

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

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Dated: 16.08.2021

**MINUTES OF THE 15<sup>th</sup> EXPERT APPRAISAL COMMITTEE (INDUSTRY-3  
SECTOR) MEETING HELD DURING AUGUST 10-11, 2021**

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

**Time:** 10:30 AM onwards

**DAY 1 - 10<sup>th</sup> AUGUST, 2021 (TUESDAY)**

**(i) Opening Remarks by the Chairman**

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

Prof. Pandit also appreciated the efforts of the Ministry's Team (Industry 3 Sector) for preparation and uploading the agenda of the EAC meetings very systematically and timely on Parivesh Portal.

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

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

**(iii) Confirmation of the Minutes of the 14<sup>th</sup> Meeting of the EAC (Industry-3 Sector) held during July 22-23, 2021 at MoEFCC through VC.**

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (Industry-3 Sector) members on the minutes of its **14<sup>th</sup> Meeting of the EAC (Industry-3) held on July 22-23, 2021** conducted through Video Conferencing (VC), and as such no request has been received for modifications, in the minutes of the project/activities, **confirmed the same.**

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

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

### **Consideration of Environmental Clearance Proposals**

#### **Agenda No.15.1**

**Expansion project of Fine Chemicals and Intermediates for API Manufacturing Unit, located at Plot No. E-16, E-17, E-18, E-22 & T-7, Chincholi MIDC, Taluka Mohol, District Solapur, Maharashtra by M/s OC Specialities Pvt. Ltd.-Consideration of Environmental Clearance**

**[Proposal No.: IA/MH/IND3/216154/2015; File No. IA-J-11011/92/2015-IA-II(I)]**

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

The proposal is for grant of environmental clearance (EC) to the proposed project for expansion project of Fine Chemicals and Intermediates for API Manufacturing Unit, located at Plot No. E-16, E-17, E-18, E-22 & T-7, Chincholi MIDC, Taluka Mohol, District Solapur, Maharashtra by M/s OC Specialities Pvt. Ltd.

The details of products and capacity as under:

S. No	Name of the Product	Quantity (TPA)		CAS No.	Chemical Formula
		Existing	After Expansion		
<b>A.</b>	<b>Products</b>				
1.	Sodium Bromide Sol. 40%	4680.0	4680.0	--	NaBr
	Sodium Bromide Powder	2782.8	2782.8	7647-15-6	NaBr
	Zinc Hydroxide	1270.8	1270.8	20427-58-1	Zn(OH) <sub>2</sub>
	Zinc Oxide	885.6	0	1314-13-2	ZnO
2.	Di Isopropyl Ethylamine (DIPEA)	219.6	600.0	7087-68-5	C <sub>8</sub> H <sub>19</sub> N
3.	Methyl-2-Chloro Phenyl Acetate	122.4	0	57486-68-7	C <sub>9</sub> H <sub>8</sub> Cl <sub>2</sub> O <sub>2</sub>
4.	4 Methoxy Phenyl Acetone	118.8	0	122-84-9	C <sub>10</sub> H <sub>12</sub> O <sub>2</sub>
5.	2,3 Dichloro Pyridine	118.8	1500.0	2402-77-9	C <sub>5</sub> H <sub>3</sub> Cl <sub>2</sub> N
6.	2-Amino-2-Phenyl Butyric Acid	75.6	0	5438-07-3	C <sub>10</sub> H <sub>13</sub> NO <sub>2</sub>
7.	Ortho Hydroxy Phenyl	180.0	0	614-75-5	C <sub>8</sub> H <sub>8</sub> O <sub>3</sub>

S. No	Name of the Product	Quantity (TPA)		CAS No.	Chemical Formula
		Existing	After Expansion		
	Acetic Acid				
8.	2 Coumaranone	147.6	0	553-86-6.	C8H6O2
9.	3-Isochromanone	144.0	0	4385-35-7	C9H8O2
10	2,6 Dichloro Benzoyl Chloride	266.4	300.0	4659-45-4	C7H3Cl3O
11	Methyl-2-Dimethylamino-2-Phenyl Butyrate	118.8	0	39068-93-4	C13H19NO2
12	2-Dimethylamino-2-Phenyl Butanol	36.0	0	39068-94-5	C12H19NO
13	P-Bromonisoole / 4-Bromo Anisole	198.0	0	104-92-7	C7H7BrO
14	Para Bromo Phenetole / 4-Bromophenetole	172.8	0	588-96-5	C8H9BrO
15	2,4- Dimethyl Phenyl Acetyl Chloride	475.2	0	1668-53-7	C10H11ClO
16	2,5-Dimethyl Phenyl Acetyl Chloride	388.8	300.0	55312-97-5	C10H11ClO
17	Indoline	435.6	0	120-72-9	C8H9N
18	Ethyl Phenyl Glyoxalate (Epg)	342.0	100.0	1603-79-8	C10H10O3
19	Ethyl-1-Hydroxy Cyclohexane Carboxylate	396.0	200.0	1127-01-1	C9H16O3
20	Ethyl-1-Hydroxy Cyclopentane Carboxylate	435.6	250.0	41248-23-1	C8H14O3
21	3-Chloro-2-Hydrazinyl Pyridine	432.0	1500.0	22841-92-5	C5H6ClN3
22	2,4,6 Trimethyl Phenyl Acetyl Chloride	0	200.0	52629-46-6	C11H13ClO
23	2,6 Dichlorobenzonitrile	0	100.0	1194-65-6	C7H3Cl2N
24	2,6 Dimethoxy Benzoyl Chloride	0	300.0	1989-53-3	C9H9ClO3
25	S-2-Chloro Propionic Acid	0	200.0	29617-66-1	C3H5ClO2
26	S-Methyl-2chloro propionate	0	200.0	73246-45-4	C4H7ClO2
27	Ethyl-2-Chloropropionate	0	100.0	535-13-7	C5H9ClO2
28	2-Methoxy Propionic Acid (MEPRA)	0	300.0	4324-37-2	C4H8O3
29	Methyl 2,3 Dichloro	0	100.0	07-09-3674	C4H6Cl2O2

S. No	Name of the Product	Quantity (TPA)		CAS No.	Chemical Formula
		Existing	After Expansion		
	Propionate				
30	Amido Chloride	0	300.0	816431-72-8	ClH <sub>2</sub> HgN
31	(2-Chloro-4-Fluoro-5-Nitro phenyl) ethyl carbonate	0	150.0	153471-75-1	C <sub>9</sub> H <sub>7</sub> ClFNO <sub>5</sub>
32	N-Methyl-2-Oxo-2-Phenyl Acetamide	0	100.0	83490-71-5	C <sub>9</sub> H <sub>9</sub> NO <sub>2</sub>
33	4 Fluoro 3 Trifluoromethyl Phenol	0	150.0	61721-07-1	C <sub>7</sub> H <sub>4</sub> F <sub>4</sub> O
34	3-Methyl Pyradizine (3-MP)	0	100.0	1632-76-4	C <sub>6</sub> H <sub>7</sub> N
35	Ortho Chloro Benzamide (OCBA)	0	300.0	619-56-7	C <sub>7</sub> H <sub>6</sub> ClNO
36	Chlorinated Paraffin Wax (CPW)	0	1500.0	609-66-5	--
37	BPCA (3-bromo-1-(3-chloropyridin-2-yl)-1H-pyrazole-5-carboxylic acid)	0	200.0	63449-39-8	--
38	R&D / Pilotation Products	0	60.0	--	--
39	API & Intermediates	0	2900.0	--	--
	<b>Total (A)</b>	<b>14443.2</b>	<b>20743.6</b>		
<b>B</b>	<b>Byproducts</b>				
1	Sodium Sulphite Solution ( 25%)	2184.84	3984.84	7757-83-7	Na <sub>2</sub> SO <sub>3</sub>
2	Hydrochloric Acid Solution (30%)	907.08	2347.08	7647-01-0	HCl
3	Sodium Nitrite Soln.30%	365.04	365.04	7632-00-0	NaNO <sub>2</sub>
4	Distillation Residue of Pxylene	43.2	43.2	106-42-3	C <sub>8</sub> H <sub>10</sub>
5	Ammonium Chloride Solution	432.0	432.0	12125-02-9	NH <sub>4</sub> Cl
6	Sodium Bromide	432.0	1212.0	7647-15-6	NaBr
7	Spent Catalyst for Regeneration	432.0	474.0	--	--
	<b>Total (B)</b>	<b>4,796.2</b>	<b>8,858.2</b>		
	<b>Total (A+B)</b>	<b>19,239.4</b>	<b>29,601.8</b>		

As per the provision of "EIA Notification No. S. O. 1533 (E)" dated 14.09.2006 as amendments thereto; the expansion project comes under Category – B1. But, due to presence of GIB sanctuary within 5 Km from Project Site in MIDC, General condition is applicable to project and requires appraisal at Centre Level at the MoEFCC. The GIB sanctuary is located about 1.96

Km from Plot No. T-7 and about 2.31 Km from Plot No. E-16, E-17, E-18 & E-22 of project site in MIDC. The ESZ for same is finalised and located at 1.68 Km from Plot No. T-7 and about 2.1 Km from plot no. E-16, E-17, E-18 & E-22 from declared ESZ of GIB.

The Standard ToR was issued by MoEFCC vide dated 17.03.2021. Public hearing is exempted for the proposed project as it is located at MIDC, Notified Industrial area.

The proposed project will be established in a land area of 53,759 sqm. Existing built-up area 3167.51 sqm., additional built-up for expansion project is 10,189.31 sqm. Industry has already developed Green Belt in an area of 2166.9 sqm. (4% out of total plot area). Moreover, additional Green Belt area of 17,833.1 Sqm. (33.2% out of total plot area) will be developed about 700 m outside the plot. After expansion of project, the total Green Belt area would be 20,000 sqm. which accounts for 37.2% of total plot area. The estimated expansion project cost is Rs. 69.01 Crores. Total capital cost earmarked towards environmental pollution control measures under proposed project is Rs.12.20 Crores and the Recurring cost (operation and maintenance) will be about Rs.1.29 Crores per annum. Total Employment after expansion project will be 158 persons (as direct & indirect). Industry proposes to allocate Rs.147 Lakh towards Corporate Social Responsibility.

Project Proponent reported that the GIB Sanctuary is located about 1.96 Km from Plot No. T-7 and about 2.31 Km from Plot No. E-16, E-17, E-18 & E-22 of project site in MIDC. ESZ for GIB is finalized vide notification No. 596 dated 11/02/2020. Same is also located at 1.68 Km from Plot No. T-7 and about 2.1 Km from plot no. E-16, E-17, E-18 & E-22. River Sina is at a distance of 6 Km on South West from the project site.

The Ambient air quality monitoring was carried out at 8 locations during October- December-2020 and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (42.10–69.30 µg/m<sup>3</sup>), PM<sub>2.5</sub> (10.40 – 22.90 µg/m<sup>3</sup>), SO<sub>2</sub> (7.80 – 25.70 µg/m<sup>3</sup>) and NO<sub>x</sub> (11.60 – 27.70 µg/m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs would be 0.256 µg/m<sup>3</sup> for PM<sub>10</sub> (towards West side), 0.0650 µg/m<sup>3</sup> for PM<sub>2.5</sub> (towards West side), 1.60 µg/m<sup>3</sup> for SO<sub>2</sub> (towards West side) and 0.950 µg/m<sup>3</sup> NO<sub>x</sub> (towards West side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement after expansion project will be 746 CMD. Out of which, 488 CMD fresh water will be taken from MIDC Water supply scheme at Ujani Dam on Bhima river. 245 CMD will be ETP treated & 13 CMD will be STP treated effluent to be recycled thereby reducing fresh water demand. Effluent of 274.5 m<sup>3</sup>/day will be generated and same will be segregated as strong and weak streams and treated through 2 separate ETP streams. The treated effluent will be recycled thereby achieving Zero Discharge. STP will be provided for treating domestic effluent of 16 CMD. Treated water will be recycled for flushing.

Power requirement after expansion of project will be 5750 kVA and will be taken from MSEDCL. Six DG sets of 1250 kVA (2 Nos.), 380 kVA (2 Nos.) & 100 kVA (2 Nos.) capacity will be installed as standby during power failure. Stack of height 20 M AGL, 5 M ARL, 3 M ARL is provided as per CPCB norms to the DG sets of 1250 kVA, 380 kVA, 100 kVA respectively.

Existing unit has 3 TPH boiler which will be used as standby after expansion. Additionally, industry will install 16 TPH boiler and Thermopack of 12 Lakhs Kcal/Hr. Fuel Briquettes will be used for same. MDC followed by Bag Filter with a stack of height of 31 M will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm<sup>3</sup> for the proposed boiler.

#### Details of Process emissions generation and its management:

There would be process emissions, same would be controlled through installation of Scrubbers. Presently, five scrubbers are installed on site. For HBr, NO<sub>x</sub>, NH<sub>3</sub> dedicated scrubbers while & HCl, SO<sub>2</sub> combine scrubber. Under expansion, additional six number of scrubbers (HBr, NO<sub>x</sub>, NH<sub>3</sub>, HCl, SO<sub>2</sub> & HCN) will be provided.

S. No.	Emissions	Dia. (M)	Ht. (M)	Packing Material	Mode of regeneration of the packing material	Scrubbing Media	Disposal/ Recycle/ Reuse/byproduct
1	SO <sub>2</sub>	0.5	3	Glass /HDPE	Water washing	Water / Caustic Soda	Sodium Sulphite Solution
2	NH <sub>3</sub>	0.5	3	Glass /HDPE	Water washing	Water	Ammonia to process
3	HBr	0.5	3	Glass /HDPE	Water washing	Caustic Soda	NaBr
4	NO <sub>x</sub>	0.5	3	Glass /HDPE	Water washing	Water / Caustic Soda	To ETP
5	HCl	0.6	6	Glass /HDPE	Water washing	Water	HCl Acid
6	HCN	0.5	3	Glass /HDPE	Water washing	Caustic Lye	To ETP

S. No.	Emissions	Qty. (kg / Day)	Treatment Method
1	H <sub>2</sub>	16.05	Diffused by using Nitrogen through Flame Arrestor
2	O <sub>2</sub>	58.0	Dispersed into the Atmosphere
3	N <sub>2</sub>	25.29	Dispersed into the Atmosphere
4	CO <sub>2</sub>	135	PP shall sequester the huge volumes of CO <sub>2</sub> being emitted in the atmosphere and leading to global warming.
5	SO <sub>2</sub>	1642	Scrubbed by using aqueous caustic lye solution
6	NH <sub>3</sub>	291	Scrubbed by using dilute HCl Medium
7	HCl	910	Scrubbed by using C.S. Lye Solution
8	HBr	521.8	Scrubbed by using C.S. Lye Solution

9	Amines	12.0	Scrubbed by using dilute HCl Water Medium
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**Details of Solid waste and Hazardous waste generation and its management:**

S. No.	Description	Quantity (MT/M)		Disposal
		Existing	After Expansion	
1	Boiler Ash	83.5	457 .0	Sale to Brick Manufacture
2	Metal Scrap	--	10.0	Sale to authorized recyclers
3	Empty Containers & Drums	--	1000 Nos./M	
4	Packaging Material	15.0	30.0	
5	E-Waste	--	1	

S. No	Description	Cat	Quantity (MT/M)		Disposal Facility
			Existing	After Expansion	
1	Process Residue	28.1	11.14	20	5 MT/M would be reused or sold to outside parties and rest would be forwarded to CHWTSDF
2	Distillation Residue	20.3	21.20	65.20	CHWTSDF
3	ETP sludge	35.3	9.00	571.50	
4	MEE Salt	35.3	30.00	360.00	
5	Spent Carbon	28.3	---	1.70	
6	Spent Catalyst	28.2	---	3.50	
7	Discarded containers / barrels / liners	33.1	---	90.00 Nos.	
8	Filter Medium	36.2	---	60.00 Nos.	CHWTSDF
9	Date-expired products	28.5	---	5.00	
10	Spent Solvent	28.6	---	90.00	
11	Spent / Used Oil	35.4	--	50.00 Lit	
12	Sodium Sulphate Solution 25%	35.3	180.30	150.00	
13	HCl 30%	35.3	75.60	120.00	
14	Sodium Nitrite Solution 30%	35.30	30.30	--	
15	Distillation residue of P-Xylene	35.30	3.60	--	
16	Ammonium Chloride	35.3	36.00	--	

### **Deliberations by the EAC:**

The EAC deliberated the proposal. The Committee noted that there was public complain against the project proponent which alleged that PP manufactured various products without obtaining prior EC. It was also observed that PP proposed to develop 33% of green belt 700m away from the Plant location and PP has not complied with Enterprise Social Commitment (ESC) condition mentioned in the prior EC.

The Committee has also deliberated on various technical and environmental data deficiencies in the proposal and desired for following requisite information/input, as under:

- (i) EAC noted that EC was granted on 31.01.2017 and PP has not compiled the green belt condition. In this context, PP needs to be submit the details why PP has not complied this very important conditions ?
- (ii) EAC observed that PP did not have sufficient space for proposed expansion project and PP want to develop green belt in other plot which is away from 700m. EAC mentioned that the purpose of green belt to adsorb pollutants and balancing the impacts. Considering the space constraints for green belt development of the project site, details of alternative site needs to be analyzed by the PP for this expansion project.
- (iii) Details of process emissions and fugitive emission and its action plan for mitigation measures needs to be submitted.
- (iv) EAC also noted that this is existing Unit, however the conservation plan for schedule-I species has not still approved. The conservation plan is vogue and needs to be revised with proper implementation schedule and its budget allocation.
- (v) Details of existing products with consented/EC along with production capacity from start of production/inception of the Unit, along with copy of CTEs/CTOs to verify the violation, if any.
- (vi) Details of expansion/modernization/product mix changes undertaken without taking prior EC, if any and its undertaking needs to be submitted in this regard.
- (vii) Detailed greenbelt development plan along the periphery of the plant with revised layout and budget needs to be submitted.
- (viii) Closure notice/show cause notice issued by the SPCB in the last 5 years, if any and its action plan/response and present status needs to be submitted.
- (ix) Details of Product list, separately mentioning products requiring EC or not needs to be submitted.
- (x) Details of red category industries adjacent to the project site needs to be submitted.
- (xi) Details of completed Actions for Enterprise Social Commitment as per earlier EC conditions needs to be submitted.
- (xii) Status of onsite and off-site emergency plan and its implementation viz. conduction of



mock drill details and details of accidents, if any, needs to be submitted.

- (xiii) The project proponent may utilize modern technologies for capturing of carbon emitted and to develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The details needs to be submitted.

After detailed deliberation, the EAC is of the view that PP needs to revise the proposal and accordingly **returned** in present form for needful.

### **Agenda No.15.2**

#### **Setting up of Bulk Drugs & Drug Intermediates Manufacturing Unit of capacity 160.5 TPM, located at Plot Nos. 165 and 166, Kadechur Industrial Area, Kadechur Village, Yadgir, Karnataka by M/s SVR Drugs & Intermediates -Consideration of Environmental Clearance**

**[Proposal No.: IA/KA/IND3/210993/2021; File No. J-11011/197/2021-IA-II(I)]**

The Project Proponent and accredited Consultant M/s. Rightsource Industrial Solutions Pvt. Ltd., gave a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of Bulk Drugs & Drug Intermediates Manufacturing Unit of capacity, located at Plot Nos. 165 and 166, Kadechur Industrial Area, Kadechur Village, Yadgir, Karnataka by M/s SVR Drugs & Intermediates.

The details of products and capacity as under:

<b>S. No</b>	<b>Product Name</b>	<b>Quantity in TPM</b>	<b>CAS No</b>	<b>Therapeutic Use</b>
1	Abacavir Sulfate	2.00	136470-78-5	Anti-Retroviral
2	Apixaban	0.50	503612-47-3	Used to treat and prevent blood clots
3	Canagliflozin	1.00	842133-18-0.	Used to treat type 2 diabetes
4	Carvedilol	1.00	72956-09-3	Anti - hypertensive
5	Clopidogrel Bisulfate	5.00	11365-84-2	Anti- coagulant
6	Dabigatran Etxilate Mesylate	1.00	872728-81-9	Anti-coagulant
7	Dapagliflozin Propanediol Monohydrate	1.00	960404-48-2	Used to treat diabetes
8	Empagliflozin	1.00	864070-44-0	Used to treat diabetes
9	Esomeprazole Magnesium Trihydrate	5.00	217087-09-7	Anti - ulcer
10	Hydroxy Chloroquine Sulfate	3.00	747-36-4	Anti - malarial

S. No	Product Name	Quantity in TPM	CAS No	Therapeutic Use
11	Itraconazole	5.00	84625-61-6	Anti - fungal
12	Ketoconazole	5.00	65277-42-1	Anti - fungal
13	Levocetirizine dihydrochloride	2.00	130018-77-8	Anti - histamine
14	Omeprazole	10.00	73590-58-6	Anti - ulcer
15	Pantoprazole Sodium	5.00	138786-67-1	Anti - ulcer
16	Rabeprazole	1.00	117976-90-6	Anti - ulcer
17	(S)-2-Aminobutyramide Hydrochloride	10.00	7682-20-4	Levetiracetam Intermediate
18	1,2,3,9-tetrahydro-Carbazol-4-one	8.00	15128-52-6	Carvedilol Intermediate
19	1, 3-Cyclohexanedione (Carvedilol Intermediate)	6.00	504-02-9	Carvedilol Intermediate
20	2, 4 Dihydro-4-(4-4 hydroxy phenyl)-1-piperazinyl)-2-(1-methyl propyl)-3H-1, 2, 4-Triazole-3-one (Itraconazole intermediate)	3.00	106461-41-0	Itraconazole intermediate
21	2, 5-Diamino-4, 6-Dihydroxy-Pyrimidine Hydrochloride (DADHP)	6.00	56830-58-1	Abacavir Intermediate
22	2-Butyl-4-Chloro-5-Formyl Imidazole (BCFI)	10.00	83857-96-9	Losartan Potassium Intermediate
23	4-Chloro-3-Nitro Benzoic acid	6.00	96-99-1	Dabigatran intermediate
24	4-Hydroxy Carbazole	5.00	52602-39-8	Carvedilol Intermediate
25	5-Bromo-2-chloro Benzoic acid	3.00	21739-92-4	Empagliflozin intermediate
26	Cis-Bromo Benzoate	30.00	61397-56-6	Ketoconazole intermediate
27	Cis-Mesylate	3.00	67914-86-7	Itraconazole intermediate
28	Cis-Tosylate	6.00	154003-23-3	Ketoconazole intermediate
29	Ethyl-3-(pyridine-2-yl amino) propanoate	5.00	103041-38-9	Dabigatran intermediate
30	N-(2-Amino-4,6-Dichloro-5-pyrimidinyl)-formamide (FADCP)	5.00	171887-03-9	Abacavir Intermediate
31	Omeprazole Sulphide	6.00	73590-85-9	Omeprazole intermediate
	<b>Total</b>	<b>160.5</b>		

**LIST OF BY-PRODUCTS AND ITS QUANTITIES**

<b>S. No</b>	<b>Name of the product</b>	<b>Name of the By-Product</b>	<b>Quantity in Kg/Day</b>
1	Canagliflozin	Trimethyl Silanol	38.30
2	Clopidogrel Bisulfate	Triethylamine Hydrochloride	74.80
		P-Toluene sulfonic acid	84.40
3	Ketoconazole	Benzoic acid	58.10
4	Omeprazole	Ammonium sulphate	713.20
		Sodium nitrite	126.10
		Sodium acetate	150.00
5	Pantoprazole Sodium	Potassium sulphate	231.00
		Sodium acetate	71.00
6	2, 4 Dihydro-4-(4-hydroxy phenyl)-1-piperazinyl)-2-(1-methyl propyl)-3H-1, 2, 4-Triazole-3-one (Itraconazole Intermediate)	Phenol	73.70
		Sodium bromide	60.80
7	2-Butyl-4-Chloro-5-Formyl Imidazole (Losartan Potassium Intermediate)	Phosphoric acid	206.00
8	Cis Bromo Benzoate (Ketoconazole intermediate)	Hydrobromic acid solution (23%)	1066.30
9	Cis-Mesylate (Itraconazole Intermediate)	Potassium Bromide	39.40
		Sodium Benzoate	47.70
		Triethylamine Hydrochloride	39.20
10	Cis-Tosylate (Ketoconazole Intermediate)	Benzoic acid	70.00
11	N-(2-Amino-4,6-Dichloro-5-pyrimidinyl)-formamide (FADCP)	Ethanol	108.90
		Phosphoric acid	85.20
12	Apixaban	Sodium Bromide (After neutralization of HBr with Caustic Lye solution)	436.20
	Dapagliflozin Propanediol Monohydrate		
	Empagliflozin		
	Itraconazole		
	Ketoconazole		
	2, 4 Dihydro-4-(4-hydroxy phenyl)-1-piperazinyl)-2-(1-methyl propyl)-3H-1, 2, 4-Triazole-3-one		
	Cis-Mesylate		
	Cis-Tosylate		

The proposed project is coming under Category 'B1' as per the Environmental Impact Assessment (EIA) Notification S.O. 1533 (E), dated 14<sup>th</sup> September, 2006 but the proposed project comes under interstate boundary i.e., Karnataka to Telangana State which is located

within 5 km from the project boundary, Hence, requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The Standard ToR was issued by MoEFCC vide dated 19.05.2021. Public hearing is not required for the proposed project as it is located at KIADB, Industrial area – Kadechur and Ministry of Environment, Forests and Climate Change (MoEF&CC) has granted environmental clearance (EC) to Kadechur Industrial Area at Kadechur village in Yadgir district, Karnataka vide F. No. 21-8/2014-IA. III, dated: 14.10.2016. It was informed that no Litigation is pending against the proposal.

The proposed project will be established in a land area of 2.0 Acres (8094.00 Sqm). Industry will develop greenbelt in an area of 2714.68 sqm.. which is 33.5 % out of 8094.00 Sqm. of the total project area. The proposed project cost is about Rs. 16.353 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.116.5 Lakhs and the recurring cost (operation and maintenance) will be about Rs.19 Lakhs per annum. Total proposed employment will be 70 persons. Industry proposed to allocate Rs.33.0 Lakhs for 5 years towards Corporate Environment Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance.

The Ambient air quality monitoring was carried out at 8 locations during Summer Season (March to May, 2021) and submitted baseline data indicates that ranges of concentrations of PM<sub>10</sub> (48.1 – 70.2 µg/ m<sup>3</sup>), PM<sub>2.5</sub> (19.0 - 28.9 µg/ m<sup>3</sup>), SO<sub>2</sub> (8.2 – 17.6 µg/ m<sup>3</sup>), NO<sub>x</sub> (9.6 – 22.9 µg/ m<sup>3</sup>), CO (0.17 – 0.59 mg/ m<sup>3</sup>) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> & NO<sub>x</sub> would be 0.25 µg/ m<sup>3</sup>, 0.09 µg/ m<sup>3</sup>, 0.78 µg/ m<sup>3</sup> & 0.81 µg/ m<sup>3</sup> respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The total water requirement is 168.47m<sup>3</sup>/day and will be met from KIADB water supply. Generated effluent of 68.04m<sup>3</sup>/day will be sent to CETP- Mother Earth, Kadechur.

PP reported that power requirement will be 500 kVA and will be met from Karnataka Power Corporation Limited (KPCL). The unit is proposed to install 1 x 325 kVA DG Set, Stack (height 8 mts) will be provided as per CPCB norms to the proposed DG set. PP reported that 1 x 2.0 TPH & 1 x 3.0 TPH boilers are proposed with stacks height of 30 mtrs for each boiler. Cyclone separators followed by bag filters will be installed for the proposed boilers for controlling the particulate emissions (within statutory limit of 115 mg/ Nm<sup>3</sup>). 1 x 4 Lakh K. Cal/ Hr Thermic fluid heater is proposed with stack height of 11 mtrs. and Cyclone separator will be installed for controlling the particulate emissions (within statutory limit of 115 mg/ Nm<sup>3</sup>).

#### **Details of Process emissions generation and its management:**

<b>S. No.</b>	<b>Name of the Gas</b>	<b>Quantity in Kg/Day</b>	<b>Treatment Method</b>
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1	Carbon dioxide	262.00	PP may sequester the huge volumes of CO <sub>2</sub> being emitted in the atmosphere which may lead to global warming.
2	Hydrogen	5.00	Diffused by using Nitrogen through Flame arrestor to avoid formation of explosive mixture
3	Oxygen	142.00	Dispersed into the atmosphere
4	Hydrogen Bromide	343.00	Scrubbed by using C. S. Lye solution
5	Hydrogen chloride	812.00	Scrubbed by using chilled water media
6	Sulphur dioxide	432.00	Scrubbed by using C. S. Lye solution
7	Di methylamine	95.00	Scrubbed by using chilled water media
8	Hydrogen Fluoride	4.00	Scrubbed by using C. S. Lye solution
9	Boron Trifluoride	20.00	Scrubbed by using chilled water media

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

S. No.	Name of the Waste	Quantity	Disposal Method
<b>Hazardous Waste Details</b>			
1	Organic solid waste	3590 Kg/Day	Will be sent to Cement Industries
2	Spent Carbon	61 Kg/Day	
3	Solvent Distillation Residue	685 Kg/Day	
4	Inorganic Solid Waste	1155 Kg/Day	Will be sent to TSDF - Mother Earth-Kadechur.
5	ETP Sludge	130 Kg/Day	
6	Used Oils	70 Ltrs/Annum	Will be sent to SPCB Authorized Agencies for Reprocessing/ Recycling
7	Detoxified Containers/ Container liners	1500 No's / Month	After Detoxification will be sent to SPCB authorized agencies
8	Used Lead Acid Batteries	2 No's/ Annum	Send back to suppliers for buyback of New Batteries
<b>Solid Waste details</b>			
9	Ash from boilers	4375 Kg/Day	Will be sent to Brick Manufacturers

**Deliberations by the EAC:**

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

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

The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental status and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee suggested that the PP shall undertake all the possible mitigation measures and latest techniques to reduce the impact of boilers. The Committee suggested that the storage of toxic/explosive raw materials shall be in bare minimum quantity and inventory. The Committee deliberated on the greenbelt development in the unit complex and suggested PP to develop greenbelt in at least 33% areas around the periphery of the complex. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considering 2m x 2m ratio. The committee suggested to carry out detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species. It also suggested to use Briquettes in place of coal. The Committee also suggested that the PP shall carry out detailed Phyto and Zooplankton study of the Nala water passing through the Industrial park during non-monsoon season and submit the report within one year.

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

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

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

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). Project Proponent reported that the amount of CO<sub>2</sub> emissions per day are stated to be 262 Kg/day and hence it is desirable that usage of economical viable technologies for CO<sub>2</sub> sequestration must be explored for usage in the Industry. The implementation report shall be submitted to the IRO, MoEFCC in this regard.

- (iii). The PP shall carry out detailed Phyto and Zooplankton study of the Nala water passing through the Industrial park during non-monsoon season and submit the report within one year for its appraisal before the EAC.
- (iv). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.7 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (v). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vi). The treated effluent of 68.04m<sup>3</sup>/day proposed to discharge to the CETP. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
- (vii). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.
- (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). Total fresh water requirement, sourced from KIADB water supply, shall not exceed 168.47m<sup>3</sup>/day. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (x). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.
- (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.
- (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 provided with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valves to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

- (xiv). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.
- (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 at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and the number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.
- (xvii). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.
- (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. 15.3**

#### **Expansion of High Rubber Graft-HRG (Rubber rich ABS) unit from 15000 TPA to 50000 TPA by M/s Bhansali Engineering Polymers Limited, located at Satnoor Plant, Bhansali Nagar, Taluka Sausar, District – Chhindwaram Madhya Pradesh - Consideration of Environmental Clearance**

**[Proposal No.: IA/MP/IND3/220340/2017; File No. IA-J-11011/391/2017-IA-II(I)]**

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

The proposal is for environmental clearance to the project for Expansion of High Rubber Graft-HRG (Rubber Rich ABS) unit from 15000 TPA to 50000 TPA, at Satnoor Plant, Bhansali Nagar, Taluka Sausar, Dist. Chhindwara, Madhya Pradesh by M/s. Bhansali Engineering



Polymers Limited.

The details of products and capacity as under:

<b>Product Details</b>	<b>Existing Quantity</b>	<b>Proposed Quantity</b>	<b>Total Quantity</b>
High Rubber Graft -HRG (Rubber rich ABS)	15,000 TPA	35,000 TPA	50,000 TPA

The project/activities are covered under Category 'A' of item 5(f) 'Synthetic Organic Chemicals Industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) in the Ministry.

The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 28<sup>th</sup> meeting and recommended the standard Terms of References (ToRs) applicable for the Project. The ToR has been issued by Ministry vide letter No. J-11011/391/2017-IA II (I); dated 25<sup>th</sup> September, 2017

Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 6<sup>th</sup> March, 2021. The PH was chaired by the ADM as per provisions of the EIA Notification, 2006. The main issues raised during the public hearing are related to employment to local people, ground water quality, dust emission along roads, CSR activities, development of related villages. No litigation pending against the proposal.

The project had obtained EC earlier vide letter no. 17/LMI/(6)/95/1541 Bhopal, dated 01.07.1995 to the existing project for expansion of production capacity of manufacturing of Acrylonitrile Butadiene Styrene (ABS) from 6000 TPA to 15000TPA from Directorate of Industries (L.M.I. Section) Madhya Pradesh in favour of M/s. Bhansali Engineering Polymers Limited. The certified compliance report has been forwarded by the Regional Office, Bhopal, F. No. 5-1/2021 (ENV)/488 dated 28.06.2021 after conducting site inspection on 02.06.2021.

Existing land area is 357750 m<sup>2</sup>, no additional land will be acquired. The proposed activities will be within the existing land area. Industry has already developed 125200 m<sup>2</sup> i.e. 35% and additionally will developed 74800 m<sup>2</sup> i.e. 20.9% greenbelt in an area of total 55.9 % i.e., 200000 m<sup>2</sup> out of total area 357750 m<sup>2</sup> of the project. The estimated project cost is Rs.132.70 Crores for expansion. Total capital cost earmarked towards environmental management plan/pollution control measures is Rs. 10 Crores and the Recurring cost (operation and maintenance) will be about Rs. 3 crores per annum. Total Employment will be 277 persons after expansion as direct & 100 persons indirect after expansion. Industry proposes to allocate Rs. 133 Lakhs towards Corporate Environmental Responsibility in study area of 10 Km.

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 Kanhan is flowing at a distance of 4.8 km in ENE direction.

Ambient air quality monitoring was carried out at Eight locations during 01 Oct 2018 To 31 Dec 2018 and the baseline data indicates the ranges of concentrations as: PM10 (53.2-84.3 µg/m<sup>3</sup>), PM2.5 (18.6-33.4 µg/m<sup>3</sup>), SO<sub>2</sub> (6.9-18.7 µg/m<sup>3</sup>) and NO<sub>2</sub> (11.7-34.3 µg/m<sup>3</sup>). AAQ modeling

study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be  $3.0 \mu\text{g}/\text{m}^3$ ,  $1.9 \mu\text{g}/\text{m}^3$ ,  $1.9 \mu\text{g}/\text{m}^3$  with respect to PM<sub>10</sub>, Sox and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is  $1952 \text{ m}^3/\text{day}$  (Existing  $592 \text{ m}^3/\text{day}$ , proposed  $1360 \text{ m}^3/\text{day}$ ) of which fresh water requirement of  $1516 \text{ m}^3/\text{day}$  will be met from Kanhan River. Effluent of  $1078 \text{ m}^3/\text{day}$  quantity will be treated through ETP of  $1300 \text{ m}^3/\text{day}$ . The plant will be based on Zero Liquid discharge system.

Power requirement after expansion will be 4000 KVA including existing 1300 KVA and will be met from Madhya Pradesh Poorva Kshetra Vidyut Vitaran Co.. Existing unit has 1x1250 KVA, 2x500 KVA DG sets of capacity, additionally 4x1250 KVA DG set will be used as standby during power failure. Stack (height 15m) will be provided as per CPCB norms to the proposed DG set.

Existing unit has 6 TPH Coal fired boiler. Additionally, 2X15 TPH Coal fired boiler will be installed. Multi cyclone separator/ bag filter with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of  $115 \text{ mg}/\text{Nm}^3$  for the proposed boilers. After proposed expansion 2X15 TPH boiler will be installed and Existing boiler 6 TPH will be used as standby.

#### **Details of Process emissions generation and its management.**

- The sources of gaseous pollutants within the proposed expansion are boiler and DG sets. The emission of Sulphur Dioxide and Oxides of Nitrogen, VOCs will be possible to occur. The boiler 6 TPH have been equipped with stack of around 30 M height having diameter 1 M and is connected through bag filters as air pollution control (APC).
- DG sets are confirming the requirements of emissions standards of E.P. Act. The expected pollutants emitted from the DG sets will be PM, SO<sub>2</sub>, NO<sub>2</sub> and CO. There will not be any impact on surrounding area as this will be the occasional activities.
- The modern set ups including scrubbers, de-dusting and bag filters for combating fugitive emissions and particulate matter have been installed in the respective processes.

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

Boiler Ash: Boiler ash generated from boiler is collected from the Multi-cyclone dust collector. The bio fuel ash from coal will be utilised for levelling low lying areas within factory premises.

Existing Quantity = 9.9 Tons/day and proposed quantity =23.1 Tons/day.

Chemical Sludge from ETP: The solid waste generated from the primary and secondary operations of ETP in the form of ETP sludge. This sludge is isolated and dried in sludge drying beds. Dried sludge is sent to CHWTSDF for disposal and same procedure will be followed for proposed expansion.

## Hazardous Waste:

- The hazardous waste generated were stored in separate covered place with RCC floor and category wise packed and delivered at CHWT/SDF. The units contain a total of 23 nos. of drying beds out of which 12 nos. of lime sludge and 11 nos. of latex sludge. Once the sludge get dried up then each type of sludge is packed into bags by manual operation and stored in hazardous waste dyke meant for each of type of sludge. This hazardous waste dyke also stored Used oil, Oily rags and cotton and paint empty cans.
- Hazardous Waste as per MPPCB/ hazardous waste management rules 2016 is disposed to Pithampur T/SDF and GGEPIL Chittorgarh WMPF. Empty HDPE bags are collected and temporarily stored in the covered shed and disposed off through authorized vendors.

## QUANTITY OF HAZARDOUS WASTE TO BE GENERATED & ITS MANAGEMENT / DISPOSAL

S. No.	Type of Waste	Quantity			Category	Disposal Facility
		Existing	Proposed	Total		
1.	Latex sludge	200 ton/year	450 ton/year	650 ton/year	I-23.1	GGEPIL Chittorgarh & T/SDF Pithampur
2.	Lime Sludge	720 ton/year	1200 ton/year	1920 ton/year	I-35.3	GGEPIL Chittorgarh & T/SDF Pithampur

PP reported that the discarded containers are being / will be sold to authorized recycler after decontamination. Risk Assessment and Disaster management specialised studies are also conducted for the project.

### Deliberations in the EAC:

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

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

The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental status and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due

to the proposed project within the NAAQ standards. The Committee also deliberated on the activities/action plans and found them addressing issues raised in the public hearing. The Committee suggested that the storage of toxic/explosive raw materials shall be in bare minimum quantity and inventory. The Committee deliberated on the greenbelt development in the unit complex and suggested PP to develop greenbelt in at least 33% areas around the periphery of the complex. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considering 2m x 2m ratio.

The Committee noted that the project proponent had obtained EC earlier vide letter dated 1<sup>st</sup> July, 1995 from the State Government for the existing project. The certified Compliance Report of existing EC forwarded by the Ministry's IRO, Bhopal and latest action taken report found to be satisfactory. The Committee noted that the project proponent has submitted conservation plan with a budget of Rs. 4.68 lakhs, and found it to be satisfactory. The Committee opined that the project proponent shall explore utilization of cleaner fuels like natural gas/briquettes in the unit, and coal may be utilized during emergency. The Committee found the additional information submitted by the project proponent to be satisfactory and addressing to the concerns of the Committee.

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

**The EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:**

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

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEFCC in this regard.

- (iii). As already committed by the project proponent, Zero Liquid Discharge (ZLD) shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.
- (iv). Continuous online (24x7) monitoring system for stack emissions shall be installed for the measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (v). Natural gas/briquettes/cleaner fuels shall be used in the unit and use of coal shall be restricted to emergency purpose.
- (vi). The storage of toxic/hazardous raw material shall be bare minimum with respect to their quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (vii). Occupational health centre for surveillance of the workers' health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall also be provided to employees.
- (ix). The unit shall make arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Action plan proposed shall be implemented in letter and spirit.
- (x). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xi). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled up to 99.97 % with effective chillers/modern technology.
- (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). 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). Total fresh water requirement shall not exceed 1516 cum/day, proposed to be met from Kanhan River. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (xv). The green belt of at least 5-10 m width shall be developed/strengthened over 33% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing. Trees have to be planted with spacing of 2m x 2m and number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration. The action plan proposed in this regard shall be implemented within 6 months.
- (xvi). As committed, at least Rs. 4.68 lakhs shall be allocated for conservation of Schedule I species in consultation with the Forest and Wildlife Department. The implementation report shall be submitted to the IRO, MoEFCC.
- (xvii). The activities and the action plan proposed by the project proponent to address the socio-economic/public concern and issues raised during public hearing in the study area shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.
- (xviii). A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

#### **Agenda No. 15.4**

**Expansion project for manufacturing of pesticide technical products along with addition of few more projects to widen the range of products in Agrochemicals & intermediates within the existing premises by M/s Meghmani organics Limited, located at Plot No. 5001/B, 5027, 5030-5034 & 5037, 4707/B and 4707/B&P GIDC Estate Ankleshwar, District Bharuch, Gujarat -Consideration of remediation plan and natural and community resource augmentation plan**

**[Proposal No.: IA/GJ/IND3/213852/2020; File No. IA-J-11011/90/2020-IA-II (I)]**

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

The project involves Expansion in Production capacity of existing products as well as addition of new Agrochemicals and Intermediates products (259.4 TPM to 1495 TPM) within the existing premises at Plot No. 5001/B, 5027 to 5034 & 5037, 4707/B & 4707/P, GIDC Estate Ankleshwar,

District Bharuch, Gujarat by M/s Meghmani Organics Limited. The Ministry has granted environmental clearance for the project on 11<sup>th</sup> January, 2021 on merit.

The project/activity is covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates' of the Schedule to the Environment Impact Assessment Notification, 2006 and thus requires prior environmental clearance for the said project.

The Ministry had earlier granted environmental clearance (EC) on 12<sup>th</sup> August, 2005 to the project for Manufacturing Pesticide Technical products in the same location. The project proponent had reportedly gone for expansion without obtaining EC, hence violated the provision of the EIA Notification 2006 and as amended thereof.

The Ministry has issued a Notification vide S.O.804 (E) dated 14<sup>th</sup> March, 2017 for appraisal of projects for grant of terms of reference/environmental clearance, which have started the work on site, expanded the production beyond the limit of environmental clearance, or changed the product mix without obtaining prior environmental clearance under the EIA Notification, 2006.

As per the above said Notification, in cases of violation, action is to be taken against the project proponent by the respective State Government or the State Pollution Control Board under the provisions of the Environment (Protection) Act, 1986 and further, no consent to operate or occupancy certificate to be issued till the project is granted environmental clearance.

The project proponent has submitted proposal to the Ministry for consideration in pursuance of the Ministry's Notification dated 14<sup>th</sup> March 2017 due to violation of the EIA Notification, 2006.

The proposal was earlier considered by the EAC (violation) in its meeting held on 19<sup>th</sup> November, 2020 and 28-29 January, 2021 in the Ministry. The Committee noted that EC was earlier granted by the Ministry on 12.08.2005 for manufacturing ten products and PP had gone for expansion without obtaining EC for expansion, hence violated the provision of the EIA Notification 2006 and as amended thereof.

The Committee further noted that PP in the Hon'ble Court before the Hon'ble Chief Judicial Magistrate of Ankleshwar (case no. 1723/2015) admitted the offence for commencing the unit without obtaining Environment Clearance. The EAC further noted that EC to the instant project has been granted by the Ministry vide letter dated 11<sup>th</sup> January, 2021 for total production of 1495 TPM by the concerned sector on merit. The matter is referred to the EAC (violation) for assessment of damage caused by the unit operated without EC. The Committee noted that credible action has been taken against the Project Proponent. The EAC deliberated on the project and considering the fact that EC has been granted to the PP on merit, desired to stipulate the **following additional ToR for the damage assessment:**

- (i). The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.
- (ii). Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an

environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.

- (iii). Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
- (iv). The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter in the EIA report by the accredited consultants.

The Ministry has issued additional terms of reference (ToR) to the project for remediation for preparation of EIA/EMP reports, vide letter dated 17<sup>th</sup> March, 2021. It was directed to submit the EIA/EMP report within four months for consideration. It was also stated that the environmental clearance shall be stayed anytime if the project proponent delays the submission of remedial EMP as per additional ToR.

The project proponent has submitted and presented the ToR compliance as under:

ToR No.	ToR Requirement	Reference of ToR in EIA/EMP Report provided as an Independent <u>Chapter No. 13</u>	Page No. of EIA/EMP report
<b>PROJECT SPECIFIC – ADDITIONAL TOR</b>			
1.	The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.	<p>We have proposed remediation measures which include</p> <ul style="list-style-type: none"> <li>• Environment Management plan,</li> <li>• Natural Remediation plan and</li> <li>• Community Resource Augmentation plan</li> </ul> <p>In the chapter No. 13. We propose to allocate total fund of Rs. 40,00,000/- for said aspects.</p> <p>Bank guarantee of the stated amount will be submitted to Gujarat Pollution Control Board, Gandhinagar.</p>	13.21 - 13.22 of chapter 13
2.	Assessment of ecological damage with respect to air, water, land and other	We have identified the possible damages caused to air, water,	13.2 – 13.4, 13.5



	environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment.	land and other environmental attributes due respect to the violation and we have proposed remediation measures to be taken for the same.  The collection and analysis of data has been performed by an environmental laboratory accredited by NABL.	– 13.16, 13.18 – 13.20 of chapter 13
3.	Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.	An additional Chapter No. 13 has been included in the EIA report and comprises of the remediation plan as well as natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation. The said Chapter has been uploaded on the PARIVESH portal along with the required Form-2.	--
4.	The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter in the EIA report by the accredited consultants.		

Budget Allocation for the proposed Remediation, Natural Resource Augmentation and Community Resource Augmentation Plan

**Details of fund allocation for the proposed Remediation Plan**

<b>A.</b>	<b>With respect to REMEDIATION MEASURES</b>	
<b>Attributes</b>	<b>Measures</b>	<b>Proposed Cost (Rs.)</b>
Air	• Health checkups of workers and residents nearby the project location.	2,00,000
Water	• Rain Water Harvesting through roof top rain water and setting up of a check dam will be done in such a manner that first water is excluded and subsequently roof top rain water will be harvested.	3,00,000
Land/Soil	• Properly lined/paved area for the works having potential of leakage/spillage of fuel or material like area for storage of construction and other raw material etc to avoid spillage and leakage.	5,00,000

Occupational Health & Safety  (Human Resources)	<ul style="list-style-type: none"> <li>• Job opportunities will be offered to family members of workers losing their life while working in our premises.</li> <li>• First aid kits will be made available on the site.</li> </ul>	2,00,000
Socio-economic	<ul style="list-style-type: none"> <li>• Development of residential and ecological areas (such as developing roads, plantation and offering employment to local people) nearby the industry.</li> <li>• Providing infrastructure facilities to the schools and hospitals located in the project area.</li> </ul>	3,00,000
<b>Total Cost of A</b>		<b>15,00,000</b>
<b>B. With respect to NATURAL RESOURCE AUGMENTATION</b>		
<b>Community Resource</b>	<b>Measures</b>	<b>Proposed Cost</b>
Flora & Fauna	<ul style="list-style-type: none"> <li>• Greenbelt will be developed and maintained (as per EB expert and CPCB guidelines) within the premises/ around the premises to control the expected pollutants due to proposed project activity as well as to improve the aesthetic.</li> <li>• Greenbelt Conservation measures will be adapted.</li> <li>• Proper hygienic condition will be maintained within the plant premises.</li> </ul>	3,00,000
Energy	<ul style="list-style-type: none"> <li>• Company will install Solar Operated LED lights in common street areas. Power generation capacity of each light will be 10W.</li> </ul>	2,00,000
<b>Total Cost of B</b>		<b>5,00,000</b>
<b>C. With respect to COMMUNITY RESOURCE AUGMENTATION</b>		
<b>Community Resource</b>	<b>Measures</b>	<b>Proposed Cost</b>
Air	<ul style="list-style-type: none"> <li>• Installation of Ambient air quality monitoring system at several locations outside the industry.</li> <li>• Plantation of trees specifically known for air purification.</li> <li>• Regular monitoring of ambient air quality parameters.</li> </ul>	4,00,000

Energy	<ul style="list-style-type: none"> <li>• Installation of Solar Street Lights on roads and footpaths in nearby village and habitations.</li> </ul>	2,50,000
Education	<ul style="list-style-type: none"> <li>• Organization of training programs and campaigns in the village area to promote skill development.</li> </ul>	1,50,000
Health	<ul style="list-style-type: none"> <li>• Health checkups for villagers and providing proper medication to them if any disease is diagnosed.</li> <li>• Organizing programs and strategies for COVID relief.</li> <li>• Providing ambulance, ventilators and oxygen concentrators in nearby hospitals/health centers.</li> </ul>	12,00,000
<b>Total Cost of C</b>		20,00,000
<b>Total Cost (A + B + C)</b>		<b>40,00,000</b>

### **Deliberations in the EAC:**

The EAC, constituted under the provision of the EIA Notification, 2006 comprising Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The Committee has been informed that the projects involving violation activities shall be appraised by the sectoral EACs.

The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the 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 reports are in compliance of the ToR issued for the project for violation category, considering the present environmental status and the projected scenario for all the environmental components.

The Committee noted that the Ministry has granted environmental clearance to the project vide letter dated 11<sup>th</sup> January, 2021 on merit. The project involves Expansion in Production capacity of existing products as well as addition of new Agrochemicals and Intermediates products (259.4 TPM to 1495 TPM) within the existing premises at Plot No. 5001/B, 5027 to 5034 & 5037, 4707/B & 4707/P, GIDC Estate Ankleshwar, District Bharuch, Gujarat by M/s Meghmani Organics Limited.

The Committee noted that EC was earlier granted by the Ministry on 12.08.2005 for manufacturing ten products and PP had gone for expansion without obtaining EC for expansion, hence violated the provision of the EIA Notification 2006 and as amended thereof. The Committee further noted that PP in the Hon'ble Court before the Hon'ble Chief Judicial

Magistrate of Ankleshwar (case no. 1723/2015) admitted the offence for commencing the unit without obtaining Environment Clearance. The Committee noted that credible action has been taken against the Project Proponent.

The project proponent has submitted proposal to the Ministry for consideration in pursuance of the Ministry's Notification dated 14<sup>th</sup> March 2017 due to violation of the EIA Notification, 2006.

The EAC deliberated on the project and considering the fact that EC has been granted to the PP on merit, considered the additional ToR issued for the damage assessment:

The Ministry has issued additional terms of reference (ToR) to the project for remediation for preparation of EIA/EMP reports, vide letter dated 17<sup>th</sup> March, 2021. The Committee noted that the project proponent proposed Rs. 40 lakhs for Remediation, Natural Resource Augmentation and Community Resource Augmentation Plan as under.

#### **Details of fund allocation for the proposed Remediation Plan**

<b>A</b>	<b>With respect to REMEDIATION MEASURES</b>	
<b>Attributes</b>	<b>Measures</b>	<b>Proposed Cost (Rs.)</b>
Air	<ul style="list-style-type: none"> <li>Health checkups of workers and residents nearby the project location.</li> </ul>	2,00,000
Water	<ul style="list-style-type: none"> <li>Rain Water Harvesting through roof top rain water and setting up of a check dam will be done in such a manner that first water is excluded and subsequently roof top rain water will be harvested.</li> </ul>	3,00,000
Land/Soil	<ul style="list-style-type: none"> <li>Properly lined/paved area for the works having potential of leakage/spillage of fuel or material like area for storage of construction and other raw material etc to avoid spillage and leakage.</li> </ul>	5,00,000
Occupational Health & Safety (Human Resources)	<ul style="list-style-type: none"> <li>Job opportunities will be offered to family members of workers losing their life while working in our premises.</li> <li>First aid kits will be made available on the site.</li> </ul>	2,00,000
Socio-economic	<ul style="list-style-type: none"> <li>Development of residential and ecological areas (such as developing roads, plantation and offering employment to local people) nearby the industry.</li> <li>Providing infrastructure facilities to the schools and hospitals located in the project area.</li> </ul>	3,00,000
<b>Total Cost of A</b>		<b>15,00,000</b>

<b>B</b>	<b>With respect to NATURAL RESOURCE AUGMENTATION</b>	
<b>Community Resource</b>	<b>Measures</b>	<b>Proposed Cost</b>
Flora & Fauna	<ul style="list-style-type: none"> <li>• Greenbelt will be developed and maintained (as per EB expert and CPCB guidelines) within the premises/ around the premises to control the expected pollutants due to proposed project activity as well as to improve the aesthetic.</li> <li>• Greenbelt Conservation measures will be adapted.</li> <li>• Proper hygienic condition will be maintained within the plant premises.</li> </ul>	3,00,000
Energy	<ul style="list-style-type: none"> <li>• Company will install Solar Operated LED lights in common street areas. Power generation capacity of each light will be 10W.</li> </ul>	2,00,000
<b>Total Cost of B</b>		5,00,000
<b>C</b>	<b>With respect to COMMUNITY RESOURCE AUGMENTATION</b>	
<b>Community Resource</b>	<b>Measures</b>	<b>Proposed Cost</b>
Air	<ul style="list-style-type: none"> <li>• Installation of Ambient air quality monitoring system at several locations outside the industry.</li> <li>• Plantation of trees specifically known for air purification.</li> <li>• Regular monitoring of ambient air quality parameters.</li> </ul>	4,00,000
Energy	<ul style="list-style-type: none"> <li>• Installation of Solar Street Lights on roads and footpaths in nearby village and habitations.</li> </ul>	2,50,000
Education	<ul style="list-style-type: none"> <li>• Organization of training programs and campaigns in the village area to promote skill development.</li> </ul>	1,50,000
Health	<ul style="list-style-type: none"> <li>• Health checkups for villagers and providing proper medication to them if any disease is diagnosed.</li> <li>• Organizing programs and strategies for COVID relief.</li> <li>• Providing ambulance, ventilators and oxygen concentrators in nearby hospitals/health centers.</li> </ul>	12,00,000
<b>Total Cost of C</b>		20,00,000

<b>Total Cost (A + B + C)</b>	<b>40,00,000</b>
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The Committee found the additional information submitted by the project proponent to be satisfactory and addressing the concerns of the Committee and additional ToR issued to the project. The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Committee found the report satisfactory and in consonance with the additional ToR.

The Experts Members of the EAC found the proposal in order and recommended for undertaking Remediation, Natural Resource Augmentation and Community Resource Augmentation Plan with the proposed budget of Rs. 40 lakhs. The environmental clearance dated 11<sup>th</sup> January, 2021 granted on merit by the Ministry shall be stayed/revoked, if the action plan is not implemented as per the time schedule.

The EAC, after detailed deliberations, **recommended** consideration of the environmental clearance granted to the project on merit on 11<sup>th</sup> January, 2021 as per the EIA Notification, 2006, **subject to the compliance of terms and conditions**, in terms of the provisions of the Ministry's Notification dated 14<sup>th</sup> March, 2017, **as under**:-

- (i) The environmental clearance dated 11<sup>th</sup> January, 2021 granted on merit by the Ministry shall be stayed/revoked, if the action plan is not implemented as per the time schedule.
- (ii) An amount of Rs. 40 lakhs towards Remediation plan and Natural and Community Resource Augmentation plan to be spent within a span of three years as per the approved plan.
- (i). Total budgetary provision with respect to Remediation plan and Natural & Community Resource Augmentation plan is Rs. 40 lakhs. The project proponent shall submit a bank guarantee of an amount of Rs. 40 lakhs towards Remediation plan and Natural and Community Resource Augmentation plan with the SPCB within one (1) month.
- (ii). Remediation plan shall be completed in 3 years whereas bank guarantee shall be for 5 years. The bank guarantee shall be released after successful implementation of the Remediation Plan and Natural and Community Resource Augmentation Plan, and after recommendation by Regional Office of the Ministry, EAC and approval of the Regulatory Authority. In case of failure to complete the remediation plan within stipulated time line, the fresh bank guarantee shall be submitted.
- (iii). All the conditions stipulated in the environmental clearance dated 11<sup>th</sup> January, 2021 shall be complied in letter and spirit

## Consideration of TOR

### Agenda No.15.5

**Manufacturing of Formaldehyde 70 TPD at Plot No. F476, RIICO Industrial Area Chopanki, Bhiwadi, Alwar, Rajasthan by M/s Shri Ramkripa Organics Pvt Ltd. - Consideration of TOR**

**[Proposal No.: IA/RJ/IND3/205995/2021; File No. IA-J-11011/130/2021-IA-II(I)]**

The instant proposal was earlier placed before the EAC held on July 22-23, 2021 wherein PP was absent. Again the Ministry placed the proposal in this instant meeting.

The project proponent, neither attended the meeting nor communicated to the EAC/Ministry reason for not attending the same.

The Committee, after detailed deliberations, opined that the instant proposal is violation case hence it can't be heard without PP. Accordingly, the proposal **returned** in the present form.

## Consideration of Amendment in EC

### Agenda No. 15.6

**Existing Project (Phenol Formaldehyde Resin – 1100 MT/Month Melamine Formaldehyde Resin – 500 MT/Month Urea Formaldehyde Resin – 1200 MT/Month) by M/s Nelson Laminate Pvt Ltd., located at Survey No. 565/p (old 394 Paiki 2), 556/p ( old 392, Paiki 1/ Paiki 2), Village: Nava Sadulaka, District: Morbi, Gujarat- Amendment in EC**

**[Proposal No.: IA/GJ/IND3/217421/2021; File No. IA-J-11011/35/2015-IA-II(I)]**

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter dated on 9<sup>th</sup> June, 2016 for the Resin manufacturing unit located at Survey no 565/p, Village nava Sadulka, District Morbi, Gujarat in favour of M/s. Nelson laminate Pvt Ltd.

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	Justification/ reasons
1	Address	565/p (old 394 Paiki 2), Village nava Sadulka, District Morbi, Gujarat	565/p (old 394 Paiki 2), <b>556/p ( old 392, Paiki 1/ Paiki 2)</b> Village nava Sadulka,	We are manufacturing Laminated Sheets , PF Resin , MF Resin , and UF Resin at Survey No. 565/p (Old S.N. 394 paiki 2 , 17604 SQ metre) village : Nava Sadulaka Ta: & Dist : Morbi , Gujarat for which we have

			District Morbi, Gujarat	<p>already obtained Environment Clearance, CTE , &amp; CCA from competent Authority.</p> <p>Due to Modern Market Trend, we are compelled to increase number of Designs of Decorative Laminate Sheets, day by day to satisfy ever changing taste of our Customers. For Production, Storage and Handling of more than 600 Designs, Large area is required to store all the designs in separate racks. Some equipment like press , cutting machine , sanding machine etc , which is part of Laminate manufacturing process , are required to be added . We have already obtained CTE amendment for the same. As per specific condition no.2 of the CTE AMENDMENT, We have to obtain "ENVIRONMENT CLEARANCE AMENDMENT FOR THE PLOT ADDITION".</p>
2	Condition 2	Total plot area 17604 m <sup>2</sup>	Total plot area 26670 m <sup>2</sup>	After plot addition total plot area would be <b>26670 m<sup>2</sup></b> (17604 m <sup>2</sup> of 565/p (old 394 Paiki 2) and 9066 m <sup>2</sup> of 556/p ( old 392, Paiki 1/ Paiki 2))
3	Specific condition no XVII.	Green belt over 5911 m <sup>2</sup> area shall be developed within plant premises with at least 10 meter wide green belt on all sides along the periphery of the project area, in downward direction, and along road sides etc. Selection of plant species shall be as per the CPCB guidelines in	Green belt area shall increase from 5911 m <sup>2</sup> to 9200 m <sup>2</sup> due to addition of plot and it shall be developed within 3 months in plant premises with at least 3 rows of thick green belt on all sides along the periphery of the project area.	Due to plot addition in existing plant layout unit will develop 9200 m <sup>2</sup> (34.49 % of total plot area) for green belt.



		consultation with the DFO.		
4	Specific condition no XIV.	At least 2.5 % of the total cost of the project should be earmarked towards the Enterprise Social Commitment and item-wise details along with time bound action plan should be prepared and submitted to the Ministry's Regional Office at Bhopal. Implementation of such program should be ensured accordingly in a time bound manner.	Unit shall do CER activity according to the circular no. F.NO. 22-67/2017-IA III, MoEF&CC, New Delhi, dated on 1st May 2018 in existing project, 1 % of the additional capital investment cost (i.e. 1 % of 5.1 crore= 5.1 Lakh ) shall be spend towards and CER.	As our project brown field project so we will do CER activity of 1 % of additional capital investment.

### **Deliberations in the EAC:**

The EAC made detailed deliberations on the proposal. The Committee noted that the additional land is required by the project proponent for handling production and storage of laminated sheets, which is not requiring EC. The project proponent shall be increasing the area covered under the greenbelt. The Committee suggested that the greenbelt shall be developed in three rows and the additional water requirement shall be met from rain water and roof water harvesting. Considering the monsoon season, the project proponent shall initiate plantation within three months.

The Committee after detailed deliberations, **recommended** for amendment in the EC dated 9<sup>th</sup> June, 2016 as under:

- (i) Additional of land area (9066 sqm) having plot No. 556/p (old 392, Paiki 1/ Paiki 2) located in Village nava Sadulka, District Morbi, Gujarat. Accordingly, the total plot area shall be increased from 17604 sqm to 26670 sqm and green belt area shall be increased from 5911 sqm to 9200 sqm.
- (ii) The project proponent shall initiate greenbelt development within 3 months in plant premises with atleast 3 rows of trees on all sides along the periphery of the project area.
- (iii) The project proponent shall explore rain water and roof water harvesting system and utilize for greenbelt development.
- (iv) All other terms and conditions shall remain unchanged.

**Agenda No. 15.7**

**Expansion of Existing Fertilizer Plant for Installation of New Nano Urea Plant, Kalol Unit located at Plot no. 712/846, 855, 856 of Saij,17-37 of Dhanaj, Kasturinagar, Kalol, District-Gandhinagar, Gujarat by M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO) – Consideration of Environmental Clearance**

**[Proposal No.: IA/GJ/IND3/217176/2021; File No. IA-J-11011/60/2009-IA-II(I)]**

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

The proposal is for environmental clearance to the project for Expansion of Fertilizer Plant by Installation of New Nano Urea Plant at Plot no. 712/846, 855, 856 of Saij,17-37 of Dhanaj, Kasturinagar, Kalol, District Gandhinagar, Gujarat by M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO).

The details of products and capacity as under:

<b>S. No</b>	<b>Product</b>	<b>Unit</b>	<b>As per granted EC dated 01/02/2021</b>	<b>Additional / Proposed</b>	<b>Total After Expansion</b>
1.	Ammonia	MTPA	4,01,500	0	4,01,500
2.	Urea (100%) (Fertilizer Grade/Technical Grade)	MTPA	6,75,000 max or	0	6,75,000 max or
3.	Urea (100%) or & Diesel Exhaust Fluid (32.5% of Urea Solution)	MTPA	5,44,500 & 4,01,538 i.e., (Equivalent to 1,30,500 of 100% Urea) max or #	0	5,44,500 & 4,01,538 i.e., (Equivalent to 1,30,500 of 100% Urea) max or #
4.	Urea (100%) or & Diesel Exhaust Fluid (40% of Urea Solution)	MTPA	5,44,500 & 3,26,250 i.e., (Equivalent to 1,30,500 of 100% Urea) max #	0	5,44,500 & 3,26,250 i.e., (Equivalent to 1,30,500 of 100% Urea) max #
5.	Nano Fertilisers (Nano-Nitrogen (Urea) / Nano Zinc/Nano	KL / year	27375	36500	63875

	Copper*) (Nano-I + Nano-II)				
<p>Note: # Depending upon the requirement of urea fertilizer in the market, there shall be variation in quantity of DEF (32.5% and/or 40% urea Solution) production. The total urea production shall, however, be limited to 6,75,000 MTPA (Maximum) under all the above combinations.</p> <p>** Phase I include supply of Rich gas and manufacturing unit of Nano Fertiliser products &amp; Phase II include installation of CDR during supply of lean gas.</p> <p>* Nano Nitrogen contains 40000 ppm (Min) of nitrogen, Nano Zinc contains 10000 ppm (Min) of Zinc and Nano copper contains 8000 ppm (Min) of copper.</p>					

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

The proposal has been submitted as per para 7(ii) of the EIA Notification, 2006 & its subsequent amendments requesting exemption from ToR and EIA report. Public hearing is exempted as the project site is located within the notified Industrial Area. It is reported that no litigation is pending against the proposal.

The Ministry had issued EC earlier vide letter no. J-11011/60/2009-IA-II(I) dated 1<sup>st</sup> February, 2021 in favour of M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO) for "Expansion/Modernization of the Fertilizer Plant" located at Kalol, Gujarat. Construction and Modification work as per EC granted has been completed at the site after grant of CTE from GPCB. The certified compliance report has been forwarded by the Ministry's Regional Office at Bhopal vide letter dated 10<sup>th</sup> August, 2021.

IFFCO Kalol has proposed for enhancement of Nano Fertilizer production by installation of new Nano-Nitrogen (Nano Urea) Plant (Nano-II) of capacity 36500 KL per annum along with Bottle manufacturing and bottling unit besides auxiliary facilities. The plant will be established over area of 2.3491 Hectares in existing premises.

The manufacturing process of Nano Urea comprises of polymerization reaction of carbohydrate polymer with nucleation and attachment of nanocluster with amide/nitrate particles. No source of air emission/effluent generation/hazardous waste generation is involved in the production process. As a matter of fact, the nano-fertilizer plant will pose an example of environmental sustainability and profitability for both farmers and government.

Existing land area is 95.5158 Ha and expansion is proposed within the existing land area. Industry has developed greenbelt in an area of 46.18 Ha which will increase to 46.6257 Ha i.e., 48.8% after expansion. The estimated project cost for expansion is Rs. 225 Crores. Industry has already spent Rs. 4811.8 Lacs towards environmental pollution control measures. The capital cost earmarked towards environmental pollution control measures in expansion is Rs. 115 Lacs and recurring cost (Operation and maintenance) for proposed project will be about Rs. 10 Lacs per annum. Total Employment will be 1668 persons as direct & indirect after

expansion. Industry proposed to allocate Rs. 62 Lacs towards Corporate Environment Responsibility.

There are no National parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife sanctuary, Reserve forests within 10 km distance from the project site. Sabarmati River is flowing at 12.8 km (ESE) from the project site, and Narmada Canal is flowing at 2.8 km (S) is flowing within 10 km of the project site.

Ambient air quality monitoring was carried out during earlier EIA study at 8 locations during 1<sup>st</sup> October to 31<sup>st</sup> December, 2019 and the baseline data indicates the ranges of mean concentrations as: PM<sub>10</sub> (45-91 µg/m<sup>3</sup>), PM<sub>2.5</sub> (24-50 µg/m<sup>3</sup>), SO<sub>2</sub> (6.2-16.3 µg/m<sup>3</sup>) and NO<sub>2</sub> (11.9-27.3 µg/m<sup>3</sup>) NH<sub>3</sub> (16-36 µg/m<sup>3</sup>). All parameter concentrations are within the National Ambient Air Quality Standards (NAAQS). The proposed Nano Urea Plant does not emit air pollutants from production process.

After expansion, the freshwater requirement in Phase I including proposed nano fertilizer plant will be 10069 KLD and in Phase II with CDR and nano fertilizer plant will be 10493 KLD. Water will be available from existing infrastructure of Narmada Canal water supply system to IFFCO Kalol Unit.

After expansion, total Effluent generation including domestic will be 1449.5 KLD in Phase I and 1509.5 KLD in Phase II. The wastewater from Ammonia and Urea plant is being treated in Hydrolyser, process condensate stripper, ETP, etc., Treated water from treatment schemes are being reused for Horticulture/gardening/green belt development. For Nano-I plant, separate Effluent Treatment System (ETS) of capacity 1 KLD cum neutralization tank for treatment of Reactor Wash / Floor wash and STP (Capacity- 10 KLD) for domestic wastewater has been installed in the plant. Treated water from both the schemes will be reused for horticulture/gardening/ green belt development. Likewise, Effluent Treatment System (ETS) of capacity 1.5 KLD with neutralization tank for reactor wash/floor wash and STP (Capacity- 15 KLD) for domestic wastewater treatment will be installed in Nano-II unit. Treated water will be reused for horticulture/gardening/greenbelt development purposes within the plant premises. The plant will be based on Zero Liquid discharge system.

Total Power requirement after expansion in Phase I and Phase II will be 224 MW/day and 247 MW/day respectively and same will be met from UGVCL power supply. Existing unit has two no. of DG Sets of Capacity 2200 kW & 860 kW as standby during power failure. Stack Height of 24 m for 2200 KW & 22 m for 860 KW is provided as per CPCB norms.

Existing unit has Natural gas based 80 TPH steam boiler. No additional Boiler is proposed. 35 m stack height has been provided and particulate emission is within the statutory limit of 150 mg/Nm<sup>3</sup>.

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

**Table: Details of Process Emissions and their management**

S. No.	Stack Attached	Fuel Used	APCM	Expected Pollutants	Norms as per CTO	Norms as per MoEF
<b>Process Stacks / Vents</b>						
1	Prilling Tower – 4 Nos of ID fans.##	-	Stack Height 68.5 m with Induced Draft, Vibro priller.	PM	PM- 150 mg/Nm <sup>3</sup>	PM- 150 mg/Nm <sup>3</sup>
2	Ammonia Scrubber	-	Venturi Water scrubber & 71 m stack Height	NH <sub>3</sub>	NH <sub>3</sub> - 175 mg/Nm <sup>3</sup>	-
3	Ammonia Plant Primary Reformer	-	Stack Height of 40 m	PM, SO <sub>2</sub> &NO <sub>x</sub>	PM- 150 mg/Nm <sup>3</sup> NO <sub>x</sub> - 50 ppm SO <sub>2</sub> - 100 ppm	NO <sub>2</sub> – 400 mg/Nm <sup>3</sup>
<p># Additionally, Two Waste Heat Recovery System Generator are installed in the plant having capacity of 230 TPH and 40 TPH to generate steam through Ammonia plant process gas. No emissions are generated from these boilers.</p> <p>## Four Induced Draft ID fans with stack are installed at top of the Prilling Tower having diameter of 1.676 m (each).</p> <p>No additional Stack is proposed in expansion and there shall be no gaseous emission from Nano Urea Plant.</p>						

There are generation of different kind of Industrial hazardous wastes from production process and other activities. Industrial hazardous wastes such as spent lube oil, spent catalyst are sold to recyclers. ETP sludge generated is disposed off at TSDF site, while other solid wastes are segregated in salable and non-salable waste. All waste are disposed as per The Hazardous & Other Waste (Management and Transboundary Movement) Amendment Rules, 2021. Similar practices will be followed after expansion also.

#### Details of Solid Hazardous Waste Management

S. No	Name of Waste	Source of Generation	Category No. (As per Sch-I&II 2016)	Quantity			Mode of Treatment & Disposal Method
				As per granted EC	Additional	Total after Expansion	
1	Discarded Containers/ Barrels	Storage & Handling of Raw Materials	Sch-I/33.3	1500 Nos/ year	0	1500 Nos/ year	Collected, Stored and is Sold to GPCB/CPCB approved Parties through M-Junction Kolkata

2	Used/Spent Oil	Used/Spent Oil	Sch-I/5.1	87.8 MTPA	1.0 MTPA	88.8 MTPA	Collected and stored in MS drum, and is Sold to GPCB approved registered recyclers through M-Junction Kolkata.
3	ETP Sludge	In-house ETP	Sch-I/34.3	180 MTPA	0	180 MTPA	Collected in Drying Pits, stored in HDPE bags, Transported and disposed off to GPCB approved TSDf site for land filling.
<b>Process Waste</b>							
4	Spent Catalyst	Process	Sch –I/ 18.1	100 MTPA	0	100 MTPA	Collected and stored in MS drum / HDPE drums, Sold to GPCB/CPCB approved registered recyclers through M-Junction Kolkata.
5	Spent Carbon	Process	Sch–I/ 18.2	228 MTPA	0	228 MTPA	Collected and stored in HDPE bags, Transported and disposed off to GPCB approved TSDf site / Co-processing in cement industries.

6	Spent Resin	Process	Sch-I/ 34.2	228 M <sup>3</sup> /Year	0	228 M <sup>3</sup> / Year	Collected and stored in HDPE bags, Transported and disposed off to GPCB approved TSDf site / Co-processing in cement industries.
7	Plastic Waste	Bottling plant of Nano Fertilizer	-	0.6 MPTA	0.8 MPTA	1.4 MPTA	Will be Sold/ Disposed off to Registered recycler

### **Deliberations in the EAC:**

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

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

The Committee noted that the proposal has been submitted by the project proponent as per the provisions contained in para 7 (ii) (a) of the EIA Notification seeking exemption from ToR and EIA report. Public hearing is exempted as the project is located in the notified Industrial area/Estate. The Committee noted that the addendum to the EIA/EMP report are in compliance of the activities proposed for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee noted that there is no anticipated air emission from Nano Urea Plant production process. The Committee noted that the project proponent allocated Rs. 36.5 lakhs towards Wild Life Conservation and submitted action plan in this regard.

The Committee noted that the Ministry had issued EC earlier vide letter dated 1<sup>st</sup> February, 2021 in favour of M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO) for "Expansion/Modernization of the Fertilizer Plant" located at Kalol, Gujarat. It is also noted that the construction and codification work as per EC granted has been completed at the site. The certified compliance report forwarded by the Ministry's Regional Office at Bhopal vide letter dated 10<sup>th</sup> August, 2021 after conducting site visit on 27.07.2021 found to be satisfactory. The

Committee also noted that there is no additional land required and the proposed unit shall be established in the existing premises.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance as per para 7 (ii)(a) of the EIA Notification, 2006 exempting ToR and EIA report.

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

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

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

- (i). All the conditions stipulated in the environmental clearance dated 1<sup>st</sup> February, 2021 shall be complied in letter and spirit.
- (ii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEFCC in this regard.
- (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 addendum to the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iv). Total fresh water requirement shall not exceed 10069 KLD (in Phase I) and 10493 KLD (in Phase II). Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (v). No banned chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
- (vi). As proposed, at least Rs. 36.5 lakhs shall be earmarked for conservation plan and shall be implemented in coordination with State Forest & Wildlife Department/Local Village Administration.



## Agenda No. 15.8

**Proposed project of various Dye Intermediates manufacturing by M/s Orgosynth Chemicals Pvt. Ltd., located at Plot No. J-50, J-51, J-52 & J-53, MPIDC Growth Center, Boregaon, Tehsil-Sausar, Dist. Chhindwara, Madhya Pradesh-Consideration of Environmental Clearance**

**[Proposal No.: IA/MP/IND3/222474/2020; File No. J-11011/249/2020-IA-II(I)]**

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

The proposal is for Environmental Clearance to the project for manufacturing of Dye Intermediates of capacity 3049 MTPM at Plot No. J-50, J-51, J-52 and J-53, Madhya Pradesh Industrial Development Corporation Limited (MPIDC) Growth Center, Borgaon, Tehsil Sausar, Dist. Chhindwara, Madhya Pradesh by M/s. Orgosynth Chemicals Pvt. Ltd.

The details of products and capacity are as under:

<b>S. No.</b>	<b>Name of the Product</b>	<b>CAS No.</b>	<b>Qty. MT/Month</b>
1	2,5/3,4 Dichloro Nitro Benzene	611-06-3	400
2	2, 4 Di Nitro Chloro Benzene (2,4-DNCB)	97-00-7	600
3	3, 4 Di Nitro Chloro Benzene (3,4-DNCB)	611-06-3	100
4	Para Chloro Ortho Nitro Aniline (PCONA)	89-63-4	350
5	Ortho Chloro Para Nitro Aniline (OCPNA)	121-87-9	90
6	2,4-Dinitro Aniline (2,4-DNA)	97-02-9	540
7	Ortho Nitro Aniline (ONA)/ Para Nitro Aniline (PNA)	88-74-4 100-01-6	100
8	6 Bromo 2,4 Dinitro Aniline (6 Bromo 2,4-DNA)	1817-73-8	200
9	6 Chloro 2,4 Dinitro Aniline (6 Chloro 2,4-DNA)	3631-19-8	200
10	2:6 Di Bromo Para Nitro Aniline (2,6-DBPNA)	827-94-1	100
11	2:6 Di Chloro Para Nitro Aniline (2,6-DCPNA)	99-30-9	100
12	2,6-DB Para Toluidine	6968-24-7	100
13	Fast Red B Base & Fast Scarlet R Base	97-52-9	20
14	Fast Bordeaux GP Base	96-96-8	20
15	Meta Nitro Para Toluidine (MNPT)	89-62-3	10
16	2, Cyano Para Nitro Aniline	17420-30-3	30
17	2-Chloro-4-6 Dimethoxy-[1,3,5] Triazine	3140-73-6	50
18	4-Bromo Anisole	104-92-7	5
19	Para Bromo Phenol/4-Bromo Phenol	106-41-2	5
20	4-Hydroxy Anisole	150-76-5	5
21	Veratrol	91-16-7	5
22	2-Methyl 4,5 Dimethoxy Benzoic Acid	5653-40-7	5
23	2-(2-Methoxy Phenoxy) Ethyl Amine	1836-62-0	5
24	2-Amino 4-Fluoro Benzophenone	3800-06-4	5
25	Miconazole Nitrate	22916-47-8	2

26	Hydrochlorothaizide	58-93-5	2
<b>Total</b>			<b>3049</b>

The project/activities are covered under Category 'A' of item 5(f) 'Synthetic Organic Chemicals Industry' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) in the Ministry.

The standard ToR has been issued by Ministry vide letter no. IA-J-11011/249/2020-IA-II (I); dated 26/10/2020. Public Hearing for the project has been conducted by the Madhya Pradesh Pollution Control Board on 28.06.2021. The main issues raised during the public hearing are related to pollution control measures, safety, employment to locals, tree plantation. No Litigation is pending against the proposal.

Proposed land area of the project is 17432 m<sup>2</sup>. Industry will develop greenbelt in an area of 33% i.e. 5763 m<sup>2</sup>, out of total area of the project. The estimated project cost is Rs. 20.25 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 1.84 Crore and the Recurring cost (operation and maintenance) will be about Rs. 2.37 Crore per annum. Total employment will be 100 persons as direct. Industry proposes to allocate Rs. 40.5 Lakhs towards Corporate Environmental Responsibility.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance of the project site. Jam River is flowing at a distance of 5.4 km in N direction and Kanhan River is flowing at a distance of 8.2 km in E direction.

Ambient air quality monitoring was carried out at 8 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentration as: PM<sub>10</sub> (61.3 – 71.3 µg/m<sup>3</sup>), PM<sub>2.5</sub> (35.6 – 40.5 µg/m<sup>3</sup>), SO<sub>2</sub> (10.7 – 14.5 µg/m<sup>3</sup>), NO<sub>x</sub> (15.0 – 20.9 µg/m<sup>3</sup>), HCl (BDL), HBr (BDL), NH<sub>3</sub> (BDL). AAQ modeling study for point source emission indicated that the maximum incremental GLCs after the proposed project would be 2.673 µg/m<sup>3</sup>, 0.898 µg/m<sup>3</sup>, 0.986 µg/m<sup>3</sup>, 0.119 µg/m<sup>3</sup>, 0.040 µg/m<sup>3</sup> and 0.988 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, HCl, HBr and NH<sub>3</sub>. The resultant concentrations are within the national ambient air quality standards (NAAQS).

Total water requirement is 300 m<sup>3</sup>/day of which fresh water requirement of 70 m<sup>3</sup>/day will be met from water supply of MPIDC. 230 m<sup>3</sup>/day will be recycled/treated water.

Sources of industrial effluent generation will be from process, washing, boiler blow down, cooling bleed off, scrubber w/w. Total trade effluent (242.7 KLD) will be taken into ETP, after treatment, entire effluent will be passed through RO. RO permeate (170.0 KLD) will be reused within premises and RO reject will be sent to MEE/ATFD. MEE condensate (60 KLD) will be reused. Thus, unit proposed to achieve Zero Liquid Discharge (ZLD). Sewage (8.0 KLD) will be disposed into soak pit through septic tank.

Power requirement will be 1000 kVA and will be met from Madhya Pradesh Poorva Kshetra Vidyut Vitaran Company Ltd. Unit proposed to install 2 D.G. Sets of 500 kVA each capacity and will be used as standby during power failure. Stack (height 11 meters) will be provided as per CPCB norms to the proposed D.G. Set.

In proposed unit, one Agro Briquettes/Coal fired Steam Boiler (6 TPH each), one Agro Briquettes/Coal fired Thermic Fluid Heater (20 Lakhs Kcal/hr.) will be installed. Cyclone

Separator and Bag filter will installed with stack height of 30 m for controlling the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup> for the proposed utilities.

Process emission generation will be from one vent attached to Process Vessel of MPP-1, two vents of Process Vessel of MPP-2 and 1 common vent attached to 6 nos. of Spin Flash Dryers. Water Scrubber, Acid Scrubber and Alkali scrubber will be installed as APCM to control process emission from reactor. In-built bag filter will be installed as APCM on Spin Flash Dryer to control particulate emission.

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

S. No.	Type of Waste	Category No. as per HWM rules, 2016	Quantity Proposed	Method of Disposal
1.	ETP Waste	35.3	200 MT/month	Collection, Storage, Transportation, Disposal at TSDF site.
2.	Salt of MEE	35.3	90 MT/month	Collection, Storage, Transportation, disposal at TSDF site.
3.	Used Oil	5.1	1.0 KL/year	Collection, Storage, Transportation, sell to registered re-processors or use for lubrication within premises.
4.	Discarded Containers/ Liners/Bags	33.1	3000 Nos./month 2.0 MT/month	Collection, Storage, Transportation, Sell to registered recyclers.
5.	Spent Sulphuric Acid (45-70%)	26.3	1350 MT/month	Collection, Storage and partly reuse in-house and partly will be sold to actual users under Rule-9.
6.	Hydrochloric Acid (25-28%)	26.3	85 MT/month	Collection, Storage and partly reuse in-house and partly will be sold to actual users under Rule-9.
7.	Hydro Bromic Acid (25-28%)	26.3		
8.	Acetic Acid (40-42%)	26.3	20 MT/month	Collection, Storage and sold to actual users under Rule-9.
9.	Liq Ammonia	--	550 MT/month	Collection, Storage and reuse in-house in same or other products.
10.	AlCl <sub>3</sub> (30-35%)	--	85 MT/month	Collection, Storage and sold to actual users under Rule-9.
<b>Solid Waste</b>				
1.	Fly Ash	--	120 MT/month	Collection, Storage and sell to brick manufacturers.

## **Deliberations in the EAC:**

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

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

The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental status and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee noted that the proposed site falls outside the notified industrial area/estate and not having EC and accordingly the PP undergone public hearing for the proposed project. The Committee also deliberated on the activities/action plans and found them addressing issues raised in the public hearing. The Committee suggested that the storage of toxic/explosive raw materials shall be in bare minimum quantity and inventory. The Committee suggested the PP to utilize cleaner fuels. The PP given commitment to use agro briquette and coal with low Sulphur content. The PP also committed to install STP for treatment of domestic sewage. The Committee deliberated on the greenbelt development in the unit complex and suggested PP to develop greenbelt in at least 33% areas around the periphery of the complex. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considering 2m x 2m ratio. The Committee noted that the project proponent submitted Conservation Plan for Schedule-I Species (Indian Peafowl, Indian Bison, Bengal monitor) with a budget of Rs. 12 Lakhs.

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

### **The EAC recommended for the grant of environmental clearance to the proposal subject to following conditions:**

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

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEFCC in this regard.
- (iii). As already committed by the project proponent, Zero Liquid Discharge (ZLD) shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.
- (iv). Continuous online (24x7) monitoring system for stack emissions shall be installed for the measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (v). The storage of toxic/hazardous raw material shall be bare minimum with respect to their quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (vi). Occupational health centre for surveillance of the workers' health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall also be provided to employees.
- (viii). The unit shall make arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Action plan proposed shall be implemented in letter and spirit.
- (ix). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

- (x). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled up to 99.97 % with effective chillers/modern technology.
- (xi). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (xii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.
- (xiii). Total fresh water requirement shall not exceed 70 cum/day, proposed to be met from MPIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (xiv). The green belt of at least 5-10 m width shall be developed/strengthened over 33% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing. Trees have to be planted with spacing of 2m x 2m and number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration.
- (xv). As committed, at least Rs. 12 Lakhs shall be allocated for conservation of Schedule I species in consultation with the Forest and Wildlife Department. The implementation report shall be submitted to the IRO, MoEFCC.
- (xvi). The activities and the action plan proposed by the project proponent to address the socio-economic/public concern and issues raised during public hearing in the study area shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.
- (xvii). A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

### **Agenda No.15.9**

**Expansion and change in product mix for manufacture of Bulk drugs & Intermediates along with existing Inorganic product., located at Plot No. IP 13 Part 2 KIADB Kudumalakunte Industrial Area 1st Phase Kudumalakunte village, Gouribidanur Taluk, Chikkaballapura District, Karnataka by M/s Racs Pharmachem (India) Pvt. Ltd - Consideration of Environmental Clearance**

**[Proposal No.: IA/KA/IND2/222156/2021; File No. IA-J-11011/137/2021-IA-II (I)]**

The Member Secretary informed the Committee that PP has applied for expansion under API category Notified by Ministry of Environment, Forest & Climate Change vide SO.1223 (E) dated 27.03.2020 and amendment S.O. 2859(E) dated 16<sup>th</sup> July, 2021.

It was also clarified that the said notification is only for API and not Intermediates, therefore, the request of the PP to consider the proposal for expansion of intermediate cannot be considered. The EAC opined that the PP should revise the application for API accordingly and resubmit again for consideration of EAC.

After detailed deliberations, the EAC **returned** the proposal in present form.

### **Consideration of Amendment in EC**

### **Agenda No. 15.10**

**Setting up Pesticide and Pesticide Specific Intermediates Manufacturing unit by M/s Krishi Rasayan Exports Pvt. Ltd., located at plot no 19/1, GIDC Industrial Estate, Panoli, Tehsil Ankleshwar, District Bharuch, Gujarat – Consideration of Amendment in EC**

**[Proposal No.: IA/GJ/IND3/220464/2021; File No. IA-J-11011/488/2017-IA-II(I)]**

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter no. IA-J-11011/488/2017-IA-II(I), dated 06.03.2019 in favour of M/s. Krishi Rasayan Exports Pvt. Ltd to the project for Setting up Pesticide and Pesticide Specific Intermediates manufacturing located at Plot No. 19/1, GIDC Industrial Estate, Panoli, Tehsil: Ankleshwar, District: Bharuch, Gujarat.

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

<b>S. No.</b>	<b>Para of EC issued by MoEF&amp;CC</b>	<b>Details as per EC</b>	<b>To be revised/Read as</b>	<b>Justification/ reasons</b>
1.	Condition No-6 Para-3	Power requirement shall be 750 kVA, proposed to be met from DGVCL. DG set	Power requirement shall be 750 kVA, proposed to be met from DGVCL. 2 Nos. of	Better safety point of view proposed to increase the capacity of DG set

		of <b>500 kVA</b> capacities shall be used as <b>standby</b> during power failure. Stack (Height 11 meters) will be provided as per CPCB norms to the proposed DG Set.	DG set of <b>750 kVA</b> capacities shall be used as <b>standby</b> during power failure. Stack (Height 11 meters) will be provided as per CPCB norms to the proposed DG Set.	and it is treated as standby. Use of DG set will stand by during power failure or emergency situation.
2.	Condition No-6 Para-4	One <b>Coal fired</b> boiler of <b>4 TPH</b> capacity and one Thermic Fluid Heater of <b>10 Lakhs Kcal/h</b> capacity shall be installed and Cyclone Separator followed by bag filter (with stack height -30 m for boiler & 21 m for TFH) shall be provided to the control the particulate emission within the statutory limit of 150 mg/Nm <sup>3</sup> .	One <b>Natural Gas/LDO fired</b> boiler of <b>5 TPH</b> capacity and one Thermic Fluid Heater of <b>2 Lakhs Kcal/hr</b> capacity shall be installed (with stack height -30 m for boiler & 21 m for TFH) shall be provided, being a use of <b>Natural Gas/LDO as fuel no need to install any APCM</b> to the control the particulate emission within the statutory limit of 150 mg/Nm <sup>3</sup> .	Proposed to increase Boiler capacity from <b>4 TPH</b> to <b>5 TPH</b> and decrease the capacity of <b>Thermic Fluid Heater from (10 lac Kcal/hr) to (2 lac Kcal/hr)</b> with change the enviro friendly cleaner fuel change from Solid to Gaseous or Liquid. Over energy in terms of Calorific Value will be decreases.
3.	Condition No-6 Para-5	<b>Venturi water scrubber followed by alkali scrubber</b> shall be provided to process vent of 2,4 D Acid and water scrubber followed by alkali scrubber shall be provided to the rest of process vents.	<b>Water scrubber followed by alkali scrubber</b> to the all of process vents because better techno-economy, we proposed to install <b>3 nos. of MPP-Multi Purpose Plant</b> to meet our production requirement, which generate process emission.	We have proposed to install 6 process vent in our EIA report and EC granted with same conditions. Now, we proposed to install <b>3 nos. process vents</b> with Water scrubber followed by alkali scrubber.- Manufacturing of all products is not produce at same time; it's in batch manner as per the market demand. So proposed to install <b>3 nos. of MPP-Multi Purpose Plant with APCM.</b>



## **Deliberations in the EAC:**

The EAC deliberated on the proposal. The Committee noted that earlier EC was granted with Coal as fuel in Boiler and Thermic Fluid Heater, considering non availability of uninterrupted Natural Gas Supply. The project proponent now informed that uninterrupted Natural Gas is available in Panoli Industrial area and proposed switch over from Coal to Natural Gas as fuel in Boiler and Thermic Fluid Heater. The Committee noted that there is change in capacity of Boiler and Thermic Fluid Heater but overall energy requirement will be reduced. The Committee noted that the proposed changes are better for the environment, as the PP is moving towards a cleaner fuel. The Committee also noted that the project proponent committed to develop greenbelt within one year.

The Committee, after detailed deliberations, **recommended** for amendment in the EC dated 6<sup>th</sup> March, 2019 with the details are as under:

- (i) One Natural Gas/LDO fired boiler of 5 TPH capacity and one Thermic Fluid Heater of 2 Lakhs Kcal/hr capacity shall be installed with stack height -30 m for boiler & 21 m for TFH.
- (ii) Power requirement shall be 750 kVA, proposed to be met from DGVCL. DG set of 2x750 kVA capacities shall be used as standby during power failure. Stack height of 11 meters shall be provided as per CPCB norms to the proposed DG Set.
- (iii) As proposed three Multi Purpose Plant shall be installed to meet production requirement with latest air pollution control machines. Water scrubber followed by alkali scrubber shall be provided to process vents.
- (iv) The project proponent shall also utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEFCC in this regard.

**The meeting ended with thanks to the Chair.**

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**GENERAL EC CONDITIONS**

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

- (ix) The environmental statement for each financial year ending 31<sup>st</sup> March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.
- (x) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at <https://parivesh.nic.in/>. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- (xi) The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- (xii) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

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

<b>S. No.</b>	<b>Name of Members</b>	<b>Designation</b>
1.	<b>Prof. (Dr.) A.B. Pandit</b> Vice Chancellor, Institute of Chemical Technology, Mumbai, Sir JC Bose Fellow, Government of India Email: ab.pandit@ictmumbai.edu.in	Interim EAC Chairman
2.	<b>Dr. Ashok Kumar Saxena, IFS</b> Bungalow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
3.	<b>Prof. (Dr.) S. N. Upadhyay</b> Research Professor (Hon.), Department of Chemical Engineering & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi E-mail: <a href="mailto:snupadhyay.che@iitbhu.ac.in">snupadhyay.che@iitbhu.ac.in</a>	Member
4.	<b>Prof. (Dr.) Vijay S. Moholkar</b> Professor in Department of Chemical Engineering, Block-K (Academic complex), Room No. 111, India Institute of Technology Gawahati, Gawahati – 781039 E-mail: vmoholkar@iitg.ac.in	Member
5.	<b>Shri Santosh Gondhalkar</b> 'Shree' Apartment, Flat 401, Plot No. 22, Tukaram Society, Santnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
6.	<b>Dr. Suresh Panwar</b> House No.4, Gayateri Green Society, NH 58 Bypass,Kankerkhhera, Meerut, Uttar Pradesh Email- spcpri@gmail.com	Member
7.	<b>Shri Dinabandhu Gouda</b> Additional Director, DH IPC-I, Room No. 309A, Third Floor, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 110032, E-mail: <a href="mailto:dinabandhu.cpcb@nic.in">dinabandhu.cpcb@nic.in</a>	Member
8.	<b>Shri Tukaram M Karne</b> "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2, PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	Member

9.	<b>Shri Sanjay Bist</b> Scientist 'E', Room No. 517, Office of the Director General of Meteorology, Indian Meteorological Department, Musam Bhawan, Lodhi Road, New Delhi -110003 E-mail: sanjay.bist@imd.gov.in	Member
10.	<b>Prof. (Dr.) Suneet Dwivedi,</b> Professor in K Banerjee Centre of Atmospheric and Ocean Studies, University of Allahabad, Allahabad - 02 Uttar Pradesh E-mail:dwivedisuneet@rediffmail.com /suneetdwivedi@gmail.com	
11.	<b>Dr. Rakesh Kushwaha,</b> Sr. Scientist, Central Ground Water Authority 18/11, Jamnagar House, Mansingh Road New Delhi - 110011 E-mail ID- <a href="mailto:kushwaha-cgwb@gov.in">kushwaha-cgwb@gov.in</a>	Member
12.	<b>Dr. R. B. Lal</b> Scientist 'E'/Additional Director Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Room No. V-304, Vayu Wing, Jor Bag Road, New Delhi-110003 Telefax: 011-24695362 E-mail: rb.lal@nic.in	Member Secretary

<b>MoEFCC</b>		
10.	<b>Dr. Saranya P.</b> Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Scientist 'D'
11.	<b>Dr. E.P. Nobi</b> Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Research Officer
12.	<b>Mr. Ritin Raj</b> Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Research Assistant

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Approval of EAC Chairman

Email

Additional Director MoEFCC Dr R B LAL

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**Re: Zero Draft Minutes of the 15th EAC (Industry 3 Sector) meeting held during August 10-11, 2021 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir.**

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**From :** ab pandit <ab.pandit@ictmumbai.edu.in> Mon, Aug 16, 2021 10:18 AM

**Subject :** Re: Zero Draft Minutes of the 15th EAC (Industry 3 Sector) meeting held during August 10-11, 2021 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir. 1 attachment

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

Dear Dr. Lal,

Please find attached a duly signed MOM as requested,

Thanks and Warm Regards  
Pandit



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**Prof Aniruddha B Pandit**

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