

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

Dated: 09.02.2021

**MINUTES OF THE 5<sup>th</sup> EXPERT APPRAISAL COMMITTEE (INDUSTRY-3)  
MEETING HELD DURING FEBRUARY 1-2, 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**

**DAY 1: FEBRUARY 1, 2021 (MONDAY)**

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

The Chairman made hearty welcome to the Committee members and opened the EAC meeting for further deliberations.

**(ii) Confirmation of the Minutes of the 4<sup>th</sup> Meeting of the EAC (Industry-3) held during January 14-15, 2021 at MoEFCC through VC.**

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (Industry-3) members on the minutes of its **4<sup>th</sup> Meeting of the EAC (Industry-3) held during January 14-15, 2021** conducted through Video Conferencing (VC), and as such no request has been received for any modifications in the minutes of the project/activities, **confirmed the same.**

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

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

## Consideration of Environmental Clearance

### Agenda No. 5.1

**Manufacturing of Reactive Dyes & Direct Dyes(100 MT/month), located at Survey No. 299/p, Village: Sokhada, Tal: Khambhat, Dist.: Anand, Gujarat by M/s Vipul Industries - Consideration of Environmental Clearance**

**[IA/GJ/IND2/119460/2019, IA-J-11011/287/2019-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 through video conferencing and informed that:

The proposal is for environmental clearance to the project for manufacturing of Reactive Dyes & Direct Dyes of capacity 100 TPM at Survey No. 299/p, Village Sokhada, Taluka Khambhat, District Anand, Gujarat by M/s Vipul Industries.

The details of products and capacity are as under:

<b>S.No.</b>	<b>Name of Products</b>	<b>Capacity</b>
1	Direct Yellow 12	100 TPM
2	Direct Yellow 99	
3	Direct Orange 34/39	
4	Direct Yellow 6	
5	Direct Yellow 11	
6	Reactive Yellow M4G	
7	Reactive Yellow H4G	
8	Reactive Yellow ME4GL	
9	Reactive Yellow FG	
10	Reactive Golden Yellow MR	
11	Reactive Golden Yellow HR	
12	Reactive Golden Yellow MERL	
13	Reactive Red BS	
14	Reactive Red ME4BL	
15	Reactive Red HE3B	
16	Reactive Orange 2R	
17	Reactive Orange 3R	
18	Reactive Blue ME2RL	
19	Reactive Magenta MB	
20	Reactive Magenta HB	
21	Reactive Black B	

22	Reactive Black WNN/RG	
23	Reactive Orange M2R	
24	Reactive Orange H2R	
25	Reactive Red M5B	
26	Reactive Red M8B	
27	Reactive Red H8B	
28	Reactive Red ME6BL	
29	Reactive Red P2B	
30	Reactive Orange ME2RL	
31	Reactive Blue P3R	
<b>Total</b>		100 TPM

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

The standard ToR has been issued by the Ministry vide letter dated 04/11/2019. Public hearing for the project has been conducted by the Gujarat Pollution Control Board on 07.10.2020 which was presided over by the ADM. The main issues raised during the public hearing are related to employment to local people and upliftment of surrounding area. It was informed that there is no litigation is pending against the proposal.

The land area available for the project is 2845 m<sup>2</sup>. Industry will develop greenbelt in an area of 33% i.e. 940 m<sup>2</sup>, out of total area of the project. The estimated project cost is Rs. 3.0 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 0.44 Crore and the Recurring cost (operation and maintenance) will be about Rs. 0.62 Crore per annum. Total employment will be 25 persons as direct. Industry proposes to allocate Rs. 6.0 Lakhs towards Corporate Environmental Responsibility.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. Pond of Lunej Village is at a distance of 2.05 km in W direction.

Ambient air quality monitoring was carried out at 8 locations during December, 2019 to February, 2020 and the baseline data indicates the ranges of concentration as: PM<sub>10</sub> (66.4 - 77.0 µg/m<sup>3</sup>), PM<sub>2.5</sub> (37.7 - 46.7 µg/m<sup>3</sup>), SO<sub>2</sub> (13.4 - 16.8 µg/m<sup>3</sup>), NO<sub>x</sub> (17.4 - 20.8 µg/m<sup>3</sup>). AAQ modeling study for point source emission indicated that the maximum incremental GLCs after the proposed project would be 0.959 µg/m<sup>3</sup>, 0.214 µg/m<sup>3</sup> and 0.204 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>2</sub> and NO<sub>x</sub>. The resultant concentrations are within the national ambient air quality standards (NAAQS).

Total water requirement is 34.0 m<sup>3</sup>/day of which fresh water requirement of 18 m<sup>3</sup>/day will be met from Ground Water Source – Bore well. 16 m<sup>3</sup>/day will be recycled/treated water.

Project Proponent reported that the sources of industrial effluent generation will be from process, washing and boiler blow down. Total trade effluent (16.5 KLD) will be taken into ETP, after primary treatment entire effluent passed through RO. RO permeate (10.0 KLD) will be reused within premises and RO reject (6.5 KLD) will be spray dried into in-house spray dryer. Thus, unit proposed to achieve Zero Liquid Discharge (ZLD). Sewage (1.5 KLD) will be disposed into soak pit through septic tank.

Power requirement will be 200 kVA and will be met from Madhya Gujarat Vij Company Ltd. (MGVCL). There is no proposal of D G Set. In proposed unit, one Agro Waste/Agro Briquettes fired Boiler (1 TPH) and one PNG fired Hot Air Generator (15.0 Lakhs Kcal/hr.) will be installed. Cyclone, bag filter with a stack height of 21 m will be installed on Boiler for controlling the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup> for the proposed utilities. Hot Air Generator will be operated by PNG Gas hence no need to install any APCM.

Process emission generation will be from vent attached with drying equipment's i.e. Spray Dryer & Spin Flash Dryer. In built Cyclone and bag filter will be provided as APCM for Spray Dryer and Inbuilt Bag filter will be installed for Spin Flash Dryer.

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

Sr. No.	Type of Waste	Category as per HWM Rules, 2016	Quantity	Method of Disposal
1.	ETP Waste	35.3	7.5 MT/month	Collection, Storage, Transportation, Disposal at TSDF site.
2.	Salt of Spray Dryer	35.3	3.7 MT/month	Collection, Storage, Transportation, disposal at TSDF site.
3.	Used Oil	5.1	0.5 KL/year	Collection, Storage, Transportation, sell to registered re-processors or use for lubrication within premises.
4.	Discarded Containers/ Liners/Bag	33.3	300 Nos./month 0.5 MT/month	Collection, Storage, Transportation, Sell to registered recyclers.

### **Deliberations in the EAC**

The EAC has made a detailed deliberation on the proposal. The EAC has been informed that the project proponent is operating the existing unit with CTE/CTO from the State PCB. **The Committee was of the view that, as per the ToR issued for the project, compliance status**

**of the existing CTO conditions shall be submitted through SPCB for appraisal of the project.** Further, the Committee also noted that the action plan proposed for addressing the public hearing issues and the conservation plan submitted for the management of Schedule-I Species are formulated in very disgusting manner and is not addressing the real concerns and issues.

*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) This is existing unit. PP has not submitted the certified compliance status of latest CTO conditions for the existing unit. The PP needs to submit the certified compliance status of CTO and to be forwarded by the SPCB as per provision of the Standard ToR granted to the project.
- (ii) Public hearing issues, action plan/activities with timelines based on public hearing and socio-economic status of the study area.
- (iii) Details of existing products with consented and production capacity, along with copy of CTE/CTOs.
- (iv) The Committee noted that it is existing unit, however PP now on 08.01.2021 has prepared the conservation plan for Schedule I species which is not adequate. In this context a detailed conservation plan for Schedule-I Species needs to be submitted.

The Committee after detailed deliberation has decided to **defer** the proposal for submission of requisite information by the project proponent as per the ToR issued to the project as per the provisions of the EIA Notification 2006. The EAC is of the view that once PP submit the details of the proposal along with compliance report, the same may be placed before the next EAC for its appraisal.

## **Agenda No. 5.2**

**Expansion of existing production of Active Pharmaceutical Ingredient (API) manufacturing facility with production capacity up to 9.0 MT/Month by M/s GMK Labs Pvt. Ltd., located at Plot No. 27/B, Road No. 02, IDA Kondapally, Village Kondapally, Mandal Ibrahimpatnam, District Krishna, Andhra Pradesh - Consideration of Environmental Clearance**

**[IA/AP/IND2/192491/2021, J-11011/516/2007-IA.II (I)]**

The Project Proponent and the accredited Consultant M/s. Rightsource Industrial Solutions 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 existing production of Active Pharmaceutical Ingredient (API) manufacturing facility of capacity up to 9.0 MT/Month by M/s GMK Labs Pvt. Ltd., located at Plot No. 27/B, Road No. 02, IDA Kondapally, Village Kondapally, Mandal Ibrahimpatnam, District Krishna, Andhra Pradesh.

The details of products and capacity are as under:

S. No.	Name of the Product	Capacity in MT/Month	CAS No	Therapeutic use
1	Minoxidil	1.00	38304-91-5	Hair growth stimulant & Anti-Hypertensive
2	Piroctone Olamine	8.00	68890-66-4	Anti-Dandruff & Anti-Fungal
	<b>Total</b>	<b>9.00</b>		

The project/activities are covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 (amendment on 27.03.2020). The SEIAA, Andhra Pradesh completed its term in the month of December, 2020 and new SEIAA committee was not constituted till date. Hence, in the absence of the SEIAA, Andhra Pradesh, the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry. Public hearing is exempted since the proposed project falls under category B2. It was informed that no litigation is pending against the proposal.

The Ministry had issued EC earlier vide letter No. F. No.: J-11011/516/2007-IA-II(I), dated: 13<sup>th</sup> November, 2007 to manufacture 2.0 TPM API Products. The unit is having Consent for Operation (CFO) from State Pollution Control Board (SPCB) vide Consent Order No.: APPCB/VJA/VJA/259/CFO/HO/2016 Dated: 06.09.2016 valid up to 31.07.2021. Certified compliance report of the exiting environmental clearance conditions has been forwarded by the Ministry's regional Office at Chennai vide letter No. E.P./12.1/625/AP/835 dated 30.09.2020. The Committee deliberated the compliance status and found in order.

The proposed project expansion will be done in a land area of 0.5 Acres (1903.45 Sqm). Industry has already developed greenbelt in an area of 164.07 Sqm (8.61 %). As the plant site area is constraint to develop 33% of greenbelt, GMK Labs Pvt. Ltd. got permission to develop greenbelt in an additional area of 6440 Sqm (1.59 Acres), from Kondapalli Notified Grama Panchayat Industrial Area Service Society Land in IDA Kondapalli.

The proposed cost for expansion is about Rs.0.5 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.11 Lakhs and the recurring cost (operation and maintenance) will be about Rs.9.0 Lakhs per annum. Total Employment will be of 40 persons.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. The total water requirement is 32.93

m<sup>3</sup>/day and will be met from IDA water supply. Generated effluent of 6.90 m<sup>3</sup>/day will be sent to CETP, Kondapally.

The Power requirement will be 250 kVA and will be met from Andhra Pradesh State Southern Power Distribution Company Limited (APSPDCL). The unit has existing 1 x 125 kVA DG Set, Stack height of 7 mts was provided as per CPCB norms. The unit has existing 0.5 TPH Coal fired boiler with stack of height 30 mtrs. Cyclone separator and bag filters were installed for the boiler for controlling the particulate emissions (within statutory limit of 115 mg/ Nm<sup>3</sup>).

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

S. No.	Name of the Gas	Quantity in Kg/Day	Treatment Method
1	Carbon dioxide	55.00	Dispersed into the atmosphere
2	Hydrogen Chloride	255.00	Scrubbed by using chilled water media in the existing scrubber

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

S. No	Name of the waste	Quantity	Disposal Method
<b>Hazardous Waste Details</b>			
1	Organic solid waste (Process Residue)	252 Kg/Day	Will be sent to Cement Industries / TSDF
2	Spent Carbon	3.50 Kg/Day	
3	Spent solvent under cat 28.6 of HW Rules 2016	86 Kg/Day	
4	Inorganic Solid Waste	257 Kg/Day	Will be sent to TSDF
5	ETP Sludge	20 Kg/Day	
6	Used Oils	25 Ltrs/Annum	Will be sent to SPCB Authorized Agencies for Reprocessing/ Recycling
7	Detoxified Containers/ Container liners	300 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>			
10	Ash from boiler	437.50 Kg/Day	Will be sent to Brick Manufacturers

The Member Secretary informed to the EAC that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions,

discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load and the EAC has deliberated the pollution load, as below:

Kg Per Day														
	EFFLUENT WATER								SOLID WASTE					
Water Input	Water In effluent	Inorganics In Effluent	Organics In Effluent	TDS	COD	HTDS	LTDS	Total Effluent	Organic	Inorganic	Spent Carbon	Distillation Residue	Process emissions	Fugitive loss
1680.00	1539.35	0.00	116.29	0.00	176.49	1440.90	214.74	1655.65	251.92	256.66	3.33	86.00	309.84	65.60

#### HAZARDOUS SOLID WASTE DETAILS

Kg Per Day			
SOLID WASTE			
Organic	Inorganic	Spent Carbon	Distillation Residue
251.92	256.67	3.33	86.00

#### EMISSION DETAILS

Kg Per Day	
Process emissions	Solvent loss
309.84	65.60

Kg Per Day	
CO2	HCl
54.51	255.33

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

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



The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the PFR & 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 Member Secretary informed to the EAC that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load and the EAC has deliberated the pollution load.

