GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
(IA DIVISION-INDUSTRY-3 SECTOR)
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Dated: 05.05.2022

MINUTES OF THE 30th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON APRIL 26-27, 2022

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

Time: 10:30 AM onwards

DAY-1: APRIL 26, 2022 [TUESDAY]

(i) Opening Remarks by the Chairman, EAC

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

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

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

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

(iii) Confirmation of the Minutes of the 29th Meeting of the EAC (Industry-3 Sector) held during April 11-12, 2022 at MoEFCC through VC.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (Industry-3 Sector) members on the minutes of its **29th Meeting of the EAC (Industry-3 Sector) held during April 11-12, 2022** conducted through Video Conferencing (VC), and one request has been received for modifications, in the minutes of the project/activities, as below:

<u>Correction in the minutes of the EAC meeting w.r.t.</u> Proposed manufacturing unit of API of 2184 MT/A at Plot No: F-27 at MIDC Chincholi, Village Chincholi, Taluka- Mohol District: Solapur, Maharashtra, Pin 413255 by M/s. PBL Life Care Pvt. Ltd. - Re-Consideration of Environmental Clearance

[Proposal No. IA/MH/IND3/232542/2021; File No. IA-J-11011/210/2021-IA-II(I)]

The instant EC proposal was recommended by the EAC in its 29th meeting held during April 11-12, 2022.

Further, PP vide email dated 28.04.2022 submitted that in MoM at Page No. 68,70 72, 73 there is some minor correction mentioned in table below. This is factual correction.

Point at	Mentions in MoM	Changes required in MoM	Remarks
Page No 68, Para 5 Line 4	Unit has proposed one 2.0 TPH FO fired boiler"	Unit has proposed one 2.0 TPH LSHS fired boiler"	Fuel for the boiler will be LSHS
Page 70, Para 1, line 5	The PP also committed that they will use natural gas instead of LSHS for the boiler.	The PP also commuted that they will use LSHS as fuel for boiler and will be switching to natural gas as and when available.	The industry will use LSHS as fuel for boiler and will be switching to natural gas as and when available
Page 72 Point no IX	As Committed by PP the Industry will use Briquettes a first Priority (Primary fuel and incase of unavailability the unit will use coal as alternative fuel	As committed by PP, the Industry will use LSHS as fuel as a first priority and will be switching to natural gas as and when available.	
Page 73 Point no XVI	Process organic residue and spent carbon if any shall be sent to Cement or other suitable industries for its incinerations ETP sludge process inorganic and evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The unit is to be started after getting the commitment from the brick manufacturer / cement plant and as committed by PP the ETP OF 100 KLD capacity shall be installed	Process organic residue and spent carbon if any shall be sent to Cement or other suitable industries for its incinerations. ETP sludge process inorganic and evaporation salt shall be disposed off to the TSDF The ETP of 90 KLD capacity shall be installed.	There will be no fly ash generation and ETP capacity will be 90 KLD instead of 100 KLD.

Deliberations by the EAC:

It was informed to the Committee that the instant EC proposal was recommended by the EAC in its 29th meeting held during April 11-12, 2022. Based on the request of PP, the matter was re-examined and it is noted that the corrections w.r.t. boiler, Briquettes, organic residue and it is a typographical correction and factual in nature and needs to be corrected.

The EAC, after detailed deliberations, noted that the request of PP may be accepted and **recommended** the factual corrections as these are typographical corrections.

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The EAC also noted that no other request has been received for modifications/factual correction, in the minutes of the 29th EAC meeting for the project/activities, and confirmed the same.

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

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

Consideration of Environmental Clearance Proposals

Agenda No. 30.1

Proposed API manufacturing plant with total capacity of 4.1 Tonnes/Month, located at Plot No. G-1-249 & 250, RIICO Industrial Area, Khushkhera, Tehsil: Tijara, District: Alwar, Rajasthan by M/s Viba Biosciences Pvt. Ltd. - Consideration of Environmental Clearance

[Proposal No. IA/RJ/IND3/248080/2021; File No IA-J-11011/539/2021-IA-II(I)]

The project proponent and their accredited Consultant [M/s. Vardan EnviroNet, Gurugram Haryana, having accreditation number NABET/EIA/1922/RA 0166 valid till 06.11.2022] made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the project for Proposed API manufacturing plant with total capacity of 4.1 Tonnes/Month, located at Plot No. G-1-249 & 250, RIICO Industrial Area, Khushkhera, Tehsil: Tijara, District: Alwar, Rajasthan by M/s Viba Biosciences Pvt. Ltd

The details of products and their quantities are as under:

S. No.	APIs	Type / Category of Product	CAS No.	Proposed Quantity (Tonnes/Month)
1	Beclomethasone Dipropionate	API	5534-09-8	0.05

2	Betamethasone	API	378-44-9	0.20
3	Betamethasone Dipropionate	API	5593-20-4	0.02
4	Budesonide	API	51333-22-3	0.20
5	Betamethasone 21-Acetate	API	987-24-6	0.20
6	Betamethasone Sodium Phosphate	API	151-73-5	0.50
7	Clobetasol Propionate	API	25122-46-7	0.50
8	Deflazacort	API	14484-47-0	0.50
9	Dexamethasone	API	50-02-2	0.25
10	Dexamethasone 21-Acetate	API	1177-87-3	0.025
11	Dexamethasone Disodium Phosphate	API	2392-39-4/55203-24-2	0.50
12	Fluocinolone Acetonide	API	67-73-2	0.025
13	Fluticasone Furoate	API	397864-44-7	0.02
14	Fluticasone Propionate	API	80474-14-2	0.02
15	Halobetasol Propionate	API	66852-54-8	0.010
16	Hydrocortisone	API	50-23-7	0.20
17	Mecobalamine	API	13422-55-4	0.05
18	Methylprednisolone	API	83-43-2	0.20
19	Mometasone Furoate	API	83919-23-7	0.20
20	Mometasone Furoate Monohydrate	API	141646-00-6	0.02
21	Prednisolone 21-Acetate	API	52-21-1	0.20
22	Triamcinolone	API	124-94-7	0.10
23	Triamcinolone Acetonide	API	76-25-5	0.10
24	Triamcinolone Hexacetonide	API	5611-51-8	0.01
Total				**4.1Tonnes/Month**

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006. Due to applicability of general conditions Haryana -Rajasthan Interstate boundary at 3.57 km in NW direction), accordingly the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The PP reported that the total land area is 2000 sq.m, which is already allotted to the proponent Vide Allotment Letter No. Sr. IN-RJ09017067452733P dated 07/04/2017. Industry has already developed 21.9% of green belt (60 trees are present in the premises and 50 trees have been planted by the project proponent outside the premises), 110 more trees will be planted in proposed project as the project falls in CPA total 43.7% plantation will be done (21.8 % - Existing and 21.8 % proposed). The estimated project cost is Rs 10.0 Crores. Total Capital cost earmarked towards environmental pollution control measures is 50 Lahks and recurring cost (operation and maintenance) of the same is 5.2 Lahks/annum. Total employment will be 38 nos. (Existing: 10, (Proposed Operation Phase: 28,) will be appointed. Industry proposes to allocate Rs. 20 lakhs @ of 2% towards CER

The PP reported that Consent to Establish from Rajasthan Pollution Control Board for manufacturing of inorganic chemicals having production capacity of 1880 TPD vide letter no. F(Tech)/Alwar(Tijara)/5569(1)/20182019/1077-1078 dated 12.09.2018. Consequently, CTO is obtained by PP for manufacturing of inorganic chemicals by RSPCB vide letter no. F(Tech)/Alwar(Tijara)/5569(1)/20182019/1499-1500 dated 11.01.2019 valid till 30.11.2023. Certified CTO Compliance report is obtained from Rajasthan Sate Pollution Control Board vide letter no. RPCB/RO/BWD/2349 dated 31.03.2022

The PP reported that there are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, wildlife Corridors etc. lies within 10 km distance from the project site. Sahibi River is flowing at a distance of 8.27 km in West Direction. As informed by PP no Litigation is Pending against the project.

The total fresh water requirement of the project is 9.95 KLD which will be sourced by Ground water. Application for Permission to Abstract Ground Water has been submitted as per Application no. 21-4/16072/RJ/IND/2021 dated 22.09.2021. Effluent of 4.79 KLD quantity will be treated through ETP, MEE and RO. Domestic sewage will be send to septic tank followed by soak pit. The plant will be based on Zero liquid discharge system.

The Power requirement for the project is 150 KVA (Existing – 80 kVA, Proposed- 70 kVA) which will be sourced from Jaipur Vidyut Vitran Nigam. One DG sets of 125 kVA capacity is already existing as site as backup support. Same will be used for proposed project Existing unit has 0.85 TPH HSD fired boiler. No additional boiler is required. Company is planning to switch boiler fuel to PNG.

The Project proponent committed to comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

Details of Process emissions generation and its management:

S.No.	Attached to	Fuel	Control measures
1	Boiler	PNG	Stack height of 30 m will be provided
2	DG Set	HSD	Acoustic Enclosure with 6 m stack

Air emissions from process and management

S.No.	Name of Gas	Approx in Kg/Day	Treatment Methods	Disposal methods
01	Hyrochloric gas (HCl)	2	Scrubber	For neutralization use alkali solution
02	Hydrogen Sulfhide (H_2S)	2	Scrubber	For neutralization use alkali solution

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

Type of Waste	Cat. of waste as per HW Rules, 2016	Source of Waste	Existing Quantity per Year (MT/Year)	Proposed Quantity per Year (MT/Year)	Total (MT/Year)	Method of storage	Method of Disposal
ETP Sludge for Land fill	35.3	ETP	-	5.6	5.6	Stored in covered area with platform	Send to TSDF facility.
MEE salts	37.3	MEE	-	1.57	1.57	Stored in covered area with platform	Send to TSDF facility.
Distillation residue from SRP	20.3	Process	-	0.5	0.5	Stored in covered area	Send to TSDF facility.
Spent Carbon	28.3	Process	-	0.807	0.807	Stored in covered area	Send to TSDF facility.

Empty Barrels/Containers	33.1	Storage go down	100	500	600	Stored in covered area with platform	Send to vendor/ Sell to approved RSPCB approved scrap dealer
Used Lub. Oils	5.1	Utilities	-	0.5	0.5	Stored in covered area with platform	Send to TSDF facility.

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

Water Quantity in Lt/batch	**Water Quantity in Lt/month**	**Effluent load in Kg/day**				**Total Effluent t Ltr./ batch**	**Process organic waste kg/batch (Distillate Residue)**	**Process inorganic waste kg/batch (ETP Sludge/ATFD Salt**	**Spent carbon kg/batch**
		TDS	**COD Load**	**HTDS**	**LTDS**				
800	6400	722.8	80	950	250	800	4	1	1

The PP reported that No carbon emission generated from the process, only Hydrochloric Gas (HCL) and Hydrogen Sulphide (H2S) will be released for which wet Scrubber will be installed to trap the traces. The PP also reported that emissions generation from the electricity consumption (1.90 ton/MWh co2) and from indirect emission including transportation from raw material/Finished product (7.96 ton) and employee travel (5.23 ton/km). PP also submitted the Carbon sequestration analysis. The green belt will support about 492.215 ton/year.

Deliberations by the EAC:

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

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

The Committee noted that the PFR/EMP reports are in order, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The Committee deliberated on the, boiler and DG set Fuel, rain water collecting tank, LED Lights, solar panels for energy conservation data submitted by PP and found it satisfactory. The EAC also deliberated on the carbon sequestration analysis and suggest to submit Revised effluent load EAC found the reply of PP to be satisfactory. The Committee also deliberated on the action plan and budget allocation for green belt development. As committed by the PP the green belt development shall be developed in 43.7% of the plot area and avenue plantation will be conducted in RIICO industrial area. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio.

The Committee deliberated the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

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

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

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

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

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

(ii). This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble NGT and any other Court of Law, as may be applicable to this project.

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

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

(v). The species specific conservation plan for Schedule-I species should be implemented within time limit and as per the approval of the Competent Authority.

(vi). The project proponent shall comply with the environment norms for Pharmaceuticals/Bulk Drugs Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 541(E), dated 06.08.2021 under the provisions of the Environment (Protection) Rules, 1986.

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

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

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

(x). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no treated/untreated wastewater 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.

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

(xii). 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.

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

(xiv). 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. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xv). 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.

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

(xvii). Total fresh water requirement, sourced from private tankers shall not exceed 9.95 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA and renewed from time to time.

(xviii). The 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.

(xix). As committed by the PP rainwater will be collected in rain water collection tank and collected water will be utilized for greenbelt plantation, shall be implemented.

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

(xxi). The green belt of at least 5-10 m width shall be developed in at least 43.7% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m ratio and as committed by PP shall

plant 2500 number of trees in first year itself and subsequent years the green belt shall be monitored. The plant species can be selected that will give better carbon sequestration.

(xxii). The PP shall also comply the directions issued by the CAQM and Adjoining Areas Act, 2021, vide letter dated 15.12.2021 for Industrial operations and processes in NCR not running on PNG or cleaner fuel shall be allowed to operate only up to eight hours a day from Monday to Friday and shall not be allowed to operate on Saturdays and Sunday, shall be implemented.

(xxiii). The PP shall comply the directions issued by the Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021, vide letter dated 04.02.2022, for All industries in NCR having gas connectivity shall be run only on Gas as a fuel and that all industries in NCR where gas connectivity is available shall immediately be shifted to gas and the State Governments to furnish industry wise date of shitting.

(xxiv). The PP shall comply the all directions issued by the Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021, under Section 12 vide letter dated 17.03.2022, for Standards for emissions in industrial processes in NCR using bio-mass fuels shall be implemented.

(xxv). 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 PFR/EMP report in letter and spirit.

(xxvi). 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. 30.2

Setting up of Synthetic Resins Manufacturing unit of capacity 48800 TPA located at Survey No.32/2 Pt, Plot No:A- 8/3, SIPCOT Industrial Park, Thervoy Kandigai Village, Gummidipoondi Taluk, Thiruvallur District, Tamil Nadu State by M/s. Star Industries- Consideration of Environmental Clearance

[Proposal No: IA/TN/IND3/261922/2021; File No: IA-J-11011/217/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Hubert Enviro Care Systems (P) Ltd, Chennai [Accreditation number NABET/EIA/1922/RA0172 validity till 13 Oct 2022] have made a detailed presentation on the salient features of the proposed project and informed that:

The proposal is for environmental clearance to the project for Setting up of Synthetic Resins Manufacturing unit of capacity 48800 TPA located at Survey No.32/2 Pt, Plot No: A- 8/3, SIPCOT Industrial Park, Thervoy Kandigai Village, Gummidipoondi Taluk, Thiruvallur District, Tamil Nadu State by M/s. Star Industries.

The project/activity is covered under Category 'A' of item 5(f)- Synthetic organic chemicals and Dye of Schedule of Environmental Impact Assessment (EIA) Notification,2006 and appraised at Central Level by Expert Appraisal Committee (EAC).

The details of products and capacity as under:

S. No	Products	Capacity in TPA	CAS .NO
1.	Distilled Fatty Acid	8000	68308 - 53 – 2
2.	Acrylic Resin	1800	110 - 43 – 0
3.	Polyester Resin	10000	113669 - 95 – 7
4.	Alkyd Resin	18000	63148 -69 – 6
5.	Polyamide Resin	1800	63428 - 84 – 2
6.	Rosin Modified Resin	1200	8050 - 09 – 7
7.	CNSL Resin	2400	8007 - 24 – 7
8.	Epoxy Resin Solution	1600	25068 -38 – 6
9.	Hydrocarbon Solvents	4000	108 - 88 – 3
	Total	**48800**	

The ToR has been issued by the Ministry, vide letter No IA-J-11011/217/2021-IA-II(I) dated 08.06.2021. Public Hearing has been exempted as the project is located in Industrial Estate, as informed by PP No Litigation is pending against the proposal.

The PP reported that proposed land area of the project is 17806.16 m^2. Industry will develop greenbelt in an area of 38.85 % i.e., 6917.3 m^2 out of total area of the project. The estimated project cost is Rs 9.0 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs 1.88 Crore and the Recurring cost (operation and maintenance) will be about Rs. 18.00 Lakh per annum. Total Employment will be 35 persons as direct and 15 person as indirect .Industry proposes to allocate Rs. 18 Lakh towards CER.

The PP reported that there are no national parks, wildlife sanctuaries, biosphere reserves, tiger/elephant reserves, and wildlife corridors etc. within 10 km radius from the project site. Lake near Teruvai ~0.55km (NNE), KKTK Reservoir~ 0.97km (NNW), Canal near Sengarai ~2.26km (S), Canal near Karadiputtur ~2.81km (WNW), TG/Satya Sai Ganga Canal ~5.72km (W), Arani River ~7.17km (SSE), Uttukkottai Eri ~7.58km (WSW), Lake near Vadamadurai ~8.80km (SE), Pallavada Lake ~10.59km (NNE), NNE, Lake near Arani ~12.35km (ESE) and Korttalaiyar River ~ 14.34 km (SSE). Conservation of Schedule-I species has been approved by Chief Wildlife Warden of the State Government.and PP committed to implement the plan in two years.

The Ambient air quality monitoring was carried out at 8 locations during January to April, 2021 and average baseline data indicates the ranges of concentrations as: PM_{10} (56.65 µg/m³–86.89 µg/m³), $PM_{2.5}$ (31.64 µg/m³-52.24 µg/m³), SO_2 (8.21 µg/m³-16.42 µg/m³), NO_2 (20.8 µg/m³-37.24 µg/m³). AAQ modeling study for point source emissions indicates that the

maximum incremental GLCs after the proposed project would be 2.86 µg/m^3, 0.08µg/m^3 and 5.39µg/m^3 with respect to PM_{10}, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 64.9 KLD of which fresh water requirement of 47.1KLD will be met from SIPCOT and the recycle water of 17.8 KLD will be sourced from ETP/RO/MEE&ATFD condensate and STP Treated sewage. Effluent of 15 KLD will be treated through proposed ETP with capacity of 20 KLD along with RO and MEE & ATFD. The plant will be based on Zero Liquid Discharge system (ZLD).

Power requirement will be 400 KW will be met from TANGEDCO. Additionally, 1x380 kVA DG set will be used as the standby during power failure. Adequate Stack height will be provided as per CPCB norms.

The PP reported that it is proposed to install New 1x10 & 1x20 Kcal/Hr TFH & 2x3.0 TPH boiler will be installed. Cyclone dust collector with a stack of height 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers.

Details of process emissions generation and its management:

S. No.	Source	Fuel used	Fuel Quantity	Stack Details						Emission per stack (g/s)				
				No.of. stacks	Height (m)	Dia. (m)	Exit Velocity (m/s)	Temp (°C)	Flow rate (Nm3/hr)	PM_{10}	SO_2	NO_x	CO	VOC
1	Chilled brine condenser followed by stack (Supplied by OEM - M/s. Thermax Limited)	-	-	1	27	1.2	1.5	100	8340.12	-	-	-	-	0.00001
2	Chilled brine condenser followed by stack (Supplied by OEM - M/s. Thermax Limited)	-	-	1	27	1.2	1.5	100	8340.12	--	-	-	-	0.00001
3	Diesel Generator 380KVA (Supplied by OEM - M/s. Kirlsokar Brothers Limited)	Diesel	200 LPD	1	28	0.15	10	300	1334.59	0.0042	0.0039	0.0523	0.0098	-

4	Boiler 3 TPH (2 nos. one Stand by) (Supplied by OEM - M/s. Thermax Limited)	Bio Briquettes	12 TPD	1	30	0.35	15	240	9757.85	0.31556	0.00089	0.00043	0.48200	-
5	TFH 10 Lac kcal/hr (Supplied by OEM - M/s. Thermax Limited)	Bio Briquettes	9 TPD	1	30	0.5	14	280	20035.62	0.21600	0.00600	0.00400	0.57300	-
6	TFH 20 Lac kcal/hr (Supplied by OEM - M/s. Thermax Limited)	Bio Briquettes	18 TPD	1	30	0.5	17	280	24328.96	0.43200	0.01211	0.00800	1.14600	-

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

Municipal solid waste:

Sl. No.	Description	Construction Phase Quantity (Kg/d)	Operation Phase Quantity (Kg/d)	Method of Collection	Method of Disposal
1	Solid Waste	5.0	Inorganic waste-9	Bins	Send to TNPCB authorized vendors
			Organic waste-13.5		Disposed through local bins

Other Solid waste

Details of Waste	Proposed Quantity (TPD)	Storage and Disposal
Boiler & TFH Ash	6.4	Will sold to Brick Manufacturers

Hazardous Waste Management:

Details of Waste	Scheduled as per HWM rules	Proposed Quantity (TPA)	Storage and Disposal
Used or Spent Oil	5.1	0.2	TNPCB Authorized Recyclers

ETP Sludge MEE Salt	35.3	24.6*	TSDF-Gummidipoondi.
Empty Container	33.1	300 Nos	TNPCB Authorized Recyclers
Empty bags 25 kg		2000 Nos**	Empty bags will be taken back by the suppliers
Empty bags 1000 kg		3200 Nos**	
Used Filter cloth	-	0.5	TNPCB Authorized Recyclers
Used Oily cotton waste/weather hand gloves/ cotton hand gloves	33.2	0.3	TSDF-Gummidipoondi.

The PP has submitted detailed reduction of Carbon footprint calculation and reported that by the use of variable frequency drives (VFD) & IE-3 motors, use of solar panel, Tree Plantation and Raw material Transportation total 5602.41 Kg of CO2 per day will be reduced.

The project proponent committed to comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

Deliberations by the EAC:

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

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

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

The Committee deliberated on the water balance, storage and handling of chemicals submitted by the PP and found it satisfactory. The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP the

green belt development shall be completed within one year. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio, accordingly, number of trees should be increased. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found satisfactory. The Committee deliberated on mitigation of carbon emission, CER activity, and schedule-I conservation plan and found satisfactory. The EAC also deliberated the action plan proposed by the project proponent to address the socio-economic issues in the study area and found the plan is in order.

The Committee deliberated the Onsite and Offsite Emergency plan and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

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

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

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

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

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

(iii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing

more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(iv). The project proponent shall comply with the environment norms for 'Organic Chemicals Manufacturing Industry' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608(E), dated 21.07.2010 under the provisions of the Environment (Protection) Rules, 1986.

(v). The species specific conservation plan for Schedule-I species shall be implemented within time limit and as per the approval of the Chief Wildlife Warden of the State Government.

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

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

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

(ix). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no treated/untreated wastewater 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.

(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 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.

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

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

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

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

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

(xvi). Total fresh water requirement, sourced from SIPCOT, shall not exceed 47.1KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA and renewed from time to time.

(xvii). The 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.

