GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-2 CHEMICAL SECTOR)
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Dated: 07.12.2020

MINUTES OF THE 25th MEETING OF THE EXPERT APPRAISAL COMMITTEE

(INDUSTRY-2 SECTOR FOR CHEMICAL BASED PROJECTS),

HELD ON 24th November, 2020

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

(i) Opening Remarks by the Chairman: The Chairman welcome the Committee members and appreciated their efforts. After opening remarks, the Chairman opened the EAC meeting for further deliberations.

(ii) Confirmation of minutes: The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC members on the minutes of its 24th Meeting of the EAC (Industry-2 Petro-Chemical) held during 19th October, 2020 conducted through Video Conferencing (VC), 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: -

24th November, 2020 (Tuesday)

Consideration of Environmental Clearance

Agenda No. 25.1

Establishing Manufacturing Unit of Pesticides & intermediates and Synthetic Organic Chemicals & intermediates unit Capacity 20100 TPA by M/s Shivalik Rasayan Limited located at D – 3/ 16 GIDC Industrial

Estate Dahej – III, Village – Sambheti, Taluka – Vagra, Distt- Bharuch, Gujarat -Consideration of Environment Clearance regarding.

[IA/GJ/IND2/152048/2020, IA-J-11011/111/2020-IA-II(I)]

The project proponent and their consultant M/s. Eco Chem Sales & Services (ECSS) made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

The proposal is for environmental clearance to the project for establishing Manufacturing Unit of Pesticides & intermediates and Synthetic Organic Chemicals & intermediates unit Capacity 20100 TPA by M/s Shivalik Rasayan Limited located at D – 3/ 16 GIDC Industrial Estate Dahej – III, Village – Sambheti, Taluka – Vagra, Distt- Bharuch, Gujarat.

All Pesticides industry and pesticide specific intermediates (excluding formulations), Synthetic Organic Chemicals Industry **(**Dyes & Dye Intermediates; Bulk Drugs and Intermediates Excluding Drug Formulations; Synthetic Rubbers; Basic Organic Chemicals, Other Synthetic Organic Chemicals and Chemical Intermediates) are listed in S.N. 5(b), & 5**(f)** respectively of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' to be appraised at Central level in the Ministry.

The standard ToR for the project was granted by Ministry vide letter No.IA-J-11011/111/2020-IA-II (I); dated 1st June 2020. Public hearing is exempted as per Para 7(i), III. Stage (3), (i)(b) of the EIA Notification, 2006, and in accordance with the Ministry's OM dated 27th April 2018, as the project site is located in the notified industrial area. It was informed that no litigation is pending against the proposal.

The details of products and capacity are as under:

Sr. No.	Product	CAS No.	Capacity, TPA	End-Use
A	**Pesticides**		**12000**	
1.	Dimethoate Technical	60-51-5		Insecticide
2.	Malathion Technical	121-75-5		Insecticide
3.	Acetamiprid Technical	135410-20-7		Insecticide
4.	Thiamethoxam Technical	153719-23-4		Insecticide
5.	Thiacloprid Technical	111988-49-9		Insecticide
6.	Chlorfluazuron Technical	71422-67-8		Insecticide
7.	Cyantraniliprole Technical	736994-63-1		Insecticide
8.	Triclopyr Technical	57213-69-1		Herbicide
9.	Triclopyrbutoxy ethyl ester	64700-56-7		Herbicide
10.	Clodinafop Propargyl	105512-06-9		Herbicide
11.	Azoxystrobin Technical	131860-33-8		Fungicide
12.	Difanoconazole	119446-68-3		Fungicide
13.	Epoxiconazole	133855-98-8		Fungicide
14.	Hexaconazole	79983-71-4		Fungicide
15.	Propiconazole	60207-90-1		Fungicide
16.	Prothioconazole	178928-70-6		Fungicide
17.	Pretilachlor	51218-49-6		Herbicide

18.	Pendimethalin	40487-42-1		Herbicide
19.	Atrazine	1912-24-9		Herbicide
20.	Metribuzin	21087-64-9		Herbicide
21.	Tricyclazole	41814-78-2		Fungicide
22.	Tebuconazole	107534-96-3		Fungicide
23.	Fipronil	120068-37-3		Insecticide
24.	Emamectin Benzoate Technical	155569-91-8		Insecticide
25.	Abamectin Banzoate Technical	71751-41-2		Insecticide
26.	Spinosad	131929-60-7		Insecticide
27.	Indoxacarb	144171-61-9		Insecticide
28.	Propargite	2312-35-8		Insecticide
29.	Paraquat	1910-42-5		Herbicide
30.	Amitraz	33089-61-1		Insecticide
31.	Intermediates	-		-
B	**Synthetic Organic Chemical**		**8000**	
B1	**Speciality Chemicals**			
1.	Methyl cis-1-[2-(2,5-Dimethyl phenyl)-Acetyl amino]-4-Methoxy-Cyclohexane (ETMD)	203313-47-7		Miscellaneous use in different industries
2.	1,1,1,3,3,3-Hexafluoro Isopropyl Methyl Ether (HFMOP)	13171-18-1		
3.	2,2-Dimethyl-4-Methylene-1,3-Dioxalane (MDO)	19358-05-5		
4.	Chloromethyl 2-Methyl Proponoate (CMIBA)	61644-18-6		
5.	2-Chloro-4-(Methyl sulfonyl)-3-[(2,2,2-trifluoro ethoxy)methyl] Benzoic Acid (CMTB)	120100-77-8		
B2	**Performance Chemicals**			
1.	1-(4-Chlorophenyl)-2-methyl-2-(morpholin-4-yl) propan-1-one (PCBM)	88324-57-6		
2.	Titanium BiscatecholateMonopyrogallate Sodium Potassium Salt (Negolyte)	1550156-02-9		
B3	**Intermediates**	-		
C	**New R&D Products for Pilot Scale**	-	**100**	
	Total	**--**	**20100**	

The land area 49244.70 m^2 will be used for proposed project. Industry will develop greenbelt in an area of 33.24 % i.e. 16370.15 m^2 out of total area of the project. The estimated project cost is Rs. 70 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 660 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 900 Lakhs

per annum. Total Employment will be 350 persons as direct & 180 persons indirect. Industry proposes to allocate Rs. 140 Lakhs towards Corporate Environment Responsibility which is 2% of the project cost as per the OM F. No. 22-65/2017-IA.III dated 1st May 2018.

PP has reported that there are no national parks, wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, Wildlife Corridors etc. within 10 km distance from the project site. River Narmada is flowing at a distance of 8.60 km in South direction.

Ambient air quality monitoring was carried out at 8 locations during 1st December 2019 to 29th February 2020and the baseline data indicates the ranges of concentrations as: PM_{10} (64.6 – 86.1 µg/m^3), $PM_{2.5}$ (29.6 – 46.0µg/m^3), SO_2 (8.6– 15.9 µg/m^3) and NOx (13.1 – 20.5µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.68µg/m^3, 6.26 µg/m^3 and 3.07 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 1308.10 KLD (Fresh: 867.10 KLD + Recycled: 441.0 KLD) will be met from GIDC, Dahej. Effluent (industrial) of 631.10 KLD quantity will be segregated into two different streams i.e. High TDS/COD stream and Low TDS/COD stream. High TDS/COD stream generated from process shall be collected separately and sent to MEE followed by stripper. The Condensate from MEE will be collected in collection sump and pumped to ETP. Low TDS/COD stream generated from utilities blow downs, washings will be sent to RO plant. RO permeate will be reused for utilities and RO rejected will be sent to MEE. MEE Condensate along with Low TDS/COD stream will be treated into ETP consisting of Primary treatment, Two Stage Secondary Treatment and Tertiary Treatment. ETP treated water will be reused for industrial purpose and balance water will be discharged to GIDC drain.

Power requirement for the proposed project will be 1500 kVA and will be met from GSPC. Unit has proposed 02 DG sets of 500 kVA capacity each will be installed. DG sets will be used as standby during power failure. Stack (height 11.0 m) will be provided as per CPCB norms to the proposed DG sets. Proposed one number of 4 TPH and one number of 10 TPH boiler and Multi cyclone separator, water scrubber with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit for the proposed boiler.

Details of Process emissions generation and its management:

There will be generation of HCl, H2S, HBr, Br2 and SO2 from the manufacturing process. Two stage alkali scrubber and height of 10 m chimney will be provided.

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

Sr. No.	Process waste	Category	Quantity, TPA	Mode of disposal
1.	ETP Sludge	35.3 (Sch. I)	100	Collection, Storage, Transportation and

				Disposal to TSDF site of M/s BEIL for landfilling
2.	Distillation Residue/Organic Residue	29.1 (Sch. I)	6000	Collection, Storage, Transportation and Disposal to CHWIF for Incineration / Co-processing
3.	Discarded Drums/Barrels	33.1 (Sch. I)	200	Collection, Storage, Transportation and Disposal to authorized decontamination facility
4.	Used Oil	5.1 (Sch. I)	250	Collection, Storage, Transportation and Disposal by selling to authorized recycler
5.	Spent Solvent	29.4 (Sch. I)	2800	Collection, Storage, Transportation and Disposal to authorized Recycler / Incineration.
6.	Aqueous waste Containing trace pesticide from Reactor washing, drum washing etc.	29.2 (Sch. I)	4000	Collection, Storage, Transportation and Disposal to CHWIF of M/s BEIL for Incineration
7.	Spent Resin From DM Plant	35.2 (Sch. I)	14	Collection, Storage, Transportation and Disposal to CHWIF of M/s BEIL for Incineration
8.	Date-expired/ Off-Specification Products	29.3 (Sch. I)	100	Collection, Storage, Transportation and Disposal to CHWIF of M/s BEIL for Incineration
9.	MEE Salt	35.3 (Sch. I)	2500	Collection, Storage, Transportation and Disposal to TSDF site of M/s BEIL for landfilling
10.	Spent Carbon	36.2 (Sch. I)	30	Collection, Storage, Transportation and Disposal to CHWIF of M/s BEIL for Incineration
11.	NaSH	C2 (Sch. II)	3000	Collection, Storage, Transportation and Disposal to authorized end user under Rule-9 permission
12.	HCl	C2 (Sch. II)	4000	Collection, Storage, Transportation and Disposal to authorized end user under Rule-9 permission
13.	Acetic Acid	C2 (Sch. II)	400	Collection, Storage, Transportation and Disposal to authorized end

				user under Rule-9 permission
14.	Distilled Solvent	-	2500	Collection, Storage and reuse within premises
15.	NaCl	C2 (Sch. II)	1200	Collection, Storage, Transportation and Disposal to authorized end user under Rule-9 permission
16.	NaBr	C2 (Sch. II)	20000	Collection, Storage, Transportation and Disposal to authorized end user under Rule-9 permission
17.	HBr	C2 (Sch. II)	300	Collection, Storage, Transportation and Disposal to authorized end user under Rule-9 permission
18.	Ammonium chloride	C2 (Sch. II)	150	Collection, Storage, Transportation and Disposal to authorized end user under Rule-9 permission
Solid Waste				
1.	Fly Ash	-	1960	Collection, Storage, Transportation and Disposal to brick manufacturer / cement industry
2.	STP Sludge	-	5	Used as a manure within plant premises

The Committee after detailed deliberations has asked/desired additional information/inputs in respect of the following:

(i). To submit Process safety/3-D Modelling Plan.
(ii). Banned pesticides shall not be utilized.
(iii). Coal as fuel shall not be utilized.
(iv). Natural gas shall be utilized as fuel.
(v). Plan of Solar energy utilization.
(vi). Roof top Rain water harvesting plan to be submitted as plot area is large.
(vii). To submit Detailed Liquid Discharge Plan.
(viii). Hazardous material shall not be stored.
(ix). Treated water shall be reused and RO discharge water shall be used/supplied for agriculture purposes.
(x). Solvent recovery CTP plan is to be submitted.

The proposal was accordingly DEFERRED for the needful.

Agenda No. 25.2

Establishment of Pesticide Specific Intermediates (Insect Pheromone) & Synthetic Organic Chemicals manufacturing unit Capacity 523.95 MT/A by M/s Jaydev Chemical Industries located at Plot No. L-43 Additional Mahad MIDC, Tal.: Mahad, Distt. Raigad, Maharashtra - Consideration of Environment Clearance regarding.

[IA/MH/IND2/139399/2020, IA-J-11011/29/2020-IA-II(I)

The project proponent and their consultant M/s. Equinox Environments (I) Pvt. Ltd. made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

The proposal is for environmental clearance to the project for establishing of Pesticide Specific Intermediates (Insect Pheromone) & Synthetic Organic Chemicals manufacturing unit Capacity 523.95 MT/A by M/s Jaydev Chemical Industries located at Plot No. L-43 Additional Mahad MIDC, Tal.: Mahad, Distt. Raigad, Maharashtra.

All Pesticides industry and pesticide specific intermediates (excluding formulations), Synthetic Organic Chemicals Industry **(**Dyes & Dye Intermediates; Bulk Drugs and Intermediates Excluding Drug Formulations; Synthetic Rubbers; Basic Organic Chemicals, Other Synthetic Organic Chemicals and Chemical Intermediates) are listed in S.N. 5(b), & 5**(f)** respectively of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' to be appraised at Central level in the Ministry.

The standard ToR for the project was granted by Ministry vide letter No. J-11011/29/2020 IA-II (I) dated 19th March, 2020 for Establishment of Pesticide Specific Intermediates (Insect Pheromone) as well as Synthetic Organic Chemicals manufacturing unit. Public hearing is exempted as per Para 7(i), III. Stage (3), (i)(b) of the EIA Notification, 2006, and in accordance with the Ministry's OM dated 27th April 2018, as the project site is located in the notified industrial area. It was informed that no litigation is pending against the proposal.

The details of products and capacity are as under:

No.	Product Name	Quantity		Usage
		(MT/M)	(MT/A)	
1.	Hexyne	3.4	40.8	Pheromone Intermediate used to manufacture Insecticides.
2.	Heptyne	1.45	17.4	
3.	Octyne	1.23	14.7	
4.	Decyne	0.75	9	
5.	9-Decynol	1.95	23.4	
6.	10-Undecynol	2	24	
7.	5-Decynol	0.43	5.1	
8.	Bromo Decanol	1.03	12.3	
9.	Bromo Hexanol	1	12	

10.	5-Tetradecynol	0.18	2.1	
11.	9-Tetradecynol	0.95	11.4	
12.	10-Pentadecynol	0.83	9.9	
13.	11-Hexadecynol	0.9	10.8	
14.	1-Bromo-2-butyne	0.82	9.8	
15.	Bromododecanol	0.25	3	
16.	13-Octadecynol	0.18	2.1	
17.	11-Octadecynol	0.18	2.1	
18.	2-Octadecynol	0.1	1.2	
19.	11-Bromoundecanol	0.83	10	
20.	4-Decynol	0.17	2.04	
21.	8-Dodecynol	0.83	10	
22.	9-Dodecynol	0.42	5	
23.	7-Dodecynol	0.17	2	
24.	7-Tetradecynol	0.1	1.15	
25.	10-Tetradecynol	0.1	1.15	
26.	11-Tetradecynol	0.83	9.9	
27.	7-Hexadecynol	0.43	5.13	
28.	9-Hexadecynol	0.43	5.13	
29.	10-Hexadecynol	0.09	1.08	
30.	Dodecyne	0.15	1.8	Pheromone Intermediate used to manufacture Insecticides.
31.	Tetradecyne	0.19	2.25	
32.	1-Chloro-2-butyne	0.08	0.9	
33.	1-Bromo-2-pentyne	0.4	4.8	
34.	1-Chloro-2-pentyne	0.18	2.2	
35.	2-Pentynol	0.17	2	
36.	5-Hexynol	0.18	2.2	
37.	3-Nonynol	0.79	9.5	
38.	3-Octynol	1.7	20.4	
39.	3-Decynol	0.18	2.1	
40.	3-Dodecynol	0.08	1	
41.	2-Hexynol	0.17	2.04	
42.	Diethoxypropyne	0.87	10.44	
43.	7-Octynol	0.16	1.92	Pheromone Intermediate used to manufacture Insecticides.
44.	9,9-Diethoxy-7-nonyn-1-ol	0.9	10.8	
45.	3,6-Nonadiynol	0.15	1.85	
46.	4,7-Decadiyn-1-ol	0.1	1.23	
47.	z,12-Pentadecen-10-yn-1-ol	0.09	1.08	
48.	z,13-Hexadecen-11-yn-1-ol	0.1	1.14	
49.	3,5-Dodecyn-1-ol	0.17	2.03	
50.	9-Dodecen-7-yn-1-ol	0.41	4.86	
51.	9,11-Dodecen-7-yn-1-ol	0.09	1.08	
52.	2-Octynol	0.85	10.2	
53.	Tetradec-11-en-9-ynol	0.32	3.81	
54.	Tetradec-12-en-9-ynol	0.16	1.9	
55.	Octadeca-2-en-13-ynol	0.19	2.25	Pheromone Intermediate used to manufacture Insecticides.
56.	Octadeca-3-en-13-ynol	0.2	2.4	
57.	7,11,13-Hexadecatrien-1-ol	0.15	1.8	
58.	7,11-Hexadecadiyn-1-ol	0.47	5.6	