The Committee noted that the PFR/EMP report reflects the present environmental concerns and the projected scenario for all the environmental components. The Committee deliberated the action plan and budget allocation for green belt development, mitigation measure towards Air, Water, Noise and Soil pollution. The Committee also deliberated the compliance status of earlier EC conditions and found in order. The Committee has also deliberated the activities/action plan and it's mitigation plan and found to be addressing the issues in the study area. The Committee recommended to develop green belt inside plant periphery in 10% of the plant area additional to the existing 8.61% (164.07 Sqm) of the total plant area. The Committee has suggested that the storage of toxic/explosive raw material/products shall be undertaken with utmost precautions and following safety norms and best practices.

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

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

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

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

- (ii). Fugitive emissions shall be controlled at 99.98% with effective chillers. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular VOCs monitoring should be carried out.
- (iii). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (iv). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (v). 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.
- (vi). Total fresh water requirement shall not exceed 32.93 m<sup>3</sup>/day which will be met from met from IDA water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (vii). 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.
- (viii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises (if applicable).
- (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). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xi). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch

- reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xii). The green belt of at least 5-10 m width shall be developed in nearly 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.
- (xiii). 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.
- (xiv). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

### **Agenda No. 5.3**

#### **Setting up of API Manufacturing Unit of capacity 74.7 TPM by M/s GVSR Pharma Pvt. Ltd., located at Sy. Nos. 155/2, 155/3A, 155/3B, 155/3C, 155/3D1, 155/3D2, 155/3E1, 155/3E2 & 166/1A, Village Pochampally, Jaggaiahpetta, District Krishna, Andhra Pradesh - Consideration of Environment Clearance**

**[IA/AP/IND2/192470/2021, IA-J-11011/21/2021-IA-II(I)]**

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

The proposal is for environmental clearance to the project for Setting up of API Manufacturing Unit of capacity 74.7 TPM by M/s GVSR Pharma Pvt. Ltd., located at Sy. Nos. 155/2, 155/3A, 155/3B, 155/3C, 155/3D1, 155/3D2, 155/3E1, 155/3E2 & 166/1A, Village Pochampally, Jaggaiahpetta, District Krishna, Andhra Pradesh.

The details of products and capacity are as under:

<b>S. No</b>	<b>Product Name</b>	<b>Quantity in MT/Month</b>	<b>CAS No.</b>	<b>Therapeutic uses</b>
1	Apixaban	2.00	503612-47-3	Anti-Coagulant
2	Avanafil	1.00	330784-47-9	To treat Erectile dysfunction (Phosphodiesterase (PDE) inhibitors)
3	Cabergoline	0.10	81409-90-7	Hormone imbalance

<b>S. No</b>	<b>Product Name</b>	<b>Quantity in MT/Month</b>	<b>CAS No.</b>	<b>Therapeutic uses</b>
4	Dapoxetine Hydrochloride	2.00	129938-20-1	serotonin reuptake inhibitors
5	Entecavir	3.00	142217-69-4	Anti-Retroviral
6	Etoricoxib	5.00	202409-33-4.	Anti-Inflammatory
7	Febuxostat	1.00	144060-53-7	To treat Gout Disease
8	Fingolimod Hydrochloride	0.10	162359-56	To treat Multiple sclerosis
9	Levocetirizine Dihydrochloride	4.00	130018-77-8	Anti-Histamine
10	Levothyroxine Sodium	1.00	55-03-8	To treat hypothyroidism
11	Liothyronine Sodium	1.00	55-06-1	To treat hypothyroidism
12	Montelukast sodium	2.00	51767-02-1	Anti-allergic & Asthma
13	Mycophenolate Mofetil	1.00	128794-94-5	Immunosuppressant
14	Nizatidine	15.00	76963-41-2	Anti-Ulcerative
15	Permethrin	4.00	52645-53-1	To treat Scabies (Insecticide)
16	Riluzole	2.00	1744-22-5	To treat Amyotrophic lateral sclerosis
17	Rivaroxaban	2.00	366789-02-8	Anti-Coagulant
18	Sildenafil Citrate	2.00	171599-83-0	To treat Erectile dysfunction
19	Solifenacin Succinate	2.00	42478-38-2	Muscarinic-receptor antagonist (overactive bladder infections)
20	Tadalafil	3.00	171596-29-5	To treat Erectile dysfunction
21	Tamsulosin Hydrochloride	0.50	106463-17-6	To treat prostatic hyperplasia
22	Terbinafine Hydrochloride	10.00	91161-71-6	Anti-Fungal
23	Varenicline Tartrate	2.00	375815-87-5	Anti-nicotine addiction
24	Vildagliptin	5.00	274901-16-5	Anti-Diabetic
25	Verdanafil	2.00	224785-90-4	To treat Erectile dysfunction
26	Voriconazole	2.00	137234-62-9	Anti-Fungal
	<b>Total</b>	<b>74.7</b>		

**List of By-Products and its quantities:**

S. No	Name of the product	Name of the By-product	Quantity in Kg/day
1	Apixaban	Potassium chloride	36.60
		Potassium bromide	58.42
2	Dapoxetine Hydrochloride	Potassium Bromide	46.50
		Succinamide	33.73
		Tartaric acid	33.60
3	Entecavir	Benzyl alcohol	105.57
4	Etoricoxib	Aluminium hydroxide solution-(33%)	255.00
5	Febuxostat	Methyl cyanide	11.36
		Potassium bromide	22.73
6	Levo Cetirizine Dihydrochloride	Tri ethyl amine hydrochloride	55.03
7	Levothyroxine Sodium	Tri ethyl amine hydrochloride	14.20
8	Nizatidine	Phosphoric acid	268.46
		Aluminium hydroxide solution (33%)	647.48
9	Permethrin	Boric acid	27.86
10	Riluzole	Ammonium bromide	75.38
11	Rivaroxaban	Potassium chloride	24.56
		Tri ethyl amine Hydrochloride	66.96
12	Sildenafil Citrate	Ammonium sulfate	25.04
		Ammonium chloride	20.27
		Iron oxide	26.58
13	Solifenacin Succinate	Triethylamine Hydrochloride	32.31
14	Terbinafine Hydrochloride	Potassium chloride	356.97
15	Vardenafil	Triethylamine Hydrochloride	35.74

The project/activities are covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 (amendment on 27.03.2020). The SEIAA, Andhra Pradesh completed its term in the month of December, 2020 and new SEIAA Committee was not constituted till date. Hence, in the absence of the SEIAA, Andhra Pradesh, the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry. Public hearing is exempted since the proposed project falls under category B2. It was informed that no litigation is pending against the proposal.

Total land area for the proposed project is 6.9 Acres (27923.3 Sqm). Industry will develop greenbelt in an area of 9839 sqm. (35.23 %). The proposed cost for expansion is about Rs.13.0 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.161 Lakhs and the recurring cost (operation and maintenance) will be about Rs. 18 Lakhs

per annum. Total Employment will be of 100 persons. Industry proposed to allocate Rs. 26 Lakhs 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 total water requirement is 190.06 m<sup>3</sup>/day of which fresh water requirement of 149.24 m<sup>3</sup>/day and will be met from Ground water supply. Generated effluent of 51.45 m<sup>3</sup>/day will be treated through stripper followed by MEE/ATFD, Biological Treatment Plant followed by RO plant will be based on Zero Liquid Discharge System.

Power requirement will be 600 kVA and will be met from Andhra Pradesh State Southern Power Distribution Company Limited (APSPDCL). The unit is proposed to install 1 X 250 kVA & 1 x 320 kVA DG Sets, Stacks (height 8 mtrs & 9 mtrs respectively) will be provided as per CPCB norms. 2.0 TPH & 4.0 TPH boilers are proposed with stacks of height 30 mtrs separately for each of the boilers. Cyclone separators followed by bag filters 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:

S. No.	Name of the Gas	Quantity in Kg/Day	Treatment Method
1	Carbon dioxide	303.00	Dispersed into the atmosphere
2	Hydrogen	40.00	Diffused by using Nitrogen through Flame arrestor
3	Ammonia	25.00	Scrubbed by using chilled water media
4	Oxygen	35.00	Dispersed into the atmosphere
5	Nitrogen	7.00	Dispersed into the atmosphere
6	Hydrogen Bromide	996.50	Scrubbed by using C. S. Lye solution
7	Hydrogen chloride	434.00	Scrubbed by using chilled water media
8	Sulphur dioxide	67.00	Scrubbed by using C. S. Lye solution
9	Hydrogen fluoride	9.00	Scrubbed by using C. S. Lye solution
10	Propane	15.00	Diffused into atmosphere through flame arrestor
11	Dimethylamine	64.00	Scrubbed by using chilled water media

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

S. No	Name of the Waste	Quantity in Kg/Day	Disposal Method
<b>Hazardous waste details</b>			
1	Organic solid waste (Process Residue)	2322	Will be sent to Cement Industries.
2	Spent Carbon	33	

3	Solvent Distillation Residue (Spent Solvents under HW Rules 2016)	445.5	
4	Organic distillate from MEE Stripper	640 Ltrs/ Day	
5	Spent Solvents under HW Rules 2016	575 Ltrs/ Day	
6	Inorganic Solid Waste	845	Will be sent to TSDF.
7	MEE Salts	2633	
8	ETP Sludge	30	
9	Used Oils	100 Ltrs/Annum	Will be sent to SPCB Authorized Agencies for Reprocessing/ Recycling.
10	Detoxified Containers/ Container liners	600 No's/ Month	After Detoxification will be sent to SPCB authorized agencies.
11	Used Lead Acid Batteries	4 No's/ Annum	Send back to suppliers for buyback of New Batteries.
<b>Solid waste details</b>			
12	Ash from boilers	7350	Will be sent to Brick Manufacturers.

The Member Secretary informed to the EAC that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load and the EAC has deliberated the pollution load, as below:

Water Input	Water In Effluent	Inorganics In Effluent	Organics In Effluent	TDS	COD	HTDS	LTDS	Total Effluent	Organic solid waste	Inorganic solid waste	Spent Carbon	Distillation Residue	Process Emissions	Fugitive Emissions
Ltrs/Day	Ltrs/Day	Kg/Day	Kg/Day	Kg/Day	Kg/Day	Ltrs/Day	Ltrs/Day	Ltrs/Day	Kg/Day	Kg/Day	Kg/Day	Kg/Day	Kg/Day	Kg/Day
1955	1999	1094	676.	1094	1253	2110	1343	2245	2321	844.	32.	445.	1995	441.
7.78	1.94	.68	13	.68	.33	9.66	.84	3.50	.63	90	88	28	.04	11

## HAZARDOUS SOLID WASTE DETAILS

Organic solid waste	Inorganic solid waste	Spent Carbon	Distillation Residue
Kg/Day	Kg/Day	Kg/Day	Kg/Day
2321.63	844.90	32.88	445.28

## EMISSION DETAILS

Process Emissions	Solvent Loss
Kg/Day	Kg/Day
1995.04	441.11

Kg per Day										
CO <sub>2</sub>	H <sub>2</sub>	NH <sub>3</sub>	O <sub>2</sub>	N <sub>2</sub>	HBr	HCl	SO <sub>2</sub>	HF	C <sub>3</sub> H <sub>8</sub>	(CH <sub>3</sub> ) <sub>2</sub> NH
303.02	40.19	25.12	35.25	6.88	996.43	434.33	66.77	8.51	14.53	64.01

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

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

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the PFR & 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 Member Secretary informed to the EAC that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load and the EAC has deliberated the pollution load.

The Committee noted that the PFR/EMP report reflects the present environmental concerns and the projected scenario for all the environmental components. The Committee deliberated the action plan and budget allocation for green belt development, mitigation measure towards Air, Water, Noise and Soil pollution. The Committee has also deliberated the activities/action plan



and its mitigation plan and found to be addressing the issues in the study area. The Committee has suggested that the storage of toxic/explosive raw material/products shall be undertaken with utmost precautions and following safety norms and best practices.

