Committee was further informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load and the EAC also deliberated on the pollution load as estimated by the PP/Consultant.

The Committee noted that the PFR/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for green belt development and suggested to complete plantation in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested use of coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also 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 Committee suggested increase in the use percentage of recycled water and effective mitigation of VOCs.

The EAC deliberated on the proposal with due diligence using 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 also found the proposal in order and recommended for the grant of environmental clearance.

Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:

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

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

(i). 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 PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(iii). 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.

(iv). Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.

(v). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.

(vi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(vii). Total fresh water requirement, sourced from KIADB, shall not exceed 187.1 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(viii). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

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

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

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

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

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

(xiv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule

presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

(xvi). A separate Environmental Management Cell (having qualified person 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.

Re-Consideration of Environmental Clearance

Agenda No. 11.8

Proposed Modernization of Synthetic Organic Chemicals Manufacturing Unit (173.88 TPA) by M/s Kothari Phytochemicals International (Division of Kothari Phytochemicals & Industries Limited) at villages Nagari and Thiruvalavayanallur, Taluk Vadipatti District Madurai (Tamil Nadu) -Re-Consideration of Environment Clearance

[IA/TN/IND2/122790/1991, IA-J-11011/180/2018-IA-II(I)]

The proposal was earlier considered by the EAC (Industry-2) in its meeting held on 14th April, 2020 and 17th September, 2021. The requisite information desired by the Committee and response submitted by the PP are as under:

1. ***This is modernization case and as per TOR, PP needs to submit the certified compliance report of CTO from SPCB. However, PP has not submitted the same.***

   PP have requested TNPCB to issue the Certified Compliance report on 26-05-2020. After continuous follow up at the SPCB, Certified Compliance Report to the CTO has been issued vide Letter No. T4/TNPCN/F-00035MDU.RL/2021 dated 08-04-2021**.**

2. ***Revised prediction of GLC was not adequate and the Committee is of the view that PP/Consultant is not serious and has no done proper prediction of GLC. PP need to resubmit with mitigation measures.***

   Existing 3 TPH will be operated by replacing the fuel from Furnace Oil (FO) to LSHS (Low Sulphur Heavy Stock - Bio Fuel) fired boiler which has less than 0.5% Sulphur content. The analysis report of LSHS (Bio Fuel) provided by the supplier is enclosed as attachment for your kind reference. Revised GLCs are predicted and the same are submitted.

3. ***The EAC, during deliberations, noted that the Consultant is not serious for preparation of the EIA/EMP Report.***

Response from the Consultant:

Consultant have been following all the guidelines for preparation of the EIA/EMP and are trying our best to respond to all the ToRs. We were attending a Video Conference meeting for the first time and due to the disturbance in the bandwidth, we could not communicate certain points. The GLCs were prepared based on the Fuel Quality provided by the Proponent, which we should have restrained from. We offer our apologies to the Hon'ble Committee for not being up to their expectations and assure you that we will certainly try our best to live up to your expectations and give the priority to the environment than to the client. We humbly request the Hon'ble EAC Committee to pardon us for the same.

The point we wanted to communicate was that the proponent has not proposed any new Boiler and the Existing Boiler is used with Furnace Oil as Fuel, which may kindly be considered by the Hon'ble committee. However, owing to certain internet connectivity issues, we could not communicate the same. We once again regret the same.

Response from M/s.Kothari Phytochemicals:

PP regret, that based on our insistence, our consultants have submitted the report the revised GLCs with reduced sulphur content in fuel. The Consultants were reluctant to present the case based on our request and have insisted us and on various occasions have informed that Sulphur content in Furnace Oil can never be less than 3.5%. The Consultants are at no fault on this matter and we take the responsibility of the same.

The Project Proponent and the accredited Consultant M/s. KKB Envirocare Consultants Pvt. Ltd made a detailed presentation on the salient features of the project and informed that:

The proposal is for Environmental Clearance to the project for Modernization of Synthetic Organic Chemicals manufacturing unit located at SF No. 3/1A, 3/1B, 3/2, 4/1, 5/1A, 5/1B, 5/2, Nagari & 12/1A, 12/1B, Thiruvalavayanallur Village, Vadipatti Taluk and Madurai District,

Tamil Nadu by M/s. Kothari Phytochemicals International (Division of Kothari Phytochemicals & Industries Limited).

The details of products and capacity as under:

S. No.	Product	Existing (TPA)	Proposed (TPA)	Total (TPA)
1.	Tolbutamide	840	(-759) *(Reduced)*	42.0
2.	Chloropropamide			39.0
3.	Calcium Sennoside	24	16.6	40.6
4.	Sennosides	-	8.6	8.6
5.	Total Alkaloids	24	**-**	-
6.	Brucine	-	10.8	10.8
7.	Strychnine	-	28.8	28.8
8.	Colchicine	-	2.04	2.04
9.	Thiocolchicoside	-	2.04	2.04
Total		**888**	**(714.12)*** *(Reduced)*	**173.88** *(Reduced)*
* Reduced quantity				

The project/activities are covered under category A of item 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The Standard ToR was issued by MoEFCC vide Letter No. IA- J-11011/180/2018-IA-II (I) on 23-06-2018. Public hearing for the proposed modernization project has been conducted by the State Pollution Control Board on 21-08-2019. The main issues raised during the public hearing are related to Greenbelt along the Roads and in the plant, more employment to locals and control the pollution by operating the control equipment. No litigation is Pending against the proposal.

Industry is established in 1976 prior to EIA Notification 27-01-1994, hence Environmental Clearance is not applicable for this industry. Consent order for Operation was issued in favour of M/s Kothari Phytochemicals International by TNPCB in 1991 for manufacturing APIs & phytochemicals with a production capacity of 4488 TPA i.e. prior to the EIA Notification 1994. Since, then industry is manufacturing same products with reduced production capacity to 888 TPA. Copy of Consent to Operate dated 16-9-1991, 06-08-2000, 19-05-2004, 28-07-2005, 31-01-2006, 18-10-2006, 18-11-2009, 26-11-2015, 22-02-2017, 22-05-2017, 24-07-2018, 01-08-2019,01-07-2020 and latest consent 27-11-2020 valid upto 31-03-2021. Renewal for

consent to operate is under at TNPCB. Certified Compliance report to the Consent to Operate was issued by TNPCB vide Letter No. T4/TNPCB/F.00035MDU/RL/2021 dated 08-04-2021.

Existing land area is 11.748 Ha (117480.23 m^2).No additional land will be used for proposed modernization project. Industry has already developed greenbelt in an area of 34.5% i.e. 40468.56m^2 out of total area of the project. The estimated project cost is Rs.14.64 crores including existing investment of Rs. 10.64 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 3.81crores including existing investment of Rs. 3.14 crores and the Recurring cost (Operation and maintenance) will be about Rs.0.84 crores per annum. Total Employment is 50 persons as direct & 20 persons indirect. No additional employees proposed in modernization. Industry proposes to allocate Rs.5 lakhs towards Corporate Environment Responsibility.

There are No National parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River Vaigai is flowing at a distance of 2.9 km in SW direction and Periyar main canal is flowing at a distance of 3.6 km (N). Water bodies viz., Tenkarai Kamma (Pond near Vikkiramangalam) – 7 km in WSW direction; Thiruvalavayanallur Pond– 0.1km in S direction.

Ambient air quality monitoring was carried out at 9 locations during March to May 2018 and the baseline data indicates that ranges of concentrations as: PM_{10} (31.9 - 60.6µg/m^3), $PM_{2.5}$ (16.1 – 30.2µg/m^3), SO_2 (5.7 – 16.6µg/m^3) and NO_2 (13.7- 33.4µg/m^3). AAQ modeling study for point source emissions indicate that the maximum incremental GLCs after the proposed modernization project would be 0.0518 µg/m^3, 0.117µg/m^3 and 0.342 µg/m^3 with respect to PM_{10}, SOx and NOx. Existing Utilities are meeting the proposed modernization. There is no change in utilities. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 58m^3/day of which 32 m^3/day will be from STP Plant of Madurai Corporation STP Plant and remaining from the recycled water. Effluent of 23 m^3/day quantity (Trade effluent) in continued to be treated through Effluent Treatment plant–ZLD. The plant will be based on Zero Liquid Discharge system. There is no addition of Effluent quantity and Domestic wastewater in proposed expansion project.

Power requirement after expansion is same as existing 400 KVA and met from Tamil Nadu State Power Distribution Corporation Limited(TNSPDCL). No additional power requirement for the proposal. Existing unit has 3 DG sets i.e. 125 KVA and 2 nos. of 380 KVA capacity,

no additional DG sets are proposed. DG sets are used as standby during power failure. Stack (height 5 m) is provided as per CPCB norms to the DG sets.

Existing unit has 3 TPH Furnace oil fired boiler. Low Sulphur Heavy Stock (LSHS - Bio fuel) will be used as fuel instead of Furnace Oil. No additional boiler is proposed.
Stack of height of 35mis provided for controlling the Particulate emissions within statutory limit of 115 mg/Nm^3 for the boiler.

Details of process emissions generation and its management are given below.

Sl. No.	Process Emission	Maximum Quantity on various combinations (kg/day)	Treatment
1.	NH_3	15.9	Scrubbed by using Chilled water &dilute H_2SO_4 solution in 2-stage scrubber. Remaining CO_2 will be dispersed into atmosphere
2.	CO_2	41.9	
Total		57.8	

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

Sl. No.	Description	Proposed Quantity (TPD)	Stream	Handling Method	Disposal
1.	Organic residue from Process	0.2	28.1 of Schedule -I	HDPE Drums	Sent to Tamil Nadu Waste Management Limited (TNWML), Gummidipoondi, Tamil Nadu for Incineration
2.	Spent carbon	0.001	28.3 of Schedule -I		
3.	Inorganic & Evaporation salt (Process)	0.292	28.1 of Schedule -I	HDPE Bags	Sent to TNWML, Gummidipoondi, Tamil Nadu for land fill
4.	Evaporation salt (Non-Process)	0.1	35.3 of Schedule -I		
5.	ETP Sludge	0.1	35.3 of Schedule -I		
6	Waste pulp after extraction from process	14.28	--	HDPE Bags	Give to the farmers for use in agricultural fields as manure

Other Hazardous / Solid Waste generation from the Plant					
7.	a) Detoxified Container / Liners drums, HDPE Carboys, Fiber Drums,	15 Nos./ month	33.1 of Schedule-I	Designated covered area	Disposed to SPCB Authorized agencies after complete detoxification
	b) PP Bags	3 Kg/month	--		
8.	Spent solvents (85.1 KLD + 0.3 KLD water)	85.4 KLD	28.6 of Schedule -I	Tanks / Drums	Recovered within the premises for reuse / sold
9.	Waste oils & Grease	0.5 TPA	5.1 of Schedule -I	MS Drums	Sent to SPCB Authorized agencies for reprocessing
10.	Used Lead acid Batteries	30 Nos. / annum	A1160 of Schedule-III	Stored in Covered shed	Sent to suppliers on buy-back basis.
11.	Misc. Waste (spill control waste)	Lumpsum (LS)	--	Stored in Drums	TNWML, Gummidipoondi, Tamil Nadu
12.	Rejects	LS	--		
13.	E- waste	LS	--	Designated covered area	Authorized re-processor or TNWML, Gummidipoondi, Tamil Nadu
14.	Waste papers & other types of packing scrap	LS	--		Sold to scrap vendors
15.	Canteen waste	LS	--	HDPE bags	Composted on-site, if any and reused for greenbelt
16.	Bio Medical Waste	LS	--	Color coded containers	Sent to SPCB authorized Biomedical waste incinerator

Deliberations in the EAC:

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

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

The Committee noted that the EIA/EMP reports are in order and compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project. The Committee deliberated the action plan on mitigation measures on various impacts due to project. The Committee also deliberated on the activities/action plans and found to be addressing the public hearing issues. The Committee suggested that the storage of toxic/explosive raw materials shall be bare minimum in quantity and inventory. The Committee suggested the PP to increase the greenbelt density and improve the rainwater harvesting system. The Committee noted that the Industry is reported to be established in the year 1976. The PP was operating the unit with the consent to operate from the SPCB and has not increased the unit production after the year 2006. Certified Compliance report was issued by Tamil Nadu PCB vide Letter No. T4/TNPCB/F.00035MDU/RL/2021 dated 08-04-2021. The Committee deliberated on the certified compliance report and the additional details submitted by the PP and found the same in order and satisfactory.

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

Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:

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

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

(i). 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.

(ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

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

(iv). 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.

(v). 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/masks for personal protection.

(vi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees. The project proponent shall ensure safety awareness programme for employees and nearby villagers.

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

(viii). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pumps shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified 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 vent condensers with chilled brine circulation.

(ix). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.996% with effective chillers/modern technology.

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

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

(xii). The green belt of at least 5-10 m width shall be developed over nearly 33% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and the number of trees shall have to be increased accordingly. The plant species can be selected that will give better carbon sequestration.

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

(xiv). A separate Environmental Management Cell (having qualified person 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.

Consideration of Amendment in Environmental Clearance

Agenda No. 11.9

Manufacturing of Synthetic Organic Chemicals by M/s. Shree Vallabh Chemical (Unit Ii) at Survey No. 703/P/1, Village: Kanera, Taluka: Kheda, District: Kheda, Gujarat- Consideration of amendment in Environment Clearance

[Proposal No. IA/GJ/IND3/197153/2021, File No. IA-J-11011/181/2019-IA-II(I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter IA-J-11011/181/2019-IA-II(I) dated 11th August 2020 for Setting up Synthetic organic chemical manufacturing unit by M/s. Shree Vallabh Chemical Unit – II, located at Survey No. 703/P/1 ,Village: Kanera, Tal.: Kheda, Dist.: Kheda, Gujarat.

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

Sr/No.	Para of EC issued by MoEF & CC	Details as per the EC	To be revised/ read as	Justification/ reasons
1.	--	To, M/s.Shree Vallabh Chemical (Unit – II), Survey No. 703/P/1, Village – Kanera, Taluka – Kheda, District Kheda (Gujarat)	To, M/s.Shree Vallabh Chemical (Unit – II), **Survey No. 703/P/1+ 686,** Village – Kanera, Taluka – Kheda,	Amendment is applied for addition of Survey no. 686 to increase the plant area for better arrangement of equipments & machineries and for providing good working space.