59.	Hexadecenal dimethyl acetal	0.09	1.02	
60.	3,5-Dodecadienyl Acetate	0.17	2.03	Apple leafroller Pheromone
61.	7,9-Dodecadienyl Acetate	0.42	5	European Grapewine Moth Pheromone
62.	7,9,11-Dodecatrienyl Acetate	0.08	0.9	European Grapewine Moth Pheromone
63.	z,9-Tricosene	0.03	0.3	Domestic Fly Pheromone
64.	11-Hexadecynal	0.28	3.4	Grape leaffolder Pheromone
65.	7,11,13-Hexadecatrienal	0.13	1.5	Citrus leafminer Pheromone
66.	7,11-Hexadecadienyl Acetate	0.44	5.31	Pink Bollworm Pheromone
67.	4,7,10-Tridecatrienyl Acetate	0.08	0.9	Potato tuberworm moth Pheromone
68.	3,8,11-Tetradecatrienyl Acetate	0.03	0.3	Tomato leaf miner Pheromone
69.	8,10-Pentadecadienyl Acetate	0.03	0.3	Cranberry fruitworm Pheromone
70.	4-Decenyl Acetate	0.03	0.3	Lesser date moth Pheromone
71.	Dodecenyl Acetate	0.03	0.3	Cabbage looper Pheromone
72.	11,13-Hexadecadienal	0.05	0.6	Navel Orangeworm Pheromone
73.	Octadecenyl Acetate	0.05	0.6	Spotted sugarcane borer Pheromone
74.	Octadecadienyl Acetate	0.05	0.6	Peachtree borer Pheromone
75.	Tetradecadienyl Acetate	0.05	0.6	Egyptian cotton leafworm Pheromone
76.	Hexadecenal	0.38	4.5	Yellow Stem borer Pheromone
77.	DodecenylButenoate	0.1	1.17	Sweet potato weevil Pheromone
78.	7,9,11-Dodecatrienyl Formate	0.08	0.96	Carob moth Pheromone
79.	Hexadeca-13-en-11-ynyl acetate	0.05	0.54	Pine Processionary moth Pheromone
80.	3-Methyl-6-isoprenyl-9-decenyl acetate	0.08	0.99	California Red Scale Pheromone
81.	Tetradecenol	0.18	2.16	Sunflower moth Pheromone
82.	Tetradecenyl Acetate	0.83	9.9	Fall armyworm Pheromone
83.	Hexadecenyl Acetate	0.45	5.4	Diamondback moth Pheromone
84.	e-Hexadecenyl Acetate	0.45	5.4	Eggplant borer Pheromone

85.	4-Methyl-5-nonanol	0.84	10.08	Coconut weevil Pheromone
86.	Decadienyl Acetate	0.17	2.03	Lesser date moth Pheromone
87.	E-Decenyl Acetate	0.85	10.2	Peach twig borer moth Pheromone
88.	10-Undecynoic Acid	0.43	5.1	Intermediate used to manufacture Specialty Chemical
89.	2,4-Hexadiyne-1,6-diol	0.05	0.6	
90.	3,5-Octadiyn-1,8-diol	0.08	0.9	
91.	4,6-Decadiyn-1,10-diol	0.09	1.11	
92.	5,7-Dodecadiyn-1,12-diol	0.1	1.2	
93.	10,12-pentacosadiynoic acid	0.2	2.4	
94.	3-Butyn-2-ol	0.18	2.1	
95.	Methyl Heptine Carbonate	1.7	20.4	
96.	Methyl Octine Carbonate	1.88	22.5	
97.	N,N-Dimethylpropargylamine	0.25	3	
98.	N,N-Diethylpropargylamine	0.43	5.1	
	Total (I)	**43.41**	**520.95**	
1	Sodium Bromide Solution	0.03	0.30	Sale to authorized reprocessor/recycler
2	Phosphoryl chloride	0.05	0.60	
3	Liquor Ammonia	0.08	0.90	
4	Triphenylphosphine oxide	0.10	1.20	
	Total (II)	**0.25**	**3.00**	
	Total(I+II)	**43.67**	**523.95**	

The total land area is 4239 M^2. Built up for proposed unit is 841.33 M^2. Industry will develop Green Belt in an area of 1515 M^2 (36% out of total plot area). The estimated proposed project cost is Rs.7 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 2.10 Crores and the Recurring cost (operation and maintenance) will be about Rs. 0.215 Crores per annum. Total Employment under proposed project would be 50 persons. Industry proposes to allocate Rs.0.148 Crores @ of 2% towards Corporate Environmental Responsibility.

PP has reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Kal river is flowing at a distance of 0.8 Km in East to West direction.

Ambient air quality monitoring was carried out at 8locations during March 2019 – May 2019 and submitted baseline data indicates that ranges of concentrations of PM_{10} (72.90 – 51.80 µg/m^3), $PM_{2.5}$ (26.60 – 16.10 µg/m^3), SO_2 (28.50 – 9.50 µg/m^3) and NO_x (38.00 – 15.30 µg/m^3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the establishment project would be 6.62 µg/m^3 SO_2 (towards South East side), 1.29 µg/m^3 NOx(towards South East side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement for project will be 23.30 CMD. Out of which, 13.80 CMD will fresh water from MIDC water source while 5.5 CMD will be ETP treated effluent to be recycled & 4 CMD will be STP treated effluent to be recycled. The effluent generated of 5.80 CMD quantity will be treated through ETP comprising of Bar Screen Chamber, O&G Removal and Equalization Tank, Flash Mixer, Flocculator, Tube Settler, Stripper Column followed by Multi Effect Evaporator (MEE), Primary, Secondary & Tertiary treatment. The plant will be based on Zero Liquid discharge system.

Power requirement for proposed unit will be 376 kWH will be procured from MSEDCL Mahad. DG set of 512 kVA capacity will be installed as standby during power failure. Stack of height 5 M ARL is provided as per CPCB norms to the DG sets. One 1 TPH boiler & Two nos. of 2 lac Kcal / Hr Thermo pack will be installed. LDO will be used as fuel for boiler & Thermo pack. Stack of height of 16 M will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boiler & thermo pack.

Details of Process emissions generation and its management:

The SO_2, NOx, CO, VOC, NH_3generation shall take place in manufacturing process. Same are controlled through installation of Scrubbers. In all, two scrubbers will be provided on site.

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

Details of Solid waste generated & its management

No.	Type of waste	Quantity	Disposal
1	Plastic Bags	0.05 MT/M	By Sale to Authorized reprocessor
2	Carboy HDPE	0.20 MT/M	
3	Drum HDPE	0.88 MT/M	
4	Drum MS	4.68 MT/M	

Details of Hazardous waste generated & its management

No.	Type of Waste	Cat.	Quantity	Disposal
1.	Date-expired and off-specification pesticides	29.3	0.4 MT/Y	CHWTSDF
2.	Spent solvents	29.4	10 MT/Y	
3.	Contaminated cotton rags or other cleaning material	33.2	0.72 MT/Y	
4.	ETP Sludge	35.3	0.6 MT/Y	
5.	Distillation Residue	36.1	12.62 MT/Y	

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made 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 have found the proposal in order and have **recommended** for grant of environmental clearance.

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 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 EIA/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.

(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.

(iv). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(v). Total fresh water requirement shall not exceed 13.80 cum/day, proposed to be met from MIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

(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). 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.

(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). 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.

(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). 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.

(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 nearly 40% of the total project area, mainly along the plant periphery. 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.

(xv). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as

per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall be completed within three years as proposed.

(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. 25.3

Proposed Pesticides, Pesticide Intermediates and Synthetic Organic Chemicals Plant Capacity 400 MTA by M/s Malvis Industries located at Plot No. C-25/2, Sayakha Industrial Area, GIDC, Dist: Bharuch, Gujarat - Consideration of Environment Clearance regarding.

[IA/GJ/IND2/155653/2019, IA-J-11011/280/2019-IA-II(I)]

The project proponent and their consultant M/s. Jyoti Om Chemical Research Centre Pvt. Ltd. were present for deliberation.

The proposal is for environmental clearance to the project for proposed Pesticides, Pesticide Intermediates and Synthetic Organic Chemicals by Plant Capacity 400 MTA M/s Malvis Industries located at Plot No. C-25/2, Sayakha Industrial Area, GIDC, Dist: Bharuch, Gujarat.

Consultant is not accredited with QCI/NABET. As per EIA Notification 2006, Consultant should be accreditation by QCI/NABET for preparation of EIA/EMP report.

Expert Appraisal Committee (EAC) has decided not to discuss the proposal and ***Return*** it in present form.

Agenda No. 25.4

Proposed Pesticides, Pesticide Intermediates and Specialty Chemicals Plant Capacity 400 MTA by M/s MS Industries located at Plot No. C-58, Saykha Industrial Area, GIDC, Dist. Bharuch, Gujarat - Consideration of Environment Clearance regarding.

[IA/GJ/IND2/155905/2019, IA/GJ/IND2/118352/2019]

The project proponent and their consultant M/s. Jyoti Om Chemical Research Centre Pvt. Ltd. Were present for deliberation.

The proposal is for environmental clearance to the project for proposed Pesticides, Pesticide Intermediates and Specialty Chemicals Plant Capacity 400 MTA by M/s MS Industries located at Plot No. C-58, Saykha Industrial Area, GIDC, Dist. Bharuch, Gujarat.

Consultant is not accredited with QCI/NABET. As per EIA Notification 2006, Consultant should be accreditation by QCI/NABET for preparation of EIA/EMP report.

Expert Appraisal Committee (EAC) has decided not to discuss the proposal and ***Return*** it in present form.

Agenda No. 25.5

Proposed Pesticide Technical & Intermediates Manufacturing Plant Capacity 8080 MT/Month by M/s Ichiban Crop Science Ltd located at Plot no. SP-22 & SP-23, Industrial Area, Rajasthan State Industrial Development & Investment Corporation Ltd (RIICO), Chemical Zone, Keshwana, District- Jaipur, Rajasthan- 303108 - Consideration of Environment Clearance regarding.

[IA/RJ/IND2/169558/2019, J-11011/420/2019-IA-II (I)]

The project proponent and their consultant M/s. EQMS India Pvt. Ltd. made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

The proposal is for environmental clearance to the project for Proposed Pesticide Technical & Intermediates Manufacturing Plant Capacity 8080 MT/Month by M/s Ichiban Crop Science Ltd located at Plot no. SP-22 & SP-23, Industrial Area, Rajasthan State Industrial Development & Investment Corporation Ltd (RIICO), Chemical Zone, Keshwana, District- Jaipur, Rajasthan.

All Pesticides industry and pesticide specific intermediates unit are listed at S.N. 5(b) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central level in the Ministry.

The standard ToR for the project was granted by Ministry vide letter No. J-11011/420/2019-IA-II(I) dated 22.01.2020 for establishment of Pesticide Specific Intermediates manufacturing unit. Public hearing is exempted as per Para 7(i), III. Stage (3), (i)(b) of the EIA Notification, 2006, and in accordance with the Ministry's OM dated 27th April 2018, as the project site is located in the notified industrial area. It was informed that no litigation is pending against the proposal.

The details of products and capacity are as under:

Details of Proposed Capacity of Manufacturing Plant

S.No.	Type	Quantity (MT/Month)
1.	Insecticides	750
2.	Fungicides	450
3.	Herbicide	750
4.	R&D product	100 #
5.	By-products	6030
	Total	**8080**

 # R&D based product at R&D pilot plant – Max 1.0 MT per product

List of Proposed Products: (On-page-17)

no.	Groups	Name of Products	Cas No.	Quantity (MT/month)
INSECTICIDE GROUPS				
	Group-1	**ACARICIDES COMPOUNDS / BENZOYLUREA / Other IGRs**		
1		Pyridaben	96489-71-3	**150**
2		Diafenthiuron	80060-09-9	
3		Spirodiclofen	148477-71-8	
4		Spiromesifen	283594-90-1	
5		Tebufenpyrad	119168-77-3	
6		Lufenuron	103055-07-8	
7		Novaluron	116714-46-6	
8		Buprofezin	69327-76-0	
9		Methoxyfenozide	16150-58-4	
10		Pyriproxyfen	95737-68-1	
	Group-2	**NATURAL PRODUCTS**		
11		Spinetoram	187166-40-1	**150**
12		Thiocyclam	31895-21-3	
	Group-3	**NEONICOTINOIDS**		
13		Acetamiprid	135410-20-7	**150**
14		Clothianidin	210880-92-5	
15		Dinotefuran	165252-70-0	
16		Imidacloprid	138261-41-3	
17		Nitenpyram	150824-47-8	
18		Thiacloprid	111988-49-9	
19		Thiamethoxam	153719-23-4	
20		Pymetrozine	123312-89-0	
	Group-4	**SYNTHETIC PYRETHROIDS**		
21		Lamda-Cyhalothrin	68085-85-8	**150**
22		Alpha-Cypermethrin	67375-30-8	
23		Bifenthrin	82657-04-3	
24		Cypermethrin	52315-07-8	
25		Deltamethrin	52918-63-5	
	Group-5	**ORGANOPHOSPHORUS & OTHERS**		
26		Acephate	30560-19-1	**150**
27		Clorpyrifos	2921-88-2	
28		Profenophos	41198-08-7	
29		Chlorantraniliprole	500008-45-7	
30		Cyclaniliprole	1031756-98-5	
31		Cyantraniliprole	736994-63-1	
32		Tetraniliprole	1229654-66-3	
33		Indoxacarb	144171-61-9	
34		Fipronil	120068-37-3	

35		Flonicamid	158062-67-0	
36		Flubendiamide	272451-65-7	
37		Sulfoxaflor	946578-00-3	
38		Tolfenpyrad	129558-76-5	
FUNGICIDE GROUPS				
	Group-6	**SDHIs / OTHERS-CONT**		
39		Fluopyram	658066-35-4	
40		Boscalid	188425-85-6	
41		Fluxapyroxad	907204-31-3	
42		Thifluzamide	130000-40-7	
43		Carpropamid	104030-54-8	**150**
44		Isoprothiolane	50512-35-1	
45		Cyazofamid	120116-88-3	
46		Mandipropamid	374726-62-2	
	Group-7	**STROBILURINS / SBI-TRIAZOLE / SBI-Other DMIs / MULTICITE**		
47		Azoxistrobin	131860-33-8	
48		Picoxystrobin	117428-22-5	
49		Pyraclostrobin	175013-18-0	
50		Trifloxystrobin	141517-21-7	
51		Kresoxim-Methyl	143390-89-0	
52		Hexaconazole	79983-71-4	
53		Propiconazole	60207-90-1	
54		Epoxiconazole	135319-73-2	
55		Tebuconazole	107534-96-3	
56		Tetraconazole	67915-31-5	**300**
57		Cyproconazole	94361-06-5	
58		Difenoconazole	119446-68-3	
59		Flusilazole	85509-19-9	
60		Bupirimate	41483-43-6	
61		Prochloraz	67747-09-5	
62		Prothioconazole	178928-70-6	
63		Tricyclazole	41814-78-2	
64		Mancozeb	1/7/8018	
65		Propineb	12071-83-9	
HERBICIDE GROUPS				
	Group-8	**ALS-IMIDAZOLINONE/ UREAS / ALS-SULFONYLUREA-CONT / ALS-OTHERS**		
66		Imazethapyr	81335-77-5	
67		Diuron	330-54-1	
68		Bensulfuron	83055-99-6	**150**
69		Metsulfuron	74223-64-6	
70		Nicosulfuron	111991-09-4	
71		Chlorimuron	90982-32-4	

72		Pyrazosulfuron	93697-74-6	
73		Sulfosulfuron	141776-32-1	
74		Trifloxysulfuron	199119-58-9	
75		Bispyribac-Sodium	125401-92-5	
76		Diclosulam	145701-21-9	
77		Penoxsulam	219714-96-2	
78		Pyrithiobac	123343-16-8	
79		Pyroxsulam	422556-08-9	
	Group-9	**AMINO ACIDS / UREAS/CYCLOHEXANDIONES/ DINITRO ANILINEES / ACETAMIDES**		
80		Glufosinate	77182-82-2	
81		Glyphosate	1071-83-6	
82		Clethodim	99129-21-2	
83		Pendimethalin	40487-42-1	**150**
84		Butachlor	23184-66-9	
85		Pretilachlor	51218-49-6	
86		Metachlor	51218-45-2	
	Group-10	**ARYLOXYPHENOXYPROPIONATES / PPO- DIPHENYL ETHERS**		
87		Clodinafop	105512-06-9	
88		Cyhalofop-butyl	122008-85-9	
89		Quizalofop	100646-51-3	
90		Fenoxaprop	71283-80-2	
91		Fluazifop	69335-91-7	
92		Haloxyfop	69806-34-4	
93		Propaquizafop	111479-05-1	
94		Sulfentrazone	122836-35-5	
95		Carfentrazone	128639-02-1	
96		Toprammezone	210631-68-8	
97		Oxyfluorfen	42874-03-3	
98		Fomesafen	72178-02-0	**150**
	Group-11	**HPPD INHIBITORS/ OTHERS/ TRIAZINES / PGR**		
99		Tembotrione	335104-84-2	
100		Mesotrione	104206-82-8	
101		Pinoxaden	243973-20-8	
102		Propanil	709-98-8	
103		Clomazone	81777-89-1	**150**
104		Bentazone	25057-89-0	
105		Ametryn	834-12-8	
106		Atrazine	1912-24-9	
107		Metribuzin	21087-64-9	
108		Ethopen	16672-87-0	
	Group-12	**Advanced Specific Pesticide Intermediates**		
109		1,2, 4 Triazole	288-88-0	**150**