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

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

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). Fugitive emissions shall be controlled at 99.98% with effective chillers. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular VOCs monitoring should be carried out.
- (iii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.
- (iv). 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.
- (v). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (vi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

- (vii). Total fresh water requirement shall not exceed 149.24 m<sup>3</sup>/day and will be met from Ground water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (viii). 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.
- (ix). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises (if applicable).
- (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). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xiv). 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.
- (xv). 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. 5.4**

**Manufacturing of Dispersing agent, leather chemicals and construction chemicals (Total production Capacity: 10100.00 MT/Month) at Plot No. 1705, Phase -III, GIDC Industrial Estate Vapi, District –Valsad, Gujarat by M/s Bhavisha Industries- Consideration of Environment Clearance**

**[IA/GJ/IND3/191526/2019, IA-J-11011/20/2021-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s Unistar Environment and Research Labs Pvt Ltd., has made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Setting up Synthetic Organic Chemical manufacturing unit of capacity 10100 TPM at Plot No. 1705, Phase-III, GIDC Estate, Vapi, District Valsad Gujarat, India by M/s Bhavisha Industries.

The details of products and capacity as under:

<b>S.No</b>	<b>Name of the Products</b>	<b>CAS No.</b>	<b>Quantity (TPM)</b>	<b>End-use of the products</b>
<b>Non-EC Product</b>				
<b>1.</b>	Admixture for Concrete and Dyes Industries	NA	<b>3000.00</b>	Construction chemicals
<b>Products requiring Prior EC</b>				
<b>2.</b>	<b>Dispersing Agents</b>		<b>6000.00</b>	Used to manufacture Disperse dyes, construction chemicals, Leather chemicals, etc. Used as dispersing agent in Agro formulation and Dyes industry.
	Naphthalene Based	9084-06-4		
	Phenol Based	102980-04-1		
	Sulphonated Alkyl naphthalene Formaldehyde Condensate Sodium Salt	577773-56-9		
	Dibutyl Naphthalene sulphonated sodium salt	25417-70-3		
<b>3.</b>	<b>Leather Chemicals</b>		<b>500.00</b>	In Leather processing industries.
	Syntans (Powder)	NA		
	Fat Liquor (Liquid)	NA		
<b>4.</b>	PEG Based Polycarboxylate Ether (Liquid & Powder)	70789-60-6	<b>3000.00</b>	Construction chemicals

5.	Biaxial oriented polypropylene (BOPP) Self Adhesive	9003-07-0	300.00	For manufacturing BOPP self-adhesive Taps
6.	Waterproofing polymer	25852-37-3	300.00	Use in Construction chemicals
<b>Total (of products requiring prior EC):</b>			<b>10100.00</b>	--

The project/activities are covered under category B of item 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006. Due to applicability of general condition (located within 5 km of CPA), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The project proposal was earlier considered by the State Level Expert Appraisal Committee(Gujarat) in its 477<sup>th</sup> meeting held during 29/01/2019 and recommended Terms of References (ToRs) for the project. The ToR has been issued by SEIAA, Gujarat vide letter no. SEIAA/GUJ/TOR/5(f)/550/2019; dated 10<sup>th</sup>April 2019. Public hearing is exempted since the proposed project is located in industrial area. It was informed that no litigation is pending against the proposal.

The land area available for the project is 6213m<sup>2</sup>. Industry will develop greenbelt within premises in area of 33% i.e., 2050 m<sup>2</sup> out of 6213 m<sup>2</sup> of total area of the project. Also the unit will carry out plantation in area adjacent to the company premises in common land in 452 m<sup>2</sup>. Thus, the unit will develop greenbelt area in total 2502 m<sup>2</sup> which is around 40.27 % of the total plot area. The estimated project cost is Rs.12.32 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.0.61 crore and the recurring cost (operation and maintenance) will be about Rs. 0.22 crore per annum. Total employment will be 100 persons as direct. Industry proposes to allocate Rs.49.25 lakhs (in next 5 years) towards Corporate Environmental Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lying within 10 km distance from the project site. PP reported that Two Schedule-I Species has been found during the study period and accordingly the Wildlife Conservation Plan for the Schedule-I species, has been prepared and submitted to Dy. Conservator of Forest, South Valsad Division for its approval. The Committee deliberated the plan. River Damanganga, River Kolak, River Rati and River Darotha are flowing at a distance of 4.83 Km SW, 2.86 km N, 2.06 km NE and 8.07 Km SW respectively.

Ambient air quality monitoring was carried out at 8 locations during October 2019 to December 2019 and in December 2020 and the baseline data indicates the ranges of concentrations as PM10 (49µg/m<sup>3</sup> (Dumlav) to 99 µg/m<sup>3</sup> (GIDC Phase 1 (Vapi)), PM2.5 (18µg/m<sup>3</sup> (Dumlav, Rata) to 41µg/m<sup>3</sup> (Project Site)), SO<sub>2</sub> (11.70 µg/m<sup>3</sup> (Demani) to 24.50µg/m<sup>3</sup>(GIDC Phase 1 (Vapi)), NO<sub>x</sub> (19.70µg/m<sup>3</sup> (Salvav) to 31.60 µg/m<sup>3</sup> (GIDC Phase 1 (Vapi)), CO (0.04mg/m<sup>3</sup> (Salvav) to 1 mg/m<sup>3</sup> (Project site, GIDC Phase 1 (Vapi)). AAQ modeling study for point source emissions

indicates that the maximum incremental GLCs after the proposed project would be 0.111 ug/m<sup>3</sup>, 0.771 ug/m<sup>3</sup> and 4.249 ug/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 210.50 m<sup>3</sup>/day and will be met from Water supply pipeline of GIDC Vapi. Effluent of 5.60 KLD quantity will be treated through in-house ETP then will be send to Spray dryer. The Plant will be based on Zero Liquid discharge system.

Power requirement will be 600 KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). The unit has proposed 2 Nos. DG sets of 200 & 500 KVA capacity. D.G. Sets will be used as standby power supply during power failure. Stack (with height 11m) will be provided as per CPCB norms to the proposed DG sets.

The unit has proposed 3 (2+1) nos. of natural gas (NG) fired steam boiler with capacity 2 TPH each. Two steam boiler will be operational and one steam boiler will be on standby mode. Stack height of 15 m will be installed for controlling the particulate emission within the statutory limit of 120 mg/Nm<sup>3</sup> for the proposed steam boilers.

The unit has proposed one NG fired Thermopack with capacity 10 Lakh K.cal/hr. and stack height of 15 m will be installed for controlling the particulate emission within the statutory limit of 120 mg/Nm<sup>3</sup> for the proposed Thermopack.

The unit has also proposed one NG fired Hot Air Generator with capacity 25 Lakh K.cal/hr. and stack height of 15m will be installed for controlling the particulate emission within the statutory limit of 120 mg/Nm<sup>3</sup> for the proposed Hot Air Generator.

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

S. No.	Product Name	Stack attached to	Stack Ht. (in mtr.)	Probable pollutants & Limits	Air Pollution Control System
1.	Phenol Based Dispersing Agent	Spray dryer -1(Cap.- 600 kgs/hrx1)	15	PM<120 mg/Nm <sup>3</sup>	Two stage Bag filter
	Di butyl Naphthalene Sulphonated & PEG based poly carboxylate ether	Spray dryer -2 (Cap.200x1kgs/hr)	15	PM<120 mg/Nm <sup>3</sup>	Two stage Bag filter
	Sulphonated alkyl naphthalene formaldehyde condensate	Spray dryer -3 (Cap.900x1kgs/hr)	15	PM<120 mg/Nm <sup>3</sup>	Two stage Bag filter

2.	Naphthalene Based Dispersing Agent	Process Vent (Sulphonator & Oleum Storage Tank)	11	SO <sub>x</sub> <32 mg/Nm <sup>3</sup>	Two stage Alkali-scrubber
The Committee suggested that stack height shall be of minimum 30 meter for proper air pollution control management.					

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

S. no.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules 2016.	Quantity (MT/Annum)	Management of HW
1	ETP Waste	ETP operation & Spray dryer	35.3	15.00	Collection, Storage, Transportation, Disposal at TSDf Site.
2	Spent/ Used Oil	Machinery	5.1	0.095	Collection, Storage, Transportation, disposal by selling to registered recyclers.
3	Discarded materials Drum, Liners/ Bags/ Carboys	Raw Materials	33.1	125.00	Collection, Storage, Decontamination, Disposal on sell to actual users.
4	Process Waste	Mfg. Process (Product-Naphthalene based Dispersing agent)	26.1	400.00	Collection, storage, transportation, disposal at TSDf Site.
5	Scrubber Bleedoff	Process Scrubber (Product-Naphthalene based Dispersing agent)	37.1	290.00	To be managed with other wastewater using ETP.
6	Used Filter Cloths	Mfg. Process	33.2	1.00	Collection, Storage, Transportation, disposal to Co-Processing.

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

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

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

The Committee noted that the EIA/EMP report reflects the present environmental concerns and the projected scenario for all the environmental components. The committee deliberated the conservation plan, action plan and budget allocation for green belt development, mitigation measure towards Air, Water, Noise and Soil pollution. The committee noted that additional green belt development will be done in nearby area. The Committee has also deliberated on the activities/ action plan and found to be addressing the issues in the study area. The Committee has also deliberated the activities/action plan and it's mitigation plan with respect to critically polluted area. The Committee has suggested that the storage of toxic/explosive raw material/products shall be undertaken with utmost precautions and following safety norms and best practices. The Committee, after deliberations, suggested that stack height shall be of minimum 30 meter for proper air pollution control management.

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

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

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

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

- (ii). Fugitive emissions shall be controlled at 99.98% with effective chillers. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular VOCs monitoring should be carried out.
- (iii). The stack height shall be of minimum 30 meter for proper air pollution control management.
- (iv). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.
- (v). 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 unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (viii). Total fresh water requirement shall not exceed 210.5 cum/day will be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (ix). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (x). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xi). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.



- (xii). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xiii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiv). As proposed, green belt of at least 5-10 m width shall be developed in nearly 40% of the total project area, mainly along the plant periphery/adjacent area. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.
- (xvi). Implementation of conservation plan for the schedule-I species.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

### **Agenda No. 5.5**

#### **Proposed to establish API Manufacturing Unit at Plot Nos. 61 to 66, APIIC Industrial Park, Tirumalagiri Village, Jaggaiahpetta Mandal Andhra Pradesh by M/s SR Qualichem - Consideration of Environmental Clearance**

**[IA/AP/IND2/192431/2021, IA-J-11011/22/2021-IA-II(I)]**

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

PP submitted wrong application with respect to production capacity and requested that PP want to withdraw the proposal and will resubmit the revised application with revised production capacity for consideration of EAC.

***EAC accordingly returned the proposal in present form for revision of application based on the request of PP.***

## Agenda No. 5.6

### **Production of Phenol Formaldehyde Resin or Urea Formaldehyde Resin [700 MT], Melamine Formaldehyde Resin [500 MT], located at Survey No. 1763, Village: Vadasma, Taluka & District Mehsana, Gujarat by M/s Holzwood Industries Pvt. Ltd - Consideration of Environmental Clearance**

**[IA/GJ/IND2/111532/2019, IA-J-11011/230/2019-IA-II(I)]**

The Project Proponent and the accredited consultant M/s TR Associates, made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for setting up Resin Manufacturing unit of capacity 1200 TPM, located at Survey No. 1763, Village Vadasma, Taluka & District Mehsana, Gujarat by M/s Holzwood Industries Pvt Ltd. Presently the unit is engaged in laminated manufacturing in the project site.

The details of products and capacity as under:

<b>S. No.</b>	<b>Name of Product</b>	<b>Capacity (TPM)</b>	<b>CAS No.</b>
1.	Phenol Formaldehyde Resin	700	9003-35-4
2.	Urea Formaldehyde Resin		9011-05-6
3.	Melamine Formaldehyde Resin	500	82115-62-6
	<b>Total</b>	<b>1200</b>	
4	Laminated sheets	3,50,000 Nos./Month	

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

The ToR has been issued by Ministry vide letter dated 26<sup>th</sup> August, 2019. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 5<sup>th</sup> October 2020 which was presided over by the ADM. The major issues raised during public hearing are related to employment generation, safety provision in the industry, mode of disposal of waste water in the rainy season, air environment and about peacock conservation.

The existing land area is 24,518 m<sup>2</sup> and no additional land will be used for proposed project. Industry has developed greenbelt in an area of 33 % i.e, 8090 m<sup>2</sup> out of total area of the project. The estimated project cost is Rs. 366.55 lakh including existing laminated sheet unit cost of Rs 220.3 lakh. Total capital cost earmarked towards environmental pollution control measures is Rs 46.25 lakhs and the recurring cost (operation and maintenance) will be about Rs. 90.48 lakh

per annum. Total Employment will be 32 (Laminate sheet Manufacturing unit: 20 + Resin Manufacturing Unit: 12). Industry proposes to allocate 4.9 Lakhs towards Corporate Environment Responsibility.

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

Ambient air quality monitoring was carried out at 8 locations during October - December 2019 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (66.58 µg/m<sup>3</sup> to 84.32 µg/m<sup>3</sup>), PM<sub>2.5</sub> (35.44 µg/m<sup>3</sup> to 51.24 µg/m<sup>3</sup>), SO<sub>2</sub> (9.5 µg/m<sup>3</sup> to 20.78 µg/m<sup>3</sup>) and NO<sub>2</sub> (24.69 µg/m<sup>3</sup> to 36.96 µg/m<sup>3</sup>). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.03 µg/m<sup>3</sup>, 0.005 µg/m<sup>3</sup> and 0.0001 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is estimated to be 73.2 KLD (Laminate Manufacturing Unit: 42 KLD+ Resin Manufacturing Unit: 31.2 KLD), which includes fresh water requirement of 25.5 Kl/day, proposed to be met from Bore Well.