			District Kheda (Gujarat)	
2.	Subject	Survey No. 703/P/1	**Survey No. 703/P/1+ 686**	Amendment is applied for addition of Survey no. 686 to increase the plant area for better arrangement of equipments & machineries and for providing good working space.
3.	2	Survey No. 703/P/1	**Survey No. 703/P/1+ 686**	Amendment is applied for addition of Survey no. 686 to increase the plant area for better arrangement of equipments & machineries and 4.for providing good working space.
4.	4	The land area available for project is 5240.74 sq.m. Industry will develop greenbelt in an area of 30.16% i.e. 1580.74 sq.m. out of total area 5240.74 sq.m of the project. The estimated project cost is Rs. 8 crores.	The land area available for project is 9087.74 sq.m. Industry will develop greenbelt in an area of 30.65% i.e. 2786 sq.m. out of total area 9087.74 sq.m of the project. The estimated project cost is Rs. 8.5 crores.	Amendment is applied for addition of Survey no. 686 to increase the plant area for better arrangement of equipments & machineries and for providing good working space.
5.	13	Survey No. 703/P/1	**Survey No. 703/P/1+ 686**	Amendment is applied for addition of Survey no. 686 to increase the plant area for better arrangement of equipments & machineries and for providing good working space.

Deliberations in the EAC:

The EAC made detailed deliberations on the proposal. The Committee noted that the amendment is sought by the PP to add additional land which is having area almost equal to the existing land. The PP proposes to rearrange various utilities with the addition of land area, leading to changes in lay out plan and its different mitigation measures. The Committee opined that the present case cannot be considered under amendment category and requires appraisal in totality for EC. Based on the request of the PP, the Committee recommended to exempt requirement of fresh public hearing, if the revised EIA/EMP report is submitted within three years of the date of earlier public hearing.

The proposal is accordingly <u>returned</u> in its present form for submission of revised proposal for EC.

<u>Agenda No. 11.10</u>

Manufacturing of various insecticides for veterinary animal health and household use by M/s Synergia Sciences Pvt. Ltd at Plot No. 18, Survey No. 300, Village Indrad, Taluka Kadi, District Mehsana, Gujarat- Consideration of amendment in Environment Clearance

[Proposal No. IA/GJ/IND3/202465/2021, File No. IA-J-11011/197/2019-IA-II(I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter F.No. IA-J-11011/197/2019-IA II(I) dated 01/12/2020 for the project for manufacturing of various Insecticides for veterinary animal health & household use (757.2 TPA) located at Plot No. 18, Survey No. 300, Village Indrad, Taluka Kadi, District Mehsana, Gujarat in favour of M/s Synergia Sciences Pvt. Ltd.

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

Sr. No.	Reference of EC issued by MoEF&CC	Details as per the EC	To be revised / read as	Justification / Reasons
1.	Specific Condition A (ii) at Page 2 of 7	As already committed by the project proponent, zero liquid discharge shall be ensured and no waste/treated water shall be discharge outside the premises. Treated effluent shall be reused in	There will be generation of 68.5 KLD effluent from proposed project. It will be treated through Primary, Secondary & Tertiary ETP followed by RO. During initial phase of the project till the high concentration	We already became a member of CEMSPL which is located at a distance of only 800 m from our project site, moreover, CEMSPL has obtained valid permissions i.e. CTE/NOC and CC&A/ CTO from Gujarat Pollution Control Board (GPCB) to receive primary treated high concentrated effluent from

		the process/utilizes. Treated industrial effluent shall not be used for gardening/greenbelt development/horticulture.	effluent reaches 15.0 KLD, after primary treatment it will be sent for Common Spray Drying at Chhatral Enviro Management System Pvt. Ltd. (CEMSPL) by tanker. As the project gradually advances and high concentration effluent generation increases beyond 15 KLD, unit will switch over to in-house spray dryer and MEE for effluent treatment and will achieve Zero Liquid Discharge.	member industrial units for the disposal by Spray Drying to achieve Zero Liquid Discharge. Copy of Membership certificate and copy of CTE & CTO/CCA of CEMSPL is already submitted to your office.

Deliberations in the EAC:

The EAC made detailed deliberations on the proposal. The Committee noted that the amendment is proposed for changing the effluent treatment systems from 'Zero Liquid Discharge' to 'discharge to the Common Spray Drying at Chhatral Enviro Management System Pvt. Ltd. (CEMSPL)'. The Committee found no merit in consideration of the instant proposal as there is no proper justification submitted by the project proponent. The Committee is of the view that recycle/reuse of treated water shall be encouraged, and desired that the PP shall submit a detailed techno-economic feasibility report on the viability of the effluent treatment system.

The proposal was accordingly <u>returned</u> in its present form for submission of revised proposal.

Day 1 Meeting ended with thanks to the Chair.

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DAY 2 - 1st JUNE, 2021 (TUESDAY)

Agenda No. 11.11

Proposed Pesticide Manufacturing Project by M/s MG Organics Pvt. Ltd., located at Plot No. Q-2/6&7, UPSIDC Industrial Area, Kosi Kotwan Extension -2 District- Mathura, Uttar Pradesh - Consideration of Environment Clearance

[Proposal No. IA/UP/IND2/183990/2020, File No. IA-J-11011/289/2020-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. EQMS India Pvt. Ltd. made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Setting up Pesticide Manufacturing Unit at Plot No. Q-2/6&7, UPSIDC Industrial Area, Kosi Kotwan Extension - 2 District- Mathura, Uttar Pradesh by M/s. M G Organics Pvt. Ltd.

The details of products and capacity as under:

S. No.	Name of Product	Capacity (TPM)	CAS No.
INSECTICIDE GROUP			
1	Diafenthiuron	**200**	80060-09-9
2	Spiromesifen		283594-90-1
3	Novaluron		116714-46-6
4	Pyriproxyfen		95737-68-1
5	Acetamiprid		135410-20-7
6	Dinotefuran		165252-70-0
7	Nitenpyram		150824-47-8
8	Thiamethoxam		153719-23-4
9	Pymetrozine		123312-89-0
10	Lamda-Cyhalothrin		68085-85-8
11	Bifenthrin		82657-04-3
12	Profenophos		41198-08-7
13	Chlorantraniliprole		500008-45-7
14	Flubendiamide		272451-65-7
FUNGICIDE GROUP			
15	Thifluzamide	**100**	130000-40-7
16	Azoxistrobin		131860-33-8
17	Pyraclostrobin		175013-18-0
18	Tebuconazole		107534-96-3
19	Difenoconazole		119446-68-3
HERBICIDE GROUP			
20	Bensulfuron	**100**	83055-99-6
21	Pyrazosulfuron		93697-74-6
22	Penoxsulam		219714-96-2

23	Glufosinate		77182-82-2
24	Glyphosate		1071-83-6
25	Pretilachlor		51218-49-6
26	Clodinafop		105512-06-9
27	Quizalofop		100646-51-3
28	Clomazone		81777-89-1
29	Metribuzin		21087-64-9
30	Ethopen		16672-87-0
ADVANCED PESTICIDE SPECIFIC INTERMEDIATES			
31	1,2, 4 Triazole	**100**	288-88-0
32	2- Chloro 5- Chloromethyl Pyridine (CCMP)		70258-18-3
33	2- Nitroaminoimidazoline (NII)		5465-96-3
34	2- Chloro 5- ChloromethylThiazole (CCMT)		105827-91-6
35	3-Methyl-4-nitroiminoperhydro-1,3,5-oxadiazine		153719-38-1
36	(R)-(+)-2-(4-Hydroxyphenoxy) propionic acid		94050-90-5
37	1,1-Di ChloroPinacolin		22591-21-5
38	4-Amino-6-(tert-butyl)-3-mercapto-1,2,4-triazin-5(4H)-one		33509-43-2
39	Research & Development Based Products	**200**	
	TOTAL	**700**	
40	Formulations	**300**	

The project/activities are covered under category 'A' of item 5(b) 'Pesticides industry and pesticide specific intermediates' and 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The project proposal was submitted for grant of TOR and subsequently Standard Terms of Reference (TOR) was issued by MoEF&CC vide letter no. IA-J-11011/289/2020-IA-II(I) dated 27.11.2020. As the site falls in approved industrial area, hence public hearing/public consultation is exempted for the proposal. No litigation is pending against the proposal.

Land area of 10067.15 m^2 has been proposed for the project. Industry will develop greenbelt in an area of 33.28 % i.e., 3350 m^2 out of total area of the project. The estimated project cost is Rs 12.93 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 196 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 50 Lakhs per annum. Total Employment will be 90 persons as direct & indirect employment. Industry proposes to allocate Rs. 20 Lakhs towards Corporate Environmental Responsibility.

There are no National Park, Wildlife Sanctuary, Biosphere Reserves, Elephant / Tiger Reserve, wildlife corridors etc. present within 10 Km radius of plant site. Distributary of Kosi

is flowing at distance of 2.18 km in SE direction, Distributary of Nandgaon is flowing at a distance of 2.29 km in NW direction, Agra canal is flowing at a distance of 1.90 km in E direction and Shergarh Distributary is flowing at a distance of 6.87 km in NE direction.

Ambient air quality monitoring was carried out at 8 locations during 1st October 2020 to 31st December 2020 and the baseline data indicates the ranges of concentrations as: PM_{10} (52-135 µg/m^3), $PM_{2.5}$ (24-66 µg/m^3), SO_2 (6.1-17.3 µg/m^3) and NO_2 (12.7-43.7 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.78 µg/m^3, 0.64 µg/m^3, 1.61 µg/m^3 and 3.43 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, NO_x & SO_2. All parameter concentrations are within the National Ambient Air Quality Standards (NAAQS) except PM_{10} and $PM_{2.5}$ at two locations (Nabipur and Kosi Kalan Industrial Area). The Committee found the detailed action plan proposed by the PP to be satisfactory and the emission from the unit shall be controlled with modern pollution technologies.

The total water requirement for the project will be 140 KLD of which fresh water requirement of 95 KLD will be met from borewell.

Effluent will be 47 KLD (including domestic sewage). 4 KLD domestic sewage will be treated in Sewage Treatment Plant of capacity 10 KLD. 37 KLD (36 KLD Process Effluent + 1 KLD DM Plant Effluent) will be treated in MEE (Capacity 75 KLD) of which, 4 KLD distillate along with rest of 6 KLD industrial effluent will be treated in ETP followed by RO (Capacity- 50 KLD) treatment. The project will be a “Zero-liquid Discharge” Project.

Power requirement of the plant will be 1000 kVA which will be met from Uttar Pradesh Power Corporation Limited (UPPCL). DG sets of capacity 1x250 kVA and 1x500 kVA will be installed as stand by during power failure. Stack (height 25 m) will be provided as per CPCB norms to the proposed DG sets.

1 x 2 TPH and 1 x 3 TPH agro-waste briquette fired boiler will be installed in the plant. ESP with the stack of height of 32 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm3 for the proposed boiler.

Details of Process emissions generation and its management is mentioned below:

Table 1: Details of Process Emissions and their management

Stack No.	Stack Attached to	Stack Height	Fuel Used	APCS	Expected Pollutants
1	Steam Boiler (2 TPH, 3 TPH)	32	Agro-waste Briquette	ESP System	PM, SO_2 & NO_x
2	DG Set (1x250 kVA, 1x500 kVA)	25	HSD	-	PM, CO SO_2 & NO_x
Process Stacks / Vents					

3	Process Reactor Vents	32	-	Two stage water scrubbers	HCl
4	Process Reactor Vents	32	-	Two stage water scrubbers	HBr
5	Process Reactor Vents	32	-	Two stage Alkali Scrubber (1st Stage- Water & 2nd Stage- Alkali)	HCl & SO_2
6	Process Reactor Vents	32	-	Two stage Alkali Scrubber (1st Stage- Water & 2nd Stage- Alkali)	HCl & Cl_2

Details of Solid Waste/hazardous waste generation and its management is as mentioned below:

Table 2: Details of Hazardous/Non-Hazardous Waste Generation

Sr. No	Type of waste	Category (As per Schedule I & II, 2016)	Quantity (Per Annum)	Mode of Treatment & Disposal Method
Hazardous Waste				
1	Chemical Sludge from wastewater Treatment (ETP sludge + Waste left after Evaporation)	35.3	350MT	Collection, Storage, Transportation, and disposal at Nearest common TSDF site
2	Concentration & evaporation Residue.	37.3	100MT	Collection, Storage, Transportation, and disposal at Nearest common TSDF site
3	Discarded Containers/barrel/liners/contaminated with wastes/chemicals	33.1	6000 Nos	Collection, Storage, Transportation, and disposal at Nearest common TSDF site
4	Used/spent oil	5.1	0.5MT	Collection, Storage, Transportation, and disposal at Nearest common TSDF site
5	Carton/liners contaminated with hazardous chemicals & waste	33.1	4000 Nos	Collection, Storage, Transportation, and disposal at Nearest common TSDF site
Non-Hazardous/Industrial				
6	Ash from coal Based boiler	-	100 MT	Collection, Storage, Transportation, and disposal

				at Nearest common TSDF site
7	Empty barrels (used for non-hazardous material)	-	8000 Nos	Collection, Storage, Transportation, and disposal at Nearest common TSDF site
8	Scrap metals	-	20MT	Collection, Storage, Transportation, and disposal at Nearest common TSDF site
Process waste				
9.	Spent Solvents	5.1	80MT	Collection, Storage, Transportation, and disposal at Nearest common TSDF site
Municipal Waste				
10.	The municipal solid waste	-	50 kg/day	Will be Segregated in biodegradable waste and recyclable waste. Recyclable waste will be sold off to authorized vendors and Biodegradable waste will be disposed off in MSW disposal pit to get converted to manure for horticulture purposes.

Deliberations in the EAC:

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

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

The Committee noted that the EIA/EMP report are in compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within NAAQ standards except PM_{10} and $PM_{2.5}$ at certain sites in the study area. The action plan proposed and the pollution control measures proposed by the PP were found to be satisfactory. The Committee also deliberated on the activities/action plans and found to be addressing to the issues in the study area. The

Committee suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio. The PP informed the Committee that the project site is not located in the Critically Polluted Area. The CPA is restricted to Mathura Industrial area only and the existing site is located at about 48 km from it. However, in Form 2, PP mentioned that the site is in CPA.

The Committee suggested that the ash shall be used as manure/soil conditioner. The PP in coordination with State Forest Department shall make efforts for the development for reserve forest in the study area. The Committee pointed out that the PP proposed to manufacture certain products which is banned or proposed (draft notification issued) to be banned by the Government of India. The Committee noted that the project proponent submitted an undertaking stating that greenbelt intensity shall be increased (838 tree @2500 trees/ha) and plantation as per working plan of the reserve forest shall be made. It is also stated that the greenbelt shall be developed to 40%.

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

Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:

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

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

(i). No banned pesticides/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.

(ii). 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.

(iii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises.

Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture. Domestic effluent shall be treated in STP and used for greenbelt development.

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

(v). 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.

(vi). 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.

(vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(viii). 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.

(ix). Necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents.

(x). 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.

(xi). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.996% with effective chillers/modern technology.

(xii). Total fresh water requirement shall not exceed 95 cum/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

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

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

(xv). The green belt of at least 5-10 m width shall be developed in nearly 40% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration and plantation shall be started from first year onwards.

(xvi). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.