110		2- Chloro 5- Chloromethyl Pyridine (CCMP)	70258-18-3	
111		N- Nitro Imino Imidazolidine (NII)	5465-96-3	
112		2- Chloro 5- Chloromethyl Thiazole (CCMT)	105827-91-6	
113		2- Methyl 5- Nitro 1,3,5 Oxidiazine(MNIO)	153719-38-1	
114		4 -Hydroxy Phenyl Propionic Acid (4HPPA)	67648-61-7	
115		1,1-Di ChloroPinacolin	22591-21-5	
116		Thiocarbo Hydrazine	2231-57-4	
117		2- Hydroxy 4- Methyl Benzotioate(HMBT)	20174-68-9	
118		2,3 Difluoro 5- Chloro Pyridine	589402-43-7	
119		Triazinone- 4- Amino 3- Mecapto- 6-t-Butyl -1,2,4- triazine-5-one (AMBT)	33509-43-2	
121		Research & Development Based Products		**100**
	TOTAL			**2050**

**No banned pesticides will be manufactured*

List of By-Products and Intermediates

Sr. No.	Name of Bi-Products	CAS No	Quantity (MT/Month)
1	34% Calcium Chloride Solution	10035-04-8	408
2	Potassium Nitrate	7757-79-1	33.15
3	75% Spent Sulfuric Acid	7664-93-9	1548.3
4	30% HCl Soln	7647-01-0	1197.3
5	Sodium Sulphite Solution	7757-83-7	339
6	Ammonium Acetate	631-61-8	13.2
7	Sodium Bromide	7647-15-6,	189.15
8	Hydro Bromic Acid	10035-10-6	438.15
9	Sodium Sulfate Solution	7757-82-6	579.9
10	Acetic Acid	64-19-7	28.65
11	KCl Slat % Soln	7447-40-7	545.85
12	KHCO3 Salt	298-14-6	43.5
13	Ammonium Chloride	12125-02-9	30.45
14	20-28 % Aluminium Chloride Soln	7446-70-0	2.25
15	Sodium Bi Sulphate	10034-88-5	174.9
16	Potassium Bromide	3/2/7758	127.5
17	20 % Sodium Methyl Sulphate	512-42-5	330
	TOTAL		**~ 6030.00**

The total land area of 21342 m^2 (2.1342 ha.) has been proposed for the pesticide project. Industry will develop greenbelt in an area of 32.99 % i.e. 7040 m^2out

of total area of the project. The estimated project cost of project is Rs 70 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 405 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 41 Lakhs per annum. Total Employment will be 200 persons (Permanent: 50; Temporary: 150) as direct & indirect employment. Industry proposes to allocate Rs.1.40 Crores @ of 2% towards Corporate Environmental Responsibility.

PP has reported that there are no Wildlife sanctuary and no reserve forests within 10 km distance from the project site. No, national parks, Biosphere Reserves, Tiger/Elephant Reserves, etc. is present within 10 km distance from the project site. Sota River is flowing at 0.01 km in North direction. As per OSM sheet, the river exists in the area. However, now the catchment of the river has been changed and river does not exist at that location.

Ambient air quality monitoring was carried out at 8 locations during 1st October to 31st December, 2019 and the baseline data indicates the ranges of mean concentrations as: PM_{10} (62-79 µg/m^3), $PM_{2.5}$ (26-37 µg/m^3), SO_2 (7.4-8.5 µg/m^3) and NO_2 (13.9-20.3 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.25 µg/m^3, 1.12 µg/m^3 , 1.95 µg/m^3 , 4.42 µg/m^3, 1.34 µg/m^3 , 0.079 µg/m^3 and 0.078 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, NO_x, SO_2, HCl, HBr & Cl_2. All parameter concentrations are within the National Ambient Air Quality Standards (NAAQS).

The total water requirement of the project will be 256 KLD. Out of total water requirement, 31 KLD of fresh water will be met through groundwater for which CGWA permission has been applied. Till CGWA permission will be granted, fresh water will be supplied through private tankers. Rest of the water requirement will be sufficed by reusing in-house treated water.

Effluent of 214 KLD (Industrial Wastewater-206 KLD; Domestic Sewage- 8 KLD) will be segregated into separate streams. Wastewater streams will be segregated into two streams i.e., concentrated stream from process waste-Stream I and Diluted stream from scrubbing, washing, boiler and cooling – stream II. The entire operation will be in a closed system. Stream I will be treated with Fenton treatment and then sent to MEE. MEE condensate will be sent to SBT (Soil Biotechnology) for further treatment. Stream II will be treated in ETP (primary treatment) and then treated water sent to for further treatment in SBT. Treated water from SBT will be recycled for industrial purpose inside the factory premises. There will be no process effluents discharged outside the plant. All the treated effluent will be recycled in process and other utilities. Project shall be Zero Liquid Discharge (ZLD). All the standards of RPCB and MoEF&CC shall be maintained.

Power requirement of the proposed project will be 1200 kVA to be met from Jaipur Vidyut Nigam Ltd (JVVNL). 2x250 kVA DG Sets will be used as standby during power failure. Stack (Height- 11 m) will be provided as per CPCB norms to the proposed DG sets. 5.0 TPH Imported Coal / Bio Briquette fired boiler will be installed. Electrostatic precipitator 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:

S. No.	Source	Fuel Used	APCM	Stack (m)	Expected Pollutants	Maximum Emission (mg/Nm^3)
1	Process Reactor Vents	-	Two stage water scrubbers	11	HCl	HCl < 20
2	Process Reactor Vents	-	Two stage water scrubbers	11	HBr	HBr < 5
3	Process Reactor Vents	-	Two stage Alkali Scrubber (1^{st} Stage-Water & 2^{nd} Stage-Alkali)	11	HCl & SO_2	HCl < 20
4	Process Reactor Vents	-	Two stage Alkali Scrubber (1^{st} Stage-Water & 2^{nd} Stage-Alkali)	11	HCl & Cl_2	HCl < 20 Cl_2 < 5

Non-usable and discarded waste will be sent to TSDF site while other solid wastes will be segregated in salable and non salable waste. Salable waste will be sold off to approved vendor and Non-salable waste will be sent to land fill. The Authorization for the collection, generation, reception storage, treatment of hazardous waste shall be taken from the department. TSDF site has been identified at Udaipur i.e., Rajasthan Waste Management Project, Gudli, Udaipur.

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

Sr. No	Name of Waste	Source of Generation	Category No. (As per Sch-I&II 2016)	Quantity (MTA)	Mode of Treatment & Disposal Method
1	Discarded Containers /Bags /Liners	Storage & Handling of Raw Materials	Sch-I/33.1	120	Collection, Storage, Transportation, Decontamination & Disposal by

					selling to registered recycler.
2	Used/Spent Oil	Used/Spent Oil	Sch-I/5.1	100	Disposal by selling to registered recycler.
3	ETP Sludge	In-house ETP	Sch-I/35.3	100	Collection, Storage, Transportation and disposal at Nearest common HWTSDF site
4	Distillation Residue	Distillation	Sch-I/36.1	780.0	Collection, Storage, Transportation and sent to nearest incineration site or HWTSDF
5	MEE Salt	MEE	Sch-I/35.3	6480	Collection, Storage, Transportation and disposal at Nearest common HWTSDF site
6	Ash Generation	Boiler &Thermopack	-	800	It shall be given to brick manufacturer.
Process Waste					
7	Spent Solvent	Process	Sch-I/28.6	138903	Collection, Storage, management & recovery within the premises and will reuse in plant premises.
8	Spent Catalyst	Process	Sch –I (28.1)	210	Collection, Storage, Transportation Disposal at Co-processing or common incineration site.
9	Spent Sulphuric Acid	Process	Sch-I/ 28.1	3224	Collection, Storage & reuse in plant for manufacturing of MPBAD & excess quantity will be sold to
10	KCl (Inorganic Salt)	Process	Sch-I/ 28.1	6550	
11	HCl % Solution	Process	Sch-II-Class B(15)	14368	

					end users having Rule 9 Permission.
12	Sodium Sulphite Solution (20%)(Na2SO3)	Process	Sch-I/28.1	4068.0	Collection, Storage, Transportation & Disposal by selling to authorized end user, registered under Rule-9. *(Recovery of By-product & Intermediates for sale)*
13	Sodium Sulphate Solution (Na2SO4)	Process	Sch-I/28.1	6958.8	
14	Aluminium Chloride 28 -30 %	Process	Sch-I/28.1	4050	
15	NaCl Salt	Process	Sch-I/28.1	14153	
16	Phosphoric Acid(H_3PO_4)	Process	Sch-I/28.1	3060	
17	34% Calcium Chloride Soln	Process	Sch-I/28.1	4896	
18	Potassium Nitrate	Process	Sch-I/28.1	2270	
19	Ammonium Acetate	Process	Sch-I/28.1	158	
20	Sodium Bromide	Process	Sch-I/28.1	2270	
21	Hydro Bromic Acid	Process	Sch-I/28.1	5258	
22	Sodium Sulfate Solution	Process	Sch-I/28.1	6959	
23	Acetic Acid	Process	Sch-I/28.1	344	
24	KCl Slat % Solution	Process	Sch-I/28.1	6550	
25	KHCO3 Salt	Process	Sch-I/28.1	6550	
26	Ammonium Chloride	Process	Sch-I/28.1	365	
27	Sodium Bi Sulphate	Process	Sch-I/28.1	2099	
28	Potassium Bromide	Process	Sch-I/28.1	1530	
29	20 % Sodium Methyl Sulphate	Process	Sch-I/28.1	3960	

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made 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 have found the proposal in order and have **recommended** for grant of environmental clearance.

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 to compliance of terms and conditions as under, and general terms of conditions at **Annexure**: -

(i). PP is to submitted Micro, Small and Medium Enterprises (MSME) certificate within Six months to this Ministry.

(ii). CGWA permission/NOC is required for groundwater. PP is to submitted CGWA NOC within Six months to this Ministry.

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

(iv). 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.

(v). 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.

(vi). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(vii). Total fresh water requirement shall not exceed 31 KLD cum/day, proposed to be met from MIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

(viii). Occupational health center 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). 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.

(x). 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.

(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). 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.

(xiii). 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.

(xiv). 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.

(xv). 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.

(xvi). 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. 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.

(xvii). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall be completed within five years as proposed.

(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. 25.6

Proposed Expansion in Production capacity of existing products as well as addition of new agrochemicals and intermediates products capacity (259.4 MT/Month to 1495 MT/Month) within the existing premises by M/s Meghmani Organics Limited located at Plot No. 5001/B, 5027 to 5034 & 5037, 4707/B & 4707/P, GIDC Estate, Ankleshwar, District-Bharuch- 393 001, Gujarat - Consideration of Environment Clearance regarding.

[IA/GJ/IND2/169972/2020, IA-J-11011/90/2020-IA-II(I)]

The project proponent and their consultant M/s. Anand Environmental Consultants Pvt. Ltd. made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

The proposal is for environmental clearance to the project for proposed Expansion in Production capacity of existing products as well as addition of new agrochemicals and intermediates products (259.4 MT/Month to 1495 MT/Month) within the existing premises by M/s Meghmani Organics Limited located at Plot No. 5001/B, 5027 to 5034 & 5037, 4707/B & 4707/P, GIDC Estate, Ankleshwar, District- Bharuch- 393 001, Gujarat.

All Pesticides industry and pesticide specific intermediates unit are listed at S.N. 5(b) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central level in the Ministry.

The standard ToR for the project was granted by Ministry vide letter No. J-11011/90/2020-IA-II(I) dated April 4, 2020. Public hearing is exempted as per Para 7(i), III. Stage (3), (i)(b) of the EIA Notification, 2006, and in accordance with the Ministry's OM dated 27th April 2018, as the project site is located in the notified industrial area. It was informed that no litigation is pending against the

proposal.

Ministry had issued EC earlier vide letter no. F. No. J-11011/18/2005-IA- II (I) dated 12/08/2005 by MoEF&CC, New Delhi to the manufacturing of the product in the existing unit M/s. Meghmani Organics Limited.

The details of products and capacity are as under:

Sr. No.	Group	Name of Products	End Use	CAS No.	Quantity, MT/Month	
					Existing (As per CCA order No: AH-95764 dated 4/11/2019)	Total after proposed expansion
1	G0	Zeta Cypermethrin	Insecticide	52315-07-8	0	450
2	G0	Alphamethrin		67375-30-8	0	
3	G0	Bifenthrin#		82657-04-3	30	
4	G0	Cypermetrine		52315-07-8	0	
5	G0	Lambda Cyhalothrin*		91465-08-6	20	
6	G0	Permethrin#		52645-53-1	30	
7	G01	Beta-Cypermethrin	Insecticide	52315-07-8	0	100
8	G01	Beta-Cyfluthrin		68359-37-5	0	
9	G01	Deltamethrin		52918-63-5	0	
10	G01	Transfluthrin		118712-89-3	0	
11	G01	Cyfluthrin		68359-37-5	0	
12	G1	Acetamiprid	Insecticide	135410-20-7	0	50
13	G1	Imidacloprid *		138261-41-3	20	
14	G1	Dinotefuran		165252-70-0	0	
15	G2	Lufenuron	Insecticide	103055-07-8	0	70
16	G2	Novaluron		116714-46-6	0	

17	G2	Buprofezin		69327-76-0	0	
18	G2	Diafenthiuron *		80060-09-9	20	
19	G2	Ethephon	Plant growth regulator	16672-87-0	0	
20	G2	Propargite	Insecticide	2312-35-8	0	
21	G3	Ethiprole	Insecticide	181587-01-9	0	25
22	G3	Fipronil *		120068-37-3	20	
23	G4	Chlorantraniliprole	Insecticide	500008-45-7	0	100
24	G4	Tolfenpyrad		129558-76-5	0	
25	G4	Flonicamide		158062-67-0	0	
26	G4	Spiromesifen		283594-90-1	0	
27	G4	Thiocyclam Oxalate		31895-22-4	0	
28	G4	Flubendiamides		272451-65-7	0	
29	G5	Triclopyr Ester	Herbicide	64700-56-7	12.4	150
30	G5	Chlorpyrifos Ethyl	Insecticide	2921-88-2	75	
31	G5	Chlorpyrifos-Methyl		5598-13-0	0	
32	I1	Bifenthrin Alcohol	Intermediate for Insecticide manufacture	76350-90-8	0	200
33	I1	Lambda Cyhalothric Acid (LC Acid)		72748-35-7	0	
34	I1	Sodium Salt of HTCP		37439-34-2	0	
35	I2	2-(2'-2'-dichlorovinyl)-3-3-dimethylecyclopropane carboxylic acid chloride (CMAC)	Intermediate for Insecticide manufacture	52314-67-7	122	350
36	I2	High Trans – CMAC		52314-67-7	0	
37	I2	High Trans – CMA		59042-50-8	0	

38	I2	Meta Phenoxy Benzyl Alcohol		13826-35-2	0	
TOTAL					**259.4**	**1495**

Existing land area is 57,986 m^2. Proposed expansion activity will be carried out within the existing premises. Industry has already developed / will be develop greenbelt in an area of 40 % i.e. 23,194 m^2 out of total area of the project within/Outside the premises. The total estimated cost of the proposed expansion is Rs. 7.5 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 56 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 23.25 Lakhs per annum. Total Employment will be 869 persons as direct as well as other indirect employees for expansion. Industry proposes to allocate Rs 34 Lakh which is 4 % of the project cost towards Corporate Environmental Responsibility (CER).

PP has reported that there are no national parks, wildlife sanctuaries, biosphere reserves, tiger/elephant reserves, wildlife corridors etc. within 10 km distance from the project site.

Ambient air quality monitoring was carried out at 8 locations during March 2018 to May 2018 and the baseline data indicates the ranges of concentrations as: PM_{10} (68 – 92 µg/m³), $PM_{2.5}$ (20 – 43 µg/m³), SO_2 (9 - 21 µg/m³) and NO_2 (13 – 27 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.90 µg/m³, 2.0 µg/m³ and 1.0 µg/m³ with respect to PM_{10}, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 1200 m³/day (1st day onwards) of which 2nd day fresh water requirement of 900 m³/day (after recycling requirement which will be reduced to 300 from 1stday onwards) will be met by GIDC. Generation of Domestic Sewage is 30m³/day and it will be treated in Effluent Treatment Plant along with Industrial effluent. Generation of industrial process wastewater is 409 m³/day and it will be treated in Effluent Treatment Plant (i.e. 284 m³/day) and MEE (i.e. 125 m³/day), Industrial utility (Boiler blow down and cooling purge) wastewater (245 m³/day) will be treated in RO System and RO permeate (i.e. 185 m³/day) will be reused in cooling tower and RO reject will be treated in existing as well as proposed ETP. Treated effluent from ETP will be collected in final collection tank and disposed in to GIDC underground drainage system and conveyed to FETP (NCT) which ultimately leads to deep sea for final disposal through pipe line.