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

(xix). The green belt of at least 5-10 m width shall be developed in at least 35% of the total project area (@2500 Trees per ha), mainly along the plant periphery/additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2.0 m x 2.0 m ratio and as in first year itself and subsequent years the green belt shall be monitored. The plant species can be selected that will give better carbon sequestration.

(xx). 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 EIA/ EMP report in letter and spirit.

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

Agenda No. 30.3

Proposed expansion for manufacturing of pesticides and specific pesticide intermediates with production capacity of 4211.80 TPA located at Plot No.: D-18, MIDC Kurkumbh, Dist. Pune, Maharashtra by M/s Shogun Organics Limited - Consideration of Environmental Clearance

[Consultant: Goldfinch Engineering Systems Private Limited, valid upto; 08.12.2022]

[Proposal No. IA/MH/IND3/260306/2017; File No. J-11011/241/2017-IA II(I)]

The Project Proponent and the accredited Consultant [Goldfinch Engineering Systems Private Limited with Accreditation Number NABET/EIA/1922/RA0145 valid till 8.12.2022] made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Proposed expansion for manufacturing of pesticides and specific pesticide intermediates with production capacity of 4211.80 TPA located at Plot No.: D-18, MIDC Kurkumbh, Dist. Pune, Maharashtra by M/s Shogun Organics Limited.

The project/activity is covered under Category 'A' of item 5(b) of Schedule of Environment Impact Assessment (EIA) Notification and requires appraisal at Central Level by Expert Appraisal Committee (EAC).

The details of products and capacity as under:

Sr. No.	Name of the Products	CAS No.	Existing Qty. (TPA)	Additional Proposed Qty. (TPA)	Total Qty. (TPA)	Uses
	Group 1: Pyrethroid					
1	D-Allethrin	584-79-2	681.00	200.00	881.00	Insecticides Used in control of Mosquitoes, cockroaches, fleas and other indoor pests at home, Hospitals etc.
2	Bifenthrin	82657-04-3				
3	Cypermethrin	52315-07-8				
4	Diethyl Toluamide Technical (DEET)	134-62-3				
5	Deltamethrin	52918-63-5				
6	Dimefluthrin	271241-14-6				
7	D-Trans Allethrin	28434-00-6				
8	Fipronil	120068-37-3				
9	Imidacloprid	138261-41-3				
10	Permethrin	52645-53-1				
11	Prallethrin	23031-36-9				
12	Renofluthrin	352271-52-4				
13	Transfluthrin	118712-89-3				

Sr. No.	Name of the Products	CAS No.	Existing Qty. (TPA)	Additional Proposed Qty. (TPA)	Total Qty. (TPA)	Uses
14	Chrysanthemic Acid Chloride	14297-81-5				Intermediates for Insecticide Actives
15	Cypermethric Acid Chloride	52314-67-7				
16	R-Cypermethric Acid	59042-50-8				
17	Alphamethrin	67375-30-8	00.00			Insecticides For Use in Co ntrol of Mosquitoes and variety of insects
18	Metofluthrin	240494-70-6				
19	Beta Cyfluthrin	1820573-27-0				
20	Cyfluthrin	68359-37-5				
	Note: “For group 1 total plant capacity i.e. 881 MT/A, we confirm that we will not exceed the same. For the purpose of byproducts, we have assumed a typical scenario of production of maximum 200 MT/A of product no. 2: Bifenthrin, product no. 3: Cypermethrin, product no. 13: Transfluthrin and maximum 100 MT/A of remaining 17 products. You may note that this may individually would add up to 2300 T/A. Thus building safety, byproducts, raw material requirement, hazardous waste which actually could be much lower as a cumulative production with maximum 881 MT/A”					
	Group 2: Herbicide Plant 1					
1	Bispyribac Sodium	125401-92-5	00.00	900.00	900.00	Herbicides Used for the control of grasses and shrubs
2	Clodinafop Propargyl	105512-06-9				
3	Metribuzin	21087-64-9				
4	Pyrazosulfuran Ethyl	93697-74-6				
5	Cyhalofop Butyl	122008-85-9				
6	Fenoxaprop P Ethyl	71283-80-2				
7	Mesotrione	104206-82-8				
8	Penoxsulam	219714-96-2				
9	Propaquizafop	111479-05-1				
10	Quizalofop Ethyl	100646-51-3				
11	Sulfosulfuron	141776-32-1				

Sr. No.	Name of the Products	CAS No.	Existing Qty. (TPA)	Additional Proposed Qty. (TPA)	Total Qty. (TPA)	Uses
12	Tembotrione	335104-84-2				
13	Cloquintocet Mexyl	99607-70-2				
14	Ametryn	834-12-8				
	Note: “For group 2 total plant capacity i.e. 900 MT/A, we confirm that we will not exceed the same. For the purpose of byproducts, we have assumed a typical scenario of production of maximum 200 MT/A of product no. 2: Clodinafop Propargyl, product no. 3: Metribuzin, product no. 5: Cyhalofop Butyl, product no. 8: Penoxsulam and maximum 100 MT/A of remaining 10 products. You may note that this may individually would add up to 1800 T/A. Thus building safety, byproducts, raw material requirement, hazardous waste which actually could be much lower as a cumulative production with maximum 900 MT/A”					
	Group 3: Insecticide					
1	Lambda Cyhalothrin	91465-08-6	00.00	900.00	900.00	Insecticides Used in controls sucking and chewing insects, including aphids, whitefly, thrips, rice hoppers, rice bugs etc.
2	Thiamethoxam	153719-23-4				
3	Acetamiprid	135410-20-7				
4	Dinotefuran	165252-70-0				
5	Pymetrozine	123312-89-0				
6	Pyriproxyfen	95737-68-1				
7	Tebuconazole	107534-96-3				Fungicides Used to control fungi, bacteria, and viruses affecting plants
8	Difenoconazole	119446-68-3				
9	Pyraclostrobin	175013-18-0				
10	Tricyclazole	41814-78-2				
11	Trifloxystrobin	141517-21-7				
12	Chlorantraniliprole	500008-45-7				Insecticides Used in controls insects, including aphids,
13	Flonicamid	158062-67-0				
14	Clothianidin	210880-92-5				

Sr. No.	Name of the Products	CAS No.	Existing Qty. (TPA)	Additional Proposed Qty. (TPA)	Total Qty. (TPA)	Uses
15	Diafenthiuron	80060-09-9				whitefly, thrips, rice hoppers, rice bugs, turf grasses, etc.
16	Ethiprole	181587-01-9				
17	Fenpyroximate	134098-61-6				
18	Indoxacarb	173584-44-6				
19	Novaluron	116714-46-6				
20	Spiromesifen	283594-90-1				
21	Thiacloprid	111988-49-9				
22	Thiodicarb	59669-26-0				
23	Tolfenpyrad	59669-26-0				
24	Azoxystrobin	131860-33-8				Fungicides used to control plant diseases
25	Boscalid	188425-85-6				
26	Cyazofamid	120116-88-3				
27	Cyproconazole	94361-06-5				
28	Epoxiconazole	135319-73-2				
29	Hexaconazole	79983-71-4				
30	Isoprothiolane	50512-35-1				
31	Krexosim Methyl	143390-89-0				
32	Metalaxyl	57837-19-1				
33	Metalaxyl- M	70630-17-0				
34	Paclobutrazol	76738-62-0				
35	Penconazole	66246-88-6				
36	Picoxystrobin	117428-22-5				

Sr. No.	Name of the Products	CAS No.	Existing Qty. (TPA)	Additional Proposed Qty. (TPA)	Total Qty. (TPA)	Uses
37	Propiconazole	60207-90-1				
38	Tetraconazole	112281-77-3				
	Note: “For group 3 total plant capacity i.e. 900 MT/A, we confirm that we will not exceed the same. For the purpose of byproducts, we have assumed a typical scenario of production of maximum 150 MT/A of product no. 1: Lambda Cyhalothrin, maximum 300 MT/A of product no. 2: Thiamethoxam, maximum 200 MT/A of product no. 7: Tebuconazole and maximum 100 MT/A of remaining 35 products. You may note that this may individually would add up to 4150 T/A. Thus building safety, byproducts, raw material requirement, hazardous waste which actually could be much lower as a cumulative production with maximum 900 MT/A”					
	Group 4: Herbicide Plant 2					
1	Acifluorfen	50594-66-6	00.00	900.00	900.00	Herbicides used to control a wide spectrum of broadleaf weeds and woody plants.
2	Bentazone	25057-89-0				
3	Bensulfuron Methyl	83055-99-6				
4	Carfentrazone Ethyl	128639-02-1				
5	Clethodim	99129-21-2				
6	Dicamba	1918-00-9				
7	Diclosulam	145701-21-9				
8	Halosulfuron Methyl	100784-20-1				
9	Imazamox	114311-32-9				
10	Imazapic	104098-48-8				
11	Nicosulfuron	111991-09-4				
12	Pinoxaden	243973-20-8				
13	Topramezone	210631-68-8				
14	Tribenuron Methyl	101200-48-0				
15	Glufosinate Ammonium	77182-82-2				

Sr. No.	Name of the Products	CAS No.	Existing Qty. (TPA)	Additional Proposed Qty. (TPA)	Total Qty. (TPA)	Uses
16	Pendimethalin	40487-42-1				
	Note: "For group 4 total plant capacity i.e. 900 MT/A, we confirm that we will not exceed the same. For the purpose of byproducts, we have assumed a typical scenario of production of maximum 150 MT/A of product no. 12: Pinoxaden, maximum 150 MT/A of product no. 13: Topramezone, and maximum 100 MT/A of remaining 14 products. You may note that this may individually would add up to 1700 T/A. Thus building safety, byproducts, raw material requirement, hazardous waste which actually could be much lower as a cumulative production with maximum 900 MT/A"					
	Group 5: Intermediate					
1	1,2,4 Triazoles	288-88-0	00.00	600.00	600.00	Intermediate of Tebuconazole
2	2-Chloro-5-Chlori (CCMP)	70258-18-3				Intermediate of Imidacloprid
3	2-Chloro-5-Chloro (CCMT)	105827-91-6				Intermediate of Thiamethoxam
4	2,3-Difluoro-5-Chloropyridine (CDFP)	89402-43-7				Intermediate of Clodianfop Prop.
5	Cypermethric Acid Chloride (CMAC)	52314-67-7				Intermediate for Insecticide Actives
6	Meta Phenoxy Benzal (MPBD)	39515-51-0				Intermediate for Insecticide Actives
7	2-Nitroimidazole (NIIO)	527-73-1				Intermediate of Imidacloprid
8	2-(4-ydrpxyphenoxy)(RHPPA)	94050-90-5				Intermediate of Clodianfop Prop
9	Para Chloro Phenol	106-48-9				Intermediate
	Note: "For group 5 total plant capacity i.e. 600 MT/A, we confirm that we will not exceed the same. For the purpose of byproducts, we have assumed a typical scenario of production of maximum 200 MT/A of 09 products. You may note that this may individually would add up to 1800 T/A. Thus building safety, byproducts, raw material requirement, hazardous waste which actually could be much lower as a cumulative production with maximum 600 MT/A"					
1	Acetic acid (100% basis) (Generated from manufacturing of Pymetrozine)	64-19-7	00.00	30.80	30.80	Various uses to chemical industrie, chemicals laboratories etc.
		Total	**681.00**	**3530.80**	**4211.80**	

The PP reported that Ministry had issued EC earlier vide F. No. J-11011/241/2017-IA II (I) dated 23.09.2020 to the existing project for pesticides manufacturing in favour of M/s Shogun Organics Limited. In certified compliance report IRO report dated 15.09.2021 had listed 4 conditions of EC as partially complied. PP have complied all the EC conditions including 4 listed partially complied conditions and same was communicated to IRO, Nagpur dated 25.09.2021 and also to MoEFCC Delhi dated 13.12.2021. The EAC deliberated the action plan and found in order.

The PP also submitted the current status expenditure for Remediation Plan, Natural Resource Augmentation Plan & Community Resource Augmentation Plan as given below:

S. No.	Activity	Actual Expenditure During		Total cost
		1st year	2nd year	
		Oct. 2020 to Sept 2021	Oct. 2021 to Feb. 2022	
1.	Damage Assessment Plan (Remediation Plan)	11,02,425	-----	11,02,425
2.	Natural Resource Augmentation Plan	6,12,398	9,62,000	15,74,398
3.	Community Resource Augmentation Plan	5,79,828	2,72,040	8,51,868
	Total	22,94,651	12,34,040	35,28,691

The PP further informed that actual plan for 1st year was to spent Rs. 26,05,000/-. But due to COVID situation PP was unable to complete some activities. Hence, balance amount Rs. 3,10,349/- is additionally considered for the year Oct 2021 to Sept. 2022.

The PP reported that MPCB has filed legal case vide RCC No. 1918/2020 MPCB v/s Shogun Organics Ltd. & Ors. and communicated by the Member Secretary, MPCB to Member Secretary EAC Violation, MoEF& CC New Delhi vide letter dated 3.09.2020. Accordingly, the matter is subjudice and is pending with the honorable court. in compliance with the condition of expenditure of Rs. 77,05,000/- to be done within three years under remediation plan, natural & community resources augmentation plan, a bank guarantee of Rs. 77,05,000/- has been submitted to Maharashtra Pollution Control Board (MPCB) on 30th April 2019. We have spent Rs. 35,28,691/- in a span of 1 year and 6 months towards remediation plan, natural & community resources augmentation plan. The further breakup of the above actual expenditure is Rs. 22,94,651/- from October 2020 to September 2021 (1st Year) and of Rs. 12,34,040/- from October 2021 to February 2022 (2nd Year running) towards various activities.

The PP reported that Existing land area is 106384 m^2, additional land will be not required for proposed expansion. Industry has already developed greenbelt in an area of 33.01 % i.e., 35124.76 m^2 out of total area of the project. The estimated project cost is Rs. 210 Cr.

including existing investment of Rs. 15.58 Cr. Total capital cost earmarked towards environmental pollution control measures is Rs. 974.10 Lacs. (including CER cost of 146.0 Lacs.) and the total recurring cost (operation and maintenance) will be about Rs. 1737.95 Lacs. per annum. Total Employment will be 400 persons during operational phase and 100 persons during construction phase. Industry proposes to allocate Rs 1.46 Cr @ 0.75 % of the expansion cost i.e. 194.42 Cr. towards CER.

The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Bhima River is flowing at a distance of 9.5 Km is in North direction. Water bodies like Patas Lake is located at distance of 4.8 Km in NW direction.

The PP reported that the ambient air quality monitoring was carried out at 8 locations during December 2020 to February 2021 and the baseline data indicates the ranges of concentrations as: PM10 (32.2-60.2 µg/m3), PM2.5 (14.2-32.1 µg/m3), SO2 (12.4-32.5 µg/m3) and NOx (17.9-47.1 µg/m3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 1.25 µg/m3, 0.83 µg/m3, 3.79 µg/m3 and 0.13 µg/m3 with respect to PM10, PM2.5, SO2 and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The PP reported that Total water requirement is 994.43 m3/day of which fresh water requirement will be 674.35 m3/day will be met from MIDC Kurkumbh. Effluent of 259.28 CMD quantity will be treated through existing single effect evaporator, new MEE, conventional ETP comprising of primary, secondary, tertiary followed by RO. The plant will be based on Zero Liquid Discharge (ZLD) system. High TDS/COD stream will be evaporated in MEE. Condensate of MEE will be treated along with low TDS streams in conventional ETP comprising of primary, secondary, tertiary followed by RO. RO permeate will be recycled in utilities while RO reject will be fed to MEE. Unit is complete Zero Liquid Discharge (ZLD) and after proposed expansion also it will remain as ZLD only. Domestic wastewater will be treated in proposed STP of 30 CMD. Treated wastewater will be reused for Gardening during non-monsoon season and in utilities during monsoon season.

The PP reported that total power requirement after expansion will be 4070 KW (Connected load) including existing 270 KW & 2600 KW (Operating load) including existing 200 KW and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). Existing unit has DG Set of 320 KVA (1 no.) capacity, additionally of 1500 KVA (1 no.) DG sets are used as standby during power failure. Stack (30m.) will be provided as per CPCB norms to the proposed DG sets.

The PP reported that Existing unit has 1.25 TPH (1 no.) fired boiler & 2 Lackcal/hr. (1 no.) Thermopac. Additionally, 7 TPH (1 no.) & 3 TPH (1 no.) briquette fired boilers & 1 Lackcal/hr. (1 no.) Thermopac will be installed. Multi cyclone followed by bag filter & stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm3 for the proposed boilers.

Details of Process emissions generation and its management:

Parameters	Existing Process Emissions (2 Numbers)
Pollutant	HCl & SO_2

Scrubbing media / Adsorber	Caustic solution
Packing type	Pall Ring 2"Dia
APC equipment's	Scrubber & Stack
Temp	30^0C
Diameter	0.5 m
MOC	PP/FRP
Shape	Cylindrical
Height	7 m
Duty	Continuous

Description	**Proposed Process Emissions**			
Pollutant	Ammonia	HBr	SO_2	HCl
Scrubbing media	Water	Potassium hydroxide (KOH) solution / Caustic solution / Water	Caustic solution	Water
Packing type	Pall Ring 2"Dia	Pall Ring 2"Dia	Pall Ring 2"Dia	Pall Ring 2"Dia
APC equipment's	Scrubber & Stack	Scrubber & Stack	Scrubber & Stack	Scrubber & Stack
Temp	30^0C	30^0C	30^0C	30^0C
Diameter	0.5 m	0.5 m	0.5 m	0.5 m
MOC	PP/FRP	PP/FRP	PP/FRP	PP/FRP
Shape	Cylindrical	Cylindrical	Cylindrical	Cylindrical
Height	15 m	15 m	15 m	15 m
Duty	Continuous	Continuous	Continuous	Continuous

Emissions from utility

	Boiler			**Thermopack**		**D.G Stack**	
	Additional Proposed	**Additional Proposed**	**Existing**	**Existing**	**Additional Proposed**	**Existing**	**Additional Proposed**
	7 TPH	**3 TPH**	**1.25 TPH**	**2 Lac kcal/hr.**	**1 Lac kcal/hr.**	**320 KVA**	**1500 KVA**
Fuel type	Briquette		LDO/ Biodiesel	LDO	LDO/ Biodiesel	HSD	HSD

Fuel quantity	33.00 TPD	15.00 TPD	1.55 TPD*	0.45 TPD*	LDO: 0.225 TPD / Biodiesel: 00.25 TPD	12.5 lit/hr.	400.00 lit/hr.
Diameter (m)	0.6	0.6	0.8		0.6	0.08	0.2
Stack Height m (above ground level)	30 m	30 m	20 m combined		30 m	3 m above enclosure	30 m
Type of Pollutant	Particulate Matter	Particulate Matter	SO_2	SO_2	SO_2	SO_2	SO_2
Control Equipment	Multicyclone followed by bag filter & Stack	Multicyclone followed by bag filter & Stack	Stack	Stack	Stack	Stack	Stack
*LDO quantities mentioned in above table has been considered on the basis of requirement of fuel after expansion project. Earlier consented total quantity of LDO was 611 lit/day for existing boiler & thermopack.							

Details of Solid waste/ Hazardous waste generation and management:

Sr. No.	Category No. as per HW rule,2016	Type of Waste	Unit	Existing	Additional proposed	Total	Disposal
1.	35.3	ETP Sludge	TPA	210.00	390.00	600.00	CHWTSDF
2.	35.3	Spent Carbon from ETP	TPA	00.00	185.00	185.00	CHWTSDF
3.	35.3	MEE Salts	TPA	00.00	9400.00	9400.00	CHWTSDF
4.	20.2	Mixed solvents from stripper	TPA	00.00	1030.00	1030.00	Sale to authorized party /CHWTSDF
5.	33.1	Empty barrels / containers / liners contaminated with hazardous	Nos./A	480.00	1520.00	2000.00	Sale to authorized party /CHWTSDF

Sr. No.	Category No. as per HW rule,2016	Type of Waste	Unit	Existing	Additional proposed	Total	Disposal
		chemicals / waste					
6.	29.6	Spent acid* (S-Cypermethric acid)	TPA	84.00	59.00	143.00	In house consumption / Sale to authorized party / CHWTSDF
7.	29.6	Spent acid* (Hydrochloric acid)	TPA	22.80	812.20	835.00	In house consumption / Sale to authorized party / CHWTSDF
8.	29.1	Process waste or residues* (Sodium sulfite)	TPA	58.8	1216.20	1275.00	In house consumption / Sale to authorized party / CHWTSDF
9.	29.1	Process waste or residues* (Potassium Sulphate)	TPA	00.00	52.30	52.30	In house consumption / Sale to authorized party / CHWTSDF
10.	29.1	Process waste or residues* (Potassium bromide)	TPA	00.00	37.80	37.80	In house consumption / Sale to authorized party / CHWTSDF
11.	29.4	Spent solvents (Phenol)	TPA	00.00	53.50	53.50	In house consumption / Sale to authorized party / CHWTSDF
12.	29.1	Process waste or residues* (Hydrogen Bromide)	TPA	00.00	415.60	415.60	In house consumption / Sale to authorized party / CHWTSDF
13.	29.1	Process waste or residues* (Sodium bromide)	TPA	00.00	43.30	43.30	In house consumption / Sale to authorized party / CHWTSDF
14.	29.1	Process waste or residues* (Methyl hydrogen)	TPA	00.00	38.00	38.00	In house consumption / Sale to authorized party / CHWTSDF

Sr. No.	Category No. as per HW rule,2016	Type of Waste	Unit	Existing	Additional proposed	Total	Disposal
15.	29.1	Process waste or residues* (Copper Chloride)	TPA	00.00	15.00	15.00	In house consumption / Sale to authorized party / CHWTSDF
16.	29.1	Process waste or residues* (Ammonia solution)	TPA	00.00	291.10	291.10	In house consumption / Sale to authorized party / CHWTSDF
17.	29.1	Process waste or residues* (Pottasium salt)	TPA	00.00	343.50	343.50	In house consumption / Sale to authorized party / CHWTSDF
18.	29.4	Spent solvents (Ethanol)	TPA	00.00	12.50	12.50	In house consumption / Sale to authorized party / CHWTSDF
19.	29.4	Spent solvents (Methanol)	TPA	00.00	27.00	27.00	In house consumption / Sale to authorized party / CHWTSDF
20.	29.1	Process waste or residues* (Potassium bicarbonate)	TPA	00.00	44.10	44.10	In house consumption / Sale to authorized party / CHWTSDF
21.	20.3	Distillation residue	TPA	00.00	256.00	256.00	CHWTSDF/Sale to authorized party
22.	29.4	Mix / Spent solvents from process	TPA	00.00	271.00	271.00	CHWTSDF/Sale to authorized party
23.	29.2	Sludge containing residue pesticides	TPA	15.00	35.00	50.00	Sale to authorized party /CHWTSDF
Note: * Sale to authorized party having permission under rule 9 of H&W rule.							