(xvii). As proposed, at least Rs. 9.6 Lakhs shall be earmarked for conservation plan and shall be implemented in coordination with State Forest & Wildlife Department/Local Village Administration.

(xviii). A separate Environmental Management Cell (having qualified person 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.

Agenda No. 11.12

Proposed Expansion for the Manufacturing of Pesticide Intermediates, Fungicides, Herbicides, Insecticides by M/s Heranba Industries Limited at Plot No:-2817/1, Chemical Zone, Near Sandhya Chemical, Notified Industrial Area, GIDC Sarigam, Tal:-Umbergaon, Dist.:- Valsad, Gujarat- Consideration of Environment Clearance

[Proposal No. IA/GJ/IND3/210024/2020, File No. IA-J-11011/270//2020-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Eco Chem Sales & Services (ECSS), made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Expansion of Pesticide Intermediates, Fungicides, Herbicides, Insecticides Manufacturing at Plot No. – 2817/1,

Chemical Zone, Near sandhya chemical, Notified Industrial Area, GIDC Sarigam, Taluka Umbergaon, District Valsad, Gujarat by M/s. Heranba Industries Limited.

The details of products and capacity as under:

Existing:

Sr. No.	Product	Quantity per Annum
1.	Formulation & packing of various liquid pesticide (EC, SL, GEL, RTU, ULV & SC)	24000 KL
2.	Formulation & packing of various Powder pesticide (WP, WDP, SP, SG, WDG, GR, CG, Tablet & WG)	9000 MT
3.	Formulation & packing of various Granules pesticide	12000 MT

Proposed:

S. No	Product	Capacity TPA	CAS Number	End use of the product
Insecticides				
1.	Diafenthiuron	2500	80060-09-9	Control of insects and mites resistant to major chemical classes such as ops or Pyrotheroids
2.	Profenofos		41198-08-7	used on a variety of crops including cotton and vegetables such as maize, potato, soybean, and sugar beet
.3.	Lambda-Cyhalothrin		91465-08-6	Used to control a wide range of pests
4.	Bifenthrin		82657-04-3	Used against malaria and filarial vector mosquitoes
5.	Cyphenothrin		39515-40-7	Is a synthetic pyrotheroids insecticide and is effective against cockroaches
6.	Fenpropathrin		64257-84-7	Widely used Pyrethroids insecticide in agriculture and household.
7.	Zeta-Cypermethrin		1315501-18-8	Used to control a broad spectrum of chewing, sucking and flying insects
8.	Transfluthrin		118712-89-3	It is a repellent insecticide, generally used for the control of mosquitoes in the household. It is also the primary insecticide in certain products for killing wasps and hornets, including their nests.

9.	Pymetrozine		123312-89-0	Control of aphids and whiteflies in vegetables, ornamentals, cotton, field crops, deciduous and citrus fruit; control of plant hoppers in rice.
10.	Nitenpyram		150824-47-8	Used to treat flea infestations in cats and dogs
11.	Acetamiprid		135410-20-7	Used to protect plants against sucking insects
12.	Chlorantraniliprole		500008-45-7	Insecticide, Ryanodine Receptor Activator is used to control a wide variety of crops including Corn, Cotton, Grapes, Rise& Potatoes.
13.	Cyantraniliprole		736994-63-1	Insecticides for controlling insects with mandibulate as well as piercing-sucking mouthparts. Specially use in Vegetables, Bush Berries, Turf & Oilseeds Crops.
14.	Flubendiamide		272451-65-7	Insecticides for controlling insects in Corn, Tobacco, Pome & Stone Fruit. Tree Nut Crops, Grapes & Vegetable Crops (Including Cucurbit Vegetables, Fruiting.)
15.	Dinotefuran		165252-70-0	A Broad Spectrum Insecticides for leafy vegetables(except Brassica) (Group-4) and for Professional Turf management, professional Ornamental Production & Residential Indoor, Pet Lawn & Garden Market. It control of insect pest Such as Aphids, whiteflies, thrips, leafhoppers, leafminers, sawflies.. etc.
Fungicides				
16.	Difenoconazole	1200	119446-68-3	Controls a broad spectrum of foliar, seed and soil-borne diseases caused by Ascomycetes, Basidiomycetes and Deuteromycetes in cereals, soya, rice, grapes, pome fruit, stone fruit, potatoes, sugar beet and several vegetable and ornamental crops.
17.	Hexaconazole		79983-71-4	Can be used on fruit trees
18.	Propiconazole		60207-90-1	Used agriculturally as a systemic fungicide on turf grasses
19.	Tebuconazole		107534-96-3	Used agriculturally to treat plant pathogenic fungi.
20.	Cyproconazole		94361-06-5	Use on greenhouse- and field-grown roses and as a wood preservative.

21.	Epoxiconazole		133855-98-8	Control of Black Sigatoka (Mycosphaerella fijiensis) and Yellow Sigatoka (Mycosphaerella musicola) in bananas and Coffee Rus
22.	Metalaxyl		57837-19-1	Is applied by foliar spray, as a soil drench, soil spread with incorporation, or by dipping plants before planting
23.	Thiophanate-methyl		23564-05-8	Is a systemic fungicide used on a variety of tree, vine, and root crops, as well as on canola and wheat.
24.	Azoxystrobin		131860-33-8	Is widely used in farming, particularly in wheat farming and provides protection against many types of diseases, including: Wheat septoria
25.	Pyraclostrobin		175013-18-0	Use on the Residential and recreational turfgrass sites and golf course turf.
26.	Picoxystrobin		117428-22-5	Use for control of various fungal diseases including leaf rust, stripe rust, powdery mildew, net blotch, scald and speckled leaf blotch.
27.	Trifloxystrobin		141517-21-7	Used as agricultural fungicide
28.	Kresoxim-methyl		143390-89-0	To control powdery mildew on the greenhouse-grown ornamental crops
29.	Thiabendazole		148-79-8	Used primarily to control mold, blight, and other fungal diseases in fruits and vegetables
30.	Fenhexamid		126833-17-8	Used primarily to control grey mold (Botrytis Cinereal), Monilinia Fructigena, Monilinia Laxa and other fungal diseases in fruits and vegetables
31.	Captan		133-06-2	Used primarily to control Scrab, Brown Rot, Downey Mildew, Early & Late Blight, and other fungal diseases in fruits and vegetables
Herbicides				
32.	Bispyribac-Sodium		125401-92-5	For the control of wide range of weeds
33.	Imazethapyr		81335-77-5	For control of wide variety of broad leaf weed species
34.	Quizalofop-ethyl	1200	76578-14-8	Used to control annual and perennial grass weeds in potatoes, soybeans, sugar beets, peanuts vegetables, cotton and flax

35.	Fenoxaprop-ethyl		66441-23-4	A herbicide which is selective against perennial and annual grass weeds in many crops.
36.	Carfentrazone		128639-02-1	Is a broad spectrum herbicide
37.	Sulfentrazone		122836-35-5	Herbicide to control broadleaf and grass weed species in soybeans, sugarcane, tobacco, and several species of turfgrass.
38.	Aclonifen		74070-46-5	Herbicide to control broadleaf and grass weed species in Carrot.
39.	Mesotrione		104206-82-8	Used as a Selective Herbicide specially in Maize, also used to control broadleaf weeds.
40.	Clomazone		81777-89-1	Herbicide to control broadleaf and annual grass in cotton, peas, pumpkins, soybeans, sweet potatoes, tobacco, winter squash and fallow wheat fields.
41.	Pinoxaden		243973-20	Herbicide to control Grass weeds in Cereal crops.
42.	Tembotrione		335104-84-2	Used as a Post-Emergence Herbicide to control wide range of Broad Leaved and Grassy Weeds in Corn and other Crops.
43.	Sulcotrione		99105-77-8	Herbicide commonly used in Corn production as well as on Maize cultivar wax.
44.	Prosulfocarb		52888-80-9	Used as a Selective Herbicide to control annual Ryegrass and Toad Rush in Barley and Wheat.
45.	Propanil		709-98-8	Used as a Herbicide to control numerous grasses and Broad Leaved weeds in Rice, Potatoes and Wheat.
Pesticides Intermediates				
46.	Cypermethric acid chloride (CMAC)	3000	52314-67-7	Used in the manufacture of Parathyroid class of Pesticides like Cypermethrin, Alphamethrin, Permethrin and Deltamethrin.
47.	Diethyl thiophosphoryl chloride (DETC)	15000	1470-61-7	Used in the preparation of various organophosphorus insecticide
48.	Bifenthrin alcohol	1000	76350-90-8	Pyrethroid insecticide
49.	Lambda-acid	1000	72748-35-7	Used to control a wide range of pests
	Total	**24900**		

The project/activities are covered under category 'A' of item 5(b) 'Pesticides industry and pesticide specific intermediates' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The ToR has been issued by Ministry vide letter No. IA-J-11011/270//2020-IA-II(I); dated 07th November 2020. Unit is located in Notified Industrial estate of GIDC. Hence, Public hearing is exempted. There is no litigation pending against the proposal.

Unit has started with valid CTO which was obtained from Gujarat Pollution Control Board and Unit has obtained Certified CCA Compliance from Gujarat Pollution Control Board vide letter No.: GPCB/RO-SARI/ID-68997/1150 on dated 19th April 2021.

All Products are listed at S.N. 5(b) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

Existing land area is 55000 m^2., no additional land will be used for proposed expansion. Industry has already developed 5500 m^2 greenbelt and 12650 m^2 will develop greenbelt in an area of 33 % i.e., 18650 m^2 out of total area of the project. The estimated project cost is Rs. 110 Crores including existing investment of Rs.20 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 596 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 2117.64 Lakhs per annum. Total Employment will be 170 persons as direct & 100 persons indirect after expansion. Industry proposes to allocate Rs. 90 Lakhs towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, Wildlife Corridors etc. within 10 km distance from the project site. River Darotha is flowing at a distance of 2.9 km in East direction.

Ambient air quality monitoring was carried out at 8 locations during 1st October 2020 to 31st December 2020 and the baseline data indicates the ranges of concentrations as: PM_{10} (60.3 – 84.3 µg/m^3), $PM_{2.5}$ (31.3 – 43.2 µg/m^3), SO_2 (8.1 – 19.5 µg/m^3) and NOx (13.2 – 24.6 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.104 µg/m^3, 0.349 µg/m^3 and 0.103 µg/m^3 with respect to PM_{10}, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 605 KLD of which fresh water requirement of 538 KLD will be met from GIDC water supply department, Sarigam. Effluent (Industrial) of 396.8 KLD quantity will be treated in solvent stripper followed by MEE and ATFD, RO Plant and Effluent Treatment Plant. Total Industrial Waste water generation will be 394 KLD generated from process, scrubber, cooling tower blow down, boiler blow down, D M rejection and container washing etc. Out of 394 KLD of industrial effluent, 319 KLD of process effluent will be segregated and will be detoxified with hypochlorite solution and treated in solvent stripper followed by MEE and ATFD. 373.8 KLD of Condensate from MEE will be taken to ETP for treatment. 25 KLD from cooling tower, 10 KLD from D M rejection, 10 KLD from boiler blow down, 15 KLD from floor/container washing and 15 KLD from secondary scrubber attached to reactor and wet

scrubber attached to boiler. Thus total 75 KLD of said normal effluent will be detoxified with hypochlorite solution and treated in RO plant. 52 KLD of RO permeate will be recycled in process. Balance 23 KLD of RO rejection will be treated in ETP along with MEE condensate. Thus total 396.8 KLD of normal industrial effluent will be treated in proposed primary, secondary and tertiary ETP and finally discharge into CETP of M/S Sarigam Clean Initiative, GIDC Sarigam through closed underground pipe line for further treatment and disposal into Arabian Sea. Domestic waste water (15 KLD) will be treated in STP and treated waste water will be recycled for plantation.

Power requirement after expansion will be 3000 KVA and will be met from Dakshin Gujarat Vij Co. Ltd. (DGVCL). Unit has proposed One DG set of 1000 KVA capacity. DG set are used as standby during power failure. Stack (height 11.0 m) will be provided as per CPCB norms to the proposed DG set.

Existing unit has No Boiler. Unit has proposed 15 TPH of Imported coal fired Steam Boiler. ESP followed Wet scrubber with stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers.

Details of Process emissions generation and its management:

At existing scenario, there is a generation PM and organic vapours, which is control by adequate capacity of wet scrubber followed by activated carbon bed and Bag filter. 11 meters height of vent is provided. For the proposed expansion plant, three numbers of two stage water followed by alkali scrubbers will be provided to scrub Hydro chloric acid gas, bromine gas and chlorine gas and three numbers of two stage alkali scrubbers will be provided to scrub Sulphur dioxide and one number of two stage alkali scrubber will be provided to scrub, hydrogen sulphide gas generated from the various product process. Separate 11 meters height of vent will be provided. Two stage alkali scrubber with 11 m height of vent will be provided to scrub acid mist generated from Acid Storage tanks.

The unit proposes to install natural gas fired incinerator having capacity of (250 kg/h of solid and 100 kg/h liquid) and 140 SCM/h of natural gas will be used. Adequate Dryer, cyclone and ventury scrubber along with 30 meters height of chimney will be provided.