Effluent of 17.24 KLD (waste water generated from laminate sheet manufacturing unit will be 9.3 KLD and from resin manufacturing unit will be 7.94 KLD quantity will be treated through Effluent Treatment Plant and reused. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

The unit has obtained 450 kVA load from the Uttar Gujarat Vij Company Ltd. (UGVCL) for laminate sheet manufacturing unit which will be enough for resin manufacturing unit. Industry propose one Steam boiler of 3 TPH (fuel: Briquettes (4.5 MT/day)) & D. G. Set of 450 KVA (fuel: LDO (40 Liter/hr)). The steam boiler and D.G. will be used in laminate as well as in Resin manufacturing unit.

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

<b>S. No.</b>	<b>Description</b>	<b>Category</b>	<b>Quantity MT/Annum</b>	<b>Mode of Disposal</b>
1	ETP Sludge	35.3	15.34	Collection, storage and disposal at Approved TSDF site
2	Evaporation residue	35.3	10.36	
3	Used Oil	5.1	0.05	Collection, storage and used within premises as a lubricant / sold to registered recycler.
4	Discarded Plastic	33.1	2.27	Collection, storage & sold to authorized

	Bags / Barrels			vendor.
5	Resin residue	23.1	250	Collection, storage & used in next batch

**Deliberations in the EAC:**

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, activities/action plan and found to be addressing the issues in the study area. The Committee has suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee noted that the PP has obtained CTO for the existing industrial operation (non EC product) and accordingly presented the inspection report/compliance of CTO condition. The EAC found in order.

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

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

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.
- (iii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (iv). The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (v). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (vii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (viii). 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.
- (ix). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.99% with effective chillers/modern technology.

- (x). Total fresh water requirement shall not exceed 25.5 cum/day proposed to be met from borewell. Necessary permission in this regard shall be obtained from the concerned regulatory authority/CGWA, and renewed from time to time.
- (xi). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (xii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiii). The green belt of at least 5-10 m width shall be developed/maintained in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xiv). As proposed, conservation plan shall be implemented in coordination with the concerned authorities/local village administration.
- (xv). The activities and the action plan proposed by the project proponent to address the public hearing issues and 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 during public hearing shall be satisfactorily implemented.
- (xvi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

### **Agenda No. 5.7**

**Manufacturing of Formaldehyde 300 M.T per day, located at Khasra No. -8/3/1, 9/2/2, 12/1, 12/2 in Mussil No. 180, at Village-Ismalia, Tehsil-Sampla, District-Rohtak, Haryana by M/s Parnami Buildcon Pvt. Ltd - Consideration of Environmental Clearance**

**[IA/HR/IND2/126366/2019, IA-J-11011/358/2019-IA-II(I)]**

The Project Proponent and the accredited Consultant, M/s Vardan Environet 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 Formaldehyde 300 M.T per day at Village Ismalia, Tehsil Sampla, District Rohtak, Haryana by M/s Parmni Buildcon Pvt. Ltd.

The project proposal was considered by the Expert Appraisal Committee (Industry-2) and recommended Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide letter No. IA-J-11011/358/2019-IA-II(I); dated 12-01-2020.

The project is listed as "5 f" Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

Proposed land area is 6100 m<sup>2</sup>. Industry will develop greenbelt in an area of 35% i.e., 2100 m<sup>2</sup> out of total area of the project. The estimated project cost is Rs. 14.9 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 0.45 Crores and the Recurring cost (operation and maintenance) will be about Rs 0.10 Crores. Total Employment will be 24 persons as direct & 10-14 persons indirect. Industry proposes to allocate Rs. 0.30 Crores towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body Ismalia Distributary is flowing at a distance of 1.1 Km in NE direction and Dulehra Distributary at a distance of 2.2 Km in NE.

Ambient air quality monitoring was carried out at 8 locations during 1st March to 31st May 2019 and the baseline data indicates the ranges of concentrations as: PM10 (59.1 µg/m<sup>3</sup> to 88.1 µg/m<sup>3</sup>), PM2.5 (19.3 µg/m<sup>3</sup> to 40.8 µg/m<sup>3</sup>), SO<sub>2</sub> (2.0 µg/m<sup>3</sup> to 17.2 µg/m<sup>3</sup>) and NO<sub>2</sub> (9.5µg/m<sup>3</sup> to 44.2µg/m<sup>3</sup>). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 81.6 µg/m<sup>3</sup>, 17.2 µg/m<sup>3</sup> and 44.2 µg/m<sup>3</sup> with respect to PM10, SO<sub>x</sub> and NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 694 m<sup>3</sup>/day of which fresh water requirement of 690 m<sup>3</sup>/day will be met from Ground Water Abstraction (Tube Well). Multi Effect Evaporator is proposed for the treatment of waste water. The plant is based on Zero Liquid discharge scheme. Nearly 4 KLD of domestic waste water to be generated which will be treated through Septic tank and Sewage Treatment Plant.

Power requirement for proposed unit will be 996 KVA and will be met from UHBVN (Uttar Haryana Bijli Vitran Nigam). Proposed unit will have 2 DG sets of 350 KVA each capacity. DG sets are used as standby during power failure. Stack height 6m will be provided as per CPCB norms to the proposed DG sets. Two Boilers with capacity 600 kg/hr each will be installed. Multi cyclone separator/ bag filter will be installed for controlling the particulate emissions within the

statutory limit of 115 mg/Nm<sup>3</sup> for the proposed boilers. Boiler Emissions, which consists of pollutants like SPM, and CO<sub>2</sub>. Cyclone dust separator with adequate stack height and good engineering practices shall be ensured to keep emission of particulate matter to minimal.

Unit will collect, store separately and disposed off solid/hazardous waste at authorised site. Company has already sent request letter to GEPIL, Haryana for the Membership of TSDF facility.

Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 04.09.2020. The main issues raised during the public hearing are related to effect on environment due to project, employment, used oil etc. The Committee deliberated the action plan on the issues raised during public hearing. PP reported that there is no litigation pending against the project.

The details of products and capacity as under:

<b>S. No</b>	<b>Products Details</b>	<b>Proposed Quantity</b>	<b>Total Quantity</b>
1.	Formaldehyde	300 M.T.P.D	300 M.T.P.D

**Deliberations in the EAC:**

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

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

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, activities/action plan and found to be addressing the issues in the study area. The Committee has suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory.



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

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

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.
- (iii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (iv). The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (v). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

- (vii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (viii). 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.
- (ix). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.99% with effective chillers/modern technology.
- (x). Total fresh water requirement shall not exceed 690 cum/day proposed to be met from borewell. Necessary permission in this regard shall be obtained from the concerned regulatory authority/CGWA, and renewed from time to time.
- (xi). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (xii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiii). The green belt of at least 5-10 m width shall be developed/maintained in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xiv). The activities and the action plan proposed by the project proponent to address the public hearing issues and 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 during public hearing shall be satisfactorily implemented.
- (xv). 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.

**DAY 2: FEBRUARY 2, 2021 (TUESDAY)**

**Agenda No. 5.8**

**Setting up of manufacturing of Active Pharmaceutical Ingredients (API's) by M/s Glenfin Chemicals Pvt. Ltd of capacity 54.50 TPM located at Plot No. T-127 Tarapur M.I.D.C, Boisar, Palghar, Maharashtra -Consideration of Environment Clearance**

**[IA/MH/IND2/169759/2020, IA-J-11011/23/2021-IA-II(I)]**

The Project Proponent and the accredited Consultant M/s. Ampl Environ Pvt. Ltd. (AEPL), made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Setting up of manufacturing of Active Pharmaceutical Ingredients (API's) by M/s Glenfin Chemicals Pvt. Ltd of capacity 54.50 TPM located at Plot No. T-127 Tarapur M.I.D.C, Boisar, Palghar, Maharashtra.

The details of products and capacity are as under:

<b>S. No.</b>	<b>Name of Product</b>	<b>Quantity (TPM)</b>
1	Zolpidem Tartarate	10
2	Deferosirox	8
3	Rilpivirine	1
4	Apixaban	1
5	Dabigatran	3
6	Atovaquone	6
7	Sorafenib	1
8	Ezetimibe	10
9	Macitentan	0.5
10	Paliperidone	0.5
11	Pipamperone	0.5
12	Vardenafil	0.5
13	Sodium Phenyl Butyrate	1
14	Benidipine	0.5
15	Loperamide HCL	10
16	Glycerol Phenyl Butyrate	1
<b>Total</b>		<b>54.50</b>

The project/activities are covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 (amendment on 27.03.2020). Due to applicability of general condition (located in CPA), the

project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry. It was informed that no litigation is pending against the proposal.

The Unit was manufacturing fatty acid, esters etc. prior to EIA notification 2006. However, now company proposed API and its intermediates in place of existing products. PP submitted Compliance of the consent conditions dated 12.02.2020 and 20.01.2020 issued by Maharashtra Pollution Control Board. The Committee deliberated the compliance status and found that previous the industry was not in operation since 2016.

Total land area for the proposed project is 3397.50 m<sup>2</sup>. Industry has already developed Greenbelt in an area of 510.00 & 3397.50 m<sup>2</sup> out of total area of the project within the premises. In addition, Company has taken 2500.00 sq.m land area from MIDC for development of green belt.

The proposed cost for expansion is about Rs.30 Crore including existing cost of Rs.15.20 Cr. Total capital cost earmarked towards environmental pollution control measures is Rs.3.80 Cr and the recurring cost (operation and maintenance) will be about Rs.1.26 Cr per annum. Total Employment will be of 120 persons.

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

Total water requirement is 65 m<sup>3</sup>/day out of which fresh water requirement of 45 m<sup>3</sup>/day will be met from MIDC. Effluent of 22.0 m<sup>3</sup>/day quantity will be treated through ETP of 30 CMD capacity ETP along with MVRB type evaporator to achieve Zero Liquid Discharge. Power requirement after expansion of the project will be 360 kVA and will be met from MSEDCL. Existing unit has no DG set, additionally 250 kVA DG set will be used as standby during power failure. Stack will be provided as per CPCB norms to the proposed DG sets. Existing unit has 01 nos. of boiler having capacity 6 TPH. The fuel for boiler will be Furnace oil. PP proposes additional Boiler 01 nos having capacity 1.50 Ton with fuel furnace oil. Stack of height of 21m will be installed for controlling the Particulate emissions within statutory limit of 115 mg/Nm<sup>3</sup> for Boiler & Thermic fluid heater.

**Details of Process emissions generation and its management:** PP committed to reduce emissions generation as mentioned in the PFR/EMP report. It is also mentioned that 4 scrubber will be installed to control the process emissions.

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

S. No.	Description	Cat. of waste under HW Rules 2016	Unit	Quantity	Method of Disposal
1	Chemical sludge from ETP	-	MT/M	2.0	CHWTSDF

2	Distillation residue	28.1	MT/M	1.0	CHWTSDF
3	Residues and wastes	28.1	MT/M	1.0	CHWTSDF
4	Spent solvent	28.6	MT/M	25	Reuse in own process / sale to authorised party
5	Spent catalyst / spent carbon	28.2	MT/M	2.0	CHWTSDF
6	Distillation residues from contaminated organic solvent	36.4	MT/M	1.0	CHWTSDF
7	Disposal of barrels / containers used for handling of hazardous wastes / chemical	33.1	No/M	200	Sale to authorised recycler
8	Liners contaminated with HZ	33.1	Kg/M	500	CHWTSDF
9	Other hazardous waste (contaminated cotton rags or other cleaning material)	-	Kg/M	200	CHWTSDF
10	Filters and filter material which have organic liquid	35.1	Kg/M	100	CHWTSDF
11	Used / spent oil	5.1	Ltr/M	100	Sale to authorised recycler
12	MEE Residue	37.3	MT/M	5.0	CHWTSDF

The Member Secretary informed to the EAC that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load and the EAC has deliberated the pollution load, as below:

**A: Effluent generation as per Batch-wise and per day basis:**

Qty. for batch	Per day	unit	Method of Disposal
120	6.0	cum	ZLD
110	5.5	cum	ZLD
237.50	9.5	-	ZLD
467.5	20	-	ZLD
-	02	-	ZLD
-	22	-	

**B: Effluent Characteristics per day basis:**

S.N.	Parameters	Influent Stream mg/ lit	Effluent Load in kg/day	Effluent Discharge Standards
1	TSS	800	15.40	< 100 mg / lit.
2	BOD	5700	123.20	<100 mg / lit.
3	COD	35000	764.50	<250 mg / lit.
4	TDS	70000	1493.80	<2100 mg / lit.
5	Oil and Grease	40	0.66	<10 mg / lit.