Power requirement after expansion will be 31,000 kVA and will be met from Dakshin Gujarat Vij Company Ltd. (DGVCL). However, in case of power failure, proposed D.G. set with capacity 1500 kVA will be used as standby during power failure/ emergency. Stack (height 20 m) will be provided as per CPCB norms to the proposed D.G. Set. Existing unit has 10 TPH of coal fired boiler installed with APCM of E.S.P. and Water Scrubber with a stack height of 40 m will be installed. Additionally 10 TPH & 6 TPH (Stand-by) Natural gas fired boilers will be installed with adequate stack height of 30 m. Proposed unit will be installed 16 TPH & 10 TPH of coal fired boiler installed with APCM of E.S.P. and Water Scrubber with a stack height of 40 m will be installed. Additionally for controlling particulate emissions within the statutory limit for proposed boiler, Two number of Thermic Fluid Heater (4 Lac Kcal/Hr) of Natural Gas fired installed with a stack of height

of 30 m will be installed for controlling particulate emissions within the statutory limit.

Details of Process emissions generation and its management:

Sr. No.	Vent attached to	Stack height from G.L., meter (m)	Stack dia. at top, meter (m)	Expected Pollutant& Permissible limit	APCM
Existing					
1	Reactor Reaction Vessels	18	0.1	HCl – 20 mg/Nm^3	2 Stage water scrubber & Alkali Scrubber
2	Reactor Reaction Vessels	18	0.1	SO_2 – 40 mg/Nm^3 HCl – 20 mg/Nm^3	2 Stage water scrubber & Caustic Scrubber
Proposed					
1	Reactor of Bifenthrin	18	0.1	HCl – 20 mg/Nm^3	Alkali Scrubber followed by Water Scrubber
2	Reactor of Permethrin	18	0.1	HCl – 20 mg/Nm^3	Alkali Scrubber followed by Water Scrubber
3	Reactor of Lambda Cyhalothrin	18	0.1	HCl – 20 mg/Nm^3 SO_2 – 40 mg/Nm^3	Alkali Scrubber followed by Water Scrubber
4	Reactor of Fipronil	18	0.1	HCl – 20 mg/Nm^3 SO_2 – 40 mg/Nm^3	Alkali Scrubber followed by Water Scrubber
5	Reactor of Chlorpyrifos Ethyl and Transfluthrin	18	0.1	HCl – 20 mg/Nm^3	Water Scrubber
6	Reactor of Difenthuron	18	0.1	NH_3 – 30 mg/Nm^3	Acidic Scrubber followed by Water Scrubber
7	Reactor of Lufenuron	18	0.1	HCl – 20 mg/Nm^3	Water Scrubber

8	Reactor of Propargite	18	0.1	HCl – 20 mg/Nm^3	Water Scrubber
9	Reactor of Flonicamide	18	0.1	HCl – 20 mg/Nm^3 SO_2 – 40 mg/Nm^3	Alkali Scrubber followed by Water Scrubber
10	Reactor of Sodium Salt of HTCP	18	0.1	HCl – 20 mg/Nm^3	Water Scrubber
11	Reactor of CMAC	18	0.1	HCl – 20 mg/Nm^3 SO_2 – 40 mg/Nm^3	Alkali Scrubber followed by Water Scrubber
12	Reactor of High Trans CMAC	18	0.1	HCl – 20 mg/Nm^3	Water Scrubber
13	Reactor of Ethiprole	18	0.1	HCl – 20 mg/Nm^3 HBr – 5 mg/Nm^3	Caustic Scrubber

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

Sr. No.	**Name of Hazardous Waste**	**Source of Generation**	**Schedule/ Category Number***	**Quantity in MT/Year**			**Management of Hazardous waste**
				Existing (As per CCA order No: AH-95764 dated 4/11/2019)	**Proposed**	**Total after Proposed expansion**	
1.	Chemical Sludge from waste water treatment	Wastewater treatment	Sch. I/ 35.3	2616	4384	7000	Disposal at TSDF.
2.	Process Waste or residue	Manufacturing Process	Sch. I/ 29.1	202	1107	1309	Disposal at CHWIF for incineration.
3.	Process or Distillation Residue		Sch. I/ 36.1				
4.	Date expiry and off specification Pesticides	Product	Sch. I/ 29.3	6	9	15	Disposal at CHWIF for incineration.

5.	Discarded barrels/ containers /liners contaminated with Haz. chemicals/ wastes	Raw materials/ Chemicals	Sch. I/ 33.1	90.4	909.6	1000	Disposal by reuse after in house decontamination or send it to authorized decontamination facility/ recycler or send back to supplier.
6.	Concentrated or evaporation residues	Evaporation of wastewater	Sch. I/ 37.3	5384	5616	11000	Disposal at TSDF.
7.	Spent Carbon or Filter Media	Wastewater treatment	Sch. I/ 36.2	10	90	100	Disposal at CHWIF for incineration.
8.	Used or Spent Oil	Plant Machineries	Sch. I/ 5.1	0.240	9.76	10	Disposal by reuse in plant & machinery as lubricant or sell it to authorized refiners/recycler
9.	Inorganic Acid (HCl 30% solution)	Manufacturing Process/ Scrubber	Sch. II/ B-15	1130	12934	14064	Disposal by sell out to authorized users who are having authorization with valid CCA and rule 9 permission to receive this waste after making MoU.
10.	Sodium Bisulfite	Manufacturing	Sch. II/ C13	1755	28105	29860	Disposal by sell out to

	(As $NaHSO_3$ solution)	Process/ Scrubber					authorized users who are having authorization with valid CCA and rule 9 permission to receive this waste after making MoU.
11.	Spent Solvent	Manufacturing Process	Sch. I/ 20.2	0	100	100	Disposal by sell out to solvent recovery unit.
12.	Ammonium Sulphate	Manufacturing Process/ Scrubber	Sch. II/ A-10	0	172	172	Disposal by sell out to authorized users who are having authorization with valid CCA and rule 9 permission to receive this waste after making MoU.
13.	Ammonium Chloride (NH_4Cl)	Manufacturing Process/ Scrubber	Sch. II/ B7	0	3675	3675	Disposal by sell out to authorized users who are having authorization with valid CCA and rule 9 permission to receive this waste after making MoU.

14.	Hydrogen Bromide	Manufacturing Process/ Scrubber	Sch. II/ C4	0	30.6	30.6	Disposal by sell out to authorized users who are having authorization with valid CCA and rule 9 permission to receive this waste after making MoU.

* Existing quantity as per CC&A / CTE granted by GPCB

As per Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.

M/s. Meghmani Organics Ltd. has already been granted the Environmental Clearance (EC) for pesticide technical products vide letter F. No. J-11011/18/2005-IA- II (I) dated 12/08/2005 by MoEF&CC, New Delhi. The company has regularly submitted six-month compliance of conditions stipulated in above stated EC. Regional Officer, Bhopal, MoEF&CC has inspected company on 27/07/2020 for certified compliance report (CCR).

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made 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 have found the proposal in order and have **recommended** for grant of environmental clearance.

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 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 EIA/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.

(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.

(iv). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(v). Total fresh water requirement shall not exceed 900 m^3/day, proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

(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). 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.

(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). 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.

(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). 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.

(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 nearly 40% of the total project area, mainly along the plant periphery. 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.

(xv). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall be completed within five years as proposed.

(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. 25.7

Expansion of Chemical Manufacturing Unit capacity (91,338 TPA to 183,272 TPA) by M/s Excel Industries Limited located at Plot no. 112, 20/1 & OS-2, MIDC Dhatav, Raigad, Maharashtra - Consideration of Environment Clearance regarding.

[IA/MH/IND2/179575/2020, IA-J-11011/139/2020-IA-II(I)]

The project proponent and their consultant M/s. Perfact Enviro Solutions Pvt. Ltd. & Shivalik Solid Waste Management Ltd. made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

The proposal is for environmental clearance to the project for Expansion of Chemical Manufacturing Unit capacity (91,338 TPA to 183,272 TPA) by M/s Excel Industries Limited located at Plot no. 112, 20/1 & OS-2, MIDC Dhatav, Raigad, Maharashtra.

All Pesticides industry and pesticide specific intermediates (excluding formulations), Synthetic Organic Chemicals Industry (Dyes & Dye Intermediates; Bulk Drugs and Intermediates Excluding Drug Formulations; Synthetic Rubbers; Basic Organic Chemicals, Other Synthetic Organic Chemicals and Chemical Intermediates) are listed in S.N. 5(b), & 5(f) respectively of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' to be appraised at Central level in the Ministry.

The standard ToR for the project was granted by Ministry vide letter No. IA-J-11011/139/2020-IA-II(I); dated 24-07-2020. Public hearing is exempted as per Para 7(i), III. Stage (3), (i)(b) of the EIA Notification, 2006, and in accordance with the Ministry's OM dated 27th April 2018, as the project site is located in the notified industrial area. It was informed that no litigation is pending against the proposal.

The unit has been in operation since the late 1970s which is prior to the first EIA notification 1994. Therefore, the existing plant is not having any Environmental Clearance under EIA notification 2006.The project is operational & Consent to Operate (CTO) has been obtained vide letter no. Format 1.0/CAC/UAN No.0000083769/CR-2007000091 dated 01.07.2020 and valid upto 31.12.2020 granted by Maharashtra Pollution Control Board

The details of products and capacity are as under:

S. no	Products/By-Product Name	Existing (TPA)	Proposed (TPA)	After Expansion (TPA)
A.	**Specialty Chemicals**			
1	Phosphorus trichloride (PCl3)	10,000	20,000	30,000
2	Thio Phosphoryl Chloride (PSCl3)	200	1,000	1,200
3	Phosphorus Pentasulphide (P2S5)	16,800	19,700	36,500
4	Diethyl/Dimethyl Di Thiophosphoric Acid [DTA (E)/(M)]	1,200	-	1,200

5	Flame Retardants-1] Tricryl phosphate2] Triphenyl phosphate 3]Triethyl phosphate 4) Triethyl Phosphite	-	1,000	1,000
	Tricryl phosphate			
	Triphenyl phosphate			
	Triethyl phosphate			
	Triethyl phosphite			
6	2-Methyl / Ethyl Bromo Butyrate (M2BB/E2BB)	600	-	600
7	Styrene phosphonic acid (SPA)	240	260	500
8	Para Ethoxy Ethyl Benzoate (PEEB)	360	-	360
9	Para Iso Propoxy Ethyl Benzoate (RELD)	-	240	240
10	Dimethyl Bisphenol Cyclohexane (DMBPC)	120	-	120
11	R & D and Pilot Plant for intermediates, Pharmaceuticals and Drugs.	60	60	120
12	EXFLAR - N (Melamine cyanurate)	100	-	100
13	EXHALS-481 Bis (2,2,6,6-Tetramethyl-4-piperidinyl) sebacate	100	-	100
14	EXCLAR-414 1,3;2,4-Bis (3,4-dimethylbenzylidene) sorbitol	75	-	75
15	1,1,1, Tris (4- Hydroxy Phenyl) Ethane (THPE)	60	-	60
16	Amino Trimethylene Phosphonic Acid (ATMP) and Salts /Diethyl Triamine Pentamethylene Phosphonic Acid (DTPMPA) and Salts	1,440	-	1,440
17	2-Nitrobenzyl Bromide (NBBR)	-	500	500
18	NaHS/Na2S (20-30% Soln.)	14,313	8,237	22,550
19	Hydrochloric Acid (20-30%)	22,332	20,968	43,300
20	Dilute Ortho-Phosphorous Acid (10%-20%)	98	196	294
21	Potassium/Sodium Sulphate (50%)	720	-	720
22	Dilute Sulphuric Acid (70%)	720	-	720
23	Potasium Hydrogen Sulfate(KHSO4)	-	400	400
24	5 Chloro -2,4 - diethyl - 6 - methylbenzene-1, 3- diamine + 5 chloro -2,4 - diethyl - 2-methylbenzene -1, 3 diamine (P25/LONZACURE)	-	200	200

25	Ammonium Chloride	-	2,000	2,000
26	Ammonium sulphate		1,200	1,200
Total (A)		**69,538**	**75,961**	**145,499**
B.	**Pharmaceutical Chemicals**			
27	N,N Dimethyl Amino Thio Acetamide Hydrochloride (DMATA.HCl),NI4	100	-	100
28	Ethyl 4 - methyl - 5 thaizole carboxylate (TAZ)	-	24	24
29	Ethyl 2-chloro aceto acetate (E2CA)	-	65	65
30	Ethyl-2-(4-hydroxyphenyl)-4-methyl-1,3-thiazole-5-carboxylate(T2)	-	100	100
31	Butaphosphan	-	24	24
32	Para Hydroxy thiobenzamide (T1)	-	20	20
33	Dilute Tri Ethyl Amine (TEA) (50%)	1,900	(1,900)	-
Total (B)		**2,000**	**(1,667)**	**333**
C.	**Agro Intermediates**			
34	Diethyl /Dimethyl ThiophosphorylChloride[DETC (E)/(M)]	15,250	10,750	26,000
35	Dimethyl Phophoro Amido Thioate (DMPAT)	-	5,000	5,000
36	3-Methoxy-4-methyl-1,2,4-triazolin-5-one (MMT Monohydrate)	-	200	200
37	N-Phosphino Methyl IminoDiacetic Acid (NPMIDA)	1,200	(1,200)	-
38	Sulphur (Granule)	3,350	2,890	6,240
Total (C)		**19,800**	**17,640**	**37,440**
Grand Total (A+B+C)		**91,338**	**91,934**	**183,272**

Values in parentheses are negative.

Existing land area is 95569 m^2, proposed expansion will be done on the same land area only. Industry will develop greenbelt in an area of 33.2 % i.e., 31739 m^2 out of the total area of the project. The estimated project cost is Rs 291.37 Cr including existing investment of Rs 224.37 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 2473 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 1528.2 lakhs per annum. Total Employment will be 188 persons as direct & 359 persons indirect after expansion. The Industry has been working closely with the local panchayats and villages in the existing phase and for the expansion proposes to allocate additional Rs 90 Lakhs towards social activities like improvement in infrastructure of schools; medical checkup for locals. These have been given in the EIA report in detail.

PP has reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance

from the project site. However,the western ghat lies within 5 km buffer area from the project site. Kundalika river is the nearest waterbody flowing at a distance of 0.43 in NE direction

Ambient air quality monitoring was carried out at 8 locations during December 2017 - February 2018 and again collected between October 2019 to December 2019. The baseline data indicates the ranges of concentrations as: PM_{10} (55.7-108.46µg/m^3), $PM_{2.5}$ (25.9-52.5µg/m^3), SO_2 (4.9-11.89µg/m3) and NO_2 (17.42-38.32µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.82 µg/m^3, 0.911 µg/m^3 and 2.04 µg/m^3 with respect to PM_{10}, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement after expansion will be 1595 m^3/day, out of which fresh water requirement of 1239 m^3/day will be met from MIDC water Supply. After expansion, effluent of 794 KLD quantity will be treated through ETP (950 KLD), MEE (275 KLD), RO (400 KLD). Treated water of 780 KLD will be generated from the ETP, out of which 440 KLD of treated water will be discharged to CETP and the remaining 340 KLD will be further treated in RO of capacity 400 KLD. The RO permeate of 247 KLD will be reused within the plant and RO reject will be sent to the MEE for further treatment. The MEE condensate of 109 KLD obtained after treatment of RO Reject in MEE will be reused within the unit. In total, treated water of 356 KLD (247 KLD from RO and 109 KLD from MEE) will be obtained after the treatment which shall be reused within the plant for scrubbing, Boiler makeup and cooling purposes. Thus the proposed part will be on Zero Liquid discharge (ZLD). However the existing part will continue to discharge their excess treated water to CETP. The existing unit has an agreement with the RIA CETP Co Operative Society Limited, MIDC Dhatav, Roha, Raigad for the discharge of the ETP Treated water to CETP.