Non-Hazardous Waste Generation and management

S. No.	Description	Unit	Existing	Additional proposed	Total	Disposal
1.	STP Sludge	TPA	00.00	05.00	05.00	Used as manure for Gardening
2.	Scrap & Paper	TPA	15.00	35.00	50.00	Sale to authorized party

3.	Ash from Briquette	TPA	00.00	1750.00	1750.00	Sale to brick manufacturer

The PP reported that a mature tree can absorb 20 kg of CO2 per year, so it is important to increase the green cover for carbon emission mitigation. The proponent has already provided 33% green cover within the factory premises as per regulations. Proponent can undertake tree plantation and provide necessary infrastructure/logistics to become an active member of re-forestation efforts as a part of Corporate Environmental Responsibility (CER). Increasing the green cover not only offsets the CO2 emissions but also increase the chances of rainfall due to the larger concentration of atmospheric water vapour in such a densely forested area. A total number of 8785 nos of trees are planted and as per calculation approximate 481.36 Kg of CO2 per day will be sequestered. The PP also reported the mitigation measures to reduce electricity consumption by use of Variable Frequency Drives (VFD) & IE-3 Motors and reduction in CO2 emission will be obtained by using Solar power, 260 KWp electricity will be generated.

The project proponent committed to comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

Deliberations by the EAC:

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

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

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

The Committee deliberated on the details of process emissions generation and its management also. The Committee also deliberated on Certified Compliance report and found that remediation plan and community resource augmentation plan is under process.

The Committee deliberated on the water balance data submitted by PP and found it satisfactory. The Committee deliberated on the action plan and budget allocation for green

belt development and noted that as committed by the PP the green belt development shall be completed within one year. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio, accordingly, no. of trees should be increased. The Committee deliberated on Action plan for reduction of environmental toxicology, Life cycle analysis study of Pesticide products, details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found satisfactory.

The Committee noted as committed by PP that no Incremental pollution load from wastewater generation as generated waste water will not be discharged in the environment and the generated effluent will be treated in MEE, ETP & RO and treated wastewater will be reused (ZLD).

The Committee deliberated the Onsite and Offsite Emergency plan and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

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

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

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

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

(i). The Unit 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). All the specific and general conditions, remediation plan and mitigation measures, as stipulated in the earlier EC letter dated 23.09.2020, shall be complied.

(iii). No banned pesticide 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.

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

(v). The specie specific conservation plan of Schedule-I species shall be implemented within time limit and as per the approval of the Chief Wildlife Warden of the State Government.

(vi). The project proponent shall comply with the environment norms for 'Pesticide Industry' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 446 (E), dated 13th June 2011 under the provisions of the Environment (Protection) Rules, 1986.

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

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

(ix). The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

(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 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.

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

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

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

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

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

(xvi). Total fresh water requirement, sourced from GIDC water Supply, shall not exceed 674.35 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA and renewed from time to time.

(xvii). The 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.

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

(xix). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area (@2500 Tress per ha), 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. The Trees have to be planted with spacing of 2m x 2m ratio and as in first year itself and subsequent years the green belt shall be monitored. Further, as committed by PP, additionally 1000 nos. of trees will be developing inside and 1000 nos. of trees will be developing outside premises. The plant species can be selected that will give better carbon sequestration.

(xx). 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 EIA/ EMP report in letter and spirit.

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

Agenda No. 30.4

Setting up of Manufacturing unit of Dyes & Dyes Intermediates of capacity 255 MTPM, located at Plot No. 01, Survey No. 316, Opp. Dharati Industrial Estate, Post: Dhanot, Taluka: Kalol, District: Gandhinagar, Gujarat by M/s Nemi Chem Industries Unit-2- Environmental clearance

[Proposal NO IA/GJ/IND2/80915/2018, F.NO IA-J-11011/303/2018-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Bhagwati Enviro Care Pvt. Ltd. [Accreditation number; QCI/NABET/ENV/ACO/21/2193 validity till 05 Jul 2022] 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 unit of Dyes & Dyes Intermediates of capacity 255 MTPM, located at Plot No. 01, Survey No. 316, Opp. Dharati Industrial Estate, Post: Dhanot, Taluka: Kalol, District: Gandhinagar, Gujarat by M/s Nemi Chem Industries Unit-2.

The project/activity is covered under Category 'A' of item 5(f) "Synthetic Organic Chemicals" of schedule of Environment Impact Assessment (EIA) notification,2006 and is appraised at central level by Expert Appraisal Committee (EAC).

The details of products and capacity as under:

Sr. No.	Name of Products	Quantity (MTPM)
I	Group –I Dyes Intermediate	
1	K-Acid (1-Amino-8-naphthol-4,6-disulfonic acid)	75
2	SPCP (Sodium Penta Chloro Phenate)	
3	N.W Acid (4-hydroxynaphthalene-1-sulfonic acid)	
4	PAPSA (4- amino phenol-2- sulphonic acid)	
II	Group- II Dyes (Alternative Production)	
A	Reactive Dyes	180
5	Reactive Black 8/HN	
6	Reactive Orange 12/ Reactive Golden Yellow HR	
7	Reactive Orange 13/ H2R	
8	Reactive Yellow 18/H4G	
9	Reactive Blue 194/ Reactive Navy Blue ME2GL	
10	Reactive Red 195/ME4BL	
11	Reactive Yellow 145/MERL	
12	Reactive Yellow 160/ME4GL	
13	Reactive Black 5/B	
14	Reactive Red 198/RB	
15	Reactive Yellow 15/ Reactive Violet 5R	

16	Reactive Yellow 42/ FG	
17	Reactive Black WNN	
18	Reactive Turquoise Blue 21/G	
19	Reactive Orange 122/ ME2RL	
B	Direct Dyes	
20	Direct Black 22/ VSF	
21	Direct Red 31/ 12B	
22	Direct Orange 39	
23	Direct Yellow 86	
24	Direct Yellow 11/ Paper Yellow R	
25	Direct Violet 9/ BRILL Violet B	
26	Direct Blue 86/ Turquoise blue GL	
27	Direct Blue 1/ FF	
C	Acid Dyes	
28	Acid Black 1/ 10 BX	
29	Acid Blue 193/ Blue MTR	
30	Acid Brown75/CR	
31	Acid Red 119/ Maroon Crude	
32	Acid Violet 90/ Bordeaux MB	
33	Acid Black 210/NT	
D	Solvent Dyes	
34	Solvent Blue 36	
35	Solvent Red 24	
36	Solvent Yellow 33	
37	Solvent Green 3	
E	Food Colours:	
38	Tartrazine	
39	Sunset Yellow	
40	Chocolate Brown	
41	Ponceau 4R	
Total		255

The ToR has been issued by the Ministry, vide letter No J**-11011/303/2018-IA-II(I)** dated 29-11-2018. Public Hearing for the proposed project has been conducted by the State Pollution control board on 01/09/2021. The Public Hearing proceeding was presided over by Additional

District Magistrate. The main issues during the public hearing are related to waste water disposal and control the pollution. PP reported that No litigation is pending against the proposal.

The PP reported that Proposed land area is 3344 m^2 Industry will develop greenbelt in an area of 33% i.e. 1105 M2 out of total area of the project. The estimated project cost is Rs 9.85 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 123.66 lac and the Recurring cost (operation and maintenance) will be about Rs 206.5 lac per annum. Total employment will be 27 persons as direct & 10 persons indirect for proposed project. Industry proposes to allocate Rs. 20 Lac towards corporate Environmental responsibility (CER).

The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Narmada Canal is flowing at a distance of 4.0 km in direction SSW direction.

The Ambient air quality monitoring was carried out at 08 locations during October to December 2020 and the baseline the ranges of concentration as: PM10 (65.66-88.66 ug/m3), PM2.5 (30.28-45.13 ug/m3), SO2 (4.78-21.01 ug/m3), NOx (6.49-25.16 ug/m3), HCl (<1 ug/m3) & NH3 (<2 ug/m3). AAQ modeling study for point source emission indicated that the maximum incremental GLCs after the proposed project would be 0.72736 ug/m^3, 0.2376 ug/m^3, 0.31994 ug/m^3, 0.16802 ug/m^3, 0.00384 ug/m^3, 0.03242 ug/m^3 with respect to PM10, PM2.5, SO2, NOx, HCl and NH3. The resultant concentrations are within the national ambient air quality standards (NAAQS).

The PP reported that Total water requirement is 88 m^3/day of which fresh water requirement of 55.2 m^3/day will be met from CGWA. Effluent of 46.8 KLPD will be sent to ETP for Primary treatment followed by RO System from that, RO Permeate 32.8 KLPD will be reused in industrial purpose within premises and RO Rejected 14 KLPD will be sent to GPCB registered Common Spray Drying Facility M/s. Chhatral Environment Management System Pvt. Ltd. Dhanot by tanker having GPS system.

The PP reported that Power requirement for proposed unit will be 100 kVA and will be met from UGVCL (Uttar Gujarat Vij Co. Ltd). Proposed unit has 01 DG sets of 125 kVA capacity as standby during power failure. Stack (height 11) will be provided as per CPCB norms to the proposed DG sets.

The PP reported that Proposed unit has 2 TPH Steam Boiler (02 Nos) & Hot Air Generator (10 Lac k cal/Hr). Multi Cyclone Dust Collector Followed by Bag Filter & Wet Scrubber with a stack of height of 30 m will be installed respectively for controlling the particulate emission within the statutory limit of 115 mg/Nm3 for the proposed Steam Boiler & Hot Air Generator.

Details of process emission generation and its management.

Sr. No.	Stack attached To	APCD System	Stack Height	Pollutants
1	Reaction vessel (K Acid, NW Acid & Reactive Blue G)	Water scrubber followed by alkali scrubber	11 m	SO_2

2	Reaction vessel (K Acid & NW Acid)	Two stage Water Scrubber system	11 m	NH_3
3	Reaction vessel (Direct Blue 86)	Water Scrubber followed by alkali system	11 m	HCl
4	Spray dryer (2 Ton/Hr)	Multi Cyclone Dust Collector Followed by Wet Scrubber	11 m	SPM

Details of solid waste/ hazardous waste generation and its management:

Sr. No	Type of Hazardous Waste	Source	Cat. No. as HW Rules 2016	Quantity	Management
1.	ETP Sludge	ETP	35.3	300 MT/Year	Collection, Storage, Transportation, Disposal to TSDF site
2.	Discarded Bags/Containers/Drums	R.M Storage	33.1	80 MT/Year	Used for packing of ETP waste or return back to supplier.
3.	Used Oil	D.G Set	5.1	20 Litre /Year	Storage into carboys and ultimately Reuse or sell to registered re refiners
4.	Spent Acid (40-45 %)	From Manufacturing Process of K-Acid, PAPSA, Reactive Blue G, Direct Blue 86	26.3	11166 MT/Year	Collection, Storage, Transportation, Disposal to Spent Acid management site or sell to Actual recycler.
5.	Process Waste	From Manufacturing Process of Food Colours	---	72 MT/Year	Collection, Storage, Transportation, Disposal to TSDF site
6.	Glauber Salt	From Manufacturing process of N. W Acid	--	300 MT/Year	Collection, Storage, Transportation, Disposal by selling to actual users

7.	Dilute HCl (25%)	From Scrubber	D-2, Sc-I	460 MT/Year	Collection, Storage, Transportation, Disposal by selling to actual users /Reuse
8.	Sodium Bi Sulphite (28%)	From Scrubber	--	2148 MT/Year	Collection, Storage, Transportation, Disposal by selling to actual users/Reuse.
9.	Ammonium Hydroxide (25%)	From Scrubber	--	1602 MT/Year	Collection, Storage, Transportation, Disposal by selling to actual users/Reuse.
10.	Distillation Residue	Distillation	--	5 MT/Year	Collection, Storage and send to CHWIF.

The project proponent committed to comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

Deliberations by the EAC:

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

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

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

The Committee deliberated on the water balance, storage and handling of chemicals submitted by the PP and found it satisfactory. The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP the green belt development shall be completed within one year. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio, accordingly, number of trees should be increased. The committee

deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found satisfactory. The Committee deliberated on mitigation of carbon emission, CER activity, and schedule-I conservation plan and found satisfactory. The EAC also deliberated the Action Plan on the issues raised during public hearing and socio-economic issues in the study area and found the plan is in order.

The Committee deliberated the Onsite and Offsite Emergency plan and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

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

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

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

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

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

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

(iv). The project proponent shall comply with the environment norms for 'Dye and Dye Intermediate Industry' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 325(E), dated 07.05.2014 under the provisions of the Environment (Protection) Rules, 1986.

(v). The specie specific conservation plan of Schedule-I species shall be implemented within time limit and as per the approval of the Chief Wildlife Warden of the State Government.

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

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

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

(ix). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no treated/untreated wastewater 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.

(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 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.

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

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

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

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

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

(xvi). Total fresh water requirement, sourced from Ground Water, shall not exceed 55.2 m^3/day. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA and renewed from time to time.

(xvii). The 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.

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

(xix). The green belt of at least 5-10 m width shall be developed in at least 35% of the total project area (@2500 Trees per ha), mainly along the plant periphery/additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2.0 m x 2.0 m ratio and as in first year itself and subsequent years the green belt shall be monitored. The plant species can be selected that will give better carbon sequestration.

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

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

Agenda No. 30.5

Proposed Expansion of Agrochemicals Manufacturing from existing capacity of 9400 TPA to 12650 TPA, located at Survey No. 28/1-A, Corlim village, Tahsil-Tiswadi, Dist.-North Goa, Goa by M/s Deccan Fine Chemicals (India) Private Limited - Consideration of Environmental Clearance

[Consultant: Aditya Environmental Services Pvt. Ltd.; valid upto 01.05.2022]

[Proposal No. IA/GA/IND3/261535/2018; File No. J-11011/616/2007-IA -II (I)]

The Project Proponent and the accredited Consultant M/s. Aditya Environmental Services Pvt. Ltd with Accreditation Number NABET/EIA/2124/SA 0146 valid till 1.5.2022 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 Agrochemicals Manufacturing from existing capacity of 9400 TPA to 12650 TPA, located at Survey No. 28/1-

A, Corlim village, Tahsil-Tiswadi, Dist.- North Goa, Goa by M/s Deccan Fine Chemicals (India) Private Limited

The project/activity is covered under Category 'A' of item 5(b) of Schedule of Environment Impact Assessment (EIA) Notification and requires appraisal at Central Level by Expert Appraisal Committee (EAC).

The details of products and capacity as under:

S. No.	Product	Existing Capacity (TPA)	Proposed additional Capacity (TPA)	Total, (TPA)
1	Thiamethoxam (TMX-I&II)	4500	800	5300
2	Pretilachlor	1785	0	1785
3	CPTAP	1300	0	1300
4	TCAN	700	0	700
5	Metobromuron	1000	0	1000
6	MAT-26	100	0	100
7	Pilot Plant products	15	0	15
8	Amino Ethyl Phenol	0	700	700
9	Mandipropamid	0	750	750
10	Ortho-Substituted Phenyl Amide Tech (OPA)	0	1000	1000
	Total	**9400**	**3250**	**12650**
	By products			
1	Bromide containing stream for Bromine recovery	9800	0	9800
2	Potash stream for preprocessing	7000	0	7000
3	75% Sulphuric acid	480	0	480
4	10-15% Ammonia solution	950	0	950
5	90% KCL	7000	0	7000
	Total	**25230**	**0**	**25230**

The ToR has been issued by the Ministry vide letter No. J-11011/616/2007-IA-II (I) dated 13th September 2018 and ToR amendment received vide letter No. J-11011/616/2007-IA-II (I) dated 8th July 2019 w.r.t. exemption of PH as per MoEF&CC letter no. F.No. J-11011/616/2007-IA-II(I) dated 08.07.2019. The Consent to operated has been obtained by the Goa State Pollution Control Board vide letter No.12/2022-PCB/59931/13254 Amde-366 dated 15.3.2022 valid till 31.12.2023.

The PP reported that Ministry had issued EC earlier vide letter no. J-11011/616/2007-IA-II (I) dated 30th October 2008 to M/s Syngenta India Ltd. and subsequently transferred to M/s Deccan Fine Chemicals (India) Private Limited vide letter no. J-11011/616/2007-IA-II (I) dated 25th June 2018. Certified Compliance report has been obtained by IRO, MoEFCC Bangalore dated 16.03.2022. All conditions are compiled in CCR.

The PP reported that Total area of site is 181.84 acres and the proposed expansion will be with the existing area. Industry has already developed green belt in an area of 34.7% i.e. 63.13 Acres out of total area of the project. The estimated project cost is Rs. 350 Crores in addition to existing investment of Rs. -394 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 40 Cr and the Recurring cost (operation and maintenance) will be about Rs. 37.5 Cr per annum. Total Employment will be 1000 persons (Existing- 500 & Proposed- 500) as direct & ~1500 persons indirect after expansion. Industry proposes to allocate Rs. 2.62 Cr @ 0.75 % of proposed project cost towards CER.

The PP reported that Dr. Salim Ali Bird Sanctuary is located at ~8.4 kms to the North west. There are no national parks, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors within 10 km distance from the project site. Cumbharjua Canal is flowing at a distance of 10 m in North direction and Mandovi River is flowing at a distance of 4.3 kms in the South West. Conservation of Schedule-I species has been prepared and PP committed to implement the plan in two years.

The Ambient air quality monitoring was carried out at 9 locations during December 2018 to February 2019 and additional baseline monitoring during February 2022. The baseline data indicates the ranges of concentrations as: PM10 (30.3 to 79.2 µg/m3), PM2.5 (18.7 to 54.5 µg/m3), SO2 (6.0 to 13.9 µg/m3), NOx (11.4 to 32.9 µg/m3), NH3 (23.4 to 41.2 µg/m3), CO (0.1 to 0.9 mg/m3). VOC, H2S, HCl, HBr, HF and nMHC were found to be BDL. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.14 µg/m3, 0.69 µg/m3 and 0.28 µg/m3 with respect to PM10, SO2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The PP reported that Total water requirement in post expansion scenario is 5475 cmd will be met from Public Works Department supply, Rain water and Desalinated Seawater. Already we have permission from PWD for 1600 cmd same be maintained post expansion. Trade effluent of 4718 cmd quantity will be treated through ETP, MEE & ATFD. Domestic sewage of 282 cmd will be treated in ETP along with trade effluent in the aeration tank. Treated effluent of 5000 cmd will be discharge into Cumbharjua Canal through existing facility. 2200 cmd of reject from SWRO will be discharged into Cumbharjua canal through existing facility.

The PP reported that Power requirement after expansion will be 13000 KVA including existing 8000 KVA. Power requirement will be fulfilled from Department of Electricity, Government of Goa. Existing unit has 3 no's of 1010 KVA, 3 no's of 1500 KVA, 4 no's of 1250 KVA & 1no. of 500 KVA DG sets. No additional DG set is proposed for expansion. Adequate Stack height has been provided to each unit as per CPCB norms.

The PP reported that Existing unit has 3 nos. of LSHS fired boiler (5 TPH, 10 TPH & 16 TPH capacity respectively), 1 no. of Briquette fired Boiler (30 TPH capacity), 2 nos. of Oil heating unit (2 & 4 Lakh Kcal/hr capacity respectively), 2 nos. of Liquid waste incinerator (2600 tpm & 3500 tpm capacity respectively) and 1 no. of Solid waste incinerator (400 kg/hr capacity). Existing units are adequate for proposed expansion and no additional unit is required. Adequate Stack height has been provided to each unit as per CPCB norms. Emission limits are maintained within the statutory limit as applicable.