**C. Solvent Recovery:**

Qty for batch	Unit	Recovery	%
136	Ton	125.6	92.0
82	Ton	75.90	92.5
113.95	Ton	108.22	94.9 %
28.7	Ton	27.26	95 %
297	Ton	171	57.5 % 37.5 % *
159	Ton	150.9	94.9 %
73.5	Ton	69.81	95 %
60	Ton	57	95 %

Note: \*Remaining 37.5 % recovered from stripper and used in utility (chilling plant)

**D. Emissions:**

S No.	Particular	Fuel	Stack	Emissions
1	Boiler: 1.5 Ton Boiler: 800 kg	FO/LDO: 700 lpd HSD : 50 lit/hr	21 m	PM: 0.18 g/sec Sox: 0.47 g/sec Nox: 0.54 g/sec
2	D. G sets 250 KVA	HSD : 50 lit/hr	3.5 m from roof Top	
3	Process Emissions	-	04 No. Scrubber with 5.0 m stacks from top	NH3, HCL, SO <sub>2</sub> , CO <sub>2</sub> and acid fumes

The Committee suggested that stack height shall be of minimum 30 meter for proper air pollution control management.

**E: Hazardous Waste Generation (per day)**

S No.	Description	Unit	QTY (ZT)	QTY (Def)	QTY (ATV)	Total Per/day	Method of Disposal
1	Chemical sludge from ETP	kg	46	114	200	360	CHWTSDF
2	Residues and wastes	kg	50	36	174	260	CHWTSDF

3	Spent solvent	MT	0.80	0.75	1.20	2.75	Reuse in own process / sale to authorised party
4	Spent catalyst / spent carbon	Kg	16	1.5	26	43.5	CHWTSDF
5	Disposal of barrels / containers	No	10	12	10	32	Sale to authorised recycler
6	Liners contaminated with HZ	Kg	25	20	18	63	CHWTSDF
7	Other hazardous waste (contaminated cotton rags or other cleaning material)	Kg	10	8	8	26	CHWTSDF
8	Used / spent oil	Ltr	5.0	5.0	5.0	15	Sale to authorised recycler under HW Rules
9	MEE Residue	kg	140	100	150	390	CHWTSDF

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

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

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the PFR & 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 Member Secretary informed to the EAC that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load and the EAC has deliberated the pollution load.

The Committee noted that the PFR/EMP report reflects the present environmental concerns and the projected scenario for all the environmental components. The Committee deliberated the action plan and budget allocation for green belt development, mitigation measure towards Air, Water, Noise and Soil pollution. The Committee has also deliberated the activities/action plan and its mitigation plan and found to be addressing the issues in the study area. The Committee has suggested that the storage of toxic/explosive raw material/products shall be undertaken with utmost precautions and following safety norms and best practices. The

Committee, after deliberations, suggested that stack height shall be of minimum 30 meter for proper air pollution control management.

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

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

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). Fugitive emissions shall be controlled at 99.98% with effective chillers. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular VOCs monitoring should be carried out.
- (iii). The stack height shall be of minimum 30 meter for proper air pollution control management.
- (iv). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.
- (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 unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.



- (vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (viii). Total fresh water requirement shall not exceed 45 m<sup>3</sup>/day will be met from MIDC. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (ix). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (x). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises (if applicable).
- (xi). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xii). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xiii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xiv). The green belt of at least 5-10 m width shall be developed in nearly 40% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

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

### **Agenda No. 5.9**

**Proposed manufacturing of Synthetic Organic Chemicals (Resins) @ 650 MT /M in Existing laminated unit S. No. 1751, Khata No. 2097, Vadavsvami - Ambavpura Road, nr. GGS, At - Pansar, Ta - Kalol, District - Gandhinagar, Gujarat by M/s JYJ Industries LLP. - Consideration of Environment Clearance**

**[IA/GJ/IND2/87105/2018, IA-J-11011/394/2018-IA-II(I)]**

The project proponent and the accredited consultant M/s Bhagwati Enviro Care 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 Resins in existing laminated unit at Survey no. 1751, on Vadavswami- Ambavpura road, Near GGS, Pansar, Taluka Kalol, District Gandhinagar, Gujarat by M/s JYJ Industries LLP.

The details of products and capacity as under:

<b>S. No.</b>	<b>Name of Product</b>	<b>CAS No</b>	<b>Total Quantity</b>
1	Urea formaldehyde	9011-05-6	650 TPM
2	Phenol formaldehyde	9003-35-4	
3	Melamine formaldehyde	9003-08-1	
4	<ul style="list-style-type: none"> <li>• Decorative Laminated Sheet Paper Base</li> <li>• Decorative Laminated Particle Sheets</li> <li>• Decorative Laminated Switch Sheets</li> <li>• Electrical Industrial Sheet Paper Base</li> </ul>	--	950 TPM

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

The ToR for the project has been issued by Ministry vide letter dated 04<sup>th</sup> January 2019. Public Hearing for this project has been conducted by Gujarat Pollution Control Board on 17 January

2020 at project site. The main issues raised during the public hearing are related to effluent management, CER activity, Employment generation etc.

### **Deliberations in the EAC**

The EAC has made a detailed deliberation on the proposal. The EAC has been informed that the project proponent obtained CTO for laminated manufacturing in the proposed site. **The Committee was of the view that operational status of the existing unit/compliance status of the CTO conditions shall be submitted through SPCB for appraisal of the project as per the Standard ToR condition granted to project.**

The Committee also noted that the project proponent has proposed sourcing fresh water from Gram Panchayat Pansar Village, and as such, the EAC was of the view that the Gram Panchayats are not allowed to source and provide water for industrial usage without the approval of the concerned State/Central Government Departments.

The Committee has also noted that the PP has not submitted adequate reply/documents in response to the EDS. **The Committee has also showed its displeasure on the technical quality of the EIA/EMP report and incomplete application submitted by the Consultant and opined that the consultant shall make a detailed explanation before the Committee in the next presentation.**

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) The Committee was of the view that operational status of the existing unit/compliance status of the CTO conditions shall be submitted through SPCB for appraisal of the project as per the Standard ToR condition granted to project. In this context, Operation status of the existing unit/Compliance status of existing CTO conditions forwarded by the SPCB needs to be submitted as per the Standard ToR granted to the project.
- (ii) Project proponent/Consultant shall revise the complete EIA/EMP Report providing all the requisite information as per the Appendix III of the EIA Notification, 2006.
- (iii) Form -2 shall be revised with complete details of the project.
- (iv) Documents related to Public hearing proceedings which has forwarded by the Member Secretary, SPCB to the MoEFCC along with complete public hearing/consultation documents, needs to be uploaded in Form 2. Also issues raised during public hearing, response by the project proponent, action plan with budgetary allocation has not been submitted.

- (v) PP in form 2 (S.No. 27) has not adequately mentioned the details of R&R. Everything mentioned NA.
- (vi) Details of Raw material and its linkage and its mitigation measure during transportation needs to be submitted (13.1 of form 2). PP mentioned Not Applicable.
- (vii) Details of existing project, along with copy of CTE/CTO.
- (viii) One-month additional baseline data to be collected to validate the existing data.
- (ix) Detailed process flow diagram.
- (x) Revised water balance.
- (xi) Unit is in operation and PP now submitted the conservation plan for schedule I species.
- (xii) Source of water and permission for its Industrial use from the concerned regulatory authority.
- (xiii) Consultant shall make a detailed explanation on the observations of the Committee

**The EAC has showed its strong disagreement on the poor quality of the EIA/EMP prepared by M/s Bhagwati Enviro Care Pvt Ltd, and their downgrade technical presentation before the Committee and flimsy justification submitted by the consultant. The Committee was of the view that the Consultant shall improve their technical & scientific quality and skills, otherwise Committee shall be forced not to consider their case and may lead to debar from future presentation.**

The proposal was accordingly **returned** in its present form for submission of revised Report as per provisions of the EIA Notification, 2006.

#### **Agenda No. 5.10**

**Proposed Pigment Manufacturing @230 MT /M located at Plot No. 55, GIDC, Nandesari, Ta - & Dist - vadodara, Gujarat by M/s Sapphire Pigments Industries - Consideration of Environment Clearance**

**[IA/GJ/IND3/181096/2018, IA-J-11011/323/2020-IA-II(I)]**

The project proponent and the accredited consultant M/s. Bhagwati Enviro Care 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 Pigments at Plot No.:55, GIDC Estate, Nandesari, Taluka & District Vadodara, Gujarat by M/s Sapphire Pigments Industries.

The details of products and capacity as under:

S. No.	Products	CAS No.	Quantity (TPM)
1.	CPC Blue	147-14-8	80
2.	Pigment Green 7	1328-53-6	50
3.	Pigment Beta Blue	147-14-8	50
4.	Pigment Alpha Blue	147-14-8	50
Total			230

The project/activities are covered under category B of item 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006. Due to applicability of general condition (located within 5 km of CPA), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The ToR for the project has been issued by SEIAA, Gujarat vide letter No. SEIAA/GUJ/TOR/5(f)/106/2019; dated 10<sup>th</sup> January 2019. Public hearing is exempted as the project site is located in Notified Industrial Area of GIDC Nandesari, Gujarat.

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

The EAC has made a detailed deliberation on the proposal. **The Committee showed its displeasure on the technical quality of the EIA/EMP report and incomplete application submitted by the Consultant [M/s. Bhagwati Enviro Care Pvt. Ltd.] and opined that the consultant shall make a detailed explanation before the Committee in the next presentation.**

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) The Committee was of the view that operational status of the existing unit/compliance status of the CTO conditions shall be submitted through SPCB for appraisal of the project as per the Standard ToR condition granted to project. In this context, Operation status of the existing unit/Compliance status of existing CTO conditions forwarded by the SPCB needs to be submitted as per the Standard ToR granted to the project.
- (ii) One-month additional base line data needs to be submitted. The project site is located in the CPA, however, the baseline values are very well within the NAAQ limits. Data shall be revalidated and justification shall be provided for the submitted data values.

- (iii) The EAC has showed its strong disagreement on the poor quality of the EIA/EMP prepared by M/s Bhagwati Enviro Care Pvt Ltd, and their flimsy technical presentation before the Committee. The Committee was of the view that the Consultant shall improve their technical & scientific quality and skills, otherwise Committee shall be forced not to consider their case and may lead to debar from future presentation.
- (iv) Action plan for controlling the fugitive emissions from the unit considering the unit proposed in the CPA.
- (v) Details of Raw material and its linkage and its mitigation measure during transportation needs to be submitted
- (vi) Revised layout with detailed greenbelt plan.
- (vii) Detailed process flow diagram.
- (viii) Commitment for not using coal as fuel, considering the CPA and incremental GLCs.

**The EAC has showed its strong disagreement on the poor quality of the EIA/EMP prepared by M/s Bhagwati Enviro Care Pvt Ltd, and their flimsy technical presentation before the Committee. The Committee was of the view that the Consultant shall improve their technical & scientific quality and skills, otherwise Committee shall be forced not to consider their case and may lead to debar from future presentation.**

**The Committee opined that the Consultants are integral part of the EIA system for protection, conservation and improvement in the environmental parameters and shall come up with latest technologies and methods for betterment of the environmental qualities, and technologies for abatement of pollution.**

The proposal was accordingly **deferred** for submission of requisite information as per the ToR issued as per the provisions of the EIA Notification. 2006.

#### **Agenda No. 5.11**

#### **Project for manufacturing of various synthetic Organic Chemicals by M/s Parshwanath Intermediates - Consideration of Environmental Clearance [IA/GJ/IND2/121483/2019, IA-J-11011/303/2019-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 Synthetic Organic Chemicals (Dye Intermediates) of capacity 370 MTPM at Survey No. 844 & 846, Opp.

Kamla Amrut Industrial Park, B/h Ratnamani Metal & Tubes, Village Irana, Taluka Kadi, District Mehsana, Gujarat by M/s Parshwanath Intermediates.