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

No	Type of waste	Schedule and Category	Source	Qty. MT/ Annum		Treatment	Disposal
				Existing	Total after Expansion		
Hazardous Waste							
1	ETP waste	Sch:I/35.3	Neutralization of effluent	5.0	3888	Dried, packed in bags	Dispose off into TSDF of M/S Detox India Pvt. Limited, Kutch

2	Salt from MEE	Sch:I/37.3	Evaporation of effluent	0	12480	Dried, packed in bags	Dispose off into TSDF of M/S Detox India Pvt. Limited, Kutch
3	Mixed spent solvent	Sch:I/29.4	From solvent stripper	0	65	Pack in Drums	Sell to authorized distillator
4	Distillation residue and process waste	Sch:I/29.1	Distillation process	0.1	1477.88	Pack in Drums	Sent for co-processing to cement industries or incinerate in our own incinerator or sent to CHWIF of M/S BEIL Ankleshwar
5	Used Oil	Sch:I/5.1	Gear box and D G set	0.01	0.05	Packed in carboys	Incinerated into own Incineration system
6	Discarded containers	Sch:I/33.1	Empty containers of raw materials	54	74	De-contaminated, stored	Sell to authorized recycler
7	Incineration ash	Sch:I/37.2	incinerator	0	140	Packed in bags	Sell to brick manufacturer
8	Used rubber hand gloves/pipes etc	Sch:I/X-08	Production plant	0	2	Packed in drums/bags	Incinerated into own Incineration system
9	Inorganic Acid (Hydro Chloric acid (30-32%)	Sch:I/29.6	Process	0	18030	Tanker	Sell to actual users having Rule 9 permission
10	Inorganic Acid (sulphuric acid (60%)	Sch:I/29.6	Process	0	5802	Tanker	Sell to actual users having Rule 9 permission
11	Spent solvent	Sch:I/29.4	Process	0	4380	Storage tank	Recycled in process after in-house distillation
12	Date expired and off	Sch:I/29.3	Process	0.4	5.0	Packed in drums/bags	Incinerated into own Incineration system

	specification pesticide						
13	Contaminated cotton rags and other cleaning materials	Sch:I/33.2	Manufacturing Plant	0.5	1.0	Packed in drums/bags	Incinerated into own Incineration system
14	Recovered Catalyst	Sch-/28.1	Process	0	2.424	Packed in drums/bags	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
15	Recovered Aniline	Sch-/28.1	Process	0	4.8	Packed in drums/bags	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
16	Sodium bi sulphite powder (80%)	Sch:I/29.1	Process	0	308	Packed in bags	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
17	Sodium sulfide (80%)	Sch:I/29.1	Process	0	859	Packed in bags	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
18	Ammonium chloride Powder (85%)	Sch:I/29.1	Process	0	1794	Packed in bags	Collection, Storage, Transportation & Disposal by selling to authorized end

							user registered under Rule-9.
19	Sodium sulphate powder (80%)	Sch:I/29.1	Process	0	5166	Packed in bags	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
20	Sodium sulphite powder (80%)	Sch:I/29.1	Process	0	6718	Packed in bags	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
Solid Waste							
21	Fly ash	-	Boiler	0	1592	Stored in silo	Sell to brick manufacturer

Deliberations in the EAC:

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

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

The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee also deliberated on the activities/action plans and found to be addressing the issues in the study area. The Committee suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio. Considering the critical nature of the project site, Committee suggested to use briquette in place of coal and only during emergency imported coal shall be used. The Committee also suggested PP to reduce the fresh water requirement and increase the

recycle water quantity to 30 % in a span of five years, and also improve rain water harvesting to utilize water in process/utilities. The Committee also opined that the pesticide industries shall undertake studies on the impact of pesticides on the ecology and soil characteristics. The Committee noted that the unit is in operation with valid CTO from Gujarat Pollution Control Board and Certified CCA Compliance issued by Gujarat PCB vide letter No.: GPCB/RO-SARI/ID-68997/1150 dated 19th April 2021 found to be satisfactory.

The Committee noted that the PP submitted an undertaking stating that banned pesticides shall not be manufactured, incinerator shall be installed as per CPCB guidelines and maintain gaseous parameters as prescribed by CPCB/GPCB, briquettes shall be used as fuel and only during non-availability of briquettes, imported coal will be utilized as a fuel and shall increase the recycle water quantity up to 25-30% in coming 5 years, during the operation phase of the plant.

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

Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:

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

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

(i). No banned pesticides/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.

(ii). 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.

(iii). The treated effluent of 396.8 cum/day proposed to send to CETP of M/S Sarigam Clean Initiative, through closed underground pipe line for further treatment and disposal into Sea, shall conform to the standards prescribed under the Environment (Protection) Act, 1986. The project proponent shall achieve improvement in recycle

and reuse of the treated water in the unit to reduce the fresh water demand and waste disposal, and there shall be at least 30% reduction in the effluent discharge within five years.

(iv). Domestic effluent of shall be treated in STP and used for greenbelt development.

(v). Briquette/natural gas shall be used in place of coal, and only during emergency imported coal with sulphur content less than 0.5% shall be used.

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

(vii). 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.

(viii). 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.

(ix). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(x). 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.

(xi). Necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents.

(xii). 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.

(xiii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.996% with effective chillers/modern technology.

(xiv). Total fresh water requirement shall not exceed 538 cum/day, proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority. The PP shall achieve improvement in recycle and reuse of water every year and over a period of 5 years, PP shall increase recycled quantum to 30% of total water consumption. After 5 years, only 30 % of the present fresh water requirement shall be used.

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

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

(xvii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration and plantation shall be started from first year onwards.

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

(xix). As proposed, at least Rs. 1.5 Lakhs shall be earmarked for conservation plan and shall be implemented in coordination with State Forest & Wildlife Department.

(xx). A separate Environmental Management Cell (having qualified person 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.

Agenda No. 11.13

Setting up of Active Pharmaceutical Ingredients manufacturing unit of capacity 40 TPM by Ms Swara Labs Private Limited at Plot No. 99, Kadechur Industrial Area, Yadagir Taluk & District, Karnataka- Environment Clearance- reg.

[Proposal No. IA/KA/IND2/206916/2021, File No. J-11011/222/2021-IA II (I)]

The project proponent and the accredited consultant M/s. AM Enviro Engineers, made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of Active Pharmaceutical Ingredients manufacturing unit of capacity 40 TPM by M/s

Swara Labs Private Limited at Plot No. 99, Kadechur Industrial Area, Yadagir Taluk & District, Karnataka.

The details of products and capacity as under:

S. No	Product	Qty. in TPM	CAS No.	Therapeutic Use
1	Apixaban	2	503612-47-3	Antiretroviral
2	Dabigatran Etexilate Mesylate	8	872728-81-9	Anticoagulant Used to prevent strokes in those with atrial fibrillation
3	Deferasirox	2	201530-41-8	To treat high levels of iron
4	Duloxetine HCl	8	136434-34-9	Antidepressant
5	Ezetimibe	2	163222-33-1	Anti hyperlipidemic
6	Lacosamide	4	175481-36-4	To prevent and control seizures
7	Montelukast Sodium	2	151767-02-1	Anti-allergic & Asthma
8	Olmesartan	8	144689-63-4	To treat high blood pressure
9	Oseltamivir Phosphate	3	204255-11-8	Anti retroviral (ARV) Used to treat influenza A and influenza B (flu), and to prevent flu after exposure.
10	Pirfenidone	4	53179-13-8	Antiviral
11	Rivaroxaban	2	366789-02-8	Platelet Inhibitor
12	Solifenacin Succinate	4	242478-38-2	Antispasmodic Agent
13	Tapentadol HCl	8	175591-09-0	Pain relieve
14	Terbinafine HCl	8	78628-80-5	Antifungal
15	Ticagrelor	2	274693-27-5	Platelet Inhibitor
	R & D products	0.1		--
	Total	**67 TPM**		
	Total (5 Products)	**40 TPM**		

LIST OF BY-PRODUCTS AND ITS QUANTITIES

S .No	Product	By-Product	Quantity in Kgs/Day
1	Rivaroxaban	Triethylamine Hydrochloride	50.34
2	Apixaban	Triethylamine Hydrochloride	21.89
Note: The quantity of By-products based on respective products being manufactured.			

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and its subsequent amendment dated 27.03.2020 and 15.10.2020. Due to applicability of general conditions (interstate boundary within 5 km), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposed project will be established in a land area of 2 Acres (8093.7 Sqm). Industry will develop greenbelt in an area of 2710.7 Sqm which is 33.5% out of the total project area. The proposed project cost is about Rs.6.5 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.75 Lakhs and the recurring cost (operation and maintenance) will be about Rs.17 lakhs per annum. Total Employment under proposed project will be of 50 persons. Industry proposes to allocate 5 Lakhs towards Corporate Environmental Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Kadechur lake is flowing at a distance of 1.9 km in the North-East direction.

The total water requirement is 121.7 KLD and will be met from KIADB. Generated effluent of 62.1 KLD will be treated through Common Effluent Treatment Plant CETP, Kadechur.

Power requirement of project will be 500 kVA and will be met from GESCOM. The unit is proposed to install 1X250 KVA of DG Set with stack height of 4 m will be provided as per CPCB norms. The unit has proposed to install 1X4TPH Briquettes/Coal fired boiler with stack of height 30 m. Multi Cyclone separator will be installed for the boiler for controlling the particulate emissions-(within statutory limit of 115 mg/ Nm^3).

Details of Process emissions generation and its management.

S. No	Gas	Quantity in Kg/Day	Treatment Method	Disposal Method after treatment
1	Hydrogen chloride	126.94	Scrubbed by using water media	Generated Dil. HCl will be reused within the industry
2	Ammonia	6.11		Generated NH_4OH will be reused within the industry
3	Sulfur dioxide	90.58	Scrubbed by using C.S. Lye solution	Residues from the reaction will be sent to TSDF
4	Hydrogen Bromide	74.67		Residues from the reaction will be sent to TSDF
5	Hydrogen Iodide	44.24		Residues from the reaction will be sent to TSDF
6	Methyl Chloride	42.24		Generated Methanol will be reused within the industry
7	Oxygen	39.4	Dispersed into atmosphere	-
8	Carbon dioxide	91.47		-
9	Hydrogen	87.79	Dispersed into atmosphere through flame arrester	-
10	Ethane	38.67	Dispersed into atmosphere through Nitrogen	-
11	Propane	8.71		

Details of Solid waste & Hazardous waste generation and its management.

S. No	Category of the HW	Hazardous Waste	Quantity	Disposal Method
Hazardous waste generation from plant				
1	5.1	Waste oils & Grease/ Used Mineral oil	0.2 KL/Annum	Agencies authorized by KSPCB
2	5.2	Oil Soaked Cotton	2 Kgs/month	KSPCB authorized Vendor
3	20.3	Distillation Residue	568 kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing
4	28.1	Process Residues & Waste	2013 kg/day	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
5	28.2	Spent Catalyst	20.67 Kgs/day	Store in secured manner and hand over to authorized recycler
6	28.3	Spent Carbon	70.7 Kgs/Day	Store in secured manner and hand over to authorized cement industry for Co-processing
7	28.4	Off Specification Products	1 TPM	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
8	28.5	Date expired products	500 Kgs/Month	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
9	33.1	Detoxified-Container & Container Liners of Hazardous Chemicals and Wastes	250 No's/Month	After complete detoxification, shall be disposed to the outside agencies.
10	33.2	Contaminated cotton rags or other cleaning materials	25Kgs/month	Store in secured manner and hand over to KSPCB Authorized Vendor
11	A1160	Used Lead Acid batteries	2No's/Annum	Returned back to dealer/ Supplier
Other & Miscellaneous Solid Wastes				
12	--	Coal ash	1600 kgs/day	Sent to Brick Manufacturers
13		Briquette ash	3500 kgs/day	Sent to Fertilizer industries
14	--	Residue from scrubber	209 kgs/day	Shall be stored in secured manner & handed over to TSDF.
15	--	Used PPE	5 Kgs/ Month	Sent to authorized vendor

16	--	E- Waste	150 Kgs/ Annum	Authorized recyclers
17	--	Plastic Waste	200 Kgs/ Annum	Authorized recyclers
18	--	Metal Scrap	3 TPA	Sale to outside agencies/ recyclers
19	--	Used Filters (HEPA filters, Oil Filters etc.)	25 Nos /year	Sent to TSDF
20	--	Used / Discarded RO Membranes	0.2 TPA	Sent to TSDF

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

Kg per day													
EFFLUENT WATER								**SOLID WASTE**					
Water in put	Water in Effluent	Organics in effluents	TDS	COD	HTDS	LTDS	Total Effluent	Organic	In Organic	Spent carbon	Spent Catalyst	Process Emission	Distillation residue
32636.67	32694.18	571	2491.94	1216.22	32334.65	3054.65	35389.3	1603.95	408.7	70.67	20.67	488.48	568

HAZARDOUS SOLID WASTE DETAILS

Organic solid waste	**Inorganic solid Waste**	**Spent Carbon**	**Distillation Residue**
Kg/day	Kg/day	Kg/day	Kg/day
1603.95	408.7	70.67	568

EMISSION DETAILS

Kg/day										
HCl	**CO_2**	**H_2**	**NH_3**	**HBr**	**HI**	**CH_3Cl**	**SO_2**	**O_2**	**C_6H_6**	**C_3H_8**
126.94	91.47	87.79	6.11	74.67	44.24	42.24	90.58	39.4	38.67	8.71

Deliberations in the EAC:

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

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

The Committee was further informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load and the EAC also deliberated on the pollution load as estimated by the PP/Consultant.

The Committee noted that the PFR/EMP reports reflect the present environmental concerns and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for green belt development and suggested to complete plantation in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested to use coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also 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 Committee suggested to increase the percentage use of recycled water and mitigate VOCs.

The EAC deliberated on the proposal with due diligence using 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 also found the proposal in order and recommended for the grant of environmental clearance.

Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:

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

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

(i). 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 PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.996% with effective chillers/modern technology. Regular VOCs monitoring should be carried out.

(iii). 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.

(iv). Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.

(v). 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. Mock drill shall be conducted regularly.

(vi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(vii). Total fresh water requirement shall not exceed 121.7 KLD and will be met from KIADB. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(viii). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

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

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

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

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

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

(xiv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

(xvi). A separate Environmental Management Cell (having qualified person 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.

Agenda No. 11.14

Expansion of the Active Pharmaceutical Ingredients (API) manufacturing unit, Pharma Intermediates, Job Work, R&D Chemicals and other Specialty Chemicals of capacity 35 TPM by M/s Crown Chemicals Private Limited located at E-87, E-88/1, & E-88/2, MIDC, Tarapur Industrial Area, Boisar Taluk, District Thane, Maharashtra- Environment Clearance - reg.

[Proposal No. IA/MH/IND2/207393/2021, File No. J-11011/225/2021-IA II (I)]

The Project Proponent and the accredited Consultant M/s Envision Enviro Technologies Pvt. Ltd. made a detailed presentation on the salient features of the project and informed that:

The proposal is for Environmental Clearance to the project for expansion of Active Pharmaceutical Ingredients (API) manufacturing unit, Pharma Intermediates, Job Work, R&D Chemicals and other Specialty Chemicals of capacity 35 TPM by M/s Crown Chemicals Private Limited located at E-87, E-88/1, & E-88/2, MIDC, Tarapur Industrial Area, Boisar Taluk, District Thane, Maharashtra.

The project is covered under Category B2 of item 5(f) 'Synthetic, Organic Chemicals Industry' of the Environment Impact Assessment (EIA) Notification, 2006 & its amendment dated 27.03.2020 and 15.10.2020. Due to applicability of general condition (Critically polluted Area as notified by CPCB), the project requires appraisal at Central level by the Sectoral Expert Appraisal Committee (EAC) in the Ministry. It was informed that no litigation is pending against the proposal.

Maharashtra Pollution Control board had issued CTO earlier vide letter dated 13.01.2021 to the existing project (Manufacturing of Perfumery Aldehydes (such as Piperonal) – 22 TPM in favour of M/s Crown chemicals Pvt. Ltd. PP committed to stop the production of existing product and only API will be manufactured. PP submitted inspection report issued by Maharashtra Pollution Control board. The Committee deliberated the report.