Details of Process emissions generation and its management:

Sources of Air Pollution	Stack Height (m) (above roof top)	Stack Diameter (m)	Gas Temperature (^{o}C)	Gas Velocity (m/s)	Air Pollution Control Equipment
Existing					
Process Scrubber-1 for Thiamethoxam manufacturing plant	8 m	0.2	25-30	3-4	Three Stage Alkaline Scrubber
Process Scrubber-2 for Thiamethoxam manufacturing plant	8 m	0.2	25-30	3-4	Alkaline Scrubber
Process Scrubber-1 for Thiamethoxam and TCAN manufacturing plant	8 m	0.2	25-30	3-4	Three Stage Alkaline Scrubber
Process Scrubber-2 for Thiamethoxam manufacturing plant	8 m	0.2	25-30	3-4	Alkaline Scrubber
Process Scrubber-1 for Pretilachlor Plant manufacturing plant	8 m	0.2	25-30	3-4	Two Stage Alkaline Scrubber
Process Scrubber-1 for Pretilachlor Plant manufacturing plant	8 m	0.2	25-30	3-4	Alkaline Scrubber
Process Scrubber-1 for CPTAP manufacturing plant	8 m	0.2	25-30	3-4	Alkaline Scrubber
Process Scrubber-2 for CPTAP & MAT-26 manufacturing plant	8 m	0.2	25-30	3-4	Alkaline Scrubber

Sources of Air Pollution	Stack Height (m) (above roof top)	Stack Diameter (m)	Gas Temperature (^{o}C)	Gas Velocity (m/s)	Air Pollution Control Equipment
Process Scrubber-1 for Metobromuron manufacturing plant	8 m	0.2	25-30	3-4	Alkaline Scrubber
Process Scrubber-2 for Metobromuron manufacturing plant	8 m	0.2	25-30	3-4	Alkaline Scrubber
Process Scrubber-2 for Pilot Plant	8 m	0.2	25-30	3-4	Alkaline Scrubber
Proposed					
Process Scrubber-1 for Thiamethoxam manufacturing plant	8 m	0.2	25-30	3-4	Three Stage Alkaline Scrubber
Process Scrubber-2 for Thiamethoxam manufacturing plant	8 m	0.2	25-30	3-4	Alkaline Scrubber
Process Scrubber-1 for AE Phenol manufacturing plant	8 m	0.2	25-30	3-4	Two Stage Alkaline Scrubber
Process Scrubber-2 for AE Phenol manufacturing plant	8 m	0.2	25-30	3-4	Alkaline Scrubber
Process Scrubber-1 for OPA manufacturing plant	8 m	0.2	25-30	3-4	Alkaline Scrubber
Process Scrubber-2 for OPA manufacturing plant	8 m	0.2	25-30	3-4	Alkaline Scrubber
Process Scrubber-1 for MPA	8 m	0.2	25-30	3-4	Alkaline Scrubber

Sources of Air Pollution	Stack Height (m) (above roof top)	Stack Diameter (m)	Gas Temperature (^{o}C)	Gas Velocity (m/s)	Air Pollution Control Equipment
manufacturing plant					
Process Scrubber-2 for MPA manufacturing plant	8 m	0.2	25-30	3-4	Alkaline Scrubber

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

Non-hazardous waste generation and disposal

Sr. No	Waste	Unit	Existing	Proposed Add.	Total	Disposal
1	Rejected Material (Paper, Metal Scrap, HDPE/ FRVE/ FRV Scrap, Broken wooden pallets, carboys/tins/caps generated from canteen, PVC Bottles, Corrugated Boxes, broken glass and insulation material, General non-hazardous waste)	TPD	3	1	4	To be send for recycling through third party.
2	Boiler ash from briquette fired boiler	TPD	20	-	20	To recycler for brick manufacturing and to cement plant for co processing

Hazardous waste generation and disposal

S. No.	Description	Category as per HW Rules 2016	Unit	Existing	After Expansion	Mode of disposal
1	Used or spent oil	5.1	TPA	18	20	To Recyclers/ TSDF for incineration

2	Wastes or residues containing oil	5.2	TPA	5	5	To Recyclers/ TSDF for incineration
3	Residue or sludge containing phenol	19.1	TPA	50	50	Onsite incineration/ TSDF for Incineration / Co-processing
4	Distillation residue	20.3	TPA	8	8	
5	Process residues	29.1	TPA	33800	33800	
6	Stripper Distillate	29.1	TPA	0	5000	
7	Date-expired and off-specification pesticides	29.3	TPA	140	140	
8	Sludge containing residual pesticides	29.2	TPA	1200	1500	Co-processing
9	Spent Solvent	29.4	TPA	1000	1000	Recycling/Co-processing
10	Spent catalyst	29.5	TPA	2	30	Recycling authorized recyclers
11	Discarded Asbestos	15.2	TPA	100	100	Sent to TSDF for landfill
12	Empty barrels/ containers	33.1	TPA	800	900	Disposed to recyclers, manufacturers or re-users after detoxification
13	Residue from decontamination	34.1	TPA	20	20	Co-processing in cement plants / TSDF for incineration/Onsite incineration /
14	Contaminated liners	33.1	TPA	150	225	
15	Spent carbon or filter medium	36.2	TPA	7	20	
16	Sludge from wet scrubbers	37.1	TPA	1	1	
17	Ash from Boiler	35.1	TPA	250	25	Co-processing in cement plants / TSDF
18	Ash from incinerator & flue gas cleaning	37.2	TPA	3000	20	
19	Refractory from incineration	36.2	TPA	600	100	Sent to TSDF
20	Concentration or Evaporation residue	37.3	TPA	0	7500	
21	Spent Ion exchange resins	35.2	TPA	5	5	Co-processing in cement plants
22	Cotton Rages	33.2	TPA	5	7	

Other waste generation and disposal

S. No.	Description	Unit	Existing	After Expansion	Total	Mode of disposal
1	Used Batteries	Nos	750	250	1000	Sent for recycling through the original manufacturer/ authorized recyclers.
2	E-waste	MT	1.25	0.25	1.5	Sent for recycling through authorized collection centers
3	Bio-medical Waste	Kg	<10	-	<10	Sent to CBMWTSDF

The PP deliberated on the report of GHG emission from 2018 to 2021 due to direct and indirect emissions as computed by PP and carbon footprints calculations (MT CO2 per MT of product). Total annual GHG emissions have reduced from 59,515 MT CO@ to 50,891 MT co2. The specific GHG emissions (TCO2/T of product) were at 681 MT/T in 2018 which has been reduced to 5.14 MT/T in 2021.This reduction of 25 % from 2018 to 2022 in specific emissions of GHG gases has been possible through implementation of various CO2 reduction projects Details of the various projects executed during 2018 to 2021.

The PP also deliberated on execution of new projects, that due to new project the GHG emissions to increase to 67,000 MT CO2 and the steps during project execution and planning to reduce the CO2 emissions and maintain the carbon footprint below 5 MT CO2 T of product Steps proposed to be taken by them to ensure that the carbon footprint remains below 5 MT CO2/T of product and the GHG emissions reduction.

The project proponent committed to comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

Deliberations by the EAC:

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

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

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

storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP the green belt development shall be completed within one year. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio, accordingly, no. of trees should be increased. The Committee deliberated on Action plan for reduction of environmental toxicology, Life cycle analysis study of Pesticide products, Carbon foot print and its mitigation measures and submitted by PP and found satisfactory. The Committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found satisfactory. PP

The Committee deliberated the Onsite and Offsite Emergency plan and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

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

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

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

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

(i). The Unit 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). No banned pesticide 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.

(iii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing

more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(iv). The specie specific conservation plan of Schedule-I species shall be implemented within time limit and as per the approval of the Chief Wildlife Warden of the State Government.

(v). The project proponent shall comply with the environment norms for 'Pesticide Industry' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 446 (E), dated 13th June 2011 under the provisions of the Environment (Protection) Rules, 1986.

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

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

(viii). The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

(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 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.

(x). 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.

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

(xii). 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. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xiii). 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.

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

(xv). Total fresh water requirement, sourced from GIDC water Supply, shall not exceed 5475KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA and renewed from time to time.

(xvi). The 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.

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

(xviii). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area (@2500 Tress per ha), 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. 24850 Trees have to be planted with spacing of 2m x 2m ratio and as in first year itself and subsequent years the green belt shall be monitored. Further, as committed by PP, additionally 1000 nos. of trees will be developing inside and 1000 nos. of trees will be developing outside premises. The plant species can be selected that will give better carbon sequestration.

(xix). 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 EIA/ EMP report in letter and spirit.

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

Agenda No. 30.6

Setting up of Bulk Drugs Drug Intermediates Manufacturing Unit with production capacity 60 TPM, located at Plot No's.: 292 to 296, Kadechur Industrial Area, Kadechur Village, Yadgir Taluk & District, Karnataka by M/s Stalwart Laboratories - Consideration of Environmental Clearance

[Consultant: Rightsource Industrial Solutions Pvt. Ltd; valid upto 23.04.2022]

[Proposal No. IA/KA/IND3/233232/2021; File No. IA-J-11011/441/2021-IA-II(I)]

The Project Proponent and accredited Consultant M/s. Rightsource Industrial Solutions Pvt. Ltd. having Accreditation number QCI/NABET/ENV/ACO/22/2317 valid till 17.7.2022 gave a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the project for Setting up of Bulk Drugs Drug Intermediates Manufacturing Unit with production capacity 60 TPM, located at Plot No's.: 292 to 296, Kadechur Industrial Area, Kadechur Village, Yadgir Taluk & District, Karnataka by M/s Stalwart Laboratories

The details of products and by Products with quantities are as under:

S. No	Product Name	Quantity in TPM	CAS No	Therapeutic Use
Group-A				
1	Amlodipine Besylate	1.00	88150-42-9	Used to treat high blood pressure
2	Carvedilol	1.00	72956-09-3	Anti-hypertensive
3	Celecoxib	1.00	169590-42-5	Anti-inflammatory
4	Dabigatran Etexilate Mesylate	2.00	872728-81-9	Anticoagulant
5	Dolutegravir	2.00	1051375-16-6	Antiretroviral
6	Duloxetine Hydrochloride	2.00	136434-34-9	Anti-Depressant
7	Fexofenadine hydrochloride	6.00	153439-40-8	Antihistamine
8	Gabapentin	3.00	60142-96-3	Used to prevent and control seizures
9	Itraconazole	8.00	84625-61-6	Antifungal
10	Lansoprazole	2.00	103577-45-3	Anti-ulcer
11	Levocetirizine Dihydrochloride	6.00	130018-77-8	Antihistamine
12	Losartan Potassium	5.00	114798-26-4	Antihypertensive
13	Montelukast sodium	2.00	158966-92-8	Used to treat asthma
14	Olmesartan Medoxomil	4.00	144689-63-4	Anti-hypertensive
15	Pantoprazole Sodium	6.00	138786-67-1	Anti-ulcer
16	Pregabalin	3.00	148553-50-8	Antibiotics
17	Quetiapine Fumarate	5.00	111974-72-2	Antipsychotic
18	Rabeprazole sodium	5.00	117976-90-6	Anti-ulcer
19	Valsartan	3.00	137862-53-4	Antihypertensive
20	Voriconazole	2.00	137234-62-9	Antifungal
Total (Any 3 products will be manufactured at any given point of time)		**20.00**		
Group-B				
1	((5-thiazolyl)methyl)-(4-nitrophenyl)carbonate	2.00	144163-97-3	Ritonavir Intermediate
2	(+-)-(R*,S*)-6-fluoro-3,4-dihydro-alpha-[[(phenylmethyl)amino] methyl]-2H-1-benzopyran-2-methanol	1.00	99199-91-4	Nebivolol Hydrochloride Intermediate
3	(2S,3S,5S)-2-(2,6-Dimethylphenoxyacetyl)amino-3-hydroxy-5-amino-1,6-diphenylhexane	3.00	192725-49-8	Lopinavir Intermediate
4	(2S,3S,5S)-5-Amino-2-(N-((5-thiazolyl)-methoxycarbonyl)amino)-1,6-diphenyl-3-hydroxyhexane	3.00	144164-11-4	Ritonavir Intermediate
5	(S)-2-Aminobutanamide Hydrochloride	2.00	7682-20-4	Levetiracetam Intermediate

S. No	Product Name	Quantity in TPM	CAS No	Therapeutic Use
6	1-phenyl-3,4-Dihydro Isoquinoline	1.00	52250-50-7	Solifenacin Succinate Intermediate
7	2-(2-Butyl)-4-{4-[4-(4-methyloxy-phenyl)-piperazin-1-yl]-phenyl}-2,4-dihydro-[1,2,4]-triazol-3-one	8.00	252964-68-4	Itraconazole Intermediate
8	2-(2-Nitroanilino)-5-methyl thiophene-3-Carbonitrile	1.00	138564-59-7	Olanzapine Intermediate
9	2-(4-Cyanophenylamino) Acetic Acid	2.00	42288-26-6	Dabigatran Intermediate
10	2,3-Dimethyl-6-amino-2H-indazole	1.00	444731-72-0	Pazopanib Hydrochloride intermediate
11	2,4-Dihydro-4-[4-[4-(4-hydroxyphenyl]-1-piperazinyl]-phenyl]-2-(1-methylpropyl)-3H-1,2,4-triazol-3-one	6.00	106461-41-0	Itraconazole Intermediate
12	2-Azaspiro[4.5]decan-3-one	10.00	64744-50-9	Gabapentin Intermediate
13	2-Butyl-4-chloro-5-formylimidazole	5.00	83857-96-9	Losartan Intermediate
14	2-(2-Thienyl)ethyl toluene-p-sulphonate	6.00	40412-06-4	Clopidogrel Bisulphate Intermediate
15	3-Carbamoylmethyl-5-methyl hexanoic acid (Recimic)	2.00	181289-33-8	Pregabalin Intermediate
16	4-Bromomethyl-2-cyanobiphenyl (Bromo OTBN)	3.00	114772-54-2	Valsartan Intermediate
17	4-Chloro-4-hydroxy benzophenone	1.00	42019-78-3	Fenofibrate Intermediate
18	5-Difluoromethoxy-2-[(3,4-dimethoxy-2-pyridinyl)methyl]thio-1H-benzimidazole	5.00	102625-64-9	Pantoprazole Intermediate
19	Boc-O-Methyl-D-Serine	2.00	86123-95-7	Lacosamide Intermediate
20	Ethyl 4-(1-hydroxy-1-methylethyl)-2-propyl-imidazole-5-carboxylate	3.00	144689-93-0	Olmesartan Intermediate
21	Methyl [E]-2-[3-(S)-[3-[2-(7-Chloro-2-quinolinyl)ethenyl]phenyl]-3-hydroxypropyl]benzoate	3.00	142569-69-5	Montelukast Sodium Intermediate

S. No	Product Name	Quantity in TPM	CAS No	Therapeutic Use
22	Methyl-4-(4-chloro-1-oxobutyl)-alpha,alpha-Dimethylphenyl acetate	10.00	154477-54-0	Fexofenadine. Hydrochloride Intermediate
23	Methyl-6-fluoro-4-oxo-4H-benzopyran-2-carboxylate	2.00	116543-91-0	Nebivolol Hydrochloride Intermediate
24	2-(N-(Triphenylmethyl)-5-(4'bromomethyl-biphenyl-2-yl)tetrazole (TTBB)	5.00	124750-51-2	Losartan/Olmesartan Intermediate
25	N-[4-(3,4-dichlorophenyl)-3,4-dihydro-1-napthalenyledene] methanamine	2.00	79560-20-6	Sertraline Intermediate
26	tert-Butyl 6-[(1E)-2-[4-(4-fluorophenyl)-6-(1-methylethyl)-2-[methyl(methylsulfonyl)amino]-5-pyrimidinyl]ethenyl]-2,2-dimethyl-1,3-dioxane-4-acetate	4.00	289042-12-2	Rosuvastatin Calcium Intermediate
Total (Any 5 products will be manufactured at any given point of time)		**40.00**		
Grand Total (Group-A + Group-B)		**60.00**		

TABLE: LIST OF BY-PRODUCTS AND ITS QUANTITIES

S. No	Name of the product	Name of the By-Product	Quantity in Kg/Day
1	Lansoprazole	Sodium acetate	28.40
		Acetic acid	20.80
		Potassium Nitrite	29.50
2	Pregabalin	Ammonium chloride	246.10
3	2-(2-Butyl)-4-{4-[4-(4-methyloxy-phenyl)-piperazin-1-yl]-phenyl}-2,4-dihydro-[1,2,4]-triazol-3-one (Itraconazole Intermediate)	Ammonium acetate	133.10
		Potassium bromide	89.40
4	2,4-Dihydro-4-[4-[4-(4-hydroxyphenyl]-1-piperazinyl]- phenyl]-2-(1-methylpropyl)-3H-1,2,4-triazol-3-one (Itraconazole Intermediate	Ammonium acetate	123.20
		Sodium bromide	121.60
5	2 –Butyl-4-Chloro-5-Formyl Imidazole (Losartan Potassium Intermediate)	Phosphoric acid	103.00
6	2-(2-Thienyl)ethyl toluene-p-sulphonate (Clopidogrel bisulphate intermediate)	Tri ethylamine Hydrochloride	115.00
7	3-(Carbamoylmethyl)-5-methylhexanoic acid	Ammonium chloride	124.30

S. No	Name of the product	Name of the By-Product	Quantity in Kg/Day
	(Pregabalin intermediate)		
8	Methyl 4-(4-Chloro-1-Oxobutyl)-Alpha,Alpha-Dimethyl phenyl acetate (Fexofenadine Hydrochloride intermediate)	Sodium acetate	146.90
		Potassium chloride	116.10
9	Itraconazole	Sodium Bromide (After neutralization of HBr & CH_3Br with Caustic Lye solution)	728.77
	Olmesartan Medoxomil		
	4-Chloro-4-hydroxy benzophenone		
	2-(2-Butyl)-4-{4-[4-(4-methyloxy-phenyl)-piperazin-1-yl]-phenyl}-2,4-dihydro-[1,2,4]-triazol-3-one		
	2,4-Dihydro-4-[4-[4-(4-hydroxyphenyl]-1-piperazinyl]-phenyl]-2-(1-methylpropyl)-3H-1,2,4-triazol-3-one		
	4-Bromomethyl-2-cyanobiphenyl		
	Methyl [E]-2-[3-(S)-[3-[2-(7-Chloro-2-quinolinyl)ethenyl]phenyl]-3-hydroxypropyl]benzoate		
	(2-(N-(Triphenylmethyl)-5-(4'bromomethyl-biphenyl-2-yl)tetrazole		

The project/activity is covered under Category 'B1' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006. The proposed Project has come under Interstate boundary i.e., Karnataka to Telangana State which is located within 5 km from the project boundary the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry. As informed by PP no litigation is pending against the proposal.

The PP reported that the proposed project will be established in a land area of 5.0 Acres (20235.00 Sqm). Industry will develop greenbelt in an area of 6978.38 Sqm which is 34.5 % out of 20235.00 Sq. of the total project area. The proposed project cost is about Rs. 18.0 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 123 Lakhs and the recurring cost (operation and maintenance) will be about Rs. 22 Lakhs per annum. Total proposed employment will be 150 persons. Industry proposed to allocate Rs. 36.0 Lakhs towards Corporate Environment Responsibility.

The PP reported that there are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance.

The PP reported that Public Hearing is exempted as it is located at KIADB, Industrial area Kadechur and Ministry of Environment, Forests and Climate Change (MoEF&CC) has granted environmental clearance (EC) to Kadechur Industrial Area at Kadechur village in Yadgir district, Karnataka vide F. No. 21-8/2014-IA. II Dated 14.10.2016.

The PP reported that Ambient air quality monitoring was carried out at 8 locations during Post-Monsoon Season (October to December, 2021) and submitted baseline data indicates

that ranges of concentrations of PM10 (45.1 – 68.5 µg/ m3), PM2.5 (17.0 – 27.6 µg/ m3), SO2 (9.1 – 19.6 µg/ m3), NOx (10.7 – 25.1 µg/ m3), CO (0.21 – 0.64 mg/ m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be PM10, PM2.5, SO2 & NOx would be 0.658 µg/ m3, 0.164 µg/ m3, 0.892 µg/ m3 & 0.969 µg/ m3 respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NQQS).

The PP reported that The total water requirement is 187.7m^3/day and will be met from KIADB water supply. Generated effluent of 66.47m^3/day will be sent to CETP- Mother Earth, Kadechur.

Power requirement will be 1000 kVA and will be met from Karnataka Power Corporation Limited (KPCL). The unit is proposed to install 1 x 320 kVA DG Set & 1 x 500 kVA, Stacks (heights of 8 mts & 9.0 mts) will be provided as per CPCB norms to the proposed DG sets respectively

1 x 3.0 TPH & 1 x 5.0 TPH boilers are proposed with stacks height of 30 mtrs for each boiler. Cyclone separators followed by bag filters will be installed for the proposed boilers for controlling the particulate emissions (within statutory limit of 115 mg/ Nm3). 1 x 2 Lakh K. Cal/ Hr Thermic fluid heater is proposed with stack height of 11 mtrs and Cyclone separator will be installed for controlling the particulate emissions (within statutory limit of 115 mg/ Nm3).

S. No.	Name of the Gas	Quantity in Kg/Day	Treatment Method
1	Hydrogen	8.00	Diffused by using Nitrogen through Flame arrestor to avoid the formation of explosive mixture.
2	Oxygen	22.00	Dispersed into the atmosphere
3	Ammonia	25.00	Scrubbed by using chilled water media
4	Nitrogen	27.00	Dispersed into the atmosphere
5	Dimethylamine	47.00	Scrubbed by using chilled water media
6	Hydrogen Bromide	516.00	Scrubbed by using C. S. Lye solution
7	Hydrogen chloride	410.00	Scrubbed by using chilled water media
8	Hydrogen Fluoride	8.00	Scrubbed by using C. S. Lye solution
9	Hydrogen Iodide	38.00	Scrubbed by using C. S. Lye solution
10	Methyl Chloride	53.00	Scrubbed by using C. S. Lye solution
11	Carbon dioxide	757.00	Dispersed into the atmosphere
12	Methyl Bromide	67.00	Scrubbed by using C. S. Lye solution
13	Sulphur dioxide	142.00	Scrubbed by using C. S. Lye solution
Note: Hydrogen bromide neutralized with Caustic lye solution which results in formation of Sodium bromide. This salt will be sold to outside parties.			