The details of products and capacity are as under:

S. No.	Name of Product	CAS No.	Quantity (MTPM)
<b>Bromination</b>			
1	Bromamine Acid	116-81-4	80
2	N-Propyl Bromide (N P Br)	106-94-5	
3	Iso Propyl Bromide (I P Br)	75-26-3	
4	Ethyl Bromide	74-96-4	
5	Calcium Bromide 52% Solution	7789-41-5	
6	Cetyl Bromide	112-82-3	
7	Ethyl di Bromide (EDBr)	106-93-4	
8	Hydro Bromic Acid (HBr)	10035-10-6	
9	N-Butyl Bromide	109-65-9	
<b>Sulphonation</b>			
10	Scheaffer Acid	93-01-6	100
11	G Salt	842-18-2	
12	Alpha Naphthol	90-15-3	
13	Ortho Nitro Toluene Sulphonic Acid (ONTSA)	--	
14	N-Ethyl-N-Benzyl Aniline m-Sulphonic Acid (EBAMSA)	101-11-1	
15	Aniline 2:5 DSA (Aniline 2:5 Di Sulphonic Acid)	98-44-2	
16	Para Nitro Toluene Sulphonic Acid (PNTOSA)	121-03-9	
17	Meta Phenylene Diamine Disulphonic Acid (MPDDSA)	137-50-8	
18	Para Cresidine Ortho Sulphonic Acid (PCOSA)	6471-78-9	
19	Sulpho C Acid	--	
<b>Other Product</b>			
20	Sodium Naphthionate	130-13-2	80
21	N W Acid - Neville Winther's Acid	84-87-7	
22	4-Chloro 2- Amino Phenol (4 CAP)	95-85-2	
23	3,5 Di Amino Benzoic Acid (3,5 DABA)	535-87-5	
24	2 Pyridone	1003-56-1	
25	Para Amino Azo Benzene Sulphonic Acid (PAABSA)	104-23-4	

26	5-Nitro 2 Amino Phenol (5 NAP)	121-88-0	
27	4 Sulpho Anthranilic Acid	98-43-1	
28	2:5 Di Chloro Para Nitro Aniline (2:5 DCPNA)	6627-34-5	
29	Metanilic Acid	121-47-1	
30	4 Nitro 2 Amino Phenol 6 Sulfonic Acid (4 NAPSA)	96-67-3	
31	6-Nitro 2 Amino Phenol 4 Sulfonic Acid (6 NAPSA)	96-93-5	
32	Meta Amino Phenol (MAP)	591-27-5	
33	Alpha Naphthylamine	134-32-7	
34	4 Sulpho Hydrozone	118969-29-2	
35	2,5 Diamino Benzoic Acid (DABA)	--	
36	Mix Cleave Acid/1-6 Cleave Acid/1-7 Cleave Acid	51548-48-2	
37	Phenyl Peri Acid (PPA)	82-76-8	
38	1-Amino Anthraquinone	82-45-1	
39	C Acid	131-27-1	
40	4 Amino Di Phenyl Amine Sulphonic Acid (4ADAPSA)	91-30-5	
41	K Acid	118-03-6	
42	3,5 Di Nitro Benzoic Acid (3 5 DNBA)	99-34-3	
43	Ortho Amino Phenol Para Sulfonamide (OPSAMIDE)	98-32-8	50
44	Peri Acid/Laurent Acid	82-75-7/ 84-89-9	
45	Bronner Acid	93-00-5	
46	Cromotropic Acid	148-25-4	
47	Para Phenylene Di Amine (PPD)	106-50-3	
48	Violet Acid	578-85-8	
49	Koch Acid	117-42-0	
50	1 Napthole 8 Sulphonic Acid	117-22-6	30
51	Dehydro Thio p-Toluidine Sulfonic Acid (DTPTSA)	130-17-6	
52	2R Acid	90-40-4	
53	Epsilone Acid	117-43-1	
54	Meta Di Nitro Benzene (MDNB)	99-65-0	
55	4,4 Dinitro Stilbene 2,2 Disulfonic Acid (DNSDSA)	128-42-7	
56	European K Acid	40130-23-4	
<b>Total</b>			<b>370</b>



The project/activities are covered under category B of item 5(f) 'Synthetic organic chemicals industry' of the Schedule to the Environment Impact Assessment Notification, 2006. Due to applicability of general condition (located within 5 km of CPA), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The standard ToR has been issued by Ministry vide letter No. IA-J-11011/303/2019-IA-II (I); dated 18/11/2019. Public Hearing for the project has been conducted by the Gujarat Pollution Control Board on 25.11.2020. The main issues raised during the public hearing are related to employment to local people and upliftment of surrounding area and proper operation of EMS. It is informed that no Litigation is pending against the proposal.

### **Deliberations in the EAC**

The EAC has made a detailed deliberation on the proposal. The Committee noted that the project proponent has proposed sourcing fresh water from M/s Gujarat Water Supply & Sewage Board, however has not provided any commitment/permission in this regard. The Committee has also noted that public hearing issues have not been properly addressed by the project proponent and the action plan is vague in nature. The conservation plan proposed and submitted to the State Department is just an eye wash and is not meeting the norms and requirement with respect to plan and budget. **The Committee showed its displeasure on the technical quality of the EIA/EMP report and incomplete application submitted by the Consultant.**

*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). Project proponent/Consultant shall revise the complete EIA/EMP Report providing all the requisite information as per the Appendix III of the EIA Notification, 2006.
- (ii). Consultant shall make a detailed explanation on the observations of the Committee regarding poor quality of the EIA/EMP report
- (iii). The issues raised during public hearing, response by the project proponent, action plan with budgetary allocation.
- (iv). Form -2 shall be revised with complete details of the project.
- (v). Detailed conservation and management plan.
- (vi). Detailed data on the water analysis and water quality parameters.
- (vii). Details of Raw material and its linkage and its mitigation measure during transportation needs to be submitted.
- (viii). Detailed process flow diagram.

- (ix). Source of water and permission for its Industrial use from the concerned regulatory authority.

***The EAC has showed its strong disagreement on the poor quality of the EIA/EMP prepared by M/s San Envirotech Pvt Ltd, and flimsy justification by the consultant. The Committee was of the view that the Consultant shall improve their technical & scientific quality and skills, otherwise Committee shall be forced not to consider their case and may lead to debar from future presentation.***

The proposal was accordingly **returned** in its present form for submission of revised Report as per provisions of the EIA Notification. 2006.

### **Modification in Environmental Clearance**

#### **Agenda No. 5.12**

**Pesticide Technical, Pesticide Intermediates Manufacturing Plant of M/s Sandhya Organic Chemical Pvt Ltd (UNIT-2) – Amendment in Environment Clearance**

**[IA/GJ/IND3/193389/2021, IA-J-11011/342/2019-IA-II(I)]**

The proposal is for amendment in the environmental clearance granted to the project. The project proponent requested for permission for CETP discharge of effluents in place of ZLD.

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

The EAC has made a detailed deliberation on the proposal. The Committee noted that the environmental clearance was granted by the Ministry to the project on 15<sup>th</sup> October, 2020 based on the recommendations of the EAC (Industry-2) in its meeting held on 15-17 September, 2020.

The Committee has noted that the EC was granted to the project with treatment of effluent in ZLD scheme, which was presented and approved by the Committee earlier. The Committee was of the view that the act of PP, coming for amendment after making thorough presentation before the EAC on the effluent scheme and after getting EC shall be discouraged. The Committee has also noted that even PP has not able to provide permission for CETP discharge other than a commitment letter for future scenarios. **The Committee suggested that PP may rework their proposal with reduction in quantity of fresh water & effluent, characterisation of low COD/high COD and discharge of only high COD effluent after thorough treatment, reduction in discharge of treated effluent and along with firm commitment from CETP.**

***The Committee at the first instance found no merit in considering proposal and accordingly returned in its present form.***

**Agenda No. 5.13**

**Amalgamation and Amendment in Environmental Clearance of CFCL Fertilizer Plant, Gadepan by M/s CHAMBAL FERTILISERS AND CHEMICALS LTD. - Amendment in Environment Clearance**

**[IA/RJ/IND3/193237/2021; J-11011/664/2008-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 proposed Amalgamation and Amendment in Environmental Clearance of CFCL Fertilizer plant for total production of 6100 MTPD of ammonia and 10800 MTPD of Urea along with total Captive Power generation of 55 MWH, 240 TPH of steam from HRSG and 320 TPH of steam from boiler” at P.O Gadepan, District Kota, Rajasthan by M/s. Chambal Fertilisers and Chemicals Limited. (CFCL).

All Chemical Fertilizer units are listed at S. No. 5(a) of Schedule of Environment Impact Assessment (EIA) Notification under Category ‘A’ and are appraised at Central Level by Expert Appraisal Committee (EAC).

The details of products and capacity as under:

S. No.	Product	Unit	Existing as per EC & CTO			Total (Existing)	Proposed/ Amendment			Total After Amalgamation and Amendment
			G-I with CPP	G-II	G-III		G-I with CPP	G-II	G-III	
1	Ammonia	MTPD	2000	1900	2200	6100	2000	1750	2350	6100
2	Urea	MTPD	3500	3300	4000	10800	3500	3100	4200	10800
3	Captive Power Plant	MWH	37	0	18	55	37	0	18	55
4	Steam (HSRG)	TPH	140	0	100	240	140	0	100	240
5	Steam (Boiler)	TPH	160	160	0	320	160	160	0	320

Unit has proposed for Amalgamation and Amendment in Environmental clearance for incorporation of production and captive power generation details of G-I and G-II unit along with

G-III capacity in the Environmental Clearance issued on 22.04.2010, amended on 10.06.2011 and extension on 22.06.2015. After proposed Amalgamation and Amendment in Environmental clearance, the overall production capacity of plant will be 6100 MTPD of Ammonia, 10800 MTPD of Urea, 55 MW of Captive power, 240 TPH of steam from HRSG and 320 TPH of steam from Boiler.

G-III plant, being a new technology-based plant has proven to be more efficient than existing plants i.e., G- I & G-II with respect to production and environment sustainability. G-III Ammonia plant consumes the lowest energy per ton ammonia in the world. Thus, change is proposed in product mix by reduction in production capacity of Ammonia by 150 MTPD and Urea by 200 MTPD in G-II unit and enhancement of same capacity of Ammonia and Urea i.e., 150 MTPD and 200 MTPD respectively in G-III unit. Combined capacity of the project remains same. G-III plants capability is adequate to cater the additional production within the existing unit. No additional construction or machinery installation is involved in the project. There will not be any increase in the pollution load due to the proposed amendment.

CFCL Gadepan plant having three operational units i.e. Gadepan I, II & III. The plants were commissioned in 1994, 1999 and 2019, respectively. Latest environmental clearance was granted by the MoEF&CC for the expansion of project by setting up G-III unit within the existing plant premises vide letter no. J-11011/664/2008-IA II (I) dated 22.04.2010, amended (corrigendum) in EC issued on 10.06.2011 and validity extension was issued on 22.06.2015. All three plants are operational and has valid CTO granted by RSPCB.

Existing land area is 400 Ha and no further addition of land is proposed. Industry has already developed greenbelt in an area of 139 Ha i.e., 34.75%. The total project cost including environmental controlling equipment's is Rs. 9136 Crores (G-1:1982 Cr, G-II:1214 Cr, G-III:5940 Cr). No additional cost is envisaged in the proposed proposal. Total Employment in the plant is 1020 persons.

Nine Protected and Reserved forests are present within 10 km distance from the project site. No, wildlife sanctuary, national parks, Biosphere Reserves, Tiger/Elephant Reserves, etc. is present within 10 km distance from the project site. Parwan River and Kali Sindh River is flowing at 2.22 Km (SE) and 2.40 Km (E) from the project site, respectively.

After Amalgamation and Amendment, the total water and freshwater requirement of whole plant will reduce from 52744 KLD to 52371 KLD, respectively. Water will be available from River Kalisindh. There will not be any additional drawl of fresh water from River Kalisindh.

After Amalgamation and Amendment, the total effluent generation from whole plant will reduce from 11352 KLD to 11305 KLD. Effluent will be treated in respective treatment facilities (ETP, RO- ZLD Plant) and treated effluent will be reused in the plant for process and gardening. Only during rainy season (when there is sufficient flow in river for dilution), the treated water of G-I & G-II plant from holding pond is discharged to the Kalisindh River. G-III plant is Zero Liquid

Discharge plant. Effluent from G-III Plant is treated in RO-ZLD Plant, no change from earlier practice. No change in domestic effluent is proposed. Total domestic effluent from whole plant (1272 KLD) will be treated in three no. of STPs and reused in gardening.

The power requirement of the plant is being met by in-house Captive power plant (CPP) in G-I and G-III of capacity 37 MWH and 18 MWH, respectively. The power is being generated by Natural gas-based Gas turbines. The flue gas from turbine is being used for heat recovery in HRSG to generate steam for plant operations. Plant is also having additional source of power supply from state grid for backup. After Amalgamation & Amendment, the additional power and steam requirement for G-III will be sourced through G-III -CPP.

Existing units (G-I & G-II) have Natural gas based 2x 80 TPH and 1x 160 TPH steam boiler. No additional Boiler is proposed. 30 m and 35 m stack height for 80 TPH and 160 TPH boilers respectively, have been provided for controlling the emissions within the statutory limit.