Existing land area is 3150 m^2. No additional land will be required for proposed expansion. Industry has already developed greenbelt in an area of 33 % (i.e.1039 m^2) out of total area of the project. The total estimated project cost is Rs.10 Crores including existing investment such as building and other facilities etc., Total capital cost earmarked towards environmental pollution control measures is Rs.70 Lakhs and the Recurring cost (operation and maintenance) will be about Rs.20 Lakhs per annum. Total Employment will be 94 persons as direct & 60 persons indirect after expansion. Industry proposes to allocate Rs. 25 Lakhs towards Corporate Social Responsibility.

There are No National parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Bangana River at a distance of 2.41 km in West direction.

Ambient air quality monitoring was carried out at project site during 06.01.2021 to 07.01.2021 and the baseline data indicates the ranges of concentrations as: (PM_{10}-54.6 µg/m^3), ($PM_{2.5}$-34.4 µg/m^3), (SO_2 - 13.7 µg/m^3) and (NO_x-29.2 µg/m^3), (Ammonia-20.6 µg/m^3). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 117 m^3/day which will be met from Tarapur MIDC. Industrial Effluent Generation will be 22 KLD which will be treated through ETP capacity of 25 KLD (up to secondary clarifier). Treated effluent will disposed to CETP line. The plant will be based on CETP discharge system.

Power requirement after expansion will be 1000 KW including existing and will be met from MSEBL. Existing unit has DG sets of 400 kVA capacity, additionally 600 kVA will be increased. So, total Proposed Manufacturing Unit DG set capacity of 1000 kVA used as standby during power failure. Stack (height 30 M) will be provided as per CPCB norms to the proposed DG sets.

Existing unit has boilers of 2.3 TPH (3 Nos. 0.6, 0.85, 0.85 TPH) steam boiler. Existing boilers will be removed and Proposed Boiler-(2 Nos. (2 TPH)) will be installed. Multi cyclone separator/ bag filter with a stack of height of 46.5 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3.

Details of Process emissions generation and its management:

Air pollution Control/Measures

S. No	Stack attached to	Type of Fuel Used & quantity per day	Stack Height	Air pollution control equipment
01	Process Reactor (5 Nos-6.5 KL) (5 Nos-4.0 KL)	--	30 m	3 Nos of Alkali Scrubber
02	Boiler- (2 Nos (2000 kg/hr)) (standby: 1 No-2000 kg/hr)	FO: 500 kg/hr	46.5 m Stack	Stack
03	Thermic Fluid Heaters- (2.Nos (15,00,000 kcal/hr)) (standby: 1 No-15,00,000 kg/hr)	FO: 345 kg/hr	46.5 m Stack	Stack
04	DG Sets 1200 KVA	HSD: 162 lit/day	30 m Stack from ground level	Acoustic enclosure & stack

Process emissions generation and its management

S.No	Gas	Quantity in Kg/day	Treatment Method
1	Carbon dioxide	260	Dispersed into the atmosphere
2	Ammonia	49	Scrubbed by using chilled water media
3	Hydrogen chloride	190	Scrubbed by using chilled water media
4	Sulphur dioxide	102	Scrubbed by using C. S. Lye Solution
5	NOx	28	Scrubbed by using C. S. Lye Solution
6	Respirable Particulate matter	2.88	Scrubbed by using chilled water media

DG sets Emission details

S.No	Dg sets capacity	Gas flow rate (m3/min)	Temp C	NO2 (g/sec)	SO2 (g/sec)	PM (g/sec)	CO (g/sec)	Velocity (m/sec)	Diameter in (m)
1.	1200 kVA	220	536	1.64	0.272	0.123	0.18	25	0.412

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

S. No.	Hazardous waste category no.	Description	Quantity Tons /Annum	Disposal
1	5.1	Used / spent Oil	5	Sale to Authorized party
2	35.3	Chemical sludge from ETP	360	CHWSTDF/co-processing in cement klin
3	33.1	Discarded containers / barrels	12	Sale to Authorized party
		Discarded Liners/Bags	6	Sale to Authorized party
4	33.2	Contaminated Cotton rags or other cleaning materials	1.2	CHWSTDF/co-processing in cement klin
5	28.1	Process residues and waste	100	Sale to Authorized party/ CHWSTDF/co-processing in cement klin
6	28.2	Spent catalyst	15	Sale to Authorized party/ CHWSTDF
7	28.3	Spent carbon	15	CHWSTDF/co-processing in cement klin
8	20.3	Distillation Residue	120	Sale to Authorized party/ CHWSTDF/co-processing in cement klin
9	20.2	Spent Solvent	20	Sale to Authorized party/ CHWSTDF
10	37.3	Evaporation Solids	480	CHWSTDF/co-processing in cement klin
11	35.2	Spent Ion Exchange Resin	0.5	CHWSTDF

Hazardous Solid waste (kg/day)					
Organic solid waste	Inorganic solid waste	Spent carbon	Distillation residues	Process Residues	Evaporation solids
30.6	1256	50	400	333.33	1600

Non-hazardous waste will be disposed to local authorized party.

S.No	Waste	Quantity MT/ Annum	Disposal
1	Packing Materials (Paper, Plastic & Wood etc.) and stationary waste	60	Sale to Authorized Party
2	Insulation Material	5	Sale to Authorized Party
3	Metallic Scrap	60	Sale to Authorized Party
4	Non metallic Scrap	20	Sale to Authorized Party

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

Kg Per Day													
	EFFLUENT WATER								SOLID WASTE				
Water Input	Effluent Water	Inorganics In Effluent	Organics In Effluent	TDS	COD	HTDS	LTDS	Total Effluent	Organic Solid waste	Inorganic Solid waste	Spent Carbon	Distillation Residue	Process emissions	Fugitive loss
268	22	183	5.0	120	110	180	80	393	30.6	1256	50	400	333	1600

HAZARDOUS SOLID WASTE DETAILS

Kg Per Day			
SOLID WASTE			
Organic solid	Inorganic solid	Spent Carbon	Distillation Residue
30.6	1256	50	400

EMISSION DETAILS

Kg Per Day	
Process emissions	Fugitive emissions
489	97.8

Kg Per Day						
CO_2	H_2	NH_3	O_2	N_2	HCl	SO_2
236	2.5	36	8.0	41.25	170	45

Deliberations by the EAC:

The project proponent clarified that they submitted application on 24.03.2021 but there was some technical glitch on Parivesh portal and PP withdrew the project for its revision of application on portal. Therefore, the proposal was again submitted by PP on 31.03.2021. PP informed that they were not aware of the last date of application and requested the EAC to consider the same. The Member Secretary informed to the Committee that as per the

notification dated 15.10.2020, the last date was 30th March 2021 for consideration of API as B2 category project. After detailed deliberations, the Committee in the national interest for API considered the date of application as 24.03.3021 and accepted the request of PP.

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

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

The Committee was further informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, the PP has submitted the pollution load. The EAC also deliberated on the pollution load as estimated by the PP/Consultant.

The Committee noted that the PFR/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for green belt development and suggested to increase the plantation as mentioned in the condition and complete plantation in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested to use coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also 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 Committee suggested to increase the percentage use of recycled water and use bio-fuel/LSHS/LDO (cleaner fuel).

The EAC deliberated on the proposal with due diligence using 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 also found the proposal in order and recommended for the grant of environmental clearance.

Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:

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

from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). 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 PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.996% with effective chillers/modern technology. Regular VOCs monitoring should be carried out.

(iii). 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.

(iv). Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.

(v). 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. Mock drill shall be conducted regularly.

(vi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(vii). Total fresh water requirement shall not exceed 117 m^3/day which will be met from Tarapur MIDC. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(viii). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

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

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

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

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

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

(xiv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

(xvi). A separate Environmental Management Cell (having qualified person 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.

Agenda No. 11.15

Setting up of Active Pharmaceutical Ingredients (API's) manufacturing unit of capacity 140 TPM by M/s Formel Labs Pvt. Ltd located at Plot No. 306, 307, 308 & 309, Kadechur Industrial Area, Yadagir Taluk & District, Karnataka. - Environment Clearance – reg.

[Proposal No. IA/KA/IND2/204892/2021, File No. J-11011/226/2021-IA II (I)]

The project proponent and the accredited consultant M/s AM Enviro Engineers, made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of Active Pharmaceutical Ingredients (API's) manufacturing unit of capacity 140 TPM by M/s. Formel Labs Pvt. Ltd located at Plot No. 306, 307, 308 & 309, Kadechur Industrial Area, Yadagir Taluk & District, Karnataka.

The details of products and capacity as under:

S. No	Products	Quantity in TPM	CAS No	Therapeutic use
1.	Abacavir sulfate	10	136470-78-5	To treat HIV infection
2.	Adefovir	2	142340-99-6	To treat chronic (long-term) hepatitis B infection
3.	Amlodipine Besylate	10	111470-99-6	To treat high blood pressure
4.	Avobenzone	10	70356-09-1	To prevent sunburn and premature aging
5.	Azacyclonol	10	115-46-8	To treat mental disorder
6.	Canagliflozin	5	842133-18-0	Used along with diet
7.	Capecitabine	5	154361-50-9	Anti-cancer ("antineoplastic" or "cytotoxic") chemotherapy drug
8.	Carprofen	5	53716-49-7	Analgesic, Anti pyretic
9.	Cetirizine DiHCl	10	83881-52-1	Antihistamine
10.	Ciprofloxacin HCl	5	86393-32-0	Antibiotic
11.	Chlorphenesin	10	104-29-0	Muscle relaxant
12.	Dapagliflozin	2	461432-26-8	Anti diabetic
13.	Dolutegravir Sodium	2	1051375-19-9	Anti retroviral (ARV) for treatment of HIV infection
14.	Donepezil HCl	10	120011-70-3	To treat dementia
15.	Dorzolamide HCl	5	130693-82-2	Ophthalmology
16.	Empagliflozin	2	864070-44-0	Anti diabetic
17.	Enzalutamide	2	915087-33-1	Anti cancer (prostate cancer)
18.	Etoricoxib	15	202409-33-4	Anti inflammatory
19.	Famciclovir	5	104227-87-4	Anti herpes
20.	Febuxostat	5	144060-53-7	Xanthine oxidase inhibitors
21.	Fexofenadine HCl	10	153439-40-8	Anti-histamine
22.	Gabapentin	15	60142-96-3	Anticonvulsant
23.	Gefitinib	2	184475-35-2	Anti cancer (lung cancer)
24.	Gemcitabine HCl	2	122111-03-9	Anti cancer
25.	Imatinib mesylate	5	152459-95-5	Anti cancer
26.	Itraconazole	5	84625-61-6	Anti fungus
27.	Ivabradine HCl	2	148849-67-6	To treat heart disease
28.	Ivacaftor	2	873054-44-5	To treat cystic fibrosis

29.	Lacosamide	2	175481-36-4	To prevent and control seizures
30.	Levetiracetam	10	102767-28-2	Epilepsy
31.	Linagliptin	5	668270-12-0	Anti diabetic
32.	Linezolid	5	165800-03-3	Antibiotic
33.	Losartan potassium	20	124750-99-8	Antihypertensive
34.	Mesalamine	10	89-57-6	Ulcerative colitis
35.	Metformin HCl	5	1115-70-4	Antidiabetic
36.	Moxifloxacin HCl	10	186826-86-8	To treat pneumonia
37.	Myrtecaine	5	7712-50-7	Muscle strains, tendinitis or ligament sprains and joint pain
38.	Nebivolol HCl	5	152520-56-4	To treat high blood pressure
39.	Nizatidine	10	76963-41-2	Ulcers
40.	Olanzapine	10	132539-06-1	Antipsychotic
41.	Omeprazole	20	73590-58-6	Indigestion and heartburn and acid reflux
42.	Pirfenidone	2	53179-13-8	Antiviral
43.	Piroctone Olamine	5	68890-66-4	Antifungal
44.	Pregabalin	15	148553-50-8	Neuropathic pain
45.	Ramipril	5	87333-19-5	To treat high blood pressure
46.	Ranolazine	15	95635-55-5	To treat chronic angina
47.	Rebamipide	2	90098-04-7	Peptic ulcer
48.	Rifaximin	5	80621-81-4	Hepatic encephalopathy
49.	Risperidone	2	106266-06-2	Schizophrenia
50.	Ritonavir	2	155213-67-5	Anti HIV
51.	Ropinirole HCl	2	91374-20-8	To treat restless legs syndrome
52.	Sacubitril	2	149709-62-6	Chronic heart failure and reduced ejection fraction
53.	Sitagliptin Phosphate	5	654671-77-9	Controlling high blood sugar helps prevent kidney damage, blindness, nerve problems, loss of limbs, and sexual function problems.
54.	Sorafenib	2	284461-73-0	To treat cancer
55.	Sparfloxacin	5	110871-86-8	Antibiotic
56.	Tadalafil	5	171596-29-5	To treat erection problems
57.	Tamsulosin hydrochloride	1	106463-17-6	To treat Benign Prostatic Hyperplasia (BPH)
58.	Temozolomide	2	85622-93-1	Anti-cancer ("antineoplastic" or "cytotoxic") chemotherapy drug
59.	Valganciclovir HCl	5	175865-59-5	Anti cytomegalovirus
60.	Valsartan	5	137862-53-4	Antihypertension
	Total	**377**		
	Total (10 products)	**140**		

LIST OF BY-PRODUCTS AND ITS QUANTITIES

S .No	Product	By-Product	Quantity in Kgs/Day
1	Capecitabine	Peridine Hydrochloride	59.69
2	Cetirizine Dihydrochloride	Spent HCl	1998
		Sulfuric acid	699.3
3	Donepezil Hydrochloride	Methoxy Ethanol	43.29
		Dimethyl Sulfide	17.31
4	Piroctone Olamine	Aluminium hydroxide solution	1452.5
5	Pregabalin	Ammonium chloride	1875
6	Ritonavir	4-Nitro phenol	15
Note: The quantity of By-products based on respective products being manufactured.			

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and its amendment dated 27.03.2020 and 15.10.2020. Due to applicability of general conditions (interstate boundary within 5 km), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposed project will be established in a land area of 20 Acres (80784 Sqm). Industry will develop greenbelt in an area of 27100 Sqm which is 33.55% out of the total project area. The proposed project cost is about Rs.100 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.320 Lakhs and the recurring cost (operation and maintenance) will be about Rs.65 lakhs per annum. Total Employment under proposed project will be of 220 persons. Industry proposes to allocate 20 Lakhs towards Corporate Environmental Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Kadechur lake is at a distance of 2.0 km in the East direction.

Total water requirement is 445.5 KLD and will be met from KIADB. Generated effluent of 219.8 KLD will be treated through Common Effluent Treatment Plant CETP, Kadechur.

Power requirement of project will be 2000 kVA and met from GESCOM. The unit is proposed to install 2X500 kVA & 1X1000 kVA of DG Set, Stack height of 5 & 7 m will be provided as per CPCB norms. The unit has proposed to install 1X10TPH & 1X5TPH (Stand by) Briquettes/Coal fired boiler with stack of height 30 m. Multi Cyclone separator will be installed for the boiler for controlling the particulate emissions (within statutory limit of 115 mg/ Nm^3). The unit has proposed to install 2,00,000 Kcal/Hr of Thermic Fluid Heater with stack of height 15 m.