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

S. No	Name of the Waste	Quantity	Disposal Method
Hazardous Waste Details			
1	Organic solid waste	2928 Kg/Day	Will be sent to Cement Industries

S. No	Name of the Waste	Quantity	Disposal Method
Hazardous Waste Details			
2	Spent Carbon	74 Kg/Day	
3	Solvent Distillation Residue	614 Ltrs/Day	
4	Inorganic Solid Waste	1204 Kg/Day	Will be sent to TSDF - Mother Earth-Kadechur.
5	ETP Sludge	130 Kg/Day	
6	Used Oils	165 Ltrs/Annum	Will be sent to SPCB Authorized Agencies for Reprocessing/ Recycling
7	Detoxified Containers/ Container liners	600 No's / Month	After Detoxification will be sent to SPCB authorized agencies
8	Used Lead Acid Batteries	4 No's/ Annum	Send back to suppliers for buyback of New Batteries
Solid waste details			
9	Ash from boilers	7.0 TPD	Will be sent to Brick Manufacturers

PRODUCT WISE- HAZARDOUS SOLID WASTE DETAILS

S. No.	Product Name	Production Capacity	Production Capacity	Organic solid waste	Inorganic solid waste	Spent Carbon	Distillation Residue
		Kg/Month	Kg/Day	Kg/Day	Kg/Day	Kg/Day	Kg/Day
Group-A							
1	Amlodipine Besylate	1000	33.33	64.62	0.00	2.22	12.33
2	Carvedilol	1000	33.33	7.63	0.00	0.42	1.25
3	Celecoxib	1000	33.33	26.52	57.13	0.00	2.53
4	Dabigatran Etexilate Mesylate	2000	66.67	83.87	16.02	2.67	24.33
5	Dolutegravir	2000	66.67	45.60	0.00	0.00	8.00
6	Duloxetine Hydrochloride	2000	66.67	92.68	3.33	0.00	15.67
7	Fexofenadine hydrochloride	6000	200.00	136.58	0.00	4.00	19.20
8	Gabapentin	3000	100.00	48.52	0.00	0.00	7.00
9	Itraconazole	8000	266.67	362.49	0.00	22.22	97.78
10	Lansoprazole	2000	66.67	61.13	63.93	4.00	24.13
11	Levocetirizine Dihydrochloride	6000	200.00	746.91	191.69	10.00	84.00
12	Losartan Potassium	5000	166.67	207.26	84.68	0.00	34.00
13	Montelukast sodium	2000	66.67	54.25	0.00	6.67	24.67

14	Olmesartan Medoxomil	4000	133.33	257.33	0.00	6.67	38.67
15	Pantoprazole Sodium	6000	200.00	599.27	603.44	2.00	54.80
16	Pregabalin	3000	100.00	92.20	0.00	0.00	10.00
17	Quetiapine Fumarate	5000	166.67	178.18	0.00	16.67	76.67
18	Rabeprazole sodium	5000	166.67	210.52	0.00	16.67	106.67
19	Valsartan	3000	100.00	80.60	10.00	10.00	33.00
20	Voriconazole	2000	66.67	31.05	0.00	3.33	6.33
Total (Any 3 products will be manufactured at any given point of time)		**20000.00**	**666.67**	**1708.67**	**879.82**	**55.56**	**288.44**
Group-B							
1	((5-thiazolyl)methyl)-(4-nitrophenyl)carbonate	2000	66.67	9.59	0.00	0.00	6.33
2	(+-)-(R*,S*)-6-fluoro-3,4-dihydro-alpha-[[(phenylmethyl)amino]methyl]-2H-1-benzopyran-2-methanol	1000	33.33	4.93	0.00	0.00	0.00
3	(2S,3S,5S)-2-(2,6-Dimethylphenoxyacetyl)amino-3-hydroxy-5-amino-1,6-diphenylhexane	3000	100.00	84.11	0.00	0.00	17.00
4	(2S,3S,5S)-5-Amino-2-(N-((5-thiazolyl)-methoxycarbonyl)amino)-1,6-diphenyl-3-hydroxyhexane	3000	100.00	90.89	0.00	0.00	7.50
5	(S)-2-Aminobutyramide Hydrochloride	2000	66.67	22.60	37.13	0.00	6.67
6	1-phenyl-3,4-Dihydro Isoquinoline	1000	33.33	13.47	0.00	0.00	0.00
7	2-(2-Butyl)-4-{4-[4-(4-methyloxy-phenyl)-piperazin-1-yl]-phenyl}-2,4-dihydro-[1,2,4]-triazol-3-one	8000	266.67	291.53	0.00	0.00	102.67
8	2-(2-Nitroanilino)-5-methyl thiophene-3-Carbonitrile	1000	33.33	7.47	0.00	0.00	2.00
9	2-(4-Cyanophenylamino) Acetic Acid	2000	66.67	9.87	0.00	1.33	4.00
10	2,3-Dimethyl-6-amino-2H-indazole	1000	33.3333333	62.13	128.10	0.00	38.00

11	2,4-Dihydro-4-[4-[4-(4-hydroxyphenyl]-1-piperazinyl]-phenyl]-2-(1-methylpropyl)-3H-1,2,4-triazol-3-one	6000	200.00	330.35	0.00	4.00	52.00
12	3,3-Pentamethylene-4-butyrolactam; 2-Azaspiro[4.5]decan-3-one	10000	333.33	54.20	0.00	0.00	40.00
13	2-Butyl-4-chloro-5-formylimidazole	5000	166.67	91.63	0.00	0.00	21.25
14	2-(2-Thienyl)ethyl toluene-p-sulphonate	6000	200.00	35.60	0.00	0.00	7.00
15	3-Carbamoylmethyl-5-methyl hexanoic acid **(Recimic)**	2000	66.67	40.60	0.00	0.00	9.33
16	4-Bromomethyl-2-cyanobiphenyl (Bromo OTBN)	3000	100.00	139.62	0.00	0.00	25.00
17	4-Chloro-4-hydroxy benzophenone	1000	33.33	12.27	0.00	0.00	0.00
18	5-Difluoromethoxy-2-[(3,4-dimethoxy-2-pyridinyl)methyl]thio-1H-benzimidazole	5000	166.67	36.62	0.00	0.00	10.00
19	Boc-O-Methyl-D-Serine	2000	66.67	115.80	0.00	6.67	6.67
20	Ethyl 4-(1-hydroxy-1-methylethyl)-2-propyl-imidazole-5-carboxylate	3000	100.00	10.80	0.00	0.00	5.20
21	Methyl [E]-2-[3-(S)-[3-[2-(7-Chloro-2-quinolinyl)ethenyl]phenyl]-3-hydroxypropyl]benzoate	3000	100.00	67.60	0.00	0.00	6.00
22	Methyl-4-(4-chloro-1-oxobutyl)-alpha,alpha-Dimethylphenyl acetate	10000	333.33	342.03	158.73	6.67	92.67
23	Methyl-6-fluoro-4-oxo-4H-benzopyran-2-carboxylate	2000	66.67	24.20	0.00	0.00	2.00
24	N-(Triphenylmethyl)-5-(4'bromomethyl-biphenyl-2-yl)tetrazole (TTBB)	5000	166.67	101.00	0.00	0.00	26.67
25	N-[4-(3,4-dichlorophenyl)-3,4-dihydro-1-napthalenyledene] methanamine	2000	66.67	12.07	0.00	0.00	2.00

26	Tert-Butyl 6-[(1E)-2-[4-(4-fluorophenyl)-6-(1-methylethyl)-2-[methyl(methylsulfonyl) amino]-5-pyrimidinyl]ethenyl]-2,2-dimethyl-1,3-dioxane-4-acetate	4000	133.33	40.67	0.00	0.00	20.00
Total (Any 5 products will be manufactured at any point of time)		**40000.00**	**1333.33**	**1219.33**	**323.97**	**18.67**	**325.33**
Grand Total (Group-A + Group-B)		**60000.00**	**2000.00**	**2928.01**	**1203.78**	**74.22**	**613.78**

Deliberations by the EAC:

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

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

The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data for PM 10 is quite high and suggest to adopt adequate mitigative measures. The Committee suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio.

The Committee suggested use of coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested to utilize 30% of the treated effluent in Plant Operation The committee deliberated on the fugitive emissions will be arrested through Primary and Secondary condensers with Chilled water followed by Brine circulation. PP committed for the same and found satisfactory.

The Committee deliberated the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time,

and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

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

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

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

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

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

(iii). The PP shall carry out detailed Phyto and Zooplankton studies of the Nala water passing through the Industrial park during non-monsoon season and submit the report within one year for its appraisal before the EAC.

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

(v). The species specific conservation plan of Schedule-I species shall be implemented within time limit and as per the approval of the Chief Wildlife Warden of the State Government.

(vi). The project proponent shall comply with the environment norms for Pharmaceuticals/Bulk Drugs Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 541(E), dated 06.08.2021 under the provisions of the Environment (Protection) Rules, 1986.

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

(viii). No banned Chemicals/Products 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 issued in this regard.

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

(x). The treated effluent of 66.47 KLD proposed to discharge to the CETP Mother Earth, Kadechur. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

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

(xii). 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.

(xiii). Total fresh water requirement, sourced from KIADB water supply, shall not exceed 187 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(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). 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).

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

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

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

(xviii). 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.

(xix). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area (@2500 Tress per ha), mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and the number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration. PP committed to plant 3430 trees along the boundary/periphery of the Unit. All trees must be planted within first year.

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

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

Agenda No. 30.7

Expansion of Synthetic Organic Chemicals (Phenol Formaldehyde Resin@300 MT/M, MF Resin@300 MT /M, UF Resin@700 MT /M in Existing Unit (Mfg of Ind. laminated Sheets / Decorative Laminated Sheets @100000 No. /M) in existing Laminated Unit) located at Survey No. 760, Village – Isanpur Dodiya, Taluka: Dehgam, District: Gandhinagar, Gujarat by M/s. Platinium Laminates - Environmental clearance

[PROPOSAL No.: -IA/GJ/IND2/107855/2019; File No:IA-J-11011/206/2019-IA- II(I)]

The Project Proponent and the accredited Consultant M/s. Bhagwati Enviro Care Pvt. Ltd. [

Accreditation number QCI/NABET/ENV/ACO/21/1779 validity till 15 Sep 2021] made a detailedpresentation on the salient features of the project and informed that:

The proposal is for Environmental Clearance to the project for Expansion of Synthetic Organic Chemicals (Phenol Formaldehyde Resin@300 MT/M, MF Resin@300 MT /M, UF Resin@700 MT /M in Existing Unit (Mfg of Ind. laminated Sheets / Decorative Laminated Sheets @100000 No. /M) in existing Laminated Unit) located at Survey No. 760, Village – Isanpur Dodiya, Taluka: Dehgam, District: Gandhinagar, Gujarat by M/s. Platinium Laminates.

The project/activity is covered under Category 'A' of item 5(f) "Synthetic Organic Chemicals" of schedule of Environment Impact Assessment (EIA) notification 2006 and is appraised at central level by Expert Appraisal Committee (EAC).

The details of products and capacity as under:

Sr. No.	Product Details	Capacity		
		Existing (Qty)	Proposed (Qty)	Total (Qty)
1.	Industrial Laminated Sheet / Decorative Laminated Sheet*	1,00,000 Nos/Month	-	1,00,000 Nos/Month
2.	Phenol Formaldehyde Resin	-	300 MT/month	300 MT/month
3.	Melamine Formaldehyde Resin	-	300 MT/month	300 MT/month
4.	Urea Formaldehyde Resin	-	700 MT/month	700 MT/month

The ToR has been issued by the Ministry, vide letter No. 11011/206/2019-IA-II(I) dated 19-07-2019. Public Hearing for the proposed project has been conducted by the State Pollution control board on 08/12/2020. The Public Hearing proceeding was presided over by Additional District Magistrate. The main issues during the public hearing are related to waste water disposal and air pollution control, CER Activity etc. No litigation pending against the existing unit.

The PP reported that Proposed land area of the project is 8803 m^2 Industry has already developed greenbelt and remaining will be developed for complete 33 % of Total Project Area. i.e., 2904 m^2 out of total area of the project. The estimated project cost is Rs 9.61 Crore including existing investment. Total capital cost earmarked towards environmental pollution control measures is Rs. 66.89 lac and the Recurring cost (operation and maintenance) will be about Rs 23.5 lac per annum. Total Employment will be 60 Persons as direct & 20 person indirect after expansion (Including Laminated Unit & Resin Plant). Industry proposes to allocate Rs 0.89 lac towards CER.

The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Narmada Canal is flowing at a distance of 1.85 km in direction SSW direction.

Conservation of Schedule-I species has been prepared and PP committed to implement the plan in three years.

Ambient air quality monitoring was carried out at 8 locations during October – November-December 2019 and the baseline data indicates the ranges of concentrations as: PM10 (55.18 to 84.79 µg/m^3), PM 2.5 (17.79 to 44.58 µg/m^3), SO_2 (5.22 to 15.36 µg/m^3), NO_2 (12.99 to 30.03 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.56621 µg/m^3, 1.61904 µg/m^3 and 0.95611 µg/m^3, 0.31870 µg/m^3 with respect to PM2.5, PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The PP reported that Total water requirement is 52.8 m^3/day of which fresh water requirement of 35 m^3/day will be met from Borewell & 17.8 m^3/day will be treated reuse water. Generated effluent @1.7 KLPD from PF Resin process will be treated through photo Fenton Process by O2 supply in oxidation vessel & Phenol degradation will take place in presence of sun light or UV lamp. During rainy and winter season the Photo Fenton process will be carried out into the closed vessel which contain UV lamp. This effluent will be finally evaporated in evaporator. Low COD effluent @ 3.5 KLPD generated from Boiler, Cooling, Scrubbing waste & Other utilizes will be treated in Primary treatment units, Pressure sand and activated carbon filter followed by RO. RO Permeate water @ 2.8 KLPD will be reused in cooling, scrubbing & ash suppression whereas RO Rejected water @ 0.7 KLPD will be evaporated in In-house evaporation. So, Unit will achieve Zero Liquid Discharge.

Power requirement after expansion will be 60 KVA including existing KVA and will be met from UGVCL (Uttar Gujarat Vij Co. Ltd). Unit has DG sets of additionally DG sets are used as standby during power failure. Stack (height) will be provided as per CPCB norms to the proposed DG sets.

The PP reported that Existing unit has 01 steam boiler (6 TPH). Additionally 01 TFH (18 lac Kcal/Hr) will be installed. Multi Cyclone Separator, Bag Filter & water scrubber with a common stack height of 30 m is installed for controlling the Particulate emission within the statutory limit of 115 µg/m^3 for the existing & proposed flue gas stacks.

The PP reported process gas emission from Existing Dryers (5 nos.), Sanding machines and Cutting machines for which adequate activated carbon column and Dust Collector are provided.

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

Sr. No.	Type of Hazardous Waste	Source	Cat. No.	Quantity Per Annum			Mode of Disposal
				As per CTE	As per TOR	Total	
1	ETP sludge/Evaporation residue	ETP	35.3	0.5 MT	1.0 MT	1.500 MT	Collection, Storage & Disposal at TSDF site
2	Used Oil	Lubrication/ D.G. set	5.1	0.011 MT	0.022MT	0.033 MT	Collection, Storage & reuse in plant & machinery and

							sale to registered recycler
3	Discarded Container/ drums/bags	Production Area	33.1	1500 Nos	500 Nos	2000 Nos	Collection, Storage and return back to supplier or Sale to Register Recycler.
4	Resin residue	Process	23.1	0.25 MT	0	0.25 MT	Collection, Storage & Reuse or Disposal at CHWIF
5	Spent Carbon	ETP	36.2	0.2 MT	0.1 MT	0.3 MT	Collection, Storage & Disposal at CHWIF
6	Spent Ion exchange resin	RO plant	35.2	0	0.1 MT	0.1 MT	Collection, Storage & Disposal at TSDF site

The PP reported that total 241 Tons Co2/ Year will be mitigated which is 64.4% Less than the average of 920 Ton Co2/Year.

The project proponent committed to comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

Deliberations by the EAC:

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

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

The Committee noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the

environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The Committee deliberated on the water balance, storage and handling of chemicals submitted by the PP and found it satisfactory. The Committee deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP the green belt development shall be completed within one year. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio, accordingly, number of trees should be increased. The committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found satisfactory. The Committee deliberated on mitigation of carbon emission, CER activity, and schedule-I conservation plan and found satisfactory. The EAC also deliberated the Action Plan on the issues raised during public hearing and socio-economic issues in the study area and found the plan is in order.

The Committee deliberated the Onsite and Offsite Emergency plan and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

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

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

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

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

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

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

(iv). The project proponent shall comply with the environment norms for 'Organic Chemicals Manufacturing Industry' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608(E), dated 21.07.2010 under the provisions of the Environment (Protection) Rules, 1986.

(v). The specie specific conservation plan of Schedule-I species shall be implemented within time limit and as per the approval of the Chief Wildlife Warden of the State Government.

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

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

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

(ix). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no treated/untreated wastewater 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.

(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 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.

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

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

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

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

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

(xvi). Total fresh water requirement, sourced from Ground Water, shall not exceed 35 m^3/day. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA and renewed from time to time.

(xvii). The 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.

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

(xix). The green belt of at least 5-10 m width shall be developed in at least 35% of the total project area (@2500 Trees per ha), mainly along the plant periphery/additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2.0 m x 2.0 m ratio and as in first year itself and subsequent years the green belt shall be monitored. The plant species can be selected that will give better carbon sequestration.

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

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

Re-consideration of Environmental Clearance

Agenda No. 30.8

Setting up of API Manufacturing unit of production capacity 49,500 MTPA located at F-112, Chicholi MIDC, Taluka- Mohol, District- Solapur Maharashtra by M/s-Glenmark Life Sciences Limited - Consideration of Environmental Clearance

[Consultant: Perfact Enviro Solutions Pvt Ltd., Valid upto 26.11.2022]

[Proposal No. IA/MH/IND3/244471/2021; File no. J-11011/ 516/2021-IAII (I)]

The proposal was earlier considered in the 24th EAC meeting held on 12th -13th January, 2021, wherein EAC deferred the proposal and desired for certain requisite information/inputs. Information desired by the EAC and response submitted by the project proponent is as under:

S. No.	Queries Raised by EAC	Reply by PP	Observation of EAC
1.	The EAC noted that Taluka Mohol comes under ESZ Notification. As the instant Unit is located in an ESZ notified area, the PP needs to superimpose project boundary on the ESZ map so that distance from the project boundary to the ESZ could be clarified. A clarification letter regarding location of the Unit outside of ESZ from the CWLW of State Govt. needs to be submitted. The maps shall be authenticated by the Wildlife Department.	We have obtained a clarification letter from the Deputy Conservator of Forest, Solapur vide letter No. 2540/2021-2022 dated 28.12.2021 that the project is located away from the GIB ESZ & distance of the project from the ESZ boundary is 3-3.5 Km.	The EAC deliberated the matter and found the reply to be satisfactory.
2.	The Complete application w.r.t. Form-1, PFR, EMP Reports shall be revised as per the provisions of the EIA Notification, 2006.	Yes, we have revised the complete application and checked for data accuracy and compliance to the online uploading requirements and the revised documents are uploaded in the portal. A set of complete application (Form1/EMP) is attached in Enclosure 8 of ADS reply submitted online.	The EAC deliberated the matter and found the reply to be satisfactory.
3.	The Consultant has uploaded the documents in Regional language. It is requested that while uploading such documents PP also needs to submit the translation copy so	The notarized translated copy of the distance certificate is uploaded in the portal and is also attached in Enclosure 1 of ADS reply.	The EAC deliberated the matter and found the reply to be satisfactory. EAC recommended that there shall be a

	that EAC may read and take a call accordingly.		specific condition on this aspect and accordingly condition is added in safeguard.
4.	The Consultant to provide copy of valid category accreditation certificate from the QCI/NABET, for preparation of the EMP report and its various mitigation measures as per provisions of the EIA Notification, 2006.	The project falls under Schedule Activity 5(f) Cat B2 but due to applicability of general condition, the project will be appraised at central level.We have appointed M/s Perfact Enviro Solutions Pvt. Ltd as our consultant. M/s Perfact Enviro Solutions Pvt Ltd New Delhi is an accredited consultant organisation for sector 5(f), Cat A.	The EAC deliberated the matter and found the reply to be satisfactory. EAC recommended that there shall be a specific condition on this aspect and accordingly condition is added in safeguard.
5.	The PP needs to submit detailed Greenbelt Design with different species have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution with revised layout with budgetary provisions and time lines.	The total Green Area proposed is 54626 m^2(33. 74%). The total No. of trees required as per MOEF&CC guidelines are 13,657 Nos. (2500 trees/ ha). The plantation of trees will be a proper mix of indigenous species that can provide noise attenuation, dust suppression and will be useful in carbon capturing. The entire plantation will be done within 3 years from the date of start of the project at a budget of INR 130 Lakhs.	The EAC deliberated the matter and found the reply to be satisfactory.
6.	The PP shall resubmit the complete and adequate reply of EDS which was sought by the Ministry on 21.12.2021.	Reply to EDS points raised on 21.12.2021 has been submitted on Parivesh Portal.	The EAC deliberated the matter and found the reply to be satisfactory.

7.	As per the Ministry OM No. 22-23/2019-IA.III, dated 28.01.2021, the PP/Consultant needs to submit the details of pollution load i.e. quantity and quality, including composition, of emissions, discharges and waste (hazardous, solid & industrial) generation from the activities for further deliberations before the EAC.	The details of the pollution load summary has been submitted.	
8.	The EAC warned the Consultant/PP not to submit the incomplete proposal and read the various provisions of the EIA Notification, 2006 before submitting the application on Parivesh Portal.	Yes, Noted.	The EAC noted that the earlier Consultant has submitted the reply and the reply to be satisfactory.

The Project Proponent and the accredited Consultant M/s. Perfact Enviro 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 production capacity 49,500 MTPA, located at F-112, Chicholi MIDC, Taluka- Mohol, District- Solapur Maharashtra by M/s-Glenmark Life Sciences Limited.

The project/activity is covered under Category 'B2'-API of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 (amendment on 27.03.2020, 15.10.2020 & 16.07.2021). But, due to presence of Great Indian Bustard (GIB) sanctuary within 5 Km from Project Site, General condition is applicable to project and requires appraisal at Centre Level by the EAC. The GIB sanctuary is located about 3.35 Km from project site in Chincholi MIDC. However, proponent reported that the Unit is outside of the ESZ.

The PP reported that the proposed land area is 161875m^2. Industry will develop greenbelt in an area of 33 % i.e., 54626 m2 out of total area of the project. The estimated project cost is Rs. 550 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 31.80 Crore and the Recurring cost (operation and maintenance) will be about Rs. 6.04 Crore per annum. Total Employment will be 100 persons as direct & 650 persons indirect. Industry proposes to allocate Rs 5.5 Cr @ of 1% towards CER.

The PP reported that there are no national parks and Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. However, the project is located away from the ESZ of GIB sanctuary & distance of the project from the ESZ boundary is 3-3.5 Km. River/ water body Ujjani Left Bank Canal is flowing at a distance of

0.80 Km in direction WSW, Canal near Darphal Bibi 1.14 Km in direction NNE, Nannaj Odha 1.21 Km in direction NW, Talab near Darphal Bibi 3.04 Km in direction NNE, Pond near Magazine 3.52 Km in direction SSE, Nala near Panki 5.05 Km in direction SSE, Sina River 5.41 Km in direction SSW, Pond near Lamboti 5.81 Km in direction WNW, Pond near Kondi 6.13 Km in direction SE, Pond near Ranmasle 7.20 Km in direction N, Pond near Gulvanchi Tanda 7.83 Km in direction SE, Vangira Odha 8.88 Km in direction NW.

The pp reported that AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.46 µg/m3 7.31 µg/m3 and 2.90 µg/m3 with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The PP reported that Total water requirement is 2034 m3/day out of which fresh water requirement 1154 m3/day will be met through MIDC water supply. Domestic Effluent 104 m3/day will be treated in STP having capacity of 125 m3/ day and the treated sewage of 100 m3/ day shall be used for horticulture development. High strength (high TDS high COD) effluent from process 481 m3/day shall be mixed with scrubber waste water 30 m3/day and raw water reject of 80 m3/day in Multiple effect evaporator of 1000 m3/day and the 706 m3/day condensate from evaporator shall be sent to ETP. Low strength stream (Low COD and Low TDS streams i.e. all other industrial wastewater other than process as above) of 283 m3/day is mixed with MEE condensate 706 m3/day i.e. a total of 989 m3/day effluent and treated in ETP (primary treatment followed by bioreactor and tertiary treatment and three stage RO system), the RO permeate 780 m3/day and this water is reused in Cooling tower makeup, scrubber etc so that 100% of water is reused in process. RO Reject 176 m3/day shall be treated with high strength stream and the plant shall comply with Zero Liquid Discharge (ZLD) norms.

The PP reported that Power requirement will be 6000 KW that will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). Proposed unit has DG sets of 2 Nos. of 1500 kVA (one standby and one working). capacity that will be used as standby during power failure. Stack (height) will be provided as per CPCB norms to the proposed DG sets. Proposed unit has Boiler 2 Nos of 15 TPH (one stand-by), Briquettes- 90 MT/day. Electrostatic Precipitator with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the proposed boilers.