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

Particular	Stack Height (m)	Stack Dia (m)	Parameter	Standard
<b>G-I</b>				
Auxiliary Boiler-I (80 TPH)	30	2.0	NOx	50 ppm
Auxiliary Boiler-II (80 TPH)	30	2.0	NOx	50 ppm
HRSG-I (70 TPH)	30	3.0	NOx	50 ppm
HRSG-II (70 TPH)	30	3.0	NOx	50 ppm
Prilling Tower-I	104	26.0	PM	50 mg/Nm3
			Ammonia	175 mg/Nm3
Primary Reformer-Ammonia-I	40	3.0	NOx	400 mg/Nm3
EDG Set (1.6 MW)	19	0.45	PM	75 mg/Nm3
			NMHC	150 mg/Nm3
			CO	150 mg/Nm3
			NOx	1100 ppm
<b>G-II</b>				
Auxiliary Boiler No. III (160TPH)	35	2.5	NOx	50 ppm
Prilling Tower-II	118	26	PM	50 mg/Nm3
			Ammonia	175 mg/Nm3

Particular	Stack Height (m)	Stack Dia (m)	Parameter	Standard
Primary Reformer - Ammonia-II	55	4.1	NOx	400 mg/Nm3
EDG Set (2.5 MW)	30	0.9	PM	75 mg/Nm3
			NMHC	150 mg/Nm3
			CO	150 mg/Nm3
			NOx	1100 ppm
<b>G-III</b>				
HRSG CPP (100 TPH)	43.5	3.0	NOx	100 mg/Nm3
Prilling Tower	141.5	28.0	PM	50 mg/Nm3
			Ammonia	175 mg/Nm3
Primary Reformer - Ammonia-III	53.8	4.1	NOx	400 mg/Nm3
EDG Set (2.4 MW)	30	0.5	PM	75 mg/Nm3
			NMHC	150 mg/Nm3
			CO	150 mg/Nm3
			NOx	710 ppm
Dedusting Unit- G-I (Scrubber Packing Plant)	37.00	1.000	PM	150 mg/Nm3
Dedusting Unit - G-II (Scrubber Packing Plant)	35.73	0.400	PM	150 mg/Nm3
Dedusting Unit - G-III (Scrubber Packing Plant)	37	1.1	PM	150 mg/Nm3
Dedusting Unit Screen House (Scrubber Screen House)	27.80	0.650	PM	150 mg/Nm3
Dedusting Unit-G-III Screen House (Scrubber Screen House)	34	0.8	PM	150 mg/Nm3

No additional Stack is proposed.

#### Details of Solid Hazardous Waste Management:

Sr. No	Name of Waste	Total Quantity (G-I +G-II+G-III)	After Amalgamation and Amendment Total Quantity (G-I+G-II+G-III)	Impact after Amalgamation and Amendment	Disposal Method
1	Discarded Containers	1000 nos per year	1000 nos per year	No Change	TSDf Udaipur

2	Used/Spent Oil	107 MTPA	107 MTPA	No Change	Recycler
3	Spent Catalyst	660 MTPA	660 MTPA	No Change	Recycler
4	RO & ZLD sludge	17000 MTPA	17000 MTPA	No Change	TSDf site at Udaipur
5	Contaminated Cotton Rags/other cleaning materials	12.00 MTPA	12.00 MTPA	No Change	Common Incinerator

**Deliberations in the EAC:**

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

The EAC noted that the Project Proponent has given undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the PFR & addendum 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 EAC deliberated the proposal and made due diligence for amalgamation and amendment as stated above. The EAC after detailed deliberation recommended the proposal for amalgamation and amendment in the EC with all other conditions shall remain unchanged as stipulated in the previous ECs.

It was observed by the EAC that during rainy season, the treated waste water is being disposed to River which is being complained by public. It is recommended to make ZLD even during rainy season also by making necessary arrangements.

The EAC, after detailed deliberations, **recommended** the project for amalgamation and amendment with the condition of making ZLD for all seasons and throughout the year.

## Consideration of Environmental Clearance

### Agenda No. 5.14

#### **Capacity Expansion and Addition of New Pesticide, Pesticide Specific Intermediates & Synthetic Organic Chemicals (Chemical Intermediates) by M/s UPL LIMITED UNIT #04 - Consideration of Environment Clearance**

**[IA/GJ/IND2/192868/2020, IA-J-11011/89/2020-IA-II(I)]**

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

The proposal is for environmental clearance to the project for Expansion of Pesticide Technical, Pesticide Specific Intermediates and Synthetic Organic Chemicals (Chemical Intermediates) Manufacturing unit by M/s UPL Limited at Survey No 224,225,226 & 227, Village Gopipura, Taluka Halol, District Panchmahal, Gujarat.

The details of products and by product are as under:

<b>S. No.</b>	<b>Name of Products</b>	<b>Existing (MTPA)</b>	<b>Additional (MTPA)</b>	<b>Total (MTPA)</b>	<b>CAS Number</b>
<b>A. Pesticide Technical</b>					
1	Carbofuran OR	180	0	0 (Discontinued)	1563-66-2
2	ISOPROTORUN OR	1080	1080	2160	34123-59-6
3	Diuron OR	1080	1080		330-54-1
4	Chlorotoluron OR	1080	1080		15545-48-9
5	IPC (ISOPROPYL PHENYL CARBAMATE) OR	1080	1080		122-42-9
6	CHLORPROPHAM TECHNICAL (CIPC) OR	1080	1080		101-21-3
7	Nicosulfuron (SL 950) OR	720	1440		111991-09-4
8	IKI-7889 (Chlorfluazuron) OR	720	1440		71422-67-8
9	Molinate OR	720	1440		2212-67-1
10	Novaluron OR	1080	1080		116714-46-6
11	Bensulfuron Methyl OR	1080	1080		83055-99-6



12	Pyrazosulfuron Ethyl OR	1080	1080		93697-74-6
13	Mesotrione Cu Chelate	1080	1080		104206-82-8
14	Carbofuran (New Plant)	0	180	180	1563-66-2
15	Sulfosulfuron Technical (SF-10)	0	180	180	141776-32-1
16	Chlorimuron Ethyl OR	0	2160	2160	90982-32-4
17	Metoxuron OR				19937-59-8
18	Metsulfuron-methyl				74223-64-6
<b>TOTAL (A)</b>		<b>1080 / 720</b>	<b>3600/ 3960</b>	<b>4680</b>	--

**B. Pesticide Intermediates (Isocyanate/ Chloroformate)**

<b>S. No.</b>	<b>Name of Products</b>	<b>Existing (MTPA)</b>	<b>Additional (MTPA)</b>	<b>Total (MTPA)</b>	<b>CAS Number</b>
<b>Part B1 - Pesticide Intermediate Chemicals (Chloroformates / Iso cyanates)</b>					
1	3 – 4 Di Chloro Phenyl Isocyanate OR	840 (Combined Capacity)	3960 (Combined Capacity)	4800 (Combined Capacity)	102-36-3
2	M TolyI Isocyanate OR				621-29-4
3	Phenyl isocyanate OR	OR	OR	OR	103-71-9
4	2, 6 Di Isopropyl Phenyl isocyanate OR				28178-42-9
5	Para Toluene Sulphonyl isocyanate OR				4083-64-1
6	Para Nitro Benzyl Chloro Formate OR				4457-32-3
7	Hexyl isocyanate OR				2525-62-4
8	Phenyl Chloro Formate OR				1885-14-9
9	Para Nitro Phenyl Chloro Formate OR				7693-46-1
10	Methyl Chloro Formate OR				79-22-1
11	2 Methoxy Carbonyl Benzyl Sulphonyl Isocyanate OR				74222-95-0
12	Cyclo Hexyl Alkyl Di isocyanate OR				10347-54-3
13	Cyclopropyl Acetylene OR				6746-94-7
14	Bensulfonyl isocyanate OR				83056-32-0
15	Pyrazosulfonyl isocyanate OR				88399-05-7

16	2 Cyano Phenol OR				611-20-1
17	3 Chloro Phenyl isocynate OR	720 (Combined Capacity)	4080 (Combined Capacity)		2909-38-8
18	3 Chloro 4 Methoxy Phenyl Isocynate OR				28479-22-3 3
19	Isopropyl Phenyl Isocynate OR	OR	OR		31027-31-3
20	Benzofuranol Chloroformate OR				1637460-55-9
21	Para Chloro Phenyl isocynate OR				104-12-1
22	Hexa Methylene Di isocynate OR				822-06-0
23	3, 5 Di Chloro Phenyl isocynate OR				34893-92-0
24	Cyclo Hexyl isocynate OR				3173-53-3
25	Ortho Chloro Phenyl isocynate OR				3320-83-0
26	Ethyl Chloro Formate OR				541-41-3
27	2, 6 Di Fluoro Benzoyl isocynate OR				60731-73-9
28	Benzophenone OR	540 OR	4260		119-61-9
29	N Methyl Phenyl Carbonyl Chloride OR	432	4368		4285-42-1
30	4, 6 Di Chloro Pyridimide OR	(Combined Capacity)	1068	OR 1500	1193-21-1
31	3 CAP PMVE		0	0 (Discontinued)	----
<b>Part B2 –Pesticide Intermediate Chemicals</b>					
32	Isopropyl Chloroformate OR	0	4800	4800	108-23-6
33	Sec-Butyl Chloroformate OR				17462-58-7
34	2 Ethyl Hexyl Chloroformate OR				24468-13-1
35	Benzyl Chloroformate OR				501-53-1
36	2 CAP PMVE				116714-47-7
<b>TOTAL B1 - Expansion Products (Capacity Range)</b>		<b>432 To 840 OR 432</b>	<b>3960 To 4368 OR 1068</b>	<b>4800 OR 1500</b>	--

<b>TOTAL B2 – Proposed New Products</b>	<b>0</b>	<b>4800</b>	<b>4800</b>	
<b>Total (B) (B1+B2)</b>	<b>840</b>	<b>8760 (3960+4800)</b>	<b>9600 (4800+4800)</b>	<b>--</b>

### C. Synthetic Organic Chemicals (Chemical intermediates)

<b>S. No.</b>	<b>Name of Products</b>	<b>Existing (MTPA)</b>	<b>Additional (MTPA)</b>	<b>Total (MTPA)</b>	<b>CAS Number</b>
<b>C. Synthetic Organic Chemicals (Chemical intermediates)</b>					
1	Phosgene*	0	4800	4800	75-44-5
2	Tri Phosgene		6000	6000	32315-10-9
3	2 Ethyl Hexanoyl Chloride		4800	4800	760-67-8
4	Hexa methylene Carbonyl Chloride		4800	4800	27817-35-2
5	Dicyclohexylcarbodiimide		4800	4800	538-75-0
	<b>Total (C)</b>	<b>0</b>	<b>25200</b>	<b>25200</b>	<b>-</b>

*Note: \*The Phosgene Gas will be generated within Site in a separate plant for Instant Consumption in Production Process. No Storage of Phosgene has been proposed.*

### D. Formulation Products

<b>S. No.</b>	<b>Name of Products</b>	<b>Existing (MTPA)</b>	<b>Additional (MTPA)</b>	<b>Total (MTPA)</b>
1	CIPC Formulation (OORJA) and CIPC Formulation – CIPC 40 % EC	2400	0	2400
2	IKI-7889 (Chlorfluazuron) Formulation (Ataborn)	1440	0	1440
3	Novaluron Formulation	1200	0	1200
4	Isoproturon 75 % WP or WDG (Formulation)	1200	0	1200
5	Carbofuran (Formulation)	600	0	600
6	Liquid Formulation Products	0	3600	3600
7	Solid Formulation Products	0	3600	3600
	<b>Total (D)</b>	<b>6840</b>	<b>7200</b>	<b>14040</b>

### E. By-Product

<b>S. No.</b>	<b>By Product Name</b>	<b>Existing (MTPA)</b>	<b>Additional (MTPA)</b>	<b>Total (MTPA)</b>
1	Hydrochloric Acid (HCl) (30%)	3261.72	59146.17	62407.9

2	Al(OH) <sub>3</sub> Floccs	0	139.2	139.2
3	Solid KCl	1420.8	14812.8	16233.6
4	Sodium Bi-carbonate (Soda ash solution)	1282.88	5590.72	6873.6
5	Copper Hydroxide	0	10.8	10.8
6	Sodium Sulphate	0	848.88	848.88
7	Sodium Bromide solution	1800	0	1800

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

The ToR has been issued by Ministry vide letter dated 31<sup>st</sup> March 2020. Public Hearing for the project has been conducted by the State Pollution Control Board on 04/11/2020 which was presided over by the District Magistrate. The main issues raised during the public hearing are related to employment, CSR & environment. It is informed that no litigation is pending against the proposal.

The existing unit was in operation before the EIA Notification 1994. The Gujarat Pollution Control Board has granted Certified Compliance report of CC&A on 12/01/2021. The Committee deliberated the compliance status and found in order.

The existing land area is 45427.05 m<sup>2</sup>, no additional land will be used for proposed expansion. Industry has already developed green belt in area of 7712.8m<sup>2</sup> & Industry will develop additional greenbelt in an area of 7719.24 m<sup>2</sup>. Hence Total green belt area after proposed expansion will be 15432.1 m<sup>2</sup> (33.9%) out of total area of the project. The estimated project cost is Rs. 241.3 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 23.08 Crores and the Recurring cost (operation and maintenance) will be about Rs. 37.70 Lakhs per annum. Total Employment will be 66 persons as direct & 200 persons indirect after expansion.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site except reserve forest located at 1.00 KM from Project Site. Narmada Canal is flowing at a distance of ~4.5 km in West direction.