Details of Process emissions generation and its management:

S. No	Gas	Quantity in Kg/Day	Treatment Method	Disposal Method after treatment
1	Hydrogen chloride	811.62	Scrubbed by using water media	Generated Dil. HCl will be reused within the industry

2	Ammonia	93.02		Generated NH_4OH will be reused within the industry
3	Sulfur dioxide	280.14	Scrubbed by using C.S. Lye solution	Residues from the reaction will be sent to TSDF
4	Hydrogen Bromide	634.77		Residues from the reaction will be sent to TSDF
5	Hydrogen Iodide	19.89		Residues from the reaction will be sent to TSDF
6	Hydrogen Fluoride	3.32		Residues from the reaction will be sent to TSDF
7	Oxygen	598.97	Dispersed into atmosphere	-
8	Carbon dioxide	2330.86		-
9	Hydrogen	52.63	Dispersed into atmosphere through flame arrester	-
10	Nitrogen	46.93	Dispersed into atmosphere	-

Details of Solid waste & Hazardous waste generation and its management:

S. No	Category of the HW	Hazardous Waste	Quantity	Disposal Method
Hazardous waste generation from plant				
1	5.1	Waste oils & Grease/ Used Mineral oil	1 KL/Annum	Agencies authorized by KSPCB
2	5.2	Oil Soaked Cotton	3 Kgs/month	KSPCB authorized Vendor
3	20.3	Distillation Residue	2300 kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing
4	28.1	Process Residues & Waste	9405 kg/day	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
5	28.2	Spent Catalyst	80.11 Kgs/day	Store in secured manner and hand over to authorized recycler
6	28.3	Spent Carbon +	541.8 Kgs/Day	Store in secured manner

		Hyflow		and hand over to authorized cement industry for Co-processing
7	28.4	Off Specification Products	3 TPM	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
8	28.5	Date expired products	2 TPM	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
9	33.1	Detoxified-Container & Container Liners of Hazardous Chemicals and Wastes	2500 No's/Month	After complete detoxification, shall be disposed to the outside agencies.
10	33.2	Contaminated cotton rags or other cleaning materials	200 Kgs/month	Store in secured manner and hand over to KSPCB Authorized Vendor
11	A1160	Used Lead Acid batteries	20 No's/Annum	Returned back to dealer/ Supplier
Other & Miscellaneous Solid Wastes				
12	--	Coal ash	4000 kgs/day	Sent to Brick Manufacturers
13		Briquette ash	8400 kgs/day	Sent to Fertilizer industries
14	--	Residues from Scrubber	1410 Kgs/ Month	Shall be stored in secured manner & handed over to TSDF.
15	--	Used PPE	15 Kgs/ Month	Sent to authorized vendor
16	--	E- Waste	250 Kgs/yr	Authorized recyclers
17	--	Plastic Waste	500 Kgs/yr	Authorized recyclers
18	--	Metal Scrap	15 TPA	Sale to outside agencies/ recyclers
19	--	Used Filters (HEPA filters, Oil Filters etc.)	100 Nos /year	Sent to TSDF
20	--	Used / Discarded RO Membranes	0.5 TPA	Sent to TSDF

The Committee was informed that the Ministry has recently issued an Office Memorandum

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

Kg per day													
EFFLUENT WATER								SOLID WASTE					
Water in put	Water in Effluent	Organics in effluents	TDS	COD	HTDS	LTDS	Total Effluent	Organic	In Organic	Spent carbon	Spent Catalyst	Process Emission	Distillation residue
129296.88	134131.38	2463.5	9750.33	4278.45	127869.31	11820.6	139690.09	6344.38	3060.59	463.38	80.11	3357.73	2300

HAZARDOUS SOLID WASTE DETAILS

Organic solid waste	Inorganic solid Waste	Spent Carbon	Distillation Residue
Kg/day	Kg/day	Kg/day	Kg/day
6344.38	3060.59	463.38	2300

EMISSION DETAILS

Kg/day									
HCl	CO_2	H_2	NH_3	HBr	HI	HF	SO_2	O_2	N_2
811.62	2330.86	52.63	93.02	634.77	19.89	3.32	280.14	598.97	46.93

Deliberations by the EAC:

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

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

The Committee was further informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend

the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load and the EAC also deliberated on the pollution load as estimated by the PP/Consultant.

The Committee noted that the PFR/EMP reports reflect the present environmental concerns and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for green belt development and suggested to complete plantation in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested to use coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also 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 Committee suggested to increase the percentage use of recycled water and mitigate VOCs.

The EAC deliberated on the proposal with due diligence using 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 also found the proposal in order and recommended for the grant of environmental clearance.

Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:

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

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

(i). 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 PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.996% with effective chillers/modern technology. Regular VOCs monitoring should be carried out.

(iii). 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.

(iv). Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.

(v). 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. Mock drill shall be conducted regularly.

(vi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(vii). Total fresh water requirement shall not exceed 445.5 KLD and will be met from KIADB. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(viii). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

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

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

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

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

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

system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.

(xiv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

(xvi). A separate Environmental Management Cell (having qualified person 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.

Agenda No. 11.16

Setting up of Active Pharmaceutical Ingredients (API's) manufacturing unit of capacity 25 TPM by M/s Tetrachem Labs located at Plot No. 64, Kadechur Industrial Area, Yadagir Taluk & District, Karnataka- Environment Clearance – reg.

[Proposal No. IA/KA/IND2/204262/2021, File No. J-11011/227/2021-IA II (I)]

The project proponent and the accredited consultant M/s AM Enviro Engineers, made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of Active Pharmaceutical Ingredients (API's) manufacturing unit of capacity 25 TPM by M/s. Tetrachem Labs located at Plot No. 64, Kadechur Industrial Area, Yadagir Taluk & District, Karnataka.

The details of products and capacity as under:

S. No	Product	Qty in TPM	CAS Number	Therapeutic Use
1	Anastrozole	3	120511-73-1	To treat breast cancer
2	Bendamustine HCl	1	3543-75-7	To treat chronic lymphocytic leukemia
3	Bicalutamide	1	90357-06-5	To treat metastatic prostate cancer
4	Bortezomib	5	179324-69-7	Multiple myeloma

5	Busulfan	1	55-98-1	Chronic myelogenous leukemia
6	Cisplatin	1	15663-27-1	Chemotherapy drug
7	Cyclophosphamide	1	50-18-0	To treat cancer
8	Darunavir Amorphous	3	206361-99-1	Antiretrovirals
9	Darunavir Ethanolate	3	635728-49-3	HIV medications
10	Docetaxel	3	114977-28-5	To treat cancer
11	Emtricitabine	4	143491-57-0	To treat HIV infection
12	Erlotinib HCl	1	183319-69-9	Chemotherapy medication
13	Gefitinib	1	184475-35-2	Kinase inhibitors
14	Gemcitabine HCl	5	122111-03-9	To treat cancer
15	Ibrutinib	1	936563-96-1	Kinase inhibitors
16	Imatinib Mesylate	1	220127-57-1	To treat cancer
17	Irinotecan HCl	1	136-572-09-3	Topoisomerase I inhibitors
18	Lenalidomide	1	191732-72-6	To treat anemia
19	Letrozole	4	112809-51-5	To treat breast cancer
20	Melphalan	1	148-82-3	Alkylating agents – To treat ovarian cancer
21	Oxaliplatin	1	61825-94-3	To prevent colon cancer
22	Paclitaxel	0.5	33069-62-4	Chemotherapy medication
23	Pazopanib HCl	1	635702-64-6	To treat kidney cancer
24	Saquinavir Mesylate	1	149845-06-7	HIV medications
25	Sorafenib	1	284461-73-0	To treat cancer
26	Stavudine	1	3056-17-5	Nucleoside reverse transcriptase inhibitors
27	Temozolomide	1	85622-93-1	Alkylating agents- To treat brain tumor
28	Thalidomide	4	50-35-1	To treat a skin condition and cancer
29	Zidovudine	3	30516-87-1	To treat HIV infection
30	Zoledronic acid	1	165800-06-6	To treat high levels of calcium
	R & D Products	0.1		--
	Total	**56.5 TPM**		
	Total (6 products)	**25 TPM**		

LIST OF BY-PRODUCTS AND ITS QUANTITIES

S. No	**Product**	**By-Product**	**Qty in kg/day**
1	Zidovudine	Triethyl amine hydrochloride	103.25
		Trityl alcohol	100
2	Melphalan	O-Pthalamide	42
3	Erlotinib HCl	L-Menthol	116
Note: The quantity of By-products based on respective products being manufactured.			

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and its amendment dated 27.03.2020 and 15.10.2020. Due to applicability of general conditions (interstate boundary within 5 km), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposed project will be established in a land area of 2 Acres (8089.8 Sqm). Industry will develop greenbelt in an area of 2694.3 Sqm which is 33.3% out of the total project area. The proposed project cost is about Rs.6.5 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.74 Lakhs and the recurring cost (operation and maintenance) will be about Rs.16 lakhs per annum. Total Employment under proposed project will be of 50 persons. Industry proposes to allocate 5 Lakhs towards Corporate Environmental Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Kadechur lake is at a distance of 1.6 km in the North-East direction.

Total water requirement is 110.1 KLD and will be met from KIADB. Generated effluent of 63.4 KLD will be treated through Common Effluent Treatment Plant CETP, Kadechur.

Power requirement of project will be 500 kVA and will be met from GESCOM. The unit is proposed to install 1X250 kVA of DG Set with stack height of 4 m will be provided as per CPCB norms. The unit has proposed to install 1X4TPH Briquettes/Coal fired boiler with stack of height 30 m. Multi Cyclone separator will be installed for the boiler for controlling the particulate emissions-(within statutory limit of 115 mg/ Nm^3).

Details of Process emissions generation and its management:

S. No	Gas	Quantity in Kg/Day	Treatment Method	Disposal Method after treatment
1	Hydrogen chloride	108.14	Scrubbed by using water media	Generated Dil. HCl will be reused within the industry
2	Ammonia	26.45		Generated NH_4OH will be reused within the industry
3	Sulfur dioxide	67.56	Scrubbed by using C.S. Lye solution	Residues from the reaction will be sent to TSDF
4	Oxygen	17.24	Dispersed into atmosphere	-
5	Carbon dioxide	106.18		-
6	Hydrogen	8.93	Dispersed into atmosphere through flame arrester	-
7	Pentane	67.56	Dispersed into atmosphere through Nitrogen	-

Details of Solid waste & Hazardous waste generation and its management:

S. No	Category of the HW	Hazardous Waste	Quantity	Disposal Method
Hazardous waste generation from plant				
1	5.1	Waste oils & Grease/ Used Mineral oil	0.2 KL/Annum	Agencies authorized by KSPCB
2	5.2	Oil Soaked Cotton	2 Kgs/month	KSPCB authorized Vendor
3	20.3	Distillation Residue	550 kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing
4	28.1	Process Residues & Waste	3509.2 kg/day	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
5	28.2	Spent Catalyst	7 Kgs/day	Store in secured manner and hand over to authorized recycler
6	28.3	Spent Carbon + Hyflow	210.8 Kgs/Day	Store in secured manner and hand over to authorized cement industry for Co-processing
7	28.4	Off Specification Products	1 TPM	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
8	28.5	Date expired products	500 Kgs/Month	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
9	33.1	Detoxified-Container & Container Liners of Hazardous Chemicals and Wastes	250 No's/Month	After complete detoxification, shall be disposed to the outside agencies.
10	33.2	Contaminated cotton rags or other cleaning materials	25Kgs/month	Store in secured manner and hand over to KSPCB Authorized Vendor
11	A1160	Used Lead Acid batteries	2No's/Annum	Returned back to dealer/ Supplier
Other & Miscellaneous Solid Wastes				
12	--	Coal ash	1600 kgs/day	Sent to Brick Manufacturers
13		Briquette ash	3500 kgs/day	Sent to Fertilizer industries
14	--	Residue from scrubber	101 kgs/day	Shall be stored in secured manner & handed over to TSDF.

15	--	Used PPE	5 Kgs/ Month	Sent to authorized vendor
16	--	E- Waste	150 Kgs/ Annum	Authorized recyclers
17	--	Plastic Waste	200 Kgs/ Annum	Authorized recyclers
18	--	Metal Scrap	3 TPA	Sale to outside agencies/ recyclers
19	--	Used Filters (HEPA filters, Oil Filters etc.)	25 Nos /year	Sent to TSDF
20	--	Used / Discarded RO Membranes	0.2 TPA	Sent to TSDF

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

Kg per day													
EFFLUENT WATER								**SOLID WASTE**					
Water in put	Water in Effluent	Organics in effluents	TDS	COD	HTDS	LTDS	Total Effluent	Organic	In Organic	Spent carbon	Spent Catalyst	Process Emission	Distillation residue
33710	34076.61	544.12	2108.4	906.48	23335.6	12236.9	35572.48	1228.67	2280.55	210.8	7	300.95	550

HAZARDOUS SOLID WASTE DETAILS

Organic solid waste	**Inorganic solid waste**	**Spent Carbon**	**Distillation Residue**
Kg/day	Kg/day	Kg/day	Kg/day
1228.67	2280.55	210.8	550

EMISSION DETAILS

Kg/day						
HCl	**CO_2**	**H_2**	**NH_3**	**SO_2**	**O_2**	**C_5H_{12}**
108.14	106.18	8.93	26.45	67.56	17.24	67.56

Deliberations by the EAC:

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

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

The Committee was further informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load and the EAC also deliberated on the pollution load as estimated by the PP/Consultant.

The Committee noted that the PFR/EMP reports reflect the present environmental concerns and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for green belt development and suggested to complete plantation in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested to use coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also 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 Committee suggested to increase the percentage use of recycled water and mitigate VOCs.

The EAC deliberated on the proposal with due diligence using 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 also found the proposal in order and recommended for the grant of environmental clearance.

Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the

Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). 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 PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.996% with effective chillers/modern technology. Regular VOCs monitoring should be carried out.

(iii). 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.

(iv). Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.

(v). 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. Mock drill shall be conducted regularly.

(vi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(vii). Total fresh water requirement shall not exceed 445.5 KLD and will be met from KIADB. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(viii). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

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

(x). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install

web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises (if applicable).

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

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

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

(xiv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

(xvi). A separate Environmental Management Cell (having qualified person 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.