Source & Capacity	**APCS (with media if applicable)**	**Stack Geometry and Flue Gas characteristics**					**Pollutant and its emission standard**
		ID.	**Stack Height (m)**	**Stack Internal Diameter (m)**	**Flue Gas Velocity (m/s)**	**Flue Gas Temperature (K)**	
DG Sets- 2 Nos. of 1500 kVA	According to CPCB, stack height should	STACK 01 & 02	30	0.4	10	363	PM- 150 mg/Nm^3 SO2- 100

(One W & one S) for Power Backup	be 30 m						mg/Nm^3 NOX- 50 mg/Nm^3
Boiler- 2 Nos. of 15 TPH (One W & one S)	Electrostatic Precipitator	STACK 03	30	0.8	13.3	433	PM- 150 mg/Nm^3 SO2- 100 mg/Nm^3 NOX- 150 mg/Nm^3

Details of process emissions generation and its management:

Stack Name	Stack ID	APCS (with media if applicable)	Diameter (m)	Stack Height (m)	Flue Gas Velocity m/s	Emission limits mg/Nm3
Process 1	STACK04	Adequate Stack Height with Alkali Scrubber	0.35	15	10	Acid mist- 35 mg/Nm3 Ammonia mist-135 mg/Nm3
Process 2	STACK05	Adequate Stack Height with Alkali Scrubber	0.35	15	10	Acid mist- 35 mg/Nm3 Ammonia mist-135 mg/Nm3
Process 3	STACK06	Adequate Stack Height with water	0.35	15	10	Acid mist- 35 mg/Nm3 Ammonia mist-135 mg/Nm3

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

Solid Waste Management

Category	Type of Waste	Generation (Kg/day)	Treatment Method
Biodegradable	Organic Waste	150	Used as manure

Non-Biodegradable	Recyclable Waste (Plastic, paper, wood, glass, etc)	300	Send to Authorised Recyclers
	Total	**450**	

Non- Hazardous Waste Management

Process Waste	Unit	Proposed quantity of generation	Treatment/Disposal
Packing Waste (Plastic waste)	TPA	480	Sold to authorised vendor
Boiler Ash	TPA	3240	Sale to Brick Manufacture/cement industry.
Sewage sludge	TPA	10.8	used as manure for green belt/ sold as a manure
Canteen Sludge	TPA	12	used as manure
Office paper Waste	TPA	12	Sale
Total		3765	

Hazardous Waste Management

S.No.	Waste	Category (as per HWM Rules, 2016)	Unit	Quantity of generation	Disposal
1	Chemical Sludge from Wastewater Treatment Evaporator salts from ATFD	35.3	TPA	20,907	Collection, Storage, Transportation and final disposal at common CHWTSDF/Coprocess site.
2	Discarded Containers/ Drums/ Barrels Discarded liners/ Bags	33.1	Nos.	50,000	Collection, Storage, Decontamination, Transportation, Reuse / Sale to authorised traders.

3	Spent Catalyst	28.2	TPA	73	Collection, Storage, Decontamination, Transportation, Reuse / Sale to authorised traders.
4	Spent carbon	28.3	TPA	149	Collection, Storage, Transportation and final disposal at common CHWTSDF/Coprocess site.
5	Spent Oil/Used Oil	5.1	KL	5	Collection, Storage, Transportation, Sale to register re-processors/ Co-Processing for cement industries.
6	Process Residue & waste (from Aqueous ML from process)	28.1	TPA	3,078	Collection, Storage, Transportation and final disposal at common CHWTSDF/Coprocess site.
7	Distillation Residue	20.3	TPA	11,008	Collection, Storage, Transportation and final disposal at common CHWTSDF/Coprocess site.
8	Date expired, discarded and Off Specification Drugs / Products / RMs	28.5	TPA	7	Collection, Storage, Transportation and final disposal at common CHWTSDF/Coprocess site.
9	Off-Specification Drugs / Products / RMs	28.4	TPA	5	Collection, Storage, Transportation and final disposal at common CHWTSDF/Coprocess site.
10	Glass wool/ Insulation waste	28.1	TPA	80	Collection, Storage, Transportation and final disposal at common CHWTSDF/Coprocess site.
11	Resins from DM plant	35.2	TPA	2	Collection, Storage, Transportation and final disposal at common CHWTSDF/Co-process site.

12	RO Membrane	35.2	TPA	1	Collection, Storage, Transportation and final disposal at common CHWTSDF/Co-process site.
13	Spent Acid	D-2	TPA	As and when generates	Collection, Storage, Transportation and final disposal at common Coprocess/ authorised recyclers site.
14	Stripper Solvent from Striper	28.6	TPA	6,205	Collection, Storage, Transportation and final disposal at common Coprocess/ authorised recyclers site.
15	Spent Solvent	28.6	TPA	4,157	Sale to authorised distillation unit under Rule 9/ Collection, Storage, Transportation and final disposal at common CHWTSDF/Co-process site.
16	Sludge from scrubber	36.1	TPA	12	Collection, Storage, Transportation and final disposal at common CHWTSDF/Co-process site.
17	Recovered solvent/distilled solvent	28.6	TPA	53,668	Sale to authorised distillation unit under Rule 9/ Collection, Storage, Transportation and final disposal at common CHWTSDF/Co-process site.

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

Water Consumption Effluent Load Summery

Fresh water requirement KLD	Total effluent generation KLD	Influent BOD in KG/day	Influent COD in KG/day	Influent TSS in KG/day
1154	978	11200.37	27011.93	34982.55

Utility Emission Load

PM in kg/day	NO2 in kg/day	SO2 in kg/day
17.76	61.1	43.2

Process hazardous waste Management Summery

Date expired off spec products in TPA	Distillation residue in TPA	Glass wool/insulation waste in TPA	Spent Charcoal in TPA	Process waste in TPA	Spent catalyst in TPA	Recovered solvent for sale in TPA	ETP sludge in MT/day	MEE residue in MT/day
12	11008	80	149	3078	73	53668	22.04	33.98

The PP deliberated that during the peak operations, the total CO2 emissions will be 61,257 MT/annum which is equivalent to 61.3 tonne eq CO2/ tonne API Production and through development of a green belt having total area of 53,626 sqm having 10,926 trees, there will be natural sequestration of CO2 emissions. Out of this company will sequester 22972 MT/annum eq. CO2 (25%) through green belt development within plant premises within every operational year. Therefore, at peak production the Residual Gate to Gate CO2 emissions from the proposed plant will be 38285 Tonne eq. CO2/ annum is the balance emissions which is about 38.29 tonne CO2 eq. / tonne API production. Any Further reduction in the Carbon footprint can be achieved through use of clean energy (solar PV), improved technologies for effluent and emission control (i.e. reduction in energy for MEE/ ESP etc.) which are contributing 17-18% in overall Carbon footprint of the plant.

The PP also submitted the study of carbon footprint, a total of 38285 tonnes of CO2 per year carbon will be emitted by emissions, effluent, waste, transport, energy and green area offset and through green belt approximate 22,972,533.90 kg Co2/ year will be sequestered.

The Project proponent committed comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

Deliberations by the EAC:

The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the

Project Proponent in desired format along with the PFR/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

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

The Committee noted that the PFR/EMP reports are in order, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The Committee also deliberated on the action plan and budget allocation for green belt development. As committed by the PP the green belt development shall be completed within one year as per 2500/ha. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio. The Committee deliberated on mitigation of carbon emissions, and transportation to be included in Carbon Sequestration submitted by PP and found satisfactory.

The Committee deliberated the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

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

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

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

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

(i) This Environmental Clearance (EC) is subject to orders/ judgment of Hon'ble NGT and any other Court of Law, as may be applicable to this project.

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

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

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

(v) The Specie Specific conservation plan for Schedule-I species should be implemented within time limit and as per the approval of the Competent Authority.

(vi) The project proponent shall comply with the environment norms for Pharmaceuticals/Bulk Drugs Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 541(E), dated 06.08.2021 under the provisions of the Environment (Protection) Rules, 1986.

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

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

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

(x) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no treated/untreated wastewater 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.

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

(xii) 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.

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

(xiv) 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. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

(xv) 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.

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

(xvii) Total fresh water requirement, sourced from private tankers shall not exceed 9.95 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA and renewed from time to time.

(xviii) The 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.

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

(xx) The green belt of at least 5-10 m width shall be developed in at least 33.74% 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. 13,657 Trees have to be planted with spacing of 2m x 2m ratio and as committed by PP shall plant 2500 number of trees in first year itself and subsequent years the green belt shall be monitored. The plant species can be selected that will give better carbon sequestration.

(xxi) 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 PFR/EMP report in letter and spirit.

(xxii) 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. 30.9

Paper Sizing Formulation Chemicals by M/s IVAX Paper Chemicals Limited, located at Edifice, 6th Cross, Kodihalli, Vizianagaram,Andhra Pradesh-535204

[Proposal No. IA/AP/IND2/262992/2022, Proposal was Transferred from SEIAA AP].

The proposal is for EC applicability Clarification with a request to issue EC exemption / issue of Environmental Clearance under B2 category to the project APPCB permitted Paper Sizing Chemicals manufacturing unit at Sry nos. 11, 16 & 18P, Gumpam Village, Pusapati Rega Mandal, Vizianagarm District, Andhra Pradesh by M/s. IVAX Paper Chemicals Limited. This instant proposal was transferred online on Parivesh Portal from SEIAA, Andhra Pradesh.

The Project Proponent and the accredited Consultant M/s. KKB Envirocare Consultants Pvt. Ltd., Hyderabad made a detailed presentation on the salient features of the project and informed that the proposal was considered by the State Expert Appraisal Committee - AP in its 164th SEAC meeting held during 26.7.2021 and recommended for issue of Environmental Clearance.

Further, the PP also informed that SEIAA-AP refer to SEAC to examine the Jurisdiction of SEIAA" in its 161st SEIAA meeting. SEAC-AP considered the proposal in its 170th SEAC (26.11-2021) and 175th SEAC (4-1-2022) meeting and recommended that this case be in the purview of MOEFCC as the location of the industry is outside the approved industrial area. Thus becoming category A. SEIAA-AP Agreed with the recommendation of the SEAC in its 175th SEIAA meeting on 8-3-2022. SEIAA-AP forwarded the proposal to MOEFCC.

PP reported that 1 [**Alkenyl Succinic Anhydride]** out of 4 APPCB permitted products are listed at S.N. 5 (f) of Schedule of Environmental Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC). However, Project Proponent submitted that the APPCB permitted products are zero pollution products like formulation and request for EC exemption.

The details of products and capacity as under:

Sl. No.	Name of the product	CAS no.	Existing Quantity (MTM)
1	AKD Wax emulsion	84989-41-3	1000
2	**Alkenyl Succinic Anhydride (ASA) ***	**19780-11-1**	**200**
3	Starch Based Products	56780-58-6	300

4	Rosin Based Product	8050-09-7	1875
Total Production Quantity Note* EC product under 5(f) Synthetic Organic Chemicals			**3375**

The PP reported that Existing land area is 4.425 Ha (44252 m^2); No additional land for the proposal. Industry has already developed greenbelt in an area of 35.37% i.e. 15650 m2 out of total area of the project. The existing project cost is Rs.54.42 crores. Total capital cost invested towards environmental pollution control measures is Rs. 126.2 lakhs and Recurring cost (Operation and maintenance) is about Rs.36.8 lakhs per annum. Total Employment is 72 persons as direct & 30 persons indirect in the existing project. Industry allocated Rs. 65.96 lakhs @ 1.21% of the existing project cost 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. Water bodies viz., Kandivalasa gedda (stream) – 4.3km (E), Champavathi gedda (stream)- 7.2 km (SW), Pond – 0.1 km (S), Pond – 0.05 km (S), Bay of Bengal sea – 5.8 km (SE).

Total water requirement is 99.4 m3 /day of which fresh water requirement of 99.4 m3 /day and is met from Bore well within the premises (Ground water) as approved by Ground Water Department of Govt. of A.P. Effluent of 2 m3 /day quantity will be treated through Effluent Treatment plant and Domestic waste water of 5 m3 /day is treated through Sewage Treatment Plant. The treated water is used for Greenbelt development. Power requirement is 500 KVA (existing) and will be met from Andhra Pradesh State Eastern Power Distribution Company (APSEPDC). Existing unit has 3 nos. DG sets of 2 x 365 KVA & 1 x 25 KVA capacity are used as standby, during power failure. Stack (height 10 m) is provided as per CPCB norms to the DG sets.

Existing unit has 2 nos. of 850 kg/hr and 1 nos. of 600 kg/hr diesel fired boilers and 2 nos. of 6 lakh kcal/hr and 1 no. 4 lakh kcal/hr Furnace oil fired Thermic Fluid heaters. Combined stack of height of 30 m is installed for Boilers and Thermic Fluid Heaters separately and the Particulate emissions are within statutory limit of 115 mg/Nm3 for the existing boilers and thermic fluid heaters. There is no process emissions generation from the existing 4 permitted products.

Deliberations by the EAC:

The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent.

It was informed to the EAC that the instant proposal is for clarification regarding requirement of Environmental Clearance for manufacturing of Alkenyl Succinic Anhydride. The proposal was in account of Industry-II, having proposal No. IA/AP/IND2/262992/2022, with the detailed brief and informed that the EC application was Transferred from SEIAA AP.

The EAC, after detailed deliberation, noted that the product 'manufacturing of Alkenyl Succinic Anhydride' comes under item 5 (f) 'Synthetic, Organic Chemicals Industry' of the

schedule to the Environment Impact Assessment (EIA) Notification, 2006 and also listed in Technical guidance manual for Synthetic Organic Chemicals Industry. EAC also noted that the proposed site is outside the Industrial area. Therefore, the EAC observed that it requires EC as per the Environment Impact Assessment (EIA) Notification, 2006.

The EAC also noted that SEAC-AP considered the proposal in its 170th SEAC (26.11-2021) and 175th SEAC (4.1.2022) meeting and recommended that this case be in the purview of MoEFCC as the location of the industry is outside the approved industrial area.

The EAC suggested to PP to apply in PARIVESH as the product comes under the category of 5(f) of the Schedule to EIA Notification, 2006 and therefore it requires EC, in view of the all the EAC **returned** the proposal in its present form for submission of application of TOR first as per provisions of the EIA Notification, 2006. Project Proponent mentioned that they will submit the application for TOR on Parivesh Portal accordingly.

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DAY-1: APRIL 27, 2022 [WEDNESDAY]

Agenda No. 30.10

Expansion in Existing Production Capacity and Addition of New Products Within Existing Premises, located at Plot Nos. 12 & 14, GIDC Phase-I, Vatva, Dist.-Ahmadabad, Gujarat- by M/s Anar Chemicals LLP Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/268019/2006; File No. J-11011/508/2006-IA-II (I)]

The Project Proponent and the accredited Consultant M/s. Anand Environmental Consultants Pvt. Ltd. [Accreditation number; NABET/EIA/1922/RA0167 Validity till 26.09 2022] made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to Proposed Expansion in Production capacity of existing products as well as addition of new products (129 MT/Month to 254 MT/Month) within the existing premises at 12 & 14, GIDC Phase-I, Vatva, District- Ahmedabad- 382440, Gujarat.

The project/activity is covered under Category 'A' of item 5(f) Synthetic organic chemicals industry (dyes & dye intermediates; bulk) of schedule of Environment Impact Assessment (EIA) notification 2006 and is appraised at central level by Expert Appraisal Committee (EAC).

The details of products and capacity as under:

Sr. No.	Name of Product	Quantity of Product (MT/Month)			
		Existing	Proposed	Total	CAS No.
EXISTING PRODUCT					
1 to 11	Dyes* (and mixtures) Solvent Green 33 Solvent Blue 79 Solvent Blue 98 (Automate Blue 8A, Automate Blue 8AHF & Automate Blue 9BHF) Solvent Red 161 Solvent Red 19 E (Liquid Red 3, Automate Red PB XF mixture) Solvent Red 164 (Automate Red IKHF, Automate Red IKHF D50, Liquid Red HX, Automate Red BXL, Automate Red 9BHF) Solvent Yellow 107 Solvent Yellow 124 Solvent Orange 98 (Automate Yellow 8HF, Liquid Yellow 1) Solvent Marker 1, Marker 2, Marker 3 and Marker 7 - new proposed Solvent Yellow HF 2 (Automate Yellow HF) - new proposed	70	97	167	97862-23-2 64553-79-3 71819-49-3 85750-13-6 56358-09-9 92257-31-3 67900-27-6 34432-92-3 65087-00-5
12	Dye Intermediate- DAZN (BON DCA)	03	-03	00	--
13	R&D Products for dyes intermediates, metal Phthalocyanines and speciality chemicals	01	00	01	--
14	Metal Phthalocyanines and its derivatives	20	-05	15	132-16-1 14055-02-8 28901-96-4
15	Naphthols	30	-15	15	135-62-6 137-52-0
16	Blue 700	05	-05	00	--
Existing 16 Products Total (A)		**129**	**69**	**198**	
PROPOSED PRODUCT					

Sr. No.	Name of Product	Quantity of Product (MT/Month)			
		Existing	Proposed	Total	CAS No.
1.	Photo initiators	--	25	25	75980-60-8
2.	Fluorescent monomers	--	03	03	276878-97-8
3.	Hydrogenated Products	--	25	25	104-42-7
4.	Di-BromoDi-ketoPyroloPyrolle (DBDPP)	--	03	03	1000623-98-2
Proposed 04 products Total (B)		**--**	**56**	**56**	
TOTAL (A + B)		**129**	**125**	**254**	

The PP reported that ToR was granted by the Ministry vide letter No J-11011/508/2006-IA-II(I) dated 6.10. 2020. Public Hearing has been exempted as it is situated in Industrial Estate GIDC, Vatva, Gujarat No litigation is pending against the proposal. Ministry had issued EC earlier vide letter no. F. No. J-11011/508/2006-IA- II (I) dated 24/07/2007 by MoEF&CC, New Delhi to the manufacturing of the product in the existing unit M/s. Anar Chemical LLP Subsequently, Certified Compliance Report (CCR) issued by MOEF&CC, IRO Gandhinagar vide file no. J-11/5-2022-IROGNR dated 15/02/2022 in which 11 conditions are partly complied, 5 have not complied and 3 are agreed to comply. In this reghard PP has submit ATR dated 14.3. 2022.The existing unit has obtained Consolidated Consent & Authorization (CC&A) form GPCB vide Order No. AWH- 103512, valid up to 31/03/2024, by GPCB Vide Letter No.GPCB/ABD-CCA-VT-448(5)/ ID-10361/525732 dated 16-08-2019.

The PP reported that Existing land area of the project is 13,389 m2. Industry will develop greenbelt in an area of 40.7 % i.e. 5,457 m2 out of total area of the project. The total estimated cost of the proposed expansion is Rs. 16 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 1.55 Crore and the Recurring cost (operation and maintenance) will be about Rs. 0.94 Crore per annum.Total Employment will be 50 persons as direct as well as other indirect employees for expansion. Industry proposes to allocate Rs 32 Lakh towards Corporate Environmental Responsibility (CER).

Deliberations by 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 noticed several deficiencies in the proposal (viz. vague onsite emergency plan, Greenbelt budget and planation schedule, Action plan on odor Management, Reduction in process water consumption, less capital cost for pollution measures, conservation activities and conservation of Schedule–I species, details of carbon foot prints and carbon sequestration study. Mismatch data of Hazardous Waste, Mitigation measures related to CPA. EAC also noted that as per previous EC ground water withdrawal was not permitted however, PP is extracting Ground water.

EAC also noted that in Form-2 PP has not uploaded the Recent ToR letter and its details as per the requirement.

The EAC also noted that the plantation plan was not as per the standard requirement. The consultant should have considered spacing of 2m x 2m and number of trees has to be increased. EAC also noted that a direction has been given to M/s Anar chemicals by Gujarat Pollution Control Board related to pollution and conservation of environment. The Committee, after detailed deliberations, **deferred** the proposal and desired for requisite information/inputs in respect of the following:

(i) **EAC is of the view that since the existing Unit is located in Critically Polluted Area having CEPI Score of 70.94, and PP informed EAC that the CEPI score is reduced upto some extent. In this regard PP need to submit the letter regarding the same** and PP shall submit the additional mitigation measures to safeguard to the environment and also to explain how carbon foot print to be minimized?

(ii) The EAC is of the view that since the Unit is to be located in Critically Polluted Area the PP need to explore the alternative site for this instant project.

(iii) The detailed greenbelt plan along with budgetary allocation for completion of greenbelt in six months. Action plan for high carbon sequestration species trees in the greenbelt needs to be submitted.

(iv) Schedule I Species as per WL (P) Act, 1972 Schedule were recorded in the study area. Conservation plan with sufficient budget allocated for conservation along with approval letter for same shall be provided.

(v) The PP shall submit the details of carbon foot prints and carbon sequestration study w.r.t. project. Proposed mitigation measures also needs to be submitted for further appraisal of the EAC.

(vi) The PP needs to submit the details of Onsite/Offsite emergency plan and mitigation measures to be proposed during implementation of the project.

(vii) The PP needs to submit the English translation of direction letter given by Gujarat Pollution Control board to M/s Anar chemicals.

(viii) The PP need to submit the permission letter for ground water withdrawal from CGWA

(ix) PP need to submit the recent ToR letter issued by the MoEF&CC.

(x) PP need to submit the process water consumption reduction details.

(xi) PP need to submit that as the Industry comes under CPA so recycled water should be increased upto 33% not upto 10%. In this regard PP need to submit the commitment letter regarding the same.

(xii) PP need to submit action plan for compliance of the conditions mentioned in the previous EC.

Agenda No. 30.11

Expansion of Synthetic Rubber and Lattices Manufacturing Plant of capacity upto 75600 MTPA located at Survey No. 27, 103, 104, 105 & 131 to 137 & Survey No. 20, 22, 24, 26, 26A, 26B, 30, 31, 32, 130, 138, Village Dungari, Taluka Valia, District Bharuch, Gujarat by M/s Apcotex Industries Limited – Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/268140/2005; File No. J-11011/242/2005-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Kadam Environmental Consultants, [Accreditation No. QCI/NABET/ENV/ACO/19/1025 valid till 25.02.2022] made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project of Expansion of Synthetic Rubber and Lattices Manufacturing Plant capacity upto 75600 MTPA located at Survey No. 27, 103, 104, 105 & 131 to 137 & Survey No. 20, 22, 24, 26, 26A, 26B, 30, 31, 32, 130, 138, Village Dungari, Taluka Valia, District Bharuch, Gujarat by M/s Apcotex Industries Limited.

The project/activity is covered under Category 'A' of item 5(f) Synthetic organic chemicals industry (dyes & dye intermediates; bulk) of schedule of Environment Impact Assessment (EIA) notification 2006 and is appraised at central level by Expert Appraisal Committee (EAC).