Power requirement after expansion will be 6.8 MW including existing 3.5 KVA and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). Existing unit has 3 DG sets of 1*380, 1*750 & 1*1010 capacity, additionally 1*1010 DG sets are used as standby during power failure. Stack (height-4.5 m) will be provided as per CPCB norms to the proposed DG sets. Existing unit has 12 TPH & 6 TPH coal fired boilers. Additionally, 18 TPH coal fired boiler (1no) shall be installed. Chimney with Cyclone type dust collector with a stack of height of 42 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 generation and its management (Existing):

Stack No	Name of Stack	Pollution Control Measure	Height in Mtr above ground	Stack Dia	Cross Sec area (m^2)	Parameter	Emission standard	Fuel used	Existing	Total after Expansion
1	Boiler 12 TPH	Chimney. (Cyclo	42	1.18 Mtr	1.093	TPM	150 mg/Nm^3	Coal	Yes	Continued

		ne type dust collector)								
2	Boiler 6 TPH	Chimney with Cyclone type dust collector	42	1.18 Mtr	1.093	TPM	150 mg/Nm^3	Coal	Yes	Continued
3	1010 KVA Generator	Chimney.	4.5	0.304 Mtr.	0.0725	TPM	150 mg/Nm^3	HSD	Yes	Continued
						SO2	Not specified		Yes	Continued
4	750 kVA Generator	Chimney.	3.5	0.203 Mtr.	0.0323	TPM	150 mg/Nm^3	HSD	Yes	Continued
						SO2	Not specified		Yes	Continued
5	380 KVA Generator	Chimney.	3.5	0.203 Mtr	0.0323	TPM	150 mg/Nm^3	HSD	Yes	Continued
						SO2	Not specified		Yes	Continued
						SO2	Not specified		Yes	Continued
6	PCL_3	Packed Column Scrubber	18	0.5 Mtr	0.8	HCl	20 mg/Nm^3	----	Yes	Continued
7	DETC – I	H2S Scrubber	6	0.5 Mtr	0.8	H2S	5 mg/Nm^3	----	Yes	Continued
8	DETC – II	H2S Scrubber	6	0.5 Mtr	0.8	H_2S	5 mg/Nm^3	----	Yes	Continued
9	DETC – I	Common scrubb	6	0.15 Mtr	0.018	HCL	20 mg/Nm^3	----	Yes	Continued

		er				SO_2	50 ppm	-----	Yes	Continued
10	DETC – II	Common scrubber	6	0.15 Mtr	0.018	HCL	20 mg/Nm^3	-----	Yes	Continued
						SO2	50 ppm	-----	Yes	Continued
11	NPMIDA	Reactor	18	0.15 Mtr	0.018	HCL	20 mg/Nm^3	-----	Yes	To be discontinued
12	NPMIDA	Acidifier	22	0.7 Mtr	0.15	HCL	20 mg/Nm^3	-----	Yes	To be discontinued
13	NPMIDA	Common Scrubber	8	0.15 Mtr	0.018	HCL	20 mg/Nm^3	-----	Yes	To be discontinued
14	SPA	Packed Column Scrubber	6	0.5 Mtr	0.8	HCl	20 mg/Nm^3	-----	Yes	Continued
									Yes	Continued
15	Pilot Plant	Packed Column Scrubber	6	0.5 Mtr	0.8	HCl	20 mg/Nm^3	-----	Yes	Continued
16	Pilot Plant	Packed Column Scrubber	6	0.5 Mtr	0.8	HCl	20 mg/Nm^3	-----	Yes	Continued
									Yes	Continued
17	ATMP	Packed Column Scrubber	6	0.5 Mtr	0.8	HCl	20 mg/Nm^3	-----	Yes	Continued
									Yes	Continued
18	Oil heating Unit (thermic Fluid Heater)	Chimney	16	0.25 Mtr	0.05	TPM	150 mg/Nm^3	F.O.	Yes	Continued
19	P_2S_5 (P2) Plant	Furnace Chimney (Natur	16	0.2 Mtr	0.03	TPM	150 mg/Nm^3	F.O.	Yes	Continued
						SO_2	Not		Yes	Continu

		al Draft)					specified			ed
20	P_2S_5 (P2) Plant	Packed Column Scrubber	10	0.2 Mtr	0.03	TPM	150 mg/Nm^3	----	Yes	Continued
						H_2S	5 ppm		Yes	Continued
21	P_2S_5 (P3) Plant	Furnace Chimney (Natural Draft)	16	0.2 Mtr	0.03	TPM	150 mg/Nm^3	F.O.	Yes	Continued
						SO_2	Not specified		Yes	Continued
22	P_2S_5 (P3) Plant	Packed Column Scrubber	10	0.2 Mtr	0.03	TPM	150 mg/Nm^3	----	Yes	Continued
						H_2S	5 ppm		Yes	Continued

Process emissions generation and its management (Proposed):

Stack No	Name of Stack	Pollution Control Measure	Height in Mtr above ground	Stack Dia	Cross Sec area (m2)	Parameter	Emission standard	Fuel used	Existing	Total after Expansion
23	Oil Heating Unit (thermic Fluid heater) 6Lac Kcal/Hr	Chimney with Wet Scrubber	16	0.25 mtr.	0.05	TPM	150 mg/Nm3	FO	No	New Installation
24	1010 KVA Generator	Chimney.	4.5	0.304 Mtr.	0.0725	TPM	150 mg/Nm3	HSD	No	New Installation
25	Boiler 18 TPH	Chimney with Cyclone type dust collector	42	1.18 Mtr	1.093	TPM	150 mg/Nm3	Coal	No	New Installation

26	MPP/DETC-I	H2S scrubber	6	0.5 Mtr	0.8	H2S	5 mg/Nm3	-----	No	New Installation
27	MPP/DETC-I	Common scrubber	6	0.5 Mtr	0.8	HCL	20 mg/Nm3	-----	No	New Installation
						SO2	50 ppm	-----	No	
28	DMPAT	Common scrubber	6	0.15 Mtr	0.002	SO2	50 ppm	-----	No	New Installation
29	HCl Stack	Packed Column Scrubber	22	0.7 Mtr	0.15	HCL	20 mg/Nm3	-----	No	New Installation
30	P2S5 Plant	Furnace Chimney (Natural Draft)	16	0.2 Mtr	0.03	TPM	150 mg/Nm3	F.O.	Yes	New Installation
						SO2	Not specified		Yes	New Installation
31	MPP2	Common scrubber	6	0.15 Mtr	0.018	HCL	20 mg/Nm3	-----	Yes	New Installation
						SO2	50 ppm	-----	Yes	New Installation

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

Solid Waste Management:

Category	Type of Waste	Treatment Method	Existing (Kg/day)	Proposed (Kg/day)	Total (Kg/day)
Biodegradable	Organic Waste	Will be treated in Organic Waste converter and manure used in the landscaping	29	4	33

Non-Biodegradable	Recyclable Waste (Plastic,wood, glass etc)	Given to authorised recycler	43	6	49
Total					**82**

Non-Hazardous Waste Management:

Process Waste	**Unit**	**Quantity of generation (Existing)**	**Quantity of generation (Proposed)**	**Quantity of generation (Total after expansion)**	**Treatment/ Disposal**
Boiler Ash	TPA	1400	500	1900	To brick Manufacturer
Empty Raw material Container bags	Nos per annum	270000	80000	350000	Sale
Discarded Drums	Nos per annum	30000	20000	50000	Sale

Hazardous Waste Management:

S. No.	**Category (as per HWM Rules,2016)**	**Unit**	**Waste**	**(Existing)**	**(Proposed)**	**(Total after expansion)**	**Disposal**
				Quantity of generation	**Quantity of generation**	**Quantity of generation**	
1	20.3 Distillation Residue	TPA	Distillation residue of M2BB/E2BB Product	24	0	24	CHWTSDF
		TPA	Distillation Bottom from R&D, Pilot plant Products	20	20	40	
		TPA	Distillation Bottom of THPE product	1.75	0	1.75	
		TPA	Distillation Bottom of SPA product	5.4	5.4	10.8	
		TPA	Distillation	5	0	5	

			Bottom of PEEB product				
		TPA	Distillation Bottom of RELD product	0	8	8	
		TPA	Distillation Bottom of DETC product	229	161	390	
		TPA	Distillation Bottom of DMPAT product	0	60	60	
		TPA	Distillation Residue of Butaphosphan product	0	16	16	
		TPA	Distillation bottom of DMBPC product	0	3.6	3.6	
		TPA	Distillation bottom of TAZ product	0	0.5	0.5	
		TPA	Distillation Bottom of DMATA.HCI	31	0	31	
		TPA	Distillation bottom of Ni4 product	0	10	10	
	Sub-Total	TPA		**316.15**	**284.5**	**600.65**	
2	36.1 Process wastes, residue & sludge	TPA	Sludge Arising from P4	0	9.56	9.56	CHWTSDF
		TPA	Salt from Ni4 Product	0	234	234	
	Sub-total	**TPA**		**0**	**243.56**	**243.56**	
3	B1; Residue from filtration of Sulphur (B8)	TPA	Residue from filtration of Sulphur	100	118	218	
	Sub-total	**TPA**		**100**	**118**	**218**	
4	35.3	TPA	Charcoal Residue	2.1	0	2.1	

	Chemical Sludge from wastewater treatment	TPA	Sludge arising from treatment of high COD waste streams form DETC Process	7500	6800	14300	
		TPA	Sludge arising from treatment of high COD waste streams form DMPAT Process	0	500	500	
		TPA	Sludge arising from secondary treatment of waste water	800	0	800	
	Sub-total	**TPA**		**8302.1**	**7300**	**15602.1**	
5	5.1 Used or spent oil 5.2 wastes or residues containing oil	TPA	Spent Lubricating agent system oils	5	0	5	Sale to authorised recycler
	Sub-total	TPA		5	0	5	
6	33.1 Empty barrels/containers/liners contaminated with hazardous chemicals/wastes	No/year	Discarded containers/barrels/liners/Containers of hazardous chemicals and hazardous waste	1000	0	1000	
	Sub-total	**No/year**		**1000**	**0**	**1000**	
7	C13; B4 Residue containing iron sulfide, silica and carbon from product distillation.	TPA	Residue containing iron sulfide, silica and carbon from product distillation.	30	0	30	CHWTSDF
	Sub-total	TPA		30	0	30	
8	37.3 Chemical Sludge from MEE Plant for waste	TPA	Sludge arising from treatment of high COD/TDS waste streams	4719	7079	11798	

	water treatment						
	Sub-total	TPA		4719	7079	11798	
9	20.2 Impure/Spent Solvent	TPA	Impure Toluene	96	104	200	Sale to authorised recycler/CHWTSDF
		TPA	Recovered solvent/Impure solvent	0	100	100	
	Sub-total	**TPA**		**96**	**204**	**300**	
	TOTAL	**TPA**		**14568.25**	**15229.1**	**29797.31**	

Details of Certified compliance report submitted by RO, MoEF&CC:- The unit has been in operation since the late 1970s which is prior to the first EIA notification 1994 and since then the company has not undertaken any expansion. Therefore, the existing plant is not having any Environmental Clearance under EIA notification 2006. The company has been obtaining CTO from time to time. Currently, Maharashtra Pollution Control Board has granted CTO for the production capacity of 91,338 TPA manufacturing Pharmaceutical Intermediates, Industrial chemical and Agrochemical Intermediates, Polymer Input Materials in accordance vide letter no. Format 1.0/CAC/UAN No. 0000083769/CR-2007000091 dated 01.07.2020 and valid upto 31.12.2020. The latest CTO is attached in Annexure 3. The compliance report of the CTO is enclosed Annexure 4 of the EIA report.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made 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 have found the proposal in order and have **recommended** for grant of environmental clearance.

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 to compliance of terms and conditions as under, and general terms of conditions at **Annexure**: -

(i). Plan of 3-D modelling for existing as well as proposed unit is to be submitted within 6 months in this Ministry.

(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). 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.

(iv). 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.

(v). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(vi). Total fresh water requirement shall not exceed 1239 m^3/day, proposed to be met from MIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

(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). 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). 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). 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). 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.

(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). 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.

(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. 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.

(xvi). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within time as proposed.

(xvii). 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. 25.8

Pesticide, Perfumery, Flavours & Fragrance and Dyes & Intermediates Plant Capacity 2887.5 MTA by M/s Goga Industries located at J-19, MIDC, Avadhan, Dist. Dhule, Maharashtra - Consideration of Environment Clearance regarding.

[IA/MH/IND2/180715/2019, IA-J-11011/292/2019-IA-II(I)]

The project proponent and their consultant M/s. Jyoti Om Chemical Research Centre Pvt. Ltd. were present for deliberation.

The proposal is for environmental clearance to the project for Pesticide, Perfumery, Flavours & Fragrance and Dyes & Intermediates by M/s Goga Industries located at J-19, MIDC, Avadhan, Dist. Dhule, Maharashtra.

Consultant is not accredited with QCI/NABET. As per EIA Notification 2006, Consultant should be accreditation by QCI/NABET for preparation of EIA/EMP report.

Expert Appraisal Committee (EAC) has decided not to discuss the proposal and ***Return*** it in present form.

Agenda No. 25.9

Proposed Pesticides Technical, Pesticides intermediates Manufacturing Plant Capacity 3100 MT/Month by M/s Dharmaj Crop Guard Ltd, (Unit-II) located at Plot No. DP-154, GIDC-Chemical Zone, Saykha-II, Tal: Vagra, Dist: Bharuch-392140 Gujarat - Consideration of Environment Clearance regarding.

[IA/GJ/IND2/131417/2019, IA-J-11011/419/2019-IA-II (I)]

The project proponent and their consultant M/s. Aqua-Air Environmental Engineers Pvt. Ltd. were present for deliberation.

The proposal is for environmental clearance to the project for proposed Pesticides Technical, Pesticides intermediates Manufacturing Plant capacity 3100 MT/Month by M/s Dharmaj Crop Guard Ltd, (Unit-II) located at Plot No. DP-154, GIDC-Chemical Zone, Saykha-II, Tal: Vagra, Dist: Bharuch-392140 Gujarat.

Consultant is not accredited with QCI/NABET. As per EIA Notification 2006, Consultant should be accreditation by QCI/NABET for preparation of EIA/EMP report.

Expert Appraisal Committee (EAC) has decided not to discuss the proposal and ***Return*** it in present form.

Agenda No. 25.10

Expansion of Pesticide Project increase capacity from 3085 MTPA to 20370 MTPA by M/s Ambey Laboratories Pvt. Ltd., located at SP 1-5, RIICO industrial area, Sotanala, Behror District Alwar, Rajasthan - Reconsideration of Environmental Clearance regarding.

[IA/RJ/IND2/146355/2005, J-11011/361/2005-IA]

The proposal was earlier considered by the EAC in its meeting held during 15-17 September, 2020. The additional information desired by the Committee and response from the project proponent are as under:

S. No.	Query Raised in earlier EAC meeting	Query Reply Given by PP	Observation of EAC
1.	The Committee took serious note on the storage of toxic chemicals like Chlorine and Bromine.	After reconsideration for the best possible minimal storage inventory of the Hazardous chemical and as an outcome of the 3D risk modelling recommendation we proposed the revised inventory of the hazardous chemicals with minimal storage to reduce the onsite and offsite risk hazard. The quantity of the Chlorine has now been reduced to 43.2 MT (in 48 no. Of 0.9 tonner capacity) i.e. half the amount proposed earlier taking in consideration the effects due to the same. Storage of Bromine has been modified from 1 MT storage details to 5 kg separate bottles of the same that would diminish the chances of inventorial risks. Antidotes for the same have also been provided in the premises.	The EAC deliberated the matter and found the reply to be satisfactory.

2.	Details of fresh water requirement and source.	Approx. 20 KLD freshwater is being supplied for the project through RIICO Water Supply and the same has been permitted for the proposed expansion of the project. For proposed expansion, additional 8 KLD treated water will be supplied through CETP, Bhiwadi to suffice water requirements for boiler and cooling tower purposes. Quality of treated water sample from CETP, Bhiwadi has also been analysed by RSPCB and the sample has been considered fit for industrial cooling and boiler use by RSPCB Board Analyst. Additionally, quality analysis of CETP, Bhiwadi treated water sample has been done with certified laboratory i.e. Asia Enviro Lab, Rajasthan. The results were observed to be within the standard limits of water quality. If in case, CETP, Bhiwadi treated water is unable to meet the requirements, 8 KLD treated water will be supplied by M/s KK Solar RO & Chemical Industry.	
3.	Details of pollution load due to the project.	PP has submitted and presented during EAC meeting.	

4.	Detailed management and action plan for controlling the emissions at 99.99%	To attain control for emissions at 99% the following have been proposed for the project: ➢ Brine-Chiller System ➢ Solvent Recovery and Distillation System ➢ Water and Caustic Multi-stage Scrubber ➢ Glass Column packed scrubber ➢ Multi-Cyclone ➢ Turbulent Contact Absorber	
5.	Details of mitigations measures brought out during advanced modelling	Advanced Modelling for the proposed project was carried out and the details of mitigation measures brought out during the same are the following: ➢ Unloading operation shall be carried out at sufficient distance from the tanks as to facilitate leakage isolation / displacement of the personnel in case of eventual leakage. ➢ Adjacent tanks containing hydrocarbons be provided with water sprinklers to contain temperature build-up within the fire point of storage materials. ➢ It is advised to store the gaseous Iso Butylene in multiple small containers instead of single	

		large bullet to minimise the LOC in case of any eventual releases. ➢ Highly evaporative Di Methyl Amine is to be handled in a controlled and isolated place as to avoid any eventualities resulting in instant formation of flammable cloud. ➢ Periodic maintenance of the storage tanks should be made mandatory ➢ Suction hoods of appropriate capacity should be provided in vulnerable places of hazardous gases handling, specifically for Bromine and Chlorine, and the same are to be vented through FGS. ➢ It is also recommended to avoid/ isolate the possible ignition sources as much as possible in the tank farm region. ➢ One or more wind masts shall have to be installed around the plant as to be visible from any location within the site in order to facilitate the evacuation. ➢ Storage of Bromine after revised inventorization has	

		been reduced to separate containers of 5 kg each to reduce related inventorial risks.	
6.	Details of community awareness along with detailed medical and safety plan.	PP has submitted and presented during EAC meeting. To provide medical services during any emergency, the company has signed a service agreement with Pulse Hospital Multi Specialty Hospital & Research Centre (A unit of Raja Bhrathari Healthfcare Pvt. Ltd) as HOSPITAL/PATHOLOGY LAB/HSP/Service Provider. Agreement between the M/s Ambey Laboratories Pvt. Ltd. and Pulse Hospital Multi Specialty Hospital & Research Centre.	
7.	Details of toxic raw materials/solvents, quantity and its inventory.	PP has submitted and presented during EAC meeting.	