Agenda No. 11.17

Expansion of Sulphuric Acid Plant, Speciality Chemicals, Metallic Sulphates, Fertilizer and Agri Manufacturing Plant by M/s Khaitan Chemicals & Fertilizers Ltd., located at Khasra No. 393, 394, 395, 396/1, 396/2, 404/1,405,403/1,403/2, Village Nimrani, District Khargone, Madhya Pradesh - Consideration of Environment Clearance

[Proposal No. IA/MP/IND2/166948/2020, File No. J-11011/172/2020-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. EQMS India Pvt. Ltd. made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project on Expansion of Sulphuric Acid Plant, Specialty Chemicals, Metallic Sulphates, Fertilizer and Agri Manufacturing Plant at Khasra No. 393, 394, 395, 396/1, 396/2, 404/1,405,403/1,403/2, Village Nimrani, District Khargone, Madhya Pradesh.

The details of products and capacity below:

S. No.	Particulars	CAS No.	Unit	Capacity		
				Existing	Proposed	Total
A.	**FERTILIZER/SOIL CONDITIONER**					
1.	SSP/Zn SSP/B SSP powder	-	TPD	1200	0	1200
2.	Granulated SSP(GSSP)/ Granulated Boronated SSP/ Granulated Zincated SSP	8011-76-5	TPD	150	600	750
3.	Granulated Phospho Gypsum	10101-41-4	TPD	0	100	100
4.	Bentonite Sulphur Powder 90%/ Zincated & Boronated Bentonite Sulphur Powder 90%	7704-34-9	TPD	0	50	50
5.	Bentonite Sulphur Granulated 90%/ Zincated & Boronated Bentonite Sulphur Granulated 90%	7704-34-9	TPD	0	50	50
B.	**SPECIALITY CHEMICALS**					
6.	Chloro Sulphuric Acid (CSA)	-	TPD	0	100	100
7.	Oleum 23%/65%/liquid SO3	7790-94-5	TPD	25 TPD as liquid SO3 or equivalent 50 TPD 65% Oleum	0	25 TPD as liquid SO3 or equivalent 50 TPD 65% Oleum
8.	Sulphamic Acid	5329-14-6	TPD	0	60	60
9.	Boric acid and its salts	10043-35-3	TPD	0	20	20
10.	Di Methyl Sulphate	77-78-1	TPD	0	50	50
11.	Sulphuric acid	-	TPD	**350**	100	450

12.	Linear alkyl benzene sulphonic acid (LABSA)	-	TPD	**50**	0	50
C.	**METALLIC SULPHATES**					
1.	Zinc Sulphate (Heptahydrate/monohydrate)	7446-20-0	TPD	0	50	50
2.	Sulphate of Potash (SOP)	7778-80-5	TPD	0	40	40
3.	Any other metallic sulphates like copper, iron, magnesium, manganese etc	7778-80-5	TPD	0	50	50

The project/activities are covered under category A of item 5(a) 'Chemical fertilizers' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The project proposal was submitted for grant of TOR and subsequently Standard Terms of Reference (TOR) was issued by MoEF&CC vide. F.No. J-11011/172/2020-IA-II (I) dated 28th August 2020. Public Hearing of the proposed project has been conducted by State Pollution Control Board on 6th February,2021. The main issues raised during the public hearing were related to Possibility of Employment, Environment Pollution Control Measures, Benefits to nearby people, Safety Measures in plant etc. No litigation is pending against the proposal.

Since the project was established before EIA Notification (1994), Environmental Clearance was not applicable as well As per MOEF Circular dated 21/11/2006 point ii "Such projects for which NOCs issued before 14th September,2006 will not be required to take Environmental Clearance under the EIA Notification, 2006.". Any expansions post EIA Notification 1994 in the project were of inorganic chemicals and Environmental Clearance was not applicable due to non-inclusion of inorganic chemicals in the notification. Hence, Environmental Clearance for earlier expansions within the project was not applicable.

Self-certified compliance for Consent to Operate has been submitted. However, Certified Compliance Report by IRO, MPPCB is awaited.

Existing land area is 23.53 Ha. (2,35,300 m^2), no additional land used will be used for proposed expansion. Proposed expansion of plant shall be developed on 7522.5 m^2 of vacant land within existing land area. Industry has developed greenbelt in an area of 34.89% i.e., 82,100 m^2 (8.21 Ha.) out of total area of the project. The estimated project cost is Rs. 117.81 Crores including existing investment of Rs. 70.81 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 46.67 Lakhs and the Recurring Cost (operation and maintenance) will be about Rs. 5.10 Lakhs Per annum. Total Employment will be 391 no. as direct and indirect after expansion. Industry proposes to allocate Rs. 42 Lakhs towards Corporate Environmental Responsibility.

There are no environmentally sensitive components such as National Park, Wildlife Sanctuary, Elephant / Tiger Reserve, forest migratory routes of fauna and wet land present within 10 km radius of plant site except few forest blocks such as Jaloka Reserved forest at a distance of 7.86 km (NE); Laltalai Reserved Forest 5.26 km (S); Thikari Reserved Forest 8.78 km (SW), Dolani Reserved Forest 8.85 km (S). River Satak is flowing at 1.72 km in

North Direction, Narmada River is flowing at a distance of 2.33 km in North direction, Khuj River is flowing at a distance of 5.09 km in SW direction, Borar River is flowing at a distance of 6.62 km in SW direction, Karam River is flowing at a distance of 7.13 km in NE direction, Bhuti River is flowing at a distance of 7.25 km in NE direction and Phulka River is flowing at a distance of 8.67 km in NW direction.

Ambient air quality monitoring was carried out at 8 locations during 1st March 2019 to 31st May 2019 and the baseline data indicates the ranges of concentrations as: PM_{10} (39 - 91 µg/m^3), $PM_{2.5}$ (17 - 44 µg/m^3), SO_2 (5.2 - 10.5 µg/m^3) and NO_x (10.5 - 20.3 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 1.96 µg/m^3 for PM_{10}, 1.76 µg/m^3 for $PM_{2.5}$, 6.91 µg/m^3 for SO_2, 3.79 µg/m^3 for NO_x, 0.192 µg/m^3 for Cl and 0.48 µg/m^3 for Acid Mist. The resultant Concentration of all parameters are within the National Ambient Air Quality Standards (NAAQS).

The total water requirement will be 1830 KLD of which freshwater requirement of 1648 KLD will be met from Narmada river through pipeline. Industrial effluent of 161 KLD will be sent to collection pit and re-circulated completely to be reused in SSP-I/II for production of Single Super Phosphate fertilizer. 22 KLD of domestic sewage will be treated through Sewage Treatment Plant of capacity 25 KLD. 21 KLD treated wastewater will sent to SSP-I/II for reuse as process water. The plant will be based on Zero liquid Discharge System.

Power requirement after expansion will be 3810 kW including existing 2850 kW and will be met from Madhya Pradesh Poorv Kshetra Vidyut Vitaran Company Ltd (MPPKYVC) and industry's own Captive Power Plant. Existing unit has 1 no. DG set of 250 kVA capacity used as standby during power failure. There will be no additional DG set for the proposed expansion. Stack Height of 30 m has been provided as per CPCB norms.

Existing Unit has 10 TPH and 7.5 TPH of Waste Heat Recovery Boiler. Additionally, no boiler will be installed. No Air pollution control device is required as the boilers use excess waste heat from Sulphuric Acid Plants and fuel combustion leading to particulate emission is carried out.

Details of Process emissions generation and its management is mentioned below:

Table 1 : Details of Emission Generation and its management

Area	Stack Height	Flow Rate	Emission Parameters		Control Measures	Control Efficiency
	in M	NM3/Hr	Parameter	Value		
Existing						
SSP I & II rock grinding	30	SSP-I 30000& SSP-II-30000 NM3/Hr	PM	50 mg/Nm3	-On line PM monitoring system -Dust collector bags	99.7%

SSP I & II acidulation	40	SSP-I 36000 & SSP-II-36000 NM3/Hr	PM	50 mg/Nm3	-4 stage wet scrubbing system: 2 venturi & 2 cyclonic separator -Online F (fluoride) monitoring system	99.7%
			F	20 mg/Nm3		
SAP I	50	15000 NM3/Hr	SO2	2.0 kg/ton Sul Acid, 950 mg/Nm3	• Alkali scrubber • Demister pad • Candle filters • Acid concentration analyzer • Data logger/process Interlocking • On line SO2 monitoring system • Mist eliminators	99.7%
SAP II	50	20000 NM3/Hr	Acid mist	50 mg/Nm3		
GSSP	35	Dryer fan 14200 CFM	PM	50 mg/Nm3	-Multi cyclones -Online PM monitoring system	99.7%
		Cooler fan 13000 CFM				
Proposed						
CSA	50	10000 m3/hr	Acid mist	50 mg/Nm3	-Alkali scrubber -Demister pads -On line Cl_2 monitoring system	99.7%
			Cl	20 mg/Nm3		
SOP	50	5000 m3/hr	Acid mist	50 mg/Nm3	-Alkali scrubber -Demister pads -On line Cl_2 monitoring system	99.7%
			Cl	20 mg/Nm3		
			PM	50 mg/Nm3		
GSSP/Zn SSP/B GSSP	35	40000	PM	50 mg/Nm3	-Cyclones and multi clones -On line PM monitoring system -Dust collector bags/Bag Filters	99.7%
Phospho gypsum	35	40000	PM	50 mg/Nm3	-Cyclones and multi clones -On line PM monitoring system	99.7%
HAG (Wet Granulated SSP Drying)	35	47000 m3/hr	PM, SO2, NOx, CO	150 mg/Nm3, 100 ppm, 50 ppm	-Cyclones and multi clones -Dust collector bags/Bag Filters	99.7%

The solid waste generation at the plant area is being segregated in biodegradable waste and recyclable waste. Recyclable waste is being sold off to recycler. Biodegradable waste is being disposed off in MSW disposal pit to get converted to manure for horticulture purposes. Details

of hazardous/non-hazardous waste generation and its managements are provided in Tables below:

Table 2: Details of Hazardous & Non-Hazardous Waste Management

Expected Solid/Hazardous waste	Category	Existing Annual Quantity (Approx.)	Total After Proposed Expansion Annual Quantity (Approx.)	Disposal Mode
Spent Catalyst	17.2	2.0 Ton/year	-	Disposed to MPWMB Pithampur
Used Oil	5.1	0.40 Ton/year	0.6 Tons/Year	
Process (Sulphur Sludge)	20.4	70 Ton/year	90 Ton/Year	Generated from SAP I/II plants is mixed in SSP plant along with rock phosphate for enrichment of sulphur in SSP fertilizer
Chemical sludge from ETP	35.3	60 Ton/year	70 Ton/Year	Generated on operation of ETP is used in SSP fertilizer for enrichment of Calcium
Oil and Grease skimming from ETP	35.4	1 MT/yr	1.5 MT/Year	Disposed to Authorized Agency
Empty barrels oil	33.1	10 nos/yr	15 nos./year	Disposed to Authorized Agency
Empty containers of chemicals used in processes	33.1	30 nos/yr	40 nos./Year	Disposed to Authorized Agency
Coal Ash	Non-Hazardous	0.4 TPD	-	As a filler, it will be reused in GSSP/SSP Plant. Coal ash generation from coal furnace from SOP plant is expected as 0.4 TPD from indirect heating (coal consumption 2 TPD having 20% ash=0.2*2= 0.4 TPD).
H_2SiF_6	Non-Hazardous	2700 Mton/year	-	Generated from SSP plant are used in SSP plant process for acidulation of rock phosphate.
Gypsum (From Boric acid plant)	Non-Hazardous	-	4965 MT/year (16.55 TPD)	Use as filler in Boronated SSP fertilizer
E-waste	E-waste	E- waste :20 kg/yr	E- waste: 30 kg/yr	Sent to authorized e-waste recycler

		Used batteries: 4 no. /yr	Used batteries: 6 no's/yr	
Plastic and Rubber Waste	Plastic and Rubber Waste	Cut/torn PP bags plastic waste: 10 ton/yr Rubber waste: 200 kg/yr	Plastic waste: 10.200 Ton/yr Rubber waste: 300 kg/yr	Sent to authorized recycler

Deliberations in the EAC:

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

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

The Committee noted that the EIA/EMP report are in compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee also deliberated on the activities/action plans and found to be addressing the public hearing issues in the study area. The Committee suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio. The Committee opined that the industry shall undertake studies on the impact of fertilizers on the soil characteristics and ecology. The Committee noted that the unit is in operation with valid CTO from Madhya Pradesh Pollution Control Board and the project proponent has submitted a self-certified CTO Compliance report due to difficulty in getting the report from SPCB because of the prevailing situations, the report is found to be satisfactory. The Committee recommended that certified compliance report of earlier CTO by SPCB needs to be submitted within six months for further appraisal of the EAC.

The project proponent submitted and undertaking and informed to the Committee that the production of SSP is 1200 TPD out of which portion is used for production of GSSP and remaining is saleable SSP. It is also informed that the tree density shall be increased to 2500 trees/hectare. The PP also submitted a detailed fluorine recovery plan. The Committee found the additional details submitted by the PP to be satisfactory and addressing the concerns raised by the Committee.

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

Accordingly, the EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:

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

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

(i). The Committee noted that the unit is in operation with valid CTO from Madhya Pradesh Pollution Control Board and the project proponent has submitted a self-certified CTO Compliance report due to difficulty in getting the report from SPCB because of the prevailing situations, the report is found to be satisfactory. The Committee recommended that certified compliance report of earlier CTO by SPCB needs to be submitted within six months for further appraisal of the EAC.

(ii). 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.

(iii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities.

(iv). Domestic effluent of shall be treated in STP and used for greenbelt development.

(v). As committed, fluorine recovery plan shall be satisfactorily implemented.

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

(vii). 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.

(viii). 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.

(ix). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

(x). 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.

(xi). Necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents.

(xii). 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.

(xiii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.996% with effective chillers/modern technology.

(xiv). Total fresh water requirement shall not exceed 1648 cum/day, proposed to be met from Narmada river through pipeline. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

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

(xvii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area (11000 Plant), mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly (2500 trees/hectare). The plant species can be selected that will give better carbon sequestration and plantation shall be started from first year onwards.

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

(xix). The project proponent shall assist in development of rain water harvesting system in the adjoining villages/areas.

(xx). As proposed, at least Rs. 18.6 Lakhs shall be earmarked for conservation plan and shall be implemented in coordination with State Forest & Wildlife Department/Local Administration.

(xxi). A separate Environmental Management Cell (having qualified person 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.

Consideration of Amendment in Environment Clearance

Agenda No. 11.18

Proposed amendment in existing EC letter for change in mode of disposal of industrial effluent stream and addition of new plot for M/s. Orgo Chem (Gujarat) Pvt. Ltd. at Plot No. 719, Road No. 7, Sachin GIDC, Taluka-Chorasi, District-Surat, Gujarat-Consideration of amendment in Environment Clearance

[Proposal No. IA/GJ/IND3/203883/2021, File No. J-11011/339/2019-IA-II(I)]

The proposal is for amendment in the Existing Environmental Clearance granted by the Ministry vide letter no. J-11011/339/2019-IA-II(I) dated 11th August 2020 for the project of synthetic organic chemicals (Dyes & Intermediates) manufacturing unit having capacity of 170.5 TPM located at Plot No. 719, Sachin GIDC, Surat, Gujarat in favour of M/s Orgo Chem (Guj.) Pvt. Ltd.