The details of products and capacity as under:

S. No.	Name of Products (Existing Name / Proposed Name)	CAS No.	Production capacity, MT/Annum			Remark
			Existing	Proposed	Total	
1	Acrylonitrile Butadiene Rubber(NBR) & lattices	9003-18-5	30000	-30000	0	Name change requested – Sr. No 5
2	Admixture of NBR	9003-18-5 9002-86-2	5600	0	5600	No change
3	Styrene Butadiene Rubber(SBR) & lattices	9003-55-8	10000	-10000	0	Name change requested – Sr. No. 5
4	Admixtures of SBR	9003-55-8 9002-86-2	2800	-2800	0	Dropped
5	Butadiene based Synthetic Rubber & Lattices (DRY)	9003-18-5 9003-55-8	0	32000	32000	Combining both SR groups (In place of 1 and 3)
6	Synthetic Lattices (DRY)	9010-81-5 25085-34-1 25053-48-9 9003-18-5 9003-55-8	0	38000	38000	New additional

S. No.	Name of Products (Existing Name / Proposed Name)	CAS No.	Production capacity, MT/Annum			Remark
			Existing	Proposed	Total	
7	CPP (Natural Gas Based)		0.98 MW	0	0.98 MW	No Change
8	CPP (Coal Based)		3.95 MW	0	3.95 MW	No change
	Total		**48400**	**27200**	**75600**	

The ToR has been issued by the Ministry, vide letter No J-11011/242/2005-IA-II(I); dated 8.05.2021. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 10th February 2022. The main issues raised during the public hearing are related to Land related issues, Compensation & CSR/ Employment. As informed by the PP that no litigation is pending against the proposal.

The PP reported that Ministry had issued EC earlier vide letter no. J-11011/242/2005-IA-II(I); dated 13th January 2006 to the existing project "Expansion of Synthetic Rubber and Allied Products at Survey No. 27, 105, 131-137, 103, 104 at village Dungri, District Bharuch, Gujarat" in favour of M/s. Apar Industries Limited and transferred to M/s. Apcotex Industries Limited in following manner (in Expansion case/if applicable).

S. No.	File No. & Date	Environment Clearance
1	F. No.J-11011/242/2005-IA-II (I), 13.01.2006	On the name of M/s. Apar Industries Limited
2	F. No.J-11011/242/2005-IA-II (I), 19.12.2006	Amendment to EC of M/s. Apar Industries Limited
3	F. No.J-11011/242/2005-IA-II (I), 23.12.2009	Transferred EC on the name of M/s. Eliokem India Pvt. Ltd. from M/s. Apar Industries Limited
4	F. No.J-11011/242/2005-IA-II (I), 13.08.2019	Transferred EC on the name of M/s. Apcotex Industries Limited

The PP reported that Certified Compliance report for the existing EC for the period January 2021 to June 2021 has been submitted to IRO Gandhinagar and MoEF & CC Bhopal RO for certification. Site visit was done on 5th September 2021. Certified compliance report was received vide F. No. J-11/31-2021-IROGNR dated 3rd December 2021. Out of total 18 EC conditions, 17 were compiled and 1 is partially complied.

The PP reported that existing land area is 4,57,580 m^2 no additional land will be required for proposed expansion. Industry will develop greenbelt in an area of 76.5% i.e., 350000 m^2 out of total area of the project (4,57,580 m^2). The estimated project cost is Rs 160 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 2018 Lacs and the Recurring cost (operation and maintenance) will be about Rs 473.922 Lacs per

annum. Total additional employment will be 160 persons after expansion. Industry proposes to allocate Rs 1.2 Crores towards Corporate Social Responsibility.

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

The PP reported that Ambient air quality monitoring was carried out at 8 locations during January 2020 to March 2020 and the baseline data indicates the ranges of concentrations as: PM_{10} (77-81 µg/m^3), $PM_{2.5}$ (20-23 µg/m^3), SO_2 (10.5-12.2 µg/m^3) and NO_2 (14.4-16.3 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.0208 µg/m^3, 0.0211 µg/m^3 and 0.174 µg/m^3 with respect to PM_{10}, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The PP reported that Total water requirement is 2900 m^3/day of which fresh water requirement of 2729 m^3/day will be met from Valia Industries association (VIA) .Effluent of 1360 KLD will be generated and from that, 1341 KLD Effluent will be treated in ETP & ETP Treated water will be utilized for irrigation/ gardening purpose within premises and 19 KLD RO reject water will be used to wet coal and Ash for CPP. During monsoon period, unit will do ZLD (Zero Liquid Discharge) scheme to recycle much water and minimize fresh water consumption. For that unit will provide MEE system with UF/RO. Total waste water generation will be 1531 KLD after expansion from which 1498 KLD water from MEE condensate & RO permeate will be reused in premises. From remained 33 KLD water, 7 KLD MEE salt which will send to TSDF site, 19 KLD RO reject water and 7 KLD MEE Condensate will be used to wet coal and Ash for CPP.

The PP reported that Power requirement after expansion will be 7904 KW including existing 6904 KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has 3 DG sets of 1000 kVA, 520 KVA and 910 KVA capacity, additionally 1 DG set of 2000 KVA capacity will be required. DG sets are 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 two Natural Gas Fired Boilers (6 TPH each) and one Coal fired CPP boiler (3.95 MW). Additionally, no boiler will be required. ESP + Scrubber with a stack of height of 50 m is installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 for the existing boilers. No additional boiler will be required.

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

S. No	Type of Waste	Category as per HW Rules 2016	Quantity per Year			Source	Treatment / Disposal
			AS per CCA	Proposed	Total		
1	Used or Spent Oil	5.1	21.421 MT	2.14 MT	23.56 MT	Process Plant	Collection, storage, transportation & disposal by selling register re-processor.

2	Discarded containers	33.1	37100 Nos.	3710 Nos.	40810 Nos.	Process Plant	Collection, storage, decontamination, transportation & disposal by reused after in-house decontamination or send it to authorized decontamination facility / recycler or send back to supplier.
	Discarded bags / liners		84600 Nos.	0	84600 Nos.	Process Plant	
3	Waste Insulating Glass Wool	33.1	As & when generated	0	As & when generated	Process Plant	Collection, storage, transportation & disposed at TSDF-BEIL
4	Spent resin generated from w/w treatment	35.2	5200 Lit	1040 Lit.	6240 Lit.	Process Plant	Collection, storage transportation & disposal by selling to register re-processor.
5	Discarded asbestos containing roof sheet	15.2	As & when generated	0	As & when generated	Process Plant	Collection, storage, transportation & disposed at TSDF-BEIL
6	Spent carbon generated from w/w treatment	36.2	As & when generated	0	As & when generated	Process Plant	Collection, storage, transportation & disposed at TSDF-BEIL
7	Chemical sludge from w/w treatment	35.3	840 MT	168 MT	1008 MT	Process Plant	Collection, storage, transportation & disposed at TSDF-BEIL

8	Oil contaminated cotton waste or oil contaminated filters.	33.2	3000 Kg or 250 Kg	300 Kg. or 25 Kg.	3300 Kg or 275 Kg.	Process Plant	Collection, storage, transportation & disposed at common incineration facility.
9	Sludge / residue generating during cleaning of petroleum storage tank	3.2	1500 Lit.	150 Lit.	1650 Lit.	Process Plant	Collection, storage, transportation & disposed by selling to register re-processor.
10	Discarded florescent bulb, tubes containing Mercury	---	400 Kg	40 Kg.	440 Kg.	Process Plant	Collection, storage, transportation & disposed at TSDF-BEIL
11	Bed Ash	-----	3157 MT	0	3157 MT	Process Plant	Collection, storage & sell to brick manufacturer or co-processing in cement industries.
12	Fly Ash	35.1	19537 MT	0	19537 MT	Process Plant	Collection, storage & sell to brick manufacturer or co-processing in cement industries.
13	MEE Salt	35.3	0	2278 MT	2278 MT	From MEE	Collection, storage, transportation & disposed at TSDF-BEIL

The PP reported that current carbon foot print is estimated to be 1,25,946 MT CO2e/Annum. M/s Apcotex Industries limited will reduce carbon foot print by at least 15% by next 5 years

The Project proponent committed to comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

Deliberations by the EAC:

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

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

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

The Committee deliberated on the CER budget, PP committed to spend CER budget in 2 years and found it satisfactory. The Committee deliberated on the usage of agro waste in place of coal, rain water harvesting plan, Domestic sewage segregation & treatment in STP. As committed by the PP, EAC found it satisfactory. The Committee suggested on the type of trees planted, PP committed to plant species of trees such as neem, mango, pipal and banyan and other local large canopy trees by July 2022. The Committee deliberated details of carbon foot prints and carbon sequestration study w.r.t. project and found satisfactory. The EAC also deliberated the Action Plan on the issues raised during public hearing and socio-economic issues in the study area and found the plan is in order. The committee deliberated on the certified compliance report and found the compliance as satisfactory, however, the committee suggested to take action for mitigation of pollutants within the plant premises.

The Committee deliberated the Onsite and Offsite Emergency plan and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and

accordingly made the recommendations to the proposal. The Experts Members of the EAC found the proposal in order and recommended for grant of environmental clearance.

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

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

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

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

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

(iv). The species specific conservation plan of Schedule-I species shall be implemented within time limit and as per the approval of the Chief Wildlife Warden of the State Government.

(v). The project proponent shall comply with the environment norms for Organic Chemical Industry as notified by the Ministry of Environment, Forest and Climate Change, *vide* GSR 608(E), dated 21.07.2010 under the provisions of the Environment (Protection) Rules, 1986.

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

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

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

(ix). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no treated/untreated wastewater 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.

(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 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.

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

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

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

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

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

(xvi). Total fresh water requirement, sourced from Ground Water, shall not exceed 2729 KLD Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA and renewed from time to time.

(xvii). As committed by PP, the Industry will use Agro waste as a first priority (Primary Fuel) and incase of unavailability, the Unit will use coal as an alternative fuel.

(xviii). As committed by the PP, Industry will plant species of trees such as neem, mango, pipal and banyan and other local large canopy trees by July 2022

(xix). The 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.

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

(xxi). The green belt of at least 5-10 m width shall be developed in at least 35% of the total project area (@2500 Tress per ha), mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2.0 m x 2.0 m ratio and as in first year itself and subsequent years the green belt shall be monitored. The plant species can be selected that will give better carbon sequestration.

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

(xxiii). 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. 30.12

Expansion of Fertilizer Plant located at Durgachak, Haldia, Purba Medinipur, PO + PS-Durgachak, West Bengal by M/s Indorama India Pvt. Ltd – Consideration of Environmental Clearance

[Proposal No. IA/WB/IND3/261808/2006; File No. J-11011/136/2017-IA-II(I)

The project proponent and the accredited Consultant M/s. EQMS India Pvt. Ltd. having accreditation number NABET/EIA/1922/RA0197 valid till 23.11.2022 made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance for Expansion of Fertilizer Plant located at Durgachak, Haldia, Purba Medinipur, PO + PS- Durgachak, West Bengal by M/s Indorama India Pvt. Ltd.

The project is covered under the category 'A' of item 5(a) - chemical fertilizer of the Schedule to the Environment Impact Assessment (EIA) Notification, 2006 and its subsequent amendments.

The detail of products and capacity are as under:

S. No.	Particulars	Unit	Existing	Proposed/ Additional	After Expansion
1.	SAP	MTPA	2,47,500	66,000	3,13,500
2.	DAP	MTPA	7,59,000	5,00,000	12,59,000
3.	Or NPK Complex	MTPA	9,24,000	8,85,000	18,09,000
4.	SSP	MTPA	2,08,980	0	2,08,980
5.	Ammonium Sulphate	MTPA	0	31,000	31,000
6.	Captive Power Plant (STG)	MW	10.17	0	10.17

The project was initially established by M/s TATA Chemicals Ltd. at Durgachak, Haldia, Purba Medinipur, PO + PS- Durgachak, West Bengal, in 1979 for manufacturing of DAP/NPK Complex, Single Super Phosphate & Sulphuric Acid. Since the project was established before the purview of EIA Notification,1994 and its subsequent amendments, Environmental Clearance was not applicable. Later on M/s TATA Chemicals Ltd. had proposed for "Replacement of Furnace Oil based Hot Air Generator (HAG) by Fluidized Bed Biomass Gassifier in DAP-1 Plant" for which the application was submitted on 29th December, 2006 and the project was granted Environmental Clearance from MoEF&CC vide F.No. J-11011/136/2007-IA. II(I) dated 20.07.2007 to M/s TATA Chemicals Ltd. Thereafter, Ministry has granted Transfer of EC vide letter J-11011/136/2017-IA-II(I) dated 6.1.2021 to M/s Indorma India Private Limited for Replacement of furnace oil based Air generator (HAG) by Fluidized Bed Biomass Gasifier in the DAP-1 plant of Tata Chemicals ltd.

The PP reported that earlier ToR has been issued by Ministry, vide letter No. J-11011/136/2017-IA-II(I) dated 20.1.2007. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 30th September, 2021 at Auditorium Hall of M/s Indorama India Pvt. Ltd., Haldia, P.O. and P.S.- Durgachak, District-Purba Medinipur, West Bengal. The main issues raised during the Public Hearing were related to employment, Corporate Social Responsibility, Pollution Control, COVID-19 management etc. CTO has been obtained by the West Bengal Pollution Control Board dated 3.12.2018 valid till 31.12.2023. The project has been granted Certified Compliance by RO, MoEF&CC vide Letter No. 102-211/EPE dated 12.08.2021.

Further, the ToR for expansion has been issued by the Ministry, vide letter No. J-11011/136/2007-IA. II (I) dated 08.09.2020. Public Hearing has been exempted as the project is located in GIDC industrial area. The Unit has obtained earlier EC, vide letter No. J-11011/7/2016-IA II (I), dated 22.01.2019 for setting up Pesticide Technical Manufacturing unit of capacity 3175 TPA. The Unit has got CTE from SPCB vide no.15783, dated 25.06.2020 and valid up to 7 Years from the date of issue. PP has yet to obtain the CTO from SPCB. PP reported that the certified EC Compliance Report was obtained from IRO, MoEFCC, Bhopal vide file no. 5-44/2020(Env)/212 dated 7th October 2021. PP further reported that as on date out of total 37 EC conditions, 36 EC conditions are compiled and 01 condition is in progress. The EAC deliberated the compliance status of earlier EC conditions and present status of the project and found in order.

The PP reported that total land area of the project site is 3,23,756.48 m2 i.e., 80 Acres. Industry has developed greenbelt in an area of 18 Acres i.e., 22.5% out of total area of the project. Green Area will be increased to 33% of total plot area i.e., 26.4 Acres for the proposed expansion which is under development. Plantation is being done all around the plant area. Total green belt development of 26.4 Acres (33% of total plot area) will be completed prior operational phase of proposed expansion. The estimated project cost is Rs 550 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 3547.836 Lakhs and the Recurring Cost (Operation and Maintenance) will be about Rs. 709.5 Lakhs per annum. Total Employment will be 1834 no. of persons (Permanent Employees- 359; Contractual Labours - 1475) persons during operation phase. Industry proposes to allocate Rs. 1.67 Crores towards Corporate Social Responsibility (CSR).

The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Hooghly River is flowing at 0.16 km (S) from the project site and Haldi River is flowing at 9.81 km (SSW) from the project site. Conservation of Schedule-I species has been prepared and submitted to Chief wildlife warden and PP committed to implement the plan in 5 years.

The PP reported that Ambient air quality monitoring was carried out at 8 locations during October 2020 to December 2020 and the baseline data indicated the ranges of concentrations as PM10 (39-108 µg/m3), PM2.5 (15-63 µg/m3), SO2 (5.6-12.9 µg/m3) and NO2 (7.1-34.7 µg/m3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 4.39 µg/m3, 4 µg/m3, 5.86 µg/m3, and 0.375 µg/m3 with respect to PM10, PM2.5, NH3 and HF, respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS) except at AAQ-3 (Baneswar Chak) with parameter values of 108 µg/m3 for PM10 and 63 µg/m3 for PM2.5 and AAQ-5 (Gandhinagar) with PM10- 106 µg/m3 & PM2.5- 62 µg/m3 due to proximity of location to coal-based power plant

The PP reported that total water requirement after expansion will be 4723.2 KLD (196.8 m3/hr) of which freshwater requirement of 3288 KLD (137 m3/hr) being met by HAD (Haldia Development Authority) Supply. During emergency and summer season, deep tube well water is mixed with HDA supplied water for plant operations. The total wastewater generation form the project will be 1435.2 KLD (59.8 m3/hr). Out of total industrial effluent, 955.2 KLD (39.8 m3/hr) will be treated in existing Effluent Treatment Plant (Capacity-960 KLD) and then will be sent to proposed “Tertiary Treatment Plant (High-Rate Solid Contact Clarifier, Ultra-filtration, Reverse Osmosis System)”. Rest of the effluent i.e., 360 KLD (15 m3/hr) will be sent directly to tertiary treatment plant. 1315.2 KLD (54.8 m3/hr) tertiary treatment plant treated water will be completely reused for various plant operations. Domestic sewage will be treated in Domestic Effluent Treatment Plant (Capacity -160 KLD). 120 KLD (5 m3/hr) of domestic effluent plant treated water will be reused in plant for horticultural purposes. The plant will be a **“Zero-liquid Discharge**” Complex after expansion.

The PP reported that the power requirement of the plant will be 10.5 MW which will be met through Captive Power Plant (10.17 MW) and WBSEDCL. DG sets of capacity 3x1250 kW (with appropriate stack height as per CPCB norms) are installed as power backup. 2 no. of Waste Heat Recovery package boilers of capacity 7.8 TPH & 10 TPH have been installed in the plant with stack height of 35 m (common) for controlling emissions within statutory limit.

Details of Process emissions generation and its management:

Stack No.	Stack Attached to	Stack Height (m)	Fuel Used	APCM	Expected Pollutants	Diameter (m)	Velocity (m/sec)	Flow Rate (Nm^3/hr)	Temperature (°C)	Pressure (mm Hg)
S-1 & S-2	Package Boiler-7.8 TPH & 10 TPH (Only used during emergency)	35 (Common)	FO	-	-	1.2	3.8	11632	157	757
S-3	DAP/NPK -I	42	-	Multistage scrubbers	HF, NH3 & PM	2.5	15	216485	63	757
S-4	DAP/NPK-II	42	-	Multistage scrubbers	HF, NH3 & PM	2.5	15	210545	63	757
S-5	SSP ball Mill	30	-	Bag filter and Cyclone	HF & PM	0.7	7.88	9751.3	48	757
S-6	SSP	40	-	Four stage Fluoride Scrubber	HF & PM	1.5	4	20601.94	70	757
S-7	SAP-I	40	-	Alkali Scrubber	Acid Mist/SO3 & SO2	0.95	12.7	30130.83	39	757
S-8	SAP-II	40	-	Alkali Scrubber	Acid Mist/SO3 & SO2	1.2	7.54	27904	38	757
S-9 to S-11	Emergency DG	15 (each)	HSD	-	PM, SO2 & NOx	0.2	11.15	1025	120	757

	sets- 3 x 1250 kVA									
Proposed Process Stacks / Vents										
S-12	DAP/NPK-III	50	-	Multi-stage Scrubbers	HF, NH3 & PM	2.5	14	219309.38	63	757
S-13	Ammonium Sulphate	50	-	Multi-stage Scrubbers	NH3, PM	0.9	12.3	25658.47	54	757

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

S. No	Name of Waste	Source of Generation	Category No. (As per Sch-I&II 2016)	Quantity			Mode of Treatment & Disposal Method
				Existing/As per HWA (MT/Annum)	Proposed/ Additional	After Expansion	
HAZARDOUS WASTE							
1	Used/ Spent Oil	Maintenance activity	Sch-I/5.1	10	2	12	Collection, Storage, Transportation & Disposal by selling to registered recyclers.
2	ETP Sludge *	In-house ETP	Sch-I/34.3	360	40	400	Collection, Storage, Transportation, and disposal to authorized TSDF/Shall be reused in plant premises.
3	Metal Scrap*	Utility	Non-Hazardous	400	50	450	Collection, Storage, Transportation, Disposal by selling to the vendors.
4	Spent Resin	DM Plant	Sch-1/34.2	6	1	7	Sent to West Bengal

							Waste Management Ltd. (Common Hazardous Waste Transfer, Storage, Disposal Facility) for disposal
PROCESS WASTE							
5	Spent Catalyst- V2O5*	Process-SAP	Sch –I/ 18.1	40	0	40	Collection, Storage, Transportation, and disposal to authorized TSDF**
6	Sulphur Sludge	Process-SAP	(Schedule II, class D-D1)	1000	0	1000	Used as filler in SSP production.
7	Process acidic residue of mineral acid*	Process-FSAP	Cat- 17.1	50	Nil	50	Collection, Storage, Transportation, and disposal to authorized TSDF
NON-HAZARDOUS WASTE							
8	Fly ash	Generated from new hot air generator due to burning of biomass and coal	-	600	300	900	Re-used in DAP

The PP reported that the proposed expansion is expected for carbon footprint. In proposed expansion, 4.5 MWH power will be required. If this amount of power is taken from WBSEDCL grid. The total power required per day would be: 4.5x1000x2 =108000 kWH. Considering that 310 days plant will run therefore, total grid power will be required: 33480000 kWH. As per IPCC Grid emission factor (EF) for India 0.7229 tCO2 e/Mwh. So, total carbon footprint generated would be: 24,105 tCO2e

It has been proposed to install 750 kW solar panel in a phase-wise manner within 4 years. In 1st year the solar panel feasibility study and proposal for installation of panel will be conducted

and from 2nd Year onwards, each year about 250 kW solar panel will be installed upto 4th year. Total solar power generation will be (750x 3.5x 365 kWH) 958125 KWH. This amount of power will not be required from grid Equivalent carbon footprint reduction ie., 689.85 tCO2e

Expansion of sulphuric acid plant and increase of production capacity of 66000 MT will generate power of 3 MW from waste heat steam. Thus for 330 days' a total of 23760000 KWH power generation would be required. Equivalent reduction of carbon footprint 17176 Tco2 /Annum. Therefore, by installation of solar panel and increase in sulphuric acid plant capacity, total carbon footprint will be reduced by 17865 tCO2e.

The PP reported that about 15040 no of trees inside the plant and 5000 no. of trees outside plant will be planted that sequestrate about 1207.7631 ton CO2/year. The existing plantation of 11711 no. of trees inside the plant premises sequestrates approx. 435.934 ton CO2/year.

The PP informed that Indorama has planted 11711 no of tree in its existing unit. This greenbelt is more than 10-year-old and the total Carbon sequestered per year by the existing greenbelt is estimated to be 435.934 tons per year. The PP committed that they use of biomass briquettes, a carbon neutral fuel in complex fertilizer plants in place of Coal, a fossil fuel. Only in case of unavailability of biomass briquettes, coal can be used. If we consider 400 MT /Month of coal, then total coal required /annum for 310 days' plant run would be 4133 MT/Annum.