The project proponent and their consultant M/s. EQMS India Pvt. Ltd. made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

The proposal is for environmental clearance to the project for expansion of Pesticide Project increase capacity from 3085 MTPA to 20370 MTPA by M/s Ambey Laboratories Pvt. Ltd., located at SP 1-5, RIICO industrial area, Sotanala, Behror District Alwar, Rajasthan.

All Pesticides industry and pesticide specific intermediates unit are listed at S.N. 5(b) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central level in the Ministry.

The standard ToR for the project was granted by Ministry vide letter No. J-11011/361/2005-IA.II(I) dated 12.01.2020. Public hearing is exempted as per Para 7(i), III. Stage (3), (i)(b) of the EIA Notification, 2006, and in accordance with the Ministry's OM dated 27th April 2018, as the project site is located in the notified industrial area. It was informed that no litigation is pending against the proposal.

Ministry had issued EC earlier vide letter no. J-1011/361/2005-IA II(I) dated 26.10.2005 to the existing project "Herbicide Unit" in favour of M/s Ambey Laboratories Pvt. Ltd.

The details of products and capacity are as under:

S. No	Product Details	Existing Quantity (MTPA)	Proposed Quantity (MTPA)	Total Quantity (MTPA)
1.	2,4-D Sodium Salt	1040	2960	4000
2.	2,4-D Acid	845	1155	2000
3.	2,4-D Ethyl Ester	600	200	800
4.	2,4-D Amine Salt	600	2400	3000
5.	Clodinofop Propargyl Chloride	0	50	50
6.	Hexaconzole	0	250	250
7.	Atrazine	0	300	300
8.	Buprofezin	0	100	100
9.	Lambda Cyhalothrin	0	50	50
10.	Cypermethrin	0	250	250
11.	Alphamethrin	0	50	50
12.	Deltamethrin	0	50	50
13.	Cypermethrin Acid Chloride (CMAC)	0	1000	1000
14.	Meta phenoxy Benzaldehyde (MPB)	0	720	720
15.	Fipronil	0	200	200
16.	Glyphosate	0	200	200
17.	Glufosinate Ammonium	0	50	50
18.	Metribuzin	0	50	50
19.	Pendimethalin	0	150	150
20.	Mancozeb	0	3600	3600
21.	Azoxystrobin	0	50	50
22.	Ziram	0	100	100
23.	Thiram	0	100	100
24.	Propineb	0	50	50
25.	Ethion	0	50	50
26.	Ethepon	0	50	50
27.	Propargite	0	50	50
28.	Imazethapyr	0	100	100
29.	Propizonazole	0	100	100
30.	Tebuconazole	0	100	100
31.	Bispyribac Sodium	0	50	50
32.	Metalaxyl	0	50	50
33.	Carbendazim	0	50	50
34.	Diafenaconazole	0	50	50
35.	Quizalofop Ethyl	0	47	47

36.	Acephate	0	98	98
37.	R & D	0	5	5
38.	Pretilachlor	0	2400	2400
	Total	**3085**	**17285**	**20370**

Existing land area is 20135.196 m^2 (2.0135 ha.) and expansion is proposed within the existing land. Industry has already developed greenbelt in an area of 33.00 % i.e., 6645.07 m^2out of total area of the project. After Expansion, the total green area will get increased to 7645.07 m^2 (38 % of total plot area). The estimated project cost of expansion is Rs 100 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 120 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 14 Lakhs per annum. Total Employment will be 150 persons as direct & indirect after expansion.

PP has reported that there is no Wildlife sanctuary and no reserve forests within 10 km distance from the project site. No, national parks, Biosphere Reserves, Tiger/Elephant Reserves, etc. is present within 10 km distance from the project site. Sotanala River is flowing at 0.7 km in North-west direction.

Ambient air quality monitoring was carried out at 8 locations during 1st March to 31st May, 2018 and the baseline data indicates the ranges of concentrations as: PM_{10} (40-95 µg/m^3), $PM_{2.5}$ (18-51 µg/m^3), SO_2 (5.5-10.4 µg/m^3) and NO_2 (10.4-24.8 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.31 µg/m^3, 0.19 µg/m^3, 3.10 µg/m^3, 0.01 µg/m^3& 0.002 µg/m^3 with respect to PM10, PM2.5, SO2, HCl & HBr. All parameter concentrations are within the National Ambient Air Quality Standards (NAAQS).

The total water requirement of the project after expansion will be 35 KLD. Out of total water requirement, 20 KLD of fresh water will be supplied by RIICO Water Supply and 8 KLD will be sufficed from CETP treated water supply from Bhiwadi Jal PradushanNivaran Association. In case, CETP Bhiwadi treated water is unable to meet the quality requirements, 8 KLD treated water will be withdrawn from the ground water. NOC Exemption letter from the CGWA has been obtained vide dated 19.11.2020. Effluent of 8.5 KLD (Industrial Wastewater-5.5 KLD; Domestic Sewage- 3 KLD) that will be treated through MEE and ETP. The plant is based on Zero Liquid discharge system.

Power requirement after expansion will be 1000 kVA including existing 500 KVA and will be met from Jaipur Vidyut Nigam Ltd (JVVNL). Existing unit has DG sets of 1x500 kVA capacity, additionally 1x200 kVA DG sets will be used as standby during power failure. Stack (height- 8 m) will be provided as per CPCB norms to the proposed DG sets. Existing unit has 2.0 TPH imported coal fired boiler. Additionally, 1 x 2 TPH imported coal fired boiler will be installed. Electrostatic precipitator 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:

Stack		Flow NM^3/hr	Pollutant Concentration (mg/ NM^3)					Air Pollution Control System
No.	Source		PM	HCl	Cl	SO2	HBr	
1.	Hot Air Generator with Dust Extraction System (Dryer)	1225	<50	----	----	----	----	Multi Cyclone
2.	2,4-D Sodium Salt Reactor for HCL	1000	----	<20	<9	----	----	Water and Caustic Multistage Scrubber
3.	Lambda Cyhalothrin Reactor for HCL	900	----	<20	----	----	----	Water and Caustic Multistage Scrubber
4.	Lambda Cyhalothrin Reactor for SO_2	900	----	----	----	<10	----	Glass Column Packed Scrubber (Caustic)
5.	Cypermethrin Reactor for HCL	900	----	<20			----	Water and Caustic Multistage Scrubber
6.	Cypermethrin Reactor for SO_2	900	----	----	----	<10	----	Glass Column Packed Scrubber (Caustic)
7.	Deltamethrin Reactor for HBr	900	----	----	----	----	<5	Glass Column Packed Scrubber (Caustic)
8.	MPB Reactor for HBr	1000	----	----	----	----	<5	Glass Column Packed Scrubber (Caustic)
9.	Boiler	1200	75	----	---	<200	---	Adequate Stack Height with ESP

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

Solid hazardous waste is being sent to TSDF site while other solid wastes will be segregated in saleable and non-saleable waste. Salable waste will be sold off to authorized recycler and Non-saleable waste will be sent to landfill. Details of Waste generation are given below in Table:

Type of Waste	Source of Generation	Category No. (As per	Existing Phase	Expansion Phase	Total Waste after expansion	Treatment / Disposal

		Sch-I&II 2016)				
Sludge from treatment of wastewater arising out of cleaning / disposal of barrels / containers	ETP	34.2	0.2 MTA	0.2 MTA	0.4 MTA	CHWTSDF Udaipur
Oil and grease skimming	ETP	35.4	0.15 MTA	0.15 MTA	0.30 MTA	Incineration at M/s Continental petroleum Behror Distt. Alwar
Waste oil	Process / DG sets	5.1	0.2 MTA	0.08 MTA	0.28 MTA	
Spent Solvent	Process	20.2	0.37MTA	0.43 MTA	0.80 MTA	
Sludge Containing Residual Pesticides	ETP	29.2	2.4 MTA	2.6 MTA	5.0 MTA	CHWTSDF Udaipur
Discarded Glue Containers / Barrels/liners contaminated with hazardous wastes/chemicals	Process	33.3	10.00 Nos./Annum	10.00 Nos./Annum	20.00 Nos./Annum	Authorized Recycler

Certified compliance report was issued by RO, MoEF&CC vide IV/ENV/Raj-45/373/205/144 dated 10.05.2019.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The Committee has found the additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee. The EAC has deliberated the proposal and has made 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 have found the proposal in order and have **recommended** for grant of environmental clearance.

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 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 EIA/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.

(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.

(iv). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(v). Total fresh water requirement shall not exceed 20 KLD, proposed to be met from RIICO water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

(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). 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.

(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). 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.

(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). 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.

(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 nearly 40% of the total project area, mainly along the plant periphery. 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.

(xv). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as

per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within time as proposed.

(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. 25.11

Establishment of 2225 MT/M capacity Unit to manufacture Agrochemicals and Chemical Intermediates by M/s Astec Lifesciences Ltd. located at Plot No. K-2/3/1 & K-2/2, Additional Mahad MIDC, Tehsil: Mahad, District: Raigad, Maharashtra -Reconsideration of Environment Clearance regarding.

[IA/MH/IND2/139824/2020, IA-J-11011/31/2020-IA-II(I)]

The proposal was earlier considered by the EAC in its meeting held during 21th October, 2020. The additional information desired by the Committee and response from the project proponent are as under:

S. No.	Query Raised in earlier EAC meeting	Query Reply Given by PP	Observation of EAC
1.	Revised GLC and action plan for controlling incremental GLCs from the project.	SO2 incremental concentrations are higher than any other pollutant; it is proposed to use LSHS instead of FO to reduce the sulphur content from 4.5 % to 0.5 %; substantially reducing the SO2 incremental concentrations by 63.71%. Revised GLC of SO2 24hr. 11.16767 µg/m3 & Incremental GLC of SO2 24hr. after change in fuel 4.05313 µg/m3. Revised GLC considering change in fuel from FO to LSHS are attached as Annexure 1.	The EAC deliberated the matter and found the reply to be satisfactory.
2.	Action plan for controlling VOC at	Following measures will be implemented in order	

	99.995 % needs to be submitted.	to control VOC emissions: ➢ Reactor shall be connected to chilled brine condenser system. ➢ Reactor and solvent handling pup shall have mechanical seals to prevent leakages. ➢ The condensers shall be provided with sufficient HTA and residence time so as to achieve more than 98 % recovery ➢ Solvents shall be stored in a separate space specified with all safety measures. ➢ Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. ➢ Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. ➢ All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.	
3.	Ash Management Plan needs to be submitted.	Ash from boiler operations will be sold to Brick manufacturer; the agreement of the same has been made between both the parties. The storage of ash will be done using the silos. Appropriate mitigation measures will be adopted to reduce the fugitive emissions due to handling and transportation of ash such as regular mist sprinkling in the boiler area, development of	

		green belt along the plot boundary etc.	
4.	Safety and Risk analysis using advanced modelling	Risk Assessment has been carried out using several tools and models such as Dow Fire and Explosion index for flammable chemicals; Mond's toxicity index for toxic and hazardous chemicals; HAZOP study for the hazard identification in the manufacturing process; ALOHA software (Developed by US-EPA) for the prediction of impacts from the perceived risks from tank storages. The study of Safety and Risk analysis carried out as per TOR granted by MOEF & CC. The ALOHA software outputs in the form of footprints are attached as an Annexure-2. Based on the entire studies, recommendations have been suggested which will be followed by PP to avoid the accidents. Apart, Onsite emergency plan has been prepared as per the MSIHC Rules, 1989 wherein the proposed safety features are addressed.	
5.	Commitment that coal shall not be used a fuel in the boiler	PP commits here with not to use coal as fuel in the boiler.	
6.	Revised water balance. Fresh water consumption shall be reduced using rain water harvesting system.	The fresh water requirement of the project is 788 CMD. After the completion of first cycle, fresh water requirement is 420 CMD. During rainy season, rain water of 101.56 CMD will be available to be used for four months of rainy season; due to which fresh water requirement	

		will further be reduced to 318.44 CMD (59.6 % reduction).	
7.	Details of hazardous substances and plan for its management.	PP has submitted and presented during EAC meeting.	
8.	It is observed that there were two old units earlier operated in the premises. Details of units and its all CTO/EC needs to be submitted.	PP has submitted and presented during EAC meeting.	

The project proponent and their consultant M/s. Sadekar Enviro Engineers Pvt Ltd. made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

The proposal is for environmental clearance to the project for establishment of 2225 MT/M capacity Unit to manufacture Agrochemicals and Chemical Intermediates by M/s Astec Lifesciences Ltd. located at Plot No. K-2/3/1 & K-2/2, Additional Mahad MIDC, Tehsil: Mahad, District: Raigad, Maharashtra.

All Pesticides industry and pesticide specific intermediates unit are listed at S.N. 5(b) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central level in the Ministry.

The standard ToR for the project was granted by Ministry vide letter No. J-11011/31/2020-IA-II(I); dated 19th March 2020. Public hearing is exempted as per Para 7(i), III. Stage (3), (i)(b) of the EIA Notification, 2006, and in accordance with the Ministry's OM dated 27th April 2018, as the project site is located in the notified industrial area. It was informed that no litigation is pending against the proposal.

The details of products and capacity are as under:

Sr. No.	Product	Capacity MT/M
1	Dinotefuran	10
2	Pyraclostrobin	25
3	Flazasulfuron (SL 160)	10
4	Trifloxystrobin	50
5	Pyridydal	50
6	Tefluthrin	50
7	Paclobutrazol	40
8	Metalaxyl-M	15
9	Benzobicyclon	20
10	Fluridone (FLR)	5
11	PCS-II (4-chloro phenyl dimethyl 2 pentanone)	75
12	Azoxystrobin	75
13	Penconazole	15
14	Imibenconazole (IBZ)	50

15	Metribuzin	75
16	Pinoxaden	25
17	Dimethachlor	50
18	Thiamethoxam	75
19	2,4-Dichloro-3,5-dinitrobenzotrifluoride	75
20	Binfenazate	50
21	Propaquizafop	50
22	difluoro benzodioxolane	50
23	Iodosulfuron	20
24	Fentrazamide	75
25	Monosulfuran	75
26	Prothioconazole	100
27	Bifenthrin	50
28	Cyflufenamid	40
29	Carfentrazone-ethyl	20
30	Quizalofop	20
31	Dimethomorph	20
32	Pyroxasulfone	15
33	Mesosulfuran	25
34	Metsulfuran	25
35	Nicosulfuran	25
36	FTR (flutriafol)	20
37	DMBA (2,6-Dimethoxy benzoic acid)	15
38	DSP (Dimethoxy sulfonyl pyrimidine)	25
39	ADMP (amino dimethoxy pyrimidine)	20
40	Bensulfuran	100
41	DCBP (dichloro butyrophenone)	100
42	PMPC (4 methyl phenacyl chloride)	20
43	Tribenuron	100
44	DCHP (Di chloro hydroxy pirazole)	20
45	CDPP (Chloro diphenyl phosphine)	20
46	MY-17Ona	10
47	AMMT (amino methoxy methyl triazine)	25
48	Fenpropymorph	100
49	Imazethapyr (IMZ)	120
50	2-Chloro-4-fluoro-5-[3-methyl-2,6-dioxo-4-(trifluoromethyl)-1,2,3,6-tetrahydropyrimidin-1-yl]benzenethiol (PDSH)	50
51	6-chloro-3-(2-cyclopropyl-6-methylphenoxy)pyridazin-4-yl morpholine-4-carboxylate (CYP)	30
	Total	**2225**

Existing land area is 37297 m^2. Industry will develop greenbelt area of 12308 m^2 to make 33 % i.e., 12308 m^2 out of total area of the project. The estimated project cost is Rs. 91.2 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs 11.92 Crore and the Recurring cost (operation and maintenance) will be about Rs 6.59 Crore per annum. Total Employment will be 100 Nos. persons as direct & 15 Nos. persons indirect after expansion. Industry proposes to allocate Rs. 1.824 Crore @ 2 % of the project cost towards Corporate Environmental Responsibility.

PP has reported that there are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body Kal River is flowing at a distance of 1.0 km in East direction.

Ambient air quality monitoring was carried out at 8 locations during 1st December 2019 to 29th February 2020 and the baseline data indicates the ranges of concentrations as: PM10 (50.7 to 82.6 µg/m3), PM2.5 (22.2 to 35.8 µg/m3), SO2 (18.1 to 38 µg/m3) and NO2 (24 to 48 µg/m3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.20756µg/m3, 4.053 µg/m3 and 1.243µg/m3 with respect to PM10, Sox and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 788 m^3/day of which fresh water requirement of 420 m^3/day will be met from MIDC water supply. Effluent of 508 CMD quantity will be treated through STP, MEE, ETP & RO; 368 CMD will be reused. The plant will be based on Zero Liquid discharge system.

Power requirement after expansion will be 3200 kVA will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). Existing unit has additionally 2 Nos. of 500 kVA DG sets will be set up and to be used as standby during power failure after expansion. Stack of height 10.0 m will be provided as per CPCB norms to the proposed DG sets. Additionally 20 TPH Briquette fired boiler, 10.0 Lakh Kilo Calorie/Hr LSHS fired & 4.0 Lakh Kilo Calorie/Hr LSHS Fired Thermic Fluid Heaters will be installed. Bag filter with a stack of height of 43 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm3 for the proposed 20 TPH boiler.

Details of Process emissions generation and its management:

To mitigate the process emissions, total 4 Nos. of scrubbing system will be installed; the separate stacks height of 12 m each will also be provided to disperse total emissions.