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

Sr. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons
1	**Specific EC Condition A - iii**	As already committed by the project proponent, Zero Liquid Discharge	Total effluent generation will be 30 m3/day (13.5 m3/day from Manufacturing process +	1. Already obtained membership certificate from common MEE facility.

		shall be ensured and no waste/treated water shall be discharged outside the premises. All the wastewater to be collected and to be reused after treatment.	16.5 m3/day from utilities). There shall be total two stream segregation based on the effluent characteristics. **Stream 1 (High COD) (10 m3/day)** generated from manufacturing process shall be sent to Common MEE facility of Globe Enviro Care Limited (GECL) after in-house neutralization. **Stream 2 (High TDS) (20 m3/day)** generated from manufacturing process as well as from boiler blow down, cooling tower blow down, washing and scrubber shall be treated into in-house ETP plant consisting of Neutralization followed by MEE plant, biological treatment and RO plant. Here, RO permeate will be reused within plant premises and RO reject water will be again sent back to MEE plant. There shall be no change in treatment of domestic sewage.	2. Proper handling and management of concentrated effluent in common facility with compare to inhouse facility. 3. Economic viability of inhouse ETP consisting of MEE plant.
	EC condition No. 6:	Total water requirement will be 45 m3/day (22 m3/day Fresh water + 23 m3/day Recycled water). Fresh water will be met from Sachin Notified Area Authority (Sachin GIDC). Industrial	There shall be no change in total water requirement and total wastewater generation. It will remain same as per existing EC letter. However, fresh water requirement will be changed to 27.2 m3/day after proposed amendment which was	Unit has proposed to segregate two streams from wastewater generation. Stream 1 (High COD) (10 m3/day) generated from manufacturing process shall be sent to Common MEE facility of Globe Enviro Care Limited (GECL) after in-house neutralization.

		Effluent of 30 m3/day quantity from Process, Boiler, cooling tower, washing and scrubber will be treated in inhouse MEE and ETP plant. Effluent will be collected and neutralized. Then it will be sent to stripper followed by MEE plant. MEE condensate will be further treated in biological treatment and RO plant. RO permeate of 23 KLD will be reused within premises and RO reject will be sent back to MEE. Thus, the plant will be based on entire Zero Liquid Discharge system. Domestic sewage of 5 m3/day will be disposed through septic tank/soak pit system.	earlier proposed as 22 m3/day.	Stream 2 (High TDS) (20 m3/day) generated from manufacturing process as well as from boiler blow down, cooling tower blow down, washing and scrubber shall be treated into in-house ETP plant consisting of Neutralization followed by MEE plant, biological treatment and RO plant. Here, RO permeate will be reused within plant premises and RO reject water will be again sent back to MEE plant. Thus, fresh water requirement will be increased after proposed amendment.
2	**EC Condition No. 2:**	The Ministry of Environment, Forest and Climate Change has examined the proposal for setting up dye intermediates & specialty chemicals	Unit has purchased new plot (plot no. 717, Sachin GIDC) having area of 2010 m2. Newly purchased plot is located adjacent to the existing plot no. 719 in Sachin GIDC, Surat, Gujarat.	-

		manufacturing unit of capacity 170.5 TPM by M/s. Orgo Chem (Gujarat) Pvt. Ltd. in an area of 2010 sqm. at plot no. 719, Road No. 7, Sachin GIDC, Taluka Chorasi, District Surat (Gujarat).	Unit proposes to add additional Plot no. 717 in their existing EC letter. Thus, total area of the project site will be 4020 m2 after proposed amendment. It is to note that, no additional production activity will be carried out on newly added plot. Effluent treatment plant, utility area, ware house, haz. and non-haz. waste storage area shall be located on this plot. Due to additional plot, unit will have now sufficed area for production and other activities to be carry out. Unit will also provide 1330 m2 area (which is 33.08 % of total plot area) for green belt development within own premises. It is to note that, there shall be no change in existing product list or production capacity. It will remain same as per existing EC letter. Total project cost shall be Rs. 11.55 Crores including existing project cost Rs. 9.25 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 288 Lakhs and the recurring cost (operation & maintenance) will be about Rs. 426.1 lakh per Annum.	
	EC Condition No. 4:	Total land area is estimated to be 2010 sqm. Greenbelt will be developed in 40% i.e. 805 sqm. out of the total project area. The estimated project cost is Rs. 9.25 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 288 Lakhs and the recurring cost (operation & maintenance) will be about Rs. 146.1 lakh per Annum. Total employment in the operation phase will be 45 persons as direct & indirect basis.		

			Total employment in the operation phase will be 45 persons as direct & indirect basis. It will remain same as per existing EC letter.	

Deliberations in the EAC:

The Committee made detailed deliberations on the proposal. The Committee noted that the amendment sought is for change in the mode of effluent disposal and for addition of land. The Committee observed that the unit is small, located in the industrial area and ZLD is not viable..

The Committee, after detailed deliberations, ***recommended*** *for change in mode of disposal to Common MEE, accordingly for increase fresh water requirement and also for addition of land, as proposed by the project proponent. All other terms and conditions shall remain unchanged.*

Agenda No.11.19

Expansion of Fertiliser plant of M/s Smartchem Technologies Limited, located at Plot K1-K5 , MIDC Industrial area , Taloja , District Raigad, Maharashtra- Amendment in Environmental Clearance

[Proposal No. IA/MH/IND3/209564/2021; File No. 11011/167/2016-IA II (1)]

The Project Proponent M/s Smartchem Technologies Limited made a presentation on the salient features of the project and informed that:

The Ministry has granted environmental clearance to the project for expansion of Fertiliser plant of M/s Deepak Fertilisers and Petrochemicals Corporation Limited at Plot K1-K5, MIDC Industrial area, Taloja , District Raigad, Maharashtra vide letter dated 02.09.2019. Further, the EC was transferred to M/s Smartchem Technologies Limited on 18.12.2020.

The project proponent has requested for amendment in the EC as below:

S. No.	EC condition	Amendment sought	Justification by PP
1.	Condition No. 11 (d): The green blet (GB) of 5-10 m width shall be developed in more than 33% of the total project area, mainly along	Consider green belt developed in the degraded forest land. Make green belt from 33% to 31%	Being single product ammonia came to existence in 1979 and subsequently grew to multi- products premises (16 Nos.). While expanding the best effort to meet GB requirements. But despite the efforts PP could make it only up to 31% of the Project area. As the

	the plant periphery in downward wind direction and along roadside etc. Selection of the plant species shall be as per CPCB guidelines in consultation with state forest department.	green belt along the plant periphery.	premises is located on the side of the Taloja MIDC main road on north, east and west side and its south side is having Kasardi river next to our fence, due to these geographical limitations , PP could develop only about 5 m wide GB along the project periphery. Being a pre-existing factory premises PP do not have any more additional area for GB development. However , PP took degraded forest land of 50 acre of land near our plant (10 km) for tree plantation as environmental initiative due to limitation at our premise. It is fully grown and now under maintenance. Considering the above explanation, PP request MoEF authorities to kindly amend the EC suitably and help us to comply the recommendation.
2.	Condition No. 11 (I): At least 5% of the total cost of the project shall be embarked toward the enterprise social commitment (ESC) shall be used providing for laptop to school students through school management	Change ESC percent from 5% to 0.75% being we are brown field project with capital investment less that 500 crores.	PP started manufacturing multiple grade fertilizer call ammonium nitro-phosphate (ANP) (3.25 LMTPA) with its various grades in 1994 and then subsequently added NPK (6 LMTPA) with its various grades in 2017 and now we are further expanding NPK capacity by (2 LMPTA) making total multiple grade fertilizer to 11.25 LMTPA, thus this is a brown field project. Notification F. No. 22-55/2017-IA.III, dated 01-May-18, mandates 0.75% of CER for all brown field projects with capital investment between 100-500 crores the project capital investment is only Rs 190 crore. Hence, PP request EAC to also recommend 0.75 % CER instead of 5 %. Considering the above explanation, PP request EAC authorities to kindly amend the EC.

Deliberations by the EAC:

The committee deliberated the requests of the project proponent and recommended as below:

(i) The Committee did not agree for reduction in the green belt area and reiterated that 33% of the total project area shall have to be allocated for green belt development and suggested to increase the density of plantation and accordingly resubmit the detailed green belt development program.

(ii) The Committee was informed that the CER of 5% was imposed in the instant case by the earlier EAC, as committed by the project proponent and even at that point of time Ministry's OM dated 01.05.2018 regarding CER was available. The Committee was further informed that there is no provision of CER as on date and accordingly, the Committee suggested that PP needs to modify the proposal with proper justification as per the recent OM dated 30.09.2020.

The Committee therefore, did not accept the proposal for amendment and it was returned in the present form.

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Agenda item No. 11.20: Any other item with the permission of the Chairman

11.20: Siting of Industries/developmental activities within the river flood plain

The Member Secretary informed to the Committee that the Policy Sector of IA Division, vide, OM dated 28.05.2021 requested EAC to provide their comments on the siting criteria for various industries. Accordingly, with the permission of the Chair the details of the agenda have been circulated to the EAC Members for deliberations during the meeting.

The Ministry of Environment, Forest and Climate Change have published Handbook of Environment Procedures and Guidelines inter-alia including siting criteria and areas to be avoided for setting up of the industry. As per the said guidelines, the following areas shall be avoided for setting up of industries:

- Ecologically sensitive areas: at least 25 km;
- Coastal areas: at least 1/2 km from High Tide Line
- Flood Plain of the Riverside Systems: at least 1/2 km
- Transport/Communication System: at least 1/2 km
- Major settlements (3,00,000 population): at least 25 km from the projected growth boundary of the settlement

Further, this siting criteria was only a guideline in nature. Pursuant to Handbook of Environment Procedures and Guidelines in 1994, several regulations were enacted viz. Eco-sensitive Zone Notifications, The Wetlands (Conservation and Management) Rules, 2017, etc. Coastal Regulation Zone Notification was in place since 1991.

Recently, there were certain directions of the Hon'ble National Green Tribunal in the matter OA 22 of 2020, OA No. 6/2012, OA No. 200/2014 and OA No. 300/2013 regarding setting up/expansion of industries along the river flood plain. Thus, the Ministry is in process of adopting a procedure regarding projects in close proximity with the river (flood plains), as it not covered in any of the legislations in place.

The Committee was briefed on the issue and requested for their suggestion:

The Committee deliberated on the siting of developmental activities along river flood plain and suggested that there shall be demarcation of no development zone along the river depending on type of industries to be set up within the riverine ecosystem at a particular place. The Committee further desired that State Irrigation and water department officials must also be consulted before framing any guidelines to understand the exact ground situation.

"Industrial/ developmental project shall not be located in any form within the river floodplain corresponding to once in 25 years flood, as certified by competent authority of the concerned State. Competent authority should be of the level of District magistrate/ Executive Engineer from state water resource department and his/her certificate must be based on study/ analysis and long term data/ observations". Further type of Industries needs to be taken in the account for such consideration.

The Committee in general desired at-least 50 m to maximum 200 m shall be applied depending on category and type of industries proposed to set up. The Committee also of the view that the matter may be elaborately discussed further to arrive at an appropriate guidelines based on river flood plain data and categorization of industries.

There being no item left, the meeting ended with a vote of Thanks to the Chair.

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ANNEXURE

GENERAL CONDITIONS

(i) 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.

(ii) The Project proponent 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.

(iii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.

(iv) 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).

(v) 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.

(vi) 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.

(vii) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

(viii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective 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.

(ix) 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 Regional Offices of MoEF&CC by e-mail.

(x) The project proponent 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.

(xi) 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.

(xii) 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-I

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

S. No.	Name of Members	Designation
1.	**Prof. (Dr.) A.B. Pandit** Vice Chancellor, Institute of Chemical Technology, Mumbai, Sir JC Bose Fellow, Government of India Email: ab.pandit@ictmumbai.edu.in	Interim EAC 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.	**Prof. (Dr.) Vijay S. Moholkar** Professor in Department of Chemical Engineering, Block-K (Academic complex), Room No. 111, Inidia Institute of Technology Gawahati, Gawahati – 781039 E-mail: vmoholkar@iitg.ac.in	Member
6.	**Dr. Suresh Panwar** House No.4, Gayateri Green Society, NH 58 Bypass,Kankerkhera, Meerut, Uttar Pradesh Email-spcppri@gmail.com	Member
7.	**Shri Dinabandhu Gouda** Additional Director, DH IPC-I, Room No. 309A, Third Floor, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 110032, E-mail: dinabandhu.cpcb@nic.in	Member
8.	**Shri Tukaram M Karne** "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2, PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	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. Uma Kapoor** CGWA, 18/11, Jamnagar House, Mansingh Road, New Delhi E-mail: uma-cgwb@nic.in	Member
11.	**Dr. R. B. Lal** Scientist 'E'/Additional Director Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Room No. V-304, Vayu Wing, Jor Bag Road, New Delhi-110003 Telefax: 011-24695362 E-mail: rb.lal@nic.in	Member Secretary

MoEFCC		
12.	**Dr. Saranya P.** Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Scientist 'D'
13.	**Dr. E.P. Nobi** Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Research Officer
14.	**Mr. Ritin Raj** Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Research Assistant

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Annexure-II

Approval of EAC Chairman

Email **Additional Director MoEFCC Dr R B LAL**

Re: Zero Draft Minutes of the 11th EAC (Industry 3 Sector) meeting held during May 31, 2021 & June 1, 2021 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir.

From : ab pandit <ab.pandit@ictmumbai.edu.in> Sat, Jun 05, 2021 05:26 PM

Subject : Re: Zero Draft Minutes of the 11th EAC (Industry 3 Sector) meeting held during May 31, 2021 & June 1, 2021 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir. 1 attachment

To : Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in>, snupadhyay che <snupadhyay.che@iitbhu.ac.in>, dwivedisuneet@rediffmail.com, suneetdwivedi@gmail.com, ashoksaxena1159@gmail.com, santoshgo@gmail.com, pkmishra che <pkmishra.che@itbhu.ac.in>, drpkm18@gmail.com, spcppri@gmail.com, Dinabandhu Gouda <dinabandhu.cpcb@nic.in>, Sanjay Bist <sanjay.bist@imd.gov.in>, Uma kapoor <uma-cgwb@nic.in>, vmoholkar@iitg.ac.in, tmkarne@gmail.com

Dear Dr. Lal,
Please find attached the MOM signed and approved. Nicely done and very thorough,
Warm Regards

Prof A B Pandit
Chairman

The MOM are approved

Dated 5th of June 2021

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