The project proponent committed to comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

Deliberations by the EAC:

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

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

The Committee noted that the EIA/EMP report are in compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory.

The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio. The Committee opined that the industry shall undertake studies on the impact of fertilizers on the soil characteristics and

ecology. The Committee noted that Ministry accorded Environmental Clearance (EC) to Tata Chemicals Ltd. at Haldia, West Bengal vide letter No. J-11011/136/2007-IA II (I) dated 20.07.2007 for replacement of furnace oil based hot air generator (HAG) by fluidized Bed Biomass Gassifier in the DAP1 plant of Tata Chemicals Ltd. at Haldia, West Bengal.

Further a copy of Certificate of Incorporation registered with the Registrar of Companies, Kolkata (West Bengal) with CIN: U74999WB2017FTC222920 is submitted to the Ministry for change of name from M/s Tata Chemicals Ltd. to IRC Agrochemicals Pvt. Ltd. In June 2018. The name of the Company has changed from IRC Agrochemicals Pvt. Ltd. to M/s Indorama India Pvt Ltd on 18.02.2020 with change of ownership or management of Company. As per the relevant provision of the EIA Notification, 2006, the Environmental Clearance was accorded to the project replacement of furnace oil based hot air generator (HAG) by fluidized Bed Biomass Gassifier in the DAP1 plant of Tata Chemicals Ltd. at Haldia, West Bengal granted by the Ministry vide letter of even no. dated 2007. The Committee deliberated the compliance status of earlier EC are found in order and adequate.

The Committee deliberated on life cycle assessment Carbon footprint and carbon sequestration study gap plan and resource plan, microbiology toxicity modified onsite and offsite emergency plan, conservation plan of schedule -I species, use of biomass Briquette, Greenbelt as per 2500 /ha and plantation of 5000 number of trees to be planted outside the plant, submitted by PP and found satisfactory.

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

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

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

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

(i). The Unit 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). No banned Fertilizer 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.

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

(iv). The species specific conservation plan of Schedule-I species shall be implemented within time limit and as per the approval of the Chief Wildlife Warden of the State Government.

(v). The project proponent shall comply with the environment norms for 'Fertilizer Industry' as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 1607 (E), dated 29th December,2017 under the provisions of the Environment (Protection) Rules, 1986.

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

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

(viii). The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.

(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 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.

(x). 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.

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

(xii). As committed by PP, the Industry will use Briquettes- as a first priority (Primary Fuel) and incase of unavailability, the Unit will use Imported coal- as an alternative fuel.

(xiii). 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. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.

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

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

(xvi). Total fresh water requirement, sourced from Haldia Development Authority, shall not exceed 3288 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA and renewed from time to time.

(xvii). The 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.

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

(xix). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area (@2500 Tress per ha), mainly along the plant periphery/ additional land and additional 5000 trees shall be planted within 1 Year around the Project site or at additional land, nearby village. 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. The Trees have to be planted with spacing of 2m x 2m ratio and as in first year itself and subsequent years the green belt shall be monitored. Further, as committed by PP, additionally 1000 nos. of trees will be developing inside and 1000 nos. of trees will be developing outside premises. The plant species can be selected that will give better carbon sequestration.

(xx). 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 EIA/ EMP report in letter and spirit.

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

Agenda No. 30.13

Expansion of "Pesticide Technical, Pesticide Specific Intermediates and Speciality Chemicals Products Integrated with Chlor Alkali and Captive Power Plant", located at Plot No. 746/750, Jhagadia GIDC Industrial Estate, District Bharuch Gujarat by M/s. UPL LTD(Unit -5). – Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/268348/2022; File No. J-11011/80/2015-IA-II(I)]

The Project Proponent and the accredited Consultant M/s Perfact Enviro Solutions Pvt. Ltd. [Accreditation No. NABET/EIA/1922/SA 0143 validity till 26 Nov 2022 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 in "Pesticide Technical, Pesticide Specific Intermediates and Speciality Chemicals Products Integrated with Chlor Alkali and Captive Power Plant", located at Plot No. 746/750, Jhagadia GIDC Industrial Estate, Dist. Bharuch Gujarat by M/s. UPL LTD(Unit -5).

The project/activity is covered under Category 'A' of item 4(d) Chlor-alkali industry, 5(b) Pesticides industry and pesticide specific intermediates (excluding formulations), 5(f) Synthetic organic chemicals industry (dyes & dye intermediates; bulk,1(d) Thermal power plants) of schedule of Environment Impact Assessment (EIA) notification 2006 and is appraised at central level by Expert Appraisal Committee (EAC).

The details of products and capacity as under:

S. No	Product	Unit	Existing	Proposed Expansion under para 7(ii)	Total after expansion	% increase in production	Change
A	Pesticide Technical (covered under 5 (b))	TPM	20,950.00	1,700.00	22,650.00	-	Increase
B	Pesticide Intermediates (covered under 5 (b))	TPM	2,616.67	5,300.00	7,916.67		
C	Speciality & Pesticide Intermediates (covered under 5 (f))	TPM	16,768.00	2,100.00	18,868.00		
D	Chlor Alkali (covered under 4 (d))	TPM TPD	32,752.00 1,169.70	0	32,752.00 1,169.70		No change
	Total	**TPM**	**73,086.67**	**9,100.00**	**82,186.67**	**12.45%**	–

E	Power Plant (covered under 1 (d))	MW	87.5	0	87.5	-	No change

Details of Products:

Product List- 5(b) (Pesticide Technical-Group A)						
Plant No	**Name Of The Product**	**Product Existing Capacity in TPM**	**Product Additional Capacity in TPM**	**Product Total Capacity in TPM**	**CAS No.**	**End Use**
1A	1A - Mancozeb OR	4000.0	0.0	4000.0	8018-01-7	Fungicide
1B	1B - Antracol AND	4000.0	0.0	4000.0	12071-83-9	Herbicide
2	2 - Mancozeb AND	8333.3	0.0	8333.3	8018-01-7	Fungicide
3	3 - Antracol AND	1000.0	0.0	1000.0	12071-83-9	Herbicide
4	4 - Pendimethalin AND	833.3	0.0	833.3	40487-42-1	Herbicide
5A	5A - Pendimethalin OR	400.0	0.0	400.0	40487-42-1	Herbicide
5B	5B - Fipronil* OR	400.0	-400.0	0.0	120068-37-3	Insecticide
5C	5C - Buprofezin* OR	400.0	-400.0	0.0	69327-76-0	Insecticide
5D	5D - Prothioconazole OR	400.0	0.0	400.0	178928-70-6	Fungicide
5E	5E - Benoxacor AND	400.0	0.0	400.0	98730-04-2	Herbicide
6A	6A - Glufosinate OR	550.0	0.0	550.0	77182-82-2	Herbicide
6B	6B - Glyphosate OR	550.0	0.0	550.0	1071-83-6	Herbicide
6C	6C - Clethodim (CM 257)* OR	165.0	-165.0	0.0	99129-21-2	Herbicide
7	7 - Glufosinate AND	1250.0	0.0	1250.0	77182-82-2	Herbicide
8A	8A - Glufosinate OR	0.0	1000.0	1000.0	77182-82-2	Herbicide
8B	8B - L Glufosinate AND	0.0	150.0	150.0	35597-44-5	Herbicide

9	9 - S Metolachlor AND	1866.7	0.0	1866.7	87392-12-9	Herbicide
10A	10A - Acephate OR	2466.7	0.0	2466.7	30560-19-1	Insecticide
10B	10B - S Metoachlor AND	2466.7	0.0	2466.7	87392-12-9	Herbicide
11A	11A - Fosthiazate (IKI 1145)* OR	250.0	-250.0	0.0	98886-44-3	Insecticide
11B	11B - Cyproconazole OR	250.0	0.0	250.0	94361-06-5	Fungicide
11C	11C - Atrazine OR	250.0	0.0	250.0	1912-24-9	Herbicide
11D	11D - 2,4 D Technical OR	125.0	0.0	125.0	9-75-7	Herbicide
11E	11E - Sulphentrazone OR	125.0	0.0	125.0	122836-35-5	Herbicide
11F	11F - Trifloxystrobin OR	125.0	0.0	125.0	141517-21-7	Fungicide
11G	11G - Boscalid Technical OR	125.0	0.0	125.0	188425-85-6	Fungicide
11H	11H - Mesotrion OR	125.0	0.0	125.0	104206-82-8	Herbicide
11I	11I - Methoxifenozide OR	125.0	0.0	125.0	161050-58-4	Insecticide
11J	11J - Isoxaflutole OR	125.0	0.0	125.0	141112-29-0	Herbicide
11K	11K - Dicamba AND	125.0	0.0	125.0	1918-00-9	Herbicide
12	12 - Metolachlor	0.0	700.0	700.0	51218-45-2	Herbicide
Sub- Total (A)		**20950.0**	**1700.0**	**22650.0**	**-**	
Product List- 5(b) (Pesticide Intermediates-Group B)						
13	Acrolein	666.7	0.0	666.7	107-02-8	
14	Tri Ethyl phosphate	1000.0	1000.0	2000.0	122-52-1	
15A	Phenyl Di Iso Decyl	50.0	100.0	150.0	25550-98-5	

	Phosphite					
15B	Tri Decyl Phosphite OR	50.0	100.0	150.0	2929-86-4	Pesticide Technical & Chemicals
15C	Tris Tri Iso Decyl Phosphite OR	50.0	100.0	150.0	25448-25-3	
16A	Di Chloro Vinyl Acid Chloride* OR	300.0	-300.0	0.0	52314-67-7	
16B	Acrolein OR	300.0	0.0	300.0	107-02-8	
16C	Tri Ethyl Phosphite* OR	300.0	-300.0	0.0	122-52-1	
16D	Dihydroxy Dithiane (DHDT) OR	300.0	0.0	300.0	40018-26-6	
16E	DCPT*	75.0	-75.0	0.0	111992-16-6	
17A	DMPAT OR	600.0	3000.0	3600.0	17321-47-0	
17B	Myristyl Amine Oxide (MO)* OR	600.0	-600.0	0.0	3332-27-2	
17C	DESMP (Di Ethyl P Toluene Sulfonyloxyl Methyl Phosphonate)*	300.0	-300.0	0.0	31618-90-3	
18	Myristyl Amine Oxide (MO) OR	0.0	1200.0	1200.0	3332-27-2	
Sub Total (B)		**2616.7**	**5300.0**	**7916.7**	**-**	
PRODUCT LIST- 5(f) (SPECIALITY CHEMICALS & INTERMEDIATES -Group C)						
19	19 - CS_2 AND	6750.0	0.0	6750.0	75-15-0	Specialty Chemicals & Intermediates
20A	20A - N Alkylated Xyledene* OR	300.0	-300.0	0.0	1330-20-7	
20B	20B - HRT Ketone* OR	200.0	-200.0	0.0	108-10-1	
20C	20C - 2 Ethyl 6 Methyl N N Aniline* OR	300.0	-300.0	0.0	24549-06-2	

20D	20D - MPBAL OR	300.0	0.0	300.0	13826-35-2	
20E	20E - UPDT* AND	300.0	300.0	600.0	863132-14-3	
15A	15A - TPPI OR	260.0	0.0	260.0	101-02-0	
15B	15B - TBPO OR	260.0	0.0	260.0	126-78-3	
15C	15C - TIBP* OR	260.0	-260.0	0.0	126-71-7	
15D	15D - Phosphorous Acid* AND	140.0	-140.0	0.0	13598-36-2	
21A	21A - Di Phenyl Methyl Phosphonate OR	15.0	0.0	15.0	7526-26-3	
21B	21B - Tri Phenyl Phosphate OR	15.0	0.0	15.0	115-86-6	
21C	21C - Bis Phenol Di Phosphate* AND	3.8	-3.8	0.0	181028-79-5	
22A	22A - PCl_5 OR	375.0	0.0	375.0	10026-13-8	
22B	22B - $POCl_3$* OR	375.0	-375.0	0.0	10025-87-3	
22C	22C - $PSCl_3$ OR	375.0	0.0	375.0	3982-91-0	
22D	22D - DPMP OR	375.0	0.0	375.0	7526-26-3	
22E	22E - Magnesium Chlorate Solution (Omega)* AND	130.0	-130.0	0.0	10326-21-3	
23	23 - Magnesium Chlorate Solution (Omega) AND	0.0	130.0	130.0	10326-21-3	
24	24 - Methyl Mercaptan* AND	0.0	1800.0	1800.0	74-93-1	
25A	25A - Ammonium Sulphate 90%	1764.0	0.0	1764.0	7783-20-02	

	Solid AND					
25B	25B - Acetic Acid 30% Solution OR	4811.0	0.0	4811.0	64-19-7	
25C	25C - Acetic Acid 45% Solution OR	3208.0	0.0	1350.0	64-19-7	
25D	25D - Acetic Acid 99% Solution OR	1458.0	0.0	1458.0	64-19-7	
25E	25E - Sodium Acetate 27% Solution	7304.0	0.0	7304.0	127-09-3	
Sub-Total (C)		**16768.0**	**2100.0**	**18868.0**		
Product List- 4(d) (Caustic Chlorine Plant- Group D)						
26	26 - Caustic Soda Lye AND	15180.0	0.0	15180.0	1310-73-2	Soda, Chemicals, Pharma and Pesticides
	26 - Chlorine Gas AND	12509.0	0.0	12509.0	7782-50-5	
	26 - Hydrogen Gas AND	488.0	0.0	488.0	1333-74-0	
	26 - Sodium Hypochlorite AND	750.0	0.0	750.0	7681-52-9	
	26 - HCl 32% To 35% AND	3825.0	0.0	3825.0	7647-01-0	
Sub- Total (D)		**32752.0**	**0.0**	**32752.0**		
1(d) (Power Plant-Group E)						
27	Power Plant	87.5	0.0	87.5	NA	Integrated Service of UPL
F (NON-EC Products)						
28 A	28 - NaSH AND	2500.0	0.0	2500.0		
28 B	28 - Na2S Solution (30%) AND	2500.0	0.0	2500.0		
28 C	28 - Na_2S Solid AND	2500.0	0.0	2500.0		
29	29 - PCl_3 AND	10500.0	0.0	10500.0		

NIL	NIL - Phosphorous* AND	300.0	-300.0	0.0		
30	30 - $POCl_3$ AND	1500.0	0.0	1500.0		
31	31 - Pesticide Formulations (Liquid) AND	4166.7	0.0	4166.7		
32	32 - Pesticide Formulations (Solid) AND	7083.3	0.0	7083.3		
33	33 - Pesticide Formulations (Mix - Solid & Liq) AND	6700.0	0.0	6700.0		
1 & 2	1 & 2 - Na_2SO_4 (Solid / Solution) AND	5303/44152	0.0	5303/44152		
1 & 3	1 & 3 - $Zn(OH)_2$ Wet AND	150.0	0.0	150.0		
6,7 AND 8	6,7 AND 8 - $MgCO_3$ AND	1773.0	985.0	2758.0		
6,7 AND 8	6,7 AND 8 - MgO Powder AND	756.0	420.0	1176.0		
6,7 AND 8	6,7 AND 8 - MgCl2 Solution (28% To 35%) AND	6300.0	3500.0	9800.0		
6,7 AND 8	6,7 AND 8 - MgCl2 Flakes AND	3600.0	2000.0	5600.0		
6,7 AND 8	6,7 AND 8 - Wet NH4Cl AND	4833.0	2685.0	7518.0		
6,7 AND 8	6,7 AND 8 - Sodium Acetate (Solution / Powder) AND	2955.6/981	1645/545	4600.6/1526		
6,7 AND 8	6,7 AND 8 - HCl Solution (MgO Route) AND	2880.0	1600.0	4480.0		
8 A & 8 B	8 A & 8 B - $MgCl_2$ Hexahydrate Flakes AND	0.0	476.0	476.0		

14	14 - Ammonium Chloride Powder AND	1200.0	1200.0	2400.0		
14	14 - NH_4Cl Solution Or Powder AND	180.0	180.0	360.0		
1B	1B - NaSH	160.0	0.0	160.0		
TOTAL F		**106689.5**	**14391.0**	**121080.5**		

BY PRODUCTS (TO BE SOLD / GIVEN UNDER RULE 9 OF HAZARDOUS WASTE RULES 2016

S. No	Name of By Product	Source of Generation (Product)	Name of By Product - Source of Generation (Product)	Existing Capacity in TPM	Additional Capacity in TPM	Total Capacity in TPM
1	$Mn(OH)_2$	Mancozeb	$Mn(OH)_2$ – Mancozeb	394.7	0.0	394.7
2	H_2SO_4 /HNO_3	Pendimethalin	H_2SO_4 /HNO_3 - Pendimethalin	801.7	0.0	801.7
3	Ammonium Sulphate Solution (15%)	Glyphosate	Ammonium Sulphate Solution (15%) – Glyphosate	2604.8	0.0	2604.8
4	Ammonium Acetate OR	Acephate	Ammonium Acetate OR - Acephate	5811.5	0.0	5811.5
	Acetic Acid		Acetic Acid OR Acephate	4347.0	0.0	6857.4
	Ammonium Sulphate		Ammonium Sulphate - Acephate	2509.8	0.0	2509.8
	Sodium Acetate		Sodium Acetate - Acephate	6251.9	0.0	8761.7

5	H_2SO_4 Acid (70%) OR	Sulfentrazone	H_2SO_4 Acid (70%) OR - Sulfentrazone	794.9	0.0	794.9
6	NaBr and	Trifloxistrobin	NaBr	33.9	0.0	33.9
7	Succinamide		Succinamide	42	00	42
8	30% HCl OR	Boscalid	30% HCl OR - Boscalid	44.3	0.0	44.3
9	30% HCl OR	Mesotrione	30% HCl OR - Mesotrione	44.9	0.0	44.9
10	Sodium Sulphite OR	Mesotrione	Sodium Sulphite OR - Mesotrione	220.0	0.0	220.0
11	Methyl Acetate OR	Isoxaflutole	Methyl Acetate OR - Isoxaflutole	46.5	0.0	46.5
12	Acetic Acid	Isoxaflutole	Acetic Acid - Isoxaflutole	37.8	0.0	37.8
13	Phenol	PDDP	Phenol - PDDP	21.5	42.9	64.4
14	Ethylene Di Chloride	DHDT	Ethylene Di Chloride - DHDT	1344.0	0.0	1344.0
15	Iso Propyl Alcohol	DHDT	Iso Propyl Alcohol - DHDT	478.5	0.0	478.5
16	HCl	TPPI	HCl - TPPI	312.3	0.0	312.3
17	HCl	TBPO	HCl - TBPO	379.6	0.0	379.6
18	HCl + H_3PO_3	TPPA	HCl + H3PO3 - TPPA	17.1	0.0	17.1
19	30% HCl	PCl5	30% HCl - PCl5	16.0	0.0	16.0

20	78% H_2SO_4	Chlor Alkali	78% H_2SO_4 - Chlor Alkali	1860.0	0.0	1860
21	Liq Ammonia	DMPAT	Liq Ammonia - DMPAT	60.0	300.0	360.0
		TEP	TEP	750.0	750.0	1500.0
		UPDT	UPDT	60.0	60.0	120.0

The ToR is not applicable as the proposed expansion will be done as per para 7 ii (a) (Scenario-II) of EIA Notification, 2006 and its subsequent amendments as per OM no. IA3-22/10/2022-IA.III dated 11.04.2022. The project is exempted from Public Hearing under Clause 7(ii) as project is within approved industrial area of GIDC. As Informed by PP that No litigation is pending against the proposal.

The PP reported that Ministry had issued Environmental Clearance earlier for project for chlor alkali plant and captive power plant vide letter No. J-11011/42/95-IA II(I) dated 17.05.1996 and vide letter No. J-11011/26/96-IA II(I) dated 24.02.1996 respectively. Further, EC has been granted to the unit located at plot no. 750 for new pesticide intermediates and new technical unit & expansion of chlor alkali along with a captive power plant in an existing unit in GIDC industrial unit by M/s United Phosphorus Ltd vide letter No. J-11011/325/2006-IA II(I) dated 25.07.2007. For expansion of agro & other organic Chemical manufacturing unit at plot no. 746 &750, EC has been granted to the unit located at vide letter No. J-11011/80/2015-IA II(I) dated 05.04.2018. Project is operational vide CTO AH – 108451 dated 20.10.2020. Certified compliance report Obtained from MoEF&CC RO Gandhinagar vide letter J-11/10-2022-IROGNR dated 20.04.2022. Compliance status of the previous EC was reported as complied for all the conditions. The EAC deliberated the compliance status and found satisfactory.

The PP reported that land area is 886286.42 m^2. Industry has already developed greenbelt in an area of 206990 m^2 (20.69 Ha) i.e. 23% of total plant area has been developed as Green Belt Area & additional 7570 m^2 is additional green belt is proposed hence after expansions total 214560 m^2 (21.45 Ha) i.e. 24% area will be under greenbelt. The Industry has developed an additional green belt at Village – Fulwadi located ~1 km from the site in an area of 40468.56 m^2 (4.04 Ha) in consultation with the forest department. The total estimated project cost is Rs 5108 Crores including existing investment of Rs 4200 Crores and proposed- Rs 908 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 32.11 Crores and the Recurring cost (operation and maintenance) will be about Rs 3.84 Crores per annum. Additional Employment will be 640 persons as direct & 230 persons indirect for proposed expansion. Industry proposes to allocate additional Rs 4.54 Crores towards Corporate Environment Responsibility (CER) for next 5 years.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Kaveri Nadi is the nearest waterbody flowing at a distance of 2.61 km in NE direction

The PP reported that Ambient air quality monitoring was carried out at 10 locations during February 2022. The baseline data indicates the ranges of concentrations as: PM10 (72.39-92.65 µg/m3), PM2.5 (27.01-34.56 µg/m3), SO2 (8.03-10.28 µg/m3), CO (0.30-0.38 mg/m3) and NO2 (13.65-17.47 µg/m3). The above results show that all the parameters are within the range of their respective NAAQS 2009 prescribed by CPCB.

The PP reported that total water requirement after expansion will be 21180 m3/day, out of which fresh water requirement is 13000 m3/day being met from Gujarat Industrial Development Corporation (GIDC) Supply. Existing total water requirement (based on at present consumption rate) is 15000 m3/day, out of which fresh water requirement is 10000 m3/day and is being met from Gujarat Industrial Development Corporation (GIDC) Supply. The total Industrial wastewater disposal from the project will be 3396 KLD(2830 KLD Existing + 566 KLD Additional). The Unit has Obtained Additional Waste Water disposal permission from Narmada Clean Tech. The Existing 1x1000 KLD & 1x500 KLD Effluent Treatment Plant with 7 Nos of Reverse Osmosis Plants having Capacity of 3960 KLD Installed & Additional 1x1000 KLD ETP with 