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

Hazardous waste:

Hazardous Waste			
Type	**Cat**	**Qty Per Annum**	**Method of Disposal**
Used/ spent oil	5.1	12 KL	Sell to Authorized reprocessor/CHWTSDF
Evaporator Residue/Salt	37.3	1560 MT	Sent to CHWTSDF/Sale to MPCB Authorized Party/ Co-processing
Process Residue and waste	29.1	6252 MT	Sent to CHWTSDF/Sale to MPCB Authorized Party/ Co-processing
Discarded containers and liners/barrels	33.1	240 MT	Authorized reconditioners/recyclers/CHWTSDF

Spent Solvent	29.4	2400 KL	Sent to CHWTSDF/Sale to MPCB Authorized Party/ Co-processing
Contaminated cotton rags or other cleaning material	33.2	62.4 MT	Sent to CHWTSDF
Filters and filter material which have organic liquids in them	36.2	124.8 MT	Sent to CHWTSDF
Spent Carbon	36.2	31.2 MT	Sent to CHWTSDF
Chemical Sludge from Wastewater treatment	35.3	50 MT	Sent to CHWTSDF
Spent Catalyst	29.5	9.36 MT	Sold to authorized recyclers / CHWTSDF

Other Hazardous Waste:

Other Hazardous Waste			
Sr. No.	**Name of By product**	**Quantity MT/M**	**Method of disposal**
1	Ammonium chloride	144.9	Will be sent to CHWTSDF / Will be reused within process / Will be sold as by product/Co-processing
2	Potassium bromide	22.0	
3	Potassium chloride	277.9	
4	Sodium Bromide	13.2	
5	Sodium bisulfite	152.31	
6	Triethyl Amine Hydrochloride	44.92	
7	Bromoborane	4.5	
8	Phosphorous Oxychloride	40.2	
9	Amidechloride	22.1	
10	Ammonium Bromide	13.7	
11	Hydrochloric Acid	745.0	
12	Aq. Ammonia	20.9	
13	Pyridine.Hcl	52.0	
14	Methanol	130.4	
15	Sodium Tugstate	1.2	
16	Ethanol	31.9	
17	Poly Aluminium Chloride	371.3	
18	Chloroform	65.7	
19	Phenol	8.8	
20	Tetra-N-Butylammonium Sulfate	2.2	
21	Magnesium chloride	38.4	
22	Disodium phosphate	38.4	
23	Sodium Formate	14.2	
24	Boric acid	2.41	
25	Sodium hydroxide	148.08	
26	Potassium Carbonate	240.46	
27	Potassium Hydroxide	24.87	
28	Caesium carbonate	8.49	
29	Triethylamine Hydrochloride	15.87	
30	Sodium Methyl Sulphate	46.84	
31	Bromo Succinamide	68.75	
32	Sodium Sulphate	10.35	

33	Sodium Acetate	2.85	
34	Tetra-n-butylammonium bromide	1.03	
35	Potassium Methyl Sulphonate	11.67	
36	Thio glutamic Acid	61.92	
37	Stannous Chloride	99.12	
38	Triethyl Ammonium Salt	19.87	
39	Phospourous chloride acid	44.65	
40	Ammonium sulfate	104.47	
41	Sodium chloroacetate	10.98	
42	Zincate chloride	15.5	
43	Sodium salt of Methyl Sulphonic Acid	11.0	
44	Sodium carbonate	21.5	
45	Sodium Chloride	410.4	
46	Diisopropylamine Hydrochloride	2.2	
47	Aq. Sulfuric Acid	31.4	
48	Triazole	25.4	
49	Urea	38.5	
50	Potassium Bicarbonate + Hydrochloric Acid	21.29	
Total		**3755.99**	

Non-Hazardous Waste:

Sr. No	Particulars	Quantity (T/A)	Method of Disposal
1	Paper waste (Boxes & bags)	156	To be sold to authorize recycler
2	Plastic waste	156	To be sold to authorize recycler
3	Scrap metal	624	To be sold to authorize recycler
4	Ash	3151.2	To be sold to brick/cement manufacturer
5	Wooden pellets	312	To be sold to authorize recycler
6	Non contaminated empty bags	124.8	To be sold to authorize recycler

E Waste:

Type – E- Waste			
Particulars	**Category**	**Quantity (MT/A)**	**Method of Disposal**
Personal Computers (Central Processing Unit with input and output devices)	ITEW2	0.1	Sale to MPCB authorised recycler / returned to manufacturer / supplier
Personal Computing: Laptop Computers (Central Processing Unit with input and output devices)	ITEW3	0.1	
Printers including cartridges	ITEW6	0.5	
Telephones	ITEW12	0.05	

Bio Medical Waste:

Bio Medical Waste	BMW Category	Quantity (MT/A)	Method of Disposal
Soiled waste (Items contaminated with blood, body fluids like dressings, plaster casts, cotton swabs and bags containing residual or discarded blood and blood components)	Yellow	6	Disposal to CBMWTF/MPCB authorised processor for Mahad region
Expired medicines (Pharmaceutical waste like antibiotics, cytotoxic drugs including all items contaminated with cytotoxic drugs or plastic ampoules)	Yellow	6	

Battery Waste:

Battery Waste	Waste Category	Quantity (T/A)	Method of Disposal
Lead batteries from D.G. Sets, UPS system	--	0.2	Returned to supplier

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The Committee has found the additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee. The EAC has deliberated the proposal and has made 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 have found the proposal in order and have **recommended** for grant of environmental clearance.

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 to compliance of terms and conditions as under, and general terms of conditions at **Annexure**: -

(i). Safety and risk analysis using 3-D modelling along with location and number of detector should be submitted within 6 months in this Ministry.

(ii). Action plan for controlling VOC at 99.995 % to be changed to 100%.

(iii). Revised water balance plan is to be submitted.

(iv). 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.

(v). 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.

(vi). 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.

(vii). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(viii). Total fresh water requirement shall not exceed 420m^3/day, proposed to be met from MIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

(ix). 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.

(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). 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.

(xii). 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.

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

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

(xv). 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.

(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 40% of the total project area, mainly along the plant periphery. 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.

(xviii). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within time as proposed.

(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. 25.12

Proposed Production of Technical Grade Pesticides & Intermediates (Insecticides, Herbicides, Fungicides) total production capacity: 1099 MT/Month manufacturing unit to be set-up by M/s Mahamaya Lifesciences Pvt. Ltd. located at Plot No.: D-3/91 & 92, Dahej GIDC Estate-III, Village: Vav, Taluka: Vagra, District: Bharuch, Gujarat - Reconsideration of Environment Clearance regarding.

[IA/GJ/IND2/158595/2020, IA-J-11011/105/2020-IA-II(I)]

The proposal was earlier considered by the EAC in its meeting held during 22nd October, 2020. The additional information desired by the Committee and response from the project proponent are as under:

S. No.	Query Raised in earlier EAC meeting	Query Reply Given by PP	Observation of EAC
1.	Details of existing unit, products along with copy of CTE/CTO/EC. Status of construction activities completed, as reported in KML file.	➢ Copy of CTE/NOC granted by GPCB for our existing Formulation Unit is submitted. ➢ Construction seen in the KML relates to our proposed formulation plant for which the above referred NOC has been granted by GPCB. ➢ No construction activity is started with respect to our proposed Technical Grade Pesticides & Intermediates manufacturing plant.	The EAC deliberated the matter and found the reply to be satisfactory.
2.	Detailed Cyanide handling and management plan.	Detailed Cyanide handling and management plan is submitted.	
3.	Installation of incineration facility for cyanide and associated residue.	A captive incineration facility for incineration of obnoxious gases will be provided in case any product that we are allowed to manufacture releases gases that are required to be incinerated as per the	

		requirement of the MoEFCC.	
4.	Safety and risk assessment using advanced modelling.	Detailed Safety & Risk assessment study using 3D modelling will be carried out and related report will be submitted to MoEFCC along with our first half yearly EC compliance report.	
5.	Plan for raw material storage and inventory at the bare minimum.	Inventory will be kept at the minimal requirement of 3 days and a maximum of 7.5 days.	
6.	Commitment for not producing any banned pesticide. Revised product table accordingly.	No Banned pesticides will be manufacture. Product list is submitted.	

The project proponent and their consultant M/s. Anand Environmental Consultants Pvt. Ltd. made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

The proposal is for environmental clearance to the project for proposed Production of Technical Grade Pesticides & Intermediates (Insecticides, Herbicides, Fungicides) total production capacity: 1099 MT/Month manufacturing unit to be set-up by M/s Mahamaya Lifesciences Pvt. Ltd. located at Plot No.: D-3/91 & 92, Dahej GIDC Estate-III, Village: Vav, Taluka: Vagra, District: Bharuch, Gujarat.

All Pesticides industry and pesticide specific intermediates unit are listed at S.N. 5(b) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central level in the Ministry.

The standard ToR for the project was granted by Ministry vide letter No. J-11011/105/2020-IA-II (I) dated 18 May, 2020. Public hearing is exempted as per Para 7(i), III. Stage (3), (i)(b) of the EIA Notification, 2006, and in accordance with the Ministry's OM dated 27th April 2018, as the project site is located in the notified industrial area. It was informed that no litigation is pending against the proposal.

The details of products and capacity are as under:

S. N.	Group	Name of Products	CAS No.	Quantity (MT/Month)	Remarks
1.	**Insecticides**	Abamectin Tech	71751-41-2	5	
2.		Acephate Tech	30560-19-1	30	*
3.		Alphacypermethrin Tech	67375-30-8	15	

4.		Bifenthrin Tech	82657-04-3	5	
5.		Chlorpyriphos Tech	002921-88-2	50	*
6.		Cypermethrin Tech	52315-07-8	50	
7.		Deltamethrin Tech	52918-63-5	15	*
8.		Diafenthiuron Tech	80060-09-9	10	
9.		Fipronil Tech	120068-37-3	5	
10.		Flubendiamide Tech	272451-65-7	10	
11.		Lambda Cyhalothrin Tech	91465-08-6	50	
12.		Lufenuron Tech	103055-07-8	10	
13.		Nitenpyram Tech	150824-47-8	15	
14.		Permethrin Tech	52645-53-1	50	
15.		PyriproxyfenTech	95737-68-1	20	
16.		Clothianidin Tech	210880-92-5	10	
17.		Thiamethoxam Tech	153719-23-4	10	
18.		Thiocyclam Hydrogen OxalateTech	31895-22-4	5	
19.		Transfluthrin Tech	118712-89-3	10	
20.		Chlorantraniliprole Tech	500008-45-7	10	
21.	**Herbicides**	2,4-D Technical Tech	94-75-7	25	*
22.		Atrazine Tech	1912-24-9	25	*
23.		Bipyribac-SodiumTech	125401-92-5	10	
24.		Chlorimuron ethyl Tech	90982-32-4	15	
25.		ClodinafopPropargyl Tech	105512-06-9	2	
26.		Dicamba Tech	1918-00-9	25	
27.		Fenoxaprop-P-Ethyl Tech	71283-80-2	10	
28.		Glyphosate Technical	1071-83-6	50	
29.		Imazethapyr Tech	81335-77-5	10	
30.		Metribuzin Tech	99129-21-2	35	

31.		Oxyflurofen Tech	42874-03-3	10	
32.		Pendimethalin Tech	40487-42-1	30	*
33.		Propanil Tech	709-98-8	10	
34.		Quizalofop Ethyl Tech	100646-51-3	10	
35.		Metsulfuron Methyl Tech	74223-64-6	5	
36.		Hexithiazox Tech	78587-05-0	15	
37.		Pinoxaden Tech	243973-20-8	15	
38.		Sulfosulfuron Tech	141776-32-1	2	*
39.	**Fungicides**	Propineb Tech	12071-83-9	20	
40.		Azoxystrobin Tech	131860-33-8	25	
41.		Captan Technical Tech	133-06-2	25	*
42.		Carbendazim Tech	10605-21-7	25	*
43.		Chlorothalonil Tech	1897-45-6	30	
44.		Copper Oxychloride Tech	1332-65-6	25	
45.		Cymoxanil Tech	57966-95-7	20	
46.		Cyproconazole Tech	94361-06-5	50	
47.		Difenoconazole Tech	119446-68-3	10	
48.		Epoxiconazole Tech	133855-98-8	10	
49.		Hexaconazole Tech	79983-71-4	20	
50.		Propiconazole Tech	60207-90-1	20	
51.		Tebuconazole Tech	107534-96-3	10	
52.		Prothioconazole Tech	178928-70-6	10	
53.		Kresoxim Methyl Tech	143390-89-0	5	
54.		Mancozeb Tech	8018-01-7	10	*
55.		Metalaxyl Tech	70630-17-0	20	
56.		Myclobutanil Tech	88671-89-0	10	
57.		Thiophanate Methyl Tech	23564-05-8	10	*
58.		Tricyclazole Tech	41814-78-2	5	

59.		Trifloxystrobin Tech	141517-21-7	5	
60.		Imibenconazole Tech	86598-92-7	10	
61.		Penconazole Tech	66246-88-6	10	
62.	--	R & D Products	--	25	
	Total			**1099**	

***** These products may be banned as per the DRAFT ORDER / NOTIFICATION of Ministry of Agriculture and Farmers Welfare (Department of Agriculture, Co-operation and Farmers Welfare) New Delhi, dated 14th May, 2020.

Existing land area is 17,492.19 m^2. Industry will develop greenbelt in an area of 33 % i.e. 5,774.44 m^2 out of total area of the project. The total estimated cost of the proposed project is Rs. 45.40 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 5.2 Crores and the Recurring cost (operation and maintenance) will be about Rs. 4.05 Crores per annum. Total Employment will be 100 persons as direct as well as other indirect employees after expansion. Industry proposes to allocate Rs 91 Lakh which is 2 % of the project cost towards Corporate Environmental Responsibility (CER).

PP has reported that there are no national parks, wildlife sanctuaries, biosphere reserves, tiger/elephant reserves, wildlife corridors etc. within 10 km distance from the project site.

Ambient air quality monitoring was carried out at 8 locations during November 2019 to February 2020 and the baseline data indicates the ranges of concentrations as: PM_{10} (49 – 112 µg/m³), $PM_{2.5}$ (13 – 49 µg/m³), SO_2 (6 - 32 µg/m³) and NO_2 (12 – 36 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.06 µg/m³, 0.07 µg/m³ and 0.03 µg/m³ with respect to PM_{10}, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 390 m³/day of which 2nd day fresh water requirement of 148 m³/day will be met by GIDC. Domestic waste water (7 m³/day) will be treated in Sewage Treatment Plant while, the industrial process wastewater will be segregated and will be sent to a solvent stripper followed by a Multiple Effect Evaporator (MEE). High COD/TDS effluent (process effluent 70KLD + Post ETP RO reject 43 KLD) will be evaporated in Multiple Effect Evaporator (MEE) and condensate (108) will be treated in ETP alongwith other trade effluent. The residue from the MEE (5 KLD) will be sent for incineration to Common Hazardous Waste Incineration Facility (CHWIF) site. 225 KLD low COD/TDS process water, blow down from boiler, cooling purge water, washing as well as other water and MEE condensate will be kept segregated and will then be allowed to go into. an effluent treatment plant (ETP) consisting of primary, secondary and tertiary treatments. A treated effluent from the ETP will be passed through Post ETP RO and RO Permeate (140 KLD +39 KLD) will be reused in cooling tower/process and RO reject (43 KLD) will be treated in MEE. Due to the above stated process no liquid effluent will be required to be discharged and the stated process would be a ZERO LIQUID DISCHARGE (ZLD) process.

Power requirement after expansion will be 1526 kW and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Two DG sets of 500 kVA

capacities each which will be used as standby during power failure/ emergency. Stack (height 15 m) will be provided as per CPCB norms to the proposed D.G. Set. Unit will have 4 TPH agro waste briquettes fired boiler with APCM of Cyclone separator & bag filter with a stack height of 33 m will be installed for controlling particulate emissions within the statutory limit for proposed boiler.