Ambient air quality monitoring was carried out at 8 locations during 1<sup>st</sup> March 2018 to 31<sup>st</sup> May, 2018 and the baseline data indicates the ranges of concentrations as: PM<sub>10</sub> (63.7-89.5 µg/m<sup>3</sup>), PM<sub>2.5</sub> (32.0 – 48.4 µg/m<sup>3</sup>), SO<sub>2</sub> (10.6 – 19.3 µg/m<sup>3</sup>) and NO<sub>2</sub> (15.9 – 25.1 µg/m<sup>3</sup>). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.07 µg/m<sup>3</sup>, 2.2 µg/m<sup>3</sup> and 9.02 µg/m<sup>3</sup> with respect to PM<sub>10</sub>, SO<sub>x</sub> and

NO<sub>x</sub>. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 1396 m<sup>3</sup>/day of which fresh water requirement of 717 m<sup>3</sup>/day will be met from Ground Water. Effluent of 159 m<sup>3</sup>/day quantity will be treated through ETP followed by RO and MEE. The plant will be based on Zero Liquid Discharge (ZLD) system.

Power requirement after expansion will be ~9647 KW including existing 930 KW and will be met from Madhya Gujarat Vij Company Limited (MGVCL). Existing unit has 2 DG sets of 2x550 kVA capacity, additionally 3x990 kVA DG sets will be used as standby during power failure. Stack (height 30 m) will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 1 X 3 TPH, 1 X 5 TPH, capacity Coal/HSD/Briquette/Bio-Mass (Agro Waste/Briquette/RDF) fired boilers. Additionally, 4x10 TPH capacity Coal/HSD/Briquette/Bio-Mass (Agro Waste/Briquette/RDF) fired boiler will be installed. ESP with stack of height of 35 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm<sup>3</sup> for the proposed boilers.

### Details of Process emissions generation and its management

#### Existing Process Emission Details:

S. No.	Stack Attached to	Stack Details		APCM	Pollutant s/ Permissible Unit
		Diam. mm	Height m		
<b>Existing Stack</b>					
1	Main Production Plant C-101	450	30 m from GL	Caustic Scrubber	HCl:20 mg/ NM <sup>3</sup> Cl <sub>2</sub> : 9 mg/Nm <sup>3</sup>
2	Main Production Plant V-121	450	30 m from GL	Caustic venturi scrubber	
3	Novaluron Plant (Pilot Plant)	450	12 m from GL	Caustic Scrubber	
4	Novaluron Plant (Pilot Plant)	450	11 m from GL	HCl Scrubber	
5	R & D Exhaust vent (2 Nos)	--	11 m from GL	-----	
6	QA lab Exhaust vent	--	11 m from GL	-----	
7	Formulation Plant		11m from GL	Dry Scrubber with Carbon	
<b>Proposed Stack</b>					

1	New Plant-A (Existing Expansion of Isocyanates & Chloroformates) Process Stack -1	630	30 m from GL	1st stage: Phosgene absorber 2nd Stage: Water Scrubber 3rd Stage: Caustic Scrubber	HCl @20 mg/ NM <sup>3</sup> Cl <sub>2</sub> @9 mg/ NM <sup>3</sup>
2	New Plant-A (Existing Expansion of Isocyanates & Chloroformates) Process Stack -2	630	30 m from GL	1st stage: Phosgene absorber 2nd Stage: Water Scrubber 3rd Stage: Caustic Scrubber	HCl @20 mg/ NM <sup>3</sup> Cl <sub>2</sub> @9 mg/ NM <sup>3</sup>
3	New Plant-B (Proposed Isocyanates & Chloroformates) Process Stack -1	450	30 m from GL	1st stage: Phosgene absorber 2nd Stage: Water Scrubber 3rd Stage: Caustic Scrubber	HCl @20 mg/ NM <sup>3</sup> Cl <sub>2</sub> @9 mg/ NM <sup>3</sup>
4	New Plant-B (Existing Expansion of Isocyanates & Chloroformates) Process Stack -2	450	30 m from GL	1st stage: Phosgene absorber 2nd Stage: Water Scrubber 3rd Stage: Caustic Scrubber	HCl @20 mg/ NM <sup>3</sup> Cl <sub>2</sub> @9 mg/ NM <sup>3</sup>
5	New Plant-B (Proposed Isocyanates & Chloroformates) Process Stack -3	450	30 m from GL	1st stage: Phosgene absorber 2nd Stage: Water Scrubber 3rd Stage: Caustic Scrubber	HCl @20 mg/ NM <sup>3</sup> Cl <sub>2</sub> @9 mg/ NM <sup>3</sup>
6	New Plant-B (2-ethyl hexanoyl chloride, 2-cyno phenol, Hexamethylene carbonyl ) Process Stack -4	450	30 m from GL	1st stage: Phosgene absorber 2nd Stage: Water Scrubber 3rd Stage: Caustic Scrubber	HCl @20 mg/ NM <sup>3</sup> Cl <sub>2</sub> @9 mg/ NM <sup>3</sup>
7	New Plant-C (carbofuran & Cyclopropyl Acetylene) Process Stack -1	630	30 m from GL	1st stage: Phosgene absorber 2nd Stage: Water Scrubber 3rd Stage: Caustic Scrubber	HCl @20 mg/ NM <sup>3</sup> Cl <sub>2</sub> @5 mg/Nm <sup>3</sup>

8	New Plant-C (Nicosulfuron (SL-950)/ Chlorfluazuron IKI- 7899/ Molinate/ Benzophenone) Process Stack -2	630	30 m from GL	1st stage: Phosgene absorber 2nd Stage: Water Scrubber 3rd Stage: Caustic Scrubber	HCl @20 mg/ NM <sup>3</sup> Cl <sub>2</sub> @5 mg/Nm <sup>3</sup>
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### **Details of Solid waste/ Hazardous waste generation and its management**

S. No	Type of Waste	Existing Waste Quantity	Additional quantity after proposed Expansion	Total quantity after proposed Expansion	Unit	Category (as per HWM Rules, 2016)	Method of Disposal
1	ETP Sludge	45	500	545	MT/Year	35.3-I	Collection, Storage, Transportation & Disposal by landfilling at TSDf BEIL Dahej/ Ankleshwar
2	Distillation Residue/Organic Residue	214	6370	6584	MT/Year	29.1-I	Collection, Storage, Transportation & Disposal by Incineration BEIL Dahej/ Ankleshwar
3	Discarded Packing materials (a) Drums/Carboys/Bags	500	2500	3000	MT/Year	33.1-I	Collection, Storage, Transportation & Disposal to authorized decontamination facility only

	(b) Drums/Bags	200	1000	1200	Nos/year	33.1-I	Collection, Storage, Transportation & Disposal to authorized decontamination facility only
4	Used Spent oil	27.4	137.6	165	MT/Year	5.1-I	Collection, Storage, reuse, Transportation & Disposal by selling to registered refiners
5	Spent Solvent	22	100	122	MT/Year	20.2-I	Collection, Storage, reuse, Transportation & Disposal by selling to unit having permission under Rule (9)
6	Aqueous waste containing trace pesticide from process	320	3987	4307	MT/Year	29.1-I	Collection, Storage, Transportation & Disposal by Incineration at CHWIF BEIL
7	Lead & lead compounds	12	0	12	MT/Year	B4-II	Collection, Storage, reuse, Transportation & Disposal by selling to registered recyclers



9	Non –recyclable plastic waste/Gaskets/Insulations/ PPE's	22	60	82	MT/Year	33.2-I	Collection, Storage, Transportation & Disposal to TSDF BEIL Dahej/Ankleshwar
10	Spent Resins from DM Plants	4	10	14	MT/Year	35.2-I	Collection, Storage, Transportation & Disposal by Incineration at CHWIF
11	Date Expired and of specification products	10	20	30	MT/Year	29.3-I	Collection, Storage, Transportation & Disposal by Incineration at CHWIF,
12	Salt from MEE (RO plant Reject/process)	60	10207	10267	MT/Year	35.3-I	Collection, Storage, Transportation & Disposal by landfilling at TSDF
13	Contaminated Activated Carbon	0	638	638	MT/Year	29.2-I	Collection, Storage, Transportation & Disposal by Incineration at CHWIF,
14	Contaminated PPE's	0	25	25	MT/Year	33.2-I	Collection, Storage, Transportation & Disposal by landfilling at TSDF

15	Insulation waste	0	20	20	MT/Year	33.2-I	Collection, Storage, Transportation & Disposal by landfilling at TSDF
16	High TDS effluent	0	124	124	KL/Day	29.1-I	Treatment to Captive MEE Or Collection, Storage, Transportation & Disposal to Common MEE
<b>Non-Hazardous Waste</b>							
1	Fly Ash	4380	17520	21900	MT/Year	Non Hazardous	Collection, Storage, Transportation & Disposal by selling to brick making industry/Cement Industries

**Deliberations in the EAC:**

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

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

The Committee noted that the project proponent has proposed for manufacture of Carbofuran and other chemicals which the Government has intended to ban. The project has submitted an undertaking dated 02.02.2021 before the Committee stating that no banned pesticide/chemicals shall be manufactured by the Company.

The Committee noted that the EIA/EMP report is in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the activities/action plan and found to be addressing the issues in the study area and public hearing issues. The Committee has suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee found the additional information submitted by the project proponent to be satisfactory and addressing the concerns of the Committee.

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

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

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

- (i). No banned pesticides/chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (iii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

- (iv). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (v). The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (vi). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (viii). Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.
- (ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (x). The units shall carryout HAZOP analysis and report shall be submitted to the Ministry's Regional Office. Necessary action plan shall be implemented based on the analysis reports.
- (xi). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.99% with effective chillers/modern technology.
- (xiii). Total fresh water requirement shall not exceed 717 cum/day to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA and renewed from time to time.

- (xiv). 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.
- (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 highpressure hoses for equipment clearing to reduce wastewater generation.
- (xvi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.
- (xvii). Considering the location of the project site in high biodiversity area, the project proponent shall monitor the impact of emission with tolerance levels on flora and fauna of the region year wise for a period of three years after expansion project, and report shall be submitted to the Regional Office of the Ministry.
- (xviii). The activities and the action plan proposed by the project proponent to address the public hearing issues/socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.
- (xix). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

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

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**GENERAL CONDITIONS**

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

SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.

- (ix) The environmental statement for each financial year ending 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>Dr. Rajashekar P. Mandi</b> Director, School of Electrical & Electronics Engineering, REVA University, Bangalore - 64 E-mail: rajashekarmandi@yahoo.com	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.) A.B. Pandit</b> Vice Chancellor, Institute of Chemical Technology, Mumbai, Sir JC Bose Fellow, Government of India Email: ab.pandit@ictmumbai.edu.in	Member
4.	<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
5.	<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: <a href="mailto:dwivedisuneet@rediffmail.com">dwivedisuneet@rediffmail.com</a> / <a href="mailto:suneetdwivedi@gmail.com">suneetdwivedi@gmail.com</a>	Member
6.	<b>Prof. (Dr.) Arvind K. Nema</b> Professor, Department of Civil Engineering Indian Institute of Technology, Delhi, Hauz Khas, New Delhi -110 016 Email: <a href="mailto:aknema@civil.iitd.ac.in">aknema@civil.iitd.ac.in</a> / <a href="mailto:aknema@gmail.com">aknema@gmail.com</a>	Member
7.	<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: <a href="mailto:vmoholkar@iitg.ac.in">vmoholkar@iitg.ac.in</a>	Member



8.	<b>Shri Santosh Gondhalkar</b> 'Shree' Apartment, Flat 401, Plot No. 22, Tukaram Society, Santnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
9.	<b>Dr. Suresh Panwar</b> House No.4, Gayateri Green Society, NH 58 Bypass,Kankerkhera, Meerut, Uttar Pradesh Email-spcppri@gmail.com	Member
10.	<b>Shri Tukaram M Karne</b> Nagpur, Maharashtra E-mail: tmkarne@gmail.com	Member
11.	<b>Dr. Uma Kapoor</b> Regional Director, CGWA, 18/11, Jamnagar House, Mansingh Road, New Delhi E-mail: Uma-cgwb@nic.in	Member
12.	<b>Shri Dinabandhu Gouda</b> Additional Director, DH IPC-I, Room No. 309A, Third Floor, Central Pollution Control Board, PariveshBhawan, East Arjun Nagar, Delhi – 110032 E-mail: dinabandhu.cpcb@nic.in	Member
13.	<b>Shri Sanjay Bisht</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
14.	<b>Dr. R. B. Lal,</b> Scientist 'E'/Additional Director Ministry of Environment, Forest and Climate Change Jor Bag Road, New Delhi-110003 Telefax: 011-24695362, E-mail: rb.lal@nic.in	Member Secretary
<b>MoEFCC</b>		
15.	<b>Dr. E.P. Nobi</b>	Research Officer
16.	<b>Mr. Ritin Raj</b>	Research Assistant

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**Approval of EAC Chairman**

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**Draft Minutes of the 5th EAC (Industry-3) meeting held during February 1-2, 2021 after incorporating comments, correction suggested by Chairman & EAC-Regrding** 2 messages

From: rajashekarmandi@yahoo.com February 9, 2021 4:13 PM

To: Additional Director MoEFCC Dr R B LAL

Dear Dr. R. B. Lal,  
The draft is in order & approved.

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