Details of Process emissions generation and its management:

S. N.	Stack/Vent attached to reactor vessel of	Stack Height (m)	Stack Dia. (m)	APCM	Expected Pollutant	Expected Emissions
1.	Lambda Cyhalothrin	11	0.15	Primary scrubber followed by a guard scrubber	HCl	20 mg/Nm3
				Venturi scrubber followed by a packed alkali scrubber	SO2	40 mg/Nm3
2.	Transfluthrin	11	0.15	Water scrubber followed by guard scrubber	HCl	20 mg/Nm3
3.	Pinoxaden	11	0.15	Water scrubber followed by guard scrubber	HCl	20 mg/Nm3
4.	Captan	11	0.15	Venturi scrubber followed by a packed alkali scrubber	Cl2	9 mg/Nm3
5.	Hexaconazole	11	0.15	Venturi scrubber followed by a packed alkali scrubber	SO2	40 mg/Nm3
				Water scrubber followed by guard scrubber	HCl	20 mg/Nm3
6.	Propiconazole	11	0.15	Water scrubber followed by guard scrubber	HCl	20 mg/Nm3
				Venturi scrubber followed by a packed alkali scrubber	HBr	30 mg/Nm3
7.	Kresoxim Methyl	11	0.15	Water scrubber followed by guard scrubber	HCl	20 mg/Nm3

8.	Tricyclazole	11	0.15	Water scrubber followed by guard scrubber	HCl	20 mg/Nm3
9.	Trifloxystrobin	11	0.15	Water scrubber followed by guard scrubber	HCl	20 mg/Nm3
10.	Imibenconazole	11	0.15	Water scrubber followed by guard scrubber	HCl	20 mg/Nm3
11.	Diafenthiuron	11	0.15	Water scrubber followed by guard scrubber	NH3	30 mg/Nm3

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

S.N.	Type of Waste	Source of Generation	Cat.	Quantity per Year	Mode of Disposal
1.	Discarded Containers / Bags / Liners	Storage & Handling of Raw Materials/Chemicals	Sch-I/33.1	2500 Nos.	Collection, Storage, Transportation, Decontamination& Disposal by selling to registered recycler.
2.	Used / Spent Oil	Machineries	Sch-I/5.1	0.86 MT	Collection, Storage, Transportation, Decontamination & Disposal by selling to registered recycler.
3.	Chemical sludge from waste water treatment	In-house ETP	Sch-I/35.3	216MT	Collection, Storage, Transportation and disposal at common nearest TSDF site
4.	MEE Bottom residue	In-house MEE Facility	Sch-I/ 37.3	375 MT	Collection, Storage, Transportation and disposal at common nearest CHWMF site
5.	Process Waste Incinerable Waste	Manufacturing Process	Sch. I/ 29.1	725MT	Collection, Storage, Transportation and disposal to approve CHWIF site for incineration or for co-processing.
	Inorganic Waste			250 MT	Collection, Storage, Transportation and disposal at common nearest TSDF site
6.	Date-expired	Manufacturing Processes	Sch-I/ 29.3	1 MT	Will be sent to approve CHWIF site

	and off-specification pesticides				for incineration or for co-processing.
7.	Spent Solvent	Manufacturing Process	Sch. I/ 29.4	1872 MT	Collection, Storage, Transportation and disposal by selling to an authorized solvent recovery unit.
8.	Spent Catalysts	Manufacturing Process	Sch–I/ 29.5	17MT	Collection, Storage, Transportation Disposal at Co-processing or common incineration site.
9.	Spent Acid (30 % HCl Solution)	Scrubber	Sch-I/29.6	1012 MT	Collection, Storage and reuse in process under Rule-9.
10.	Liquor Ammonia (21%)	Scrubber	Sch-II/ Class A-A10	31 MT	Collection, Storage, Transportation & Disposal by selling to authorize end user registered under Rule-9.
11.	Sodium Hypochlorite	Scrubber	Sch-II/Class B-7	80 MT	Collection, Storage and reuse in process under Rule-9.
12.	Sodium Bromide	Scrubber	Sch-II/Class B	351MT	Collection, Storage, Transportation & Disposal by selling to authorize end user registered under Rule-9.
13.	Poly Aluminium Chloride	Manufacturing Process	Sch-II/Class B-10	365 MT	Collection, Storage, Transportation & Disposal by selling to authorize end user registered under Rule-9.
14.	Mercaptan	Manufacturing Processes	Sch-II/Class B-21	77 MT	Collection, Storage, Transportation & Disposal by selling to authorize end user registered under Rule-9.
15.	Sodium Sulphite	Scrubber	--	1455 MT	Collection, Storage, Transportation & Disposal by selling to authorize end user registered under Rule-9.

As per Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/EMP report 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 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 report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data is within NAAQ standards. The Committee has deliberated the action plan proposed by the project proponent to arrest the incremental GLC due to the project. The Committee has also deliberated on the CER plan and found to be addressing the issues in the study area. The Committee has found the additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee. The EAC has deliberated the proposal and has made 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 have found the proposal in order and have **recommended** for grant of environmental clearance.

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 to compliance of terms and conditions as under, and general terms of conditions at **Annexure**: -

(i). Plan of 3-D modelling to be submitted to this Ministry within 6 months.

(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). 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.

(iv). 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.

(v). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(vi). Total fresh water requirement shall not exceed 148 m^3/day, proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

(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). 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). 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). 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). 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.

(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). 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.

(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. 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.

(xvi). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, drinking water supply and funds for miscellaneous activities like solar street lights, battery, solar panel etc., in the nearby villages. The action plan shall to be completed within time as proposed.

(xvii). 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. 25.13

Enhancement of Phosphoric Acid production from 700 MTPD to 1000 MTPD P2O5 and other auxiliary facilities within the Existing Fertilizer Complex by M/s Coromandel International Limited located at Sriharipuram, Vishakhapatnam district, Andhra Pradesh – Amendment in Environmental Clearance regarding.

[IA/AP/IND2/149474/2020, J-11011/51/2016- IA II(I)]

The proposal is for amendment in the Environment Clearance granted by the Ministry vide letter dated 14.07.2017 for the project "Enhancement of Phosphoric Acid production (from 700 MTPD to 1000 MTPD) P205 and other auxiliary facilities within the existing Fertilizer Complex" located at Sriharipuram, Vishakhapatnam district, Andhra Pradesh in favor of *M/s* Coromandel International Limited (Formerly *Mis* Coromandel Fertilizer Limited).

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

Sr. No	Para of EC issued	Details as per EC	To be revised /read as	Justification/Reason

	by MoEF&CC			
1.	Subject	**Enhancement of Phosphoric Acid production (from 700 MTPD to 1000 MTPD) P205 and other auxiliary facilities within the existing Fertilizer Complex, Sriharipuram, Vishakhapatnam District, Andhra Pradesh by *M/s* Coromandel International Limited (Formerly *M/s* Coromandel Fertilizer Limited)**	**"Proposed setting up of new 1500 MTPD Sulphuric acid (100%) plant within the Existing Fertilizer Complex, for total Sulphuric acid production of 3600 MTPD at Sriharipuram, Vishakhapatnam district, Andhra Pradesh, without increase pollution load and total production of NP/NPK (3900 MTPD) and Phosphoric Acid (1400 MTPD) by M/s. Coromandel International Limited (Formerly M/s Coromandel Fertilizers limited)."**	Change in total sulphuric acid production capacity due to Additional 1500 MTPD sulphuric acid plant. Both Sulphuric Acid and Phosphoric Acid are intermediates to chemical fertilizers (Phosphotic fertilizers), which stand alone is not covered under the ambit of EIA notification 2006
2.	Point 2	The Ministry of Environment, Forests and Climate Change has examined the application. It is noted that proposal is for ***Enhancement of Phosphoric Acid production (from 700 MTPD to 1000 MTPD) P205 and other auxiliary facilities within the existing Fertilizer Complex, Sriharipuram,***	The Ministry of Environment, Forests and Climate Change has examined the application. It is noted that proposal is for ***setting up of new 1500 MTPD Sulphuric acid (100%) plant within the Existing Fertilizer Complex, for total Sulphuric acid production of 3600 MTPD at Sriharipuram,***	

		Vishakhapatnam district, Andhra Pradesh by M/s Coromandel International Limited (Formerly M/s Coromandel Fertilizer Limited).	***Vishakhapatnam district, Andhra Pradesh, without increase pollution load and total production of NP/NPK (3900 MTPD) and Phosphoric Acid (1400 MTPD) by M/s. Coromandel International Limited (Formerly M/s Coromandel Fertilizers limited)."***	
3.	Point 3	Existing land area is Total plot area is **438 Acres**, of which 145 acres is developed as greenbelt. ***Total cost of the project is ~ 225 Crore.*** The estimated cost of various environmental management programs in the proposed project is ~ 26.42 Cr which is around 12% of proposed project cost. ***In order to achieve consented production of 3900 MTPD NP/NPK production, the facility intends to adopt the following modifications and upgrades in the upstream of the complex fertilize manufacturing units:***	Existing land area is ***313 Acres***, of which 120 acres is developed as greenbelt. ***Additional cost of the project is ~ 400 Crore.*** The additional estimated cost of various environmental management programs in the proposed project is ~ 10 Cr which is around 2.5% of proposed Additional project cost. ***In order to achieve consented production of 3900 MTPD NP/NPK production, the facility intends to adopt the following modifications and upgrades in the upstream of the complex fertilize***	• Change in plot area and greenbelt area due to de-lease of 123 acres of land to M/s Visakhapatnam Port trust, including 25 acres of green belt. • Proposed installation of Sulphuric acid plant of 1500 MTPD capacity (standalone being exempted from EC as being inorganic product)

		Enhancing Phosphoric acid plant production capacity from 700 MTPD to 1000 MTPD including evaporation section and fluorine recovery unit. De-bottlenecking the existing sulphuric acid plant-1 from 1400 MTPD to 1700 MTPD, De-bottlenecking the existing sulphuric acid plant -2 from 300MTPD to 400MTPD. Installing a 40MTPH coal fired boiler to meet the additional steam required for the increased evaporation capacity. Installing a 5 MWback pressure turbine in order to maximize the efficiency of steam utilization. Installing of storage facility for a capacity of 20000 MT (P20S solution) for phosphoric acid. Installation of 400 MTPD evaporation system for phosphoric acid including fluorine recovery system. Installing of storage facility for a capacity of 5000 MT for Sulphuric Acid (100% strength)	***manufacturing units:*** • Installation of Additional 1500 MTPD of Sulphuric Acid production plant along with existing 2100 MTPD Sulphuric Acid Plant (SAP-1 (1700 MTPD) & SAP2 (400 MTPD)). Total production capacity of Suphuric acid shall be 3600 MTPD • Use of low sulphur coal in coal fired boiler and optimizing operations of existing sulphuric acid plant – I and coal fired boiler for no change in SO2 emission from the sanctioned emission load. • Existing Phosphoric acid plant with production capacity of 1400 MTPD • Provision of storage capacity of 2 x 5000 MT + 2 X 12,500 MT +1500 MT along with existing storage capacity of 15,000 MT	

4.	Point 4	Power requirement will be increased from ***14 MW to 20 MW***. The facility has contracted grid power of 12 MW, 5 MW from APGPCL and in-house steam turbine capacity of 5MW. The net available power for the existing operation is in the order of 22 MW. Hence the available power is adequate to meet the total requirement of ***20 MW*** post enhancement.	Power requirement will be increased from ***20 MW to 21 MW***. The facility has contracted grid power of 12 MW, 5 MW from APGPCL and in-house steam turbine capacity of 5MW. The net available power for the existing operation is in the order of 22 MW. Hence the available power is adequate to meet the total requirement of ***21 MW*** post enhancement.	Due to installation of Sulphuric acid plant (production of sulphuric acid being inorganic is exempted from EC). There shall be increase in 1MW of energy consumption. Due to installation of Sulphuric acid plant there shall be 2400 m3/d water requirement and for production of enhanced phosphoric acid as per granted consent there shall be additional water requirement of 1800 m3/day. Thus Additional 4200 m3/day of water requirement shall be sourced from GVMC.
5.	Point 4 para 3	Fresh water requirement will be increased from ***8700 m3/day to 12000 m3/day***, which will be sourced from Greater Vishakhapatnam Municipal Corporation (GVMC).Sea water consumption will be increased from ***63000 m3/ day to 84600 m3/ day***.	Fresh water requirement will be increased from **10350 m3/day to 14550 m3/day**, which will be sourced from Greater Vishakhapatnam Municipal Corporation (GVMC). Sea water consumption will be same i.e **84600 m3/ day.**	
6.	A-Specific Condition 1	Green Belt of 10 M wide (Perennial trees) to be developed in three sides of plant periphery totaling ***145-acre area***.	Green Belt of 10 M wide (Perennial trees) to be developed in three sides of plant periphery totaling ***120-acre area***.	Change in greenbelt area due to de-lease of 123 acres of land to M/s Visakhapatnam Port trust, including 25 acres of green belt.
7.	A-Specific Condition 2	The present freshwater requirement is ***8700 m3/day. Additional fresh water for the proposed***	The present freshwater requirement is ***10350 m3/day. Additional fresh water for the proposed***	Due to installation of Sulphuric acid plant there shall be 2400 m3/d water requirement and for production of enhanced phosphoric acid as per

		enhancement is to be limited to 1650 m3/day. The total freshwater requirement post enhancement shall not exceed 10350 m3/day. The present sea water requirement for once through cooling is ***63000 m3 / day and the same will be increased post enhancement to 84600 m3 / day***.	***enhancement will be 4200 m3/day. The total freshwater requirement post enhancement shall not exceed 14550 m3/day***. The present sea water requirement for once through cooling will remain to be ***84600 m3 / day***.	granted consent there shall be additional water requirement of 1800 m3/day. Thus Additional 4200 m3/day of water requirement shall be sourced from GVMC.
8.	A-specific Condition 4	Post enhancement, the S02 emissions from Sulphuric acid plant-l and sulphuric acid plant-2 shall be maintained at l kg/MT and 0.65 kg/ MT.	Post amendment, the SO2 emissions from Sulphuric acid plant-l and sulphuric acid plant-2 shall be maintained at 0.75 kg/MT and 0.65 kg/ MT and in Sulphuric Acid Plant-3 shall be maintained at 0.75 kg/MT.	Reduction of SO2 emission in sulphuric acid plant -1 from 1 to 0.75 kg/MT of acid through addition of Caesium content catalysts in 5th bed of the converter.

The Committee after detailed deliberations **recommended** for amendment in EC as proposed by the project proponent. All other terms and conditions shall remain unchanged.

Agenda No. 25.14

Proposed Pesticide Intermediates, Fungicide, Herbicide and Insecticide Manufacturing unit of capacity 10680 TPA by M/s Heranba Industries Limited located at C-195,196, Notified industrial estate, GIDC Saykha, Tal:-Vagra, Dist.:-Bharuch, Gujarat-392165 - Amendment in Environmental Clearance regarding.

[IA/GJ/IND2/180771/2020, J-11011/14/2016-IA-II(I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter No.:J-11011/14/2016-IA II(I) on dated 13th September 2017 for the project Setting up Pesticide Intermediates, Fungicide, Herbicide and Insecticide Manufacturing unit of capacity 10680 TPA located at C-195,196,

Notified industrial estate, GIDC Saykha, Tal:-Vagra, Dist.:-Bharuch,Gujarat-392165 in favour of M/s Heranba Industries Limited.

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

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons
1.	Point No. 6	Total fresh water requirement is 517.4 cum/day which will be met from GIDC Water Supply.	Fresh water requirement will be 773.9 KLD which will be met from GIDC Water Supply.	After discharging of MEE condensate into CETP, there will be increased in fresh water consumption from 517.4 KLD to 773.9 KLD.
2.	Point No. 7	Total industrial effluent generation will be 411.7 cum/day out of which 9 cum/day will be incinerated, 282.7 cum/day will be treated in solvent stripper followed by MEE and ATFD and balance 120 cum/day will be treated in RO plant. 100 cum/day of RO permeate and 256.6 cum/day of condensate from MEE/AFD (Total 356.6 cum/day) will be recycled. It will be based on Zero Liquid Discharge system.	Total industrial effluent generation will be 411.7 cum/day out of which 9 cum/day will be incinerated, 282.7 cum/day will be treated in solvent stripper followed by MEE and ATFD and balance 120 cum/day will be treated in RO plant. 100 cum/day of RO permeate and 256.5 KLD of MEE Condensate will be treated in ETP and sent to CETP Saykha through Underground drainage line for further treatment.	We have taken trail run in our existing plant for recycling of MEE condensate in process and found that it is not feasible due to organic contamination as well as TDS level in MEE condensate resulting poor quality of our final product. Hence we have decided to discharge MEE condensate into CETP Saykha through under ground effluent drainage line after giving primary including detoxification, secondary and tertiary treatment.

3.	Point No. 11	Details of Solid waste/Hazardous waste generation and its management is as Follows:- ETP Waste – 13644 MT/Annum	ETP Waste – 13824 MT/Annum	After discharge of treated effluent into CETP, there will be increased in hazardous waste generation mainly in ETP waste.

The Committee after detailed deliberations **recommended** for amendment in EC as proposed by the project proponent. All other terms and conditions shall remain unchanged.

The meeting ended with 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 energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.

(iii) 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).

(iv) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. CER activities shall be undertaken by involving local villages and administration and shall be implemented. The company shall undertake eco-developmental measures

including community welfare measures in the project area for the overall improvement of the environment.

(v) 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.

(vi) 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.

(vii) 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 (both in hard copies as well as by e-mail) 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.

(viii) 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.

(ix) 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.

(x) 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.

(xi) 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.

List of the Expert Appraisal Committee (Industry-2) members participated during Video Conferencing (VC) meeting

S. No.	Name and Address	Designation
1.	Dr. J. P. Gupta	Chairman
2.	Shri R. K. Singh	Member
3.	Ms. Saloni Goel	Member
4.	Shri Ashok Agarwal	Member
5.	Dr. Y.V. Rami Reddy	Member
6.	Shri S.C. Mann	Member
7.	Dr. I. Indrasena Reddy	Member
8.	Dr. T. K. Joshi	Member
9.	Dr. J. S. Sharma	Member
10.	Dr. Uma Kapoor, CGWA	Member
11.	Sh. Sanjay Bist, IMD	Member
12.	Shri Dinabandhu Gouda, CPCB	Member
13.	Sh. Ashok Kr. Pateshwary, Director, MoEFCC	Member Secretary
MoEFCC		
14.	Dr. Mahendra Phulwaria	Scientist 'C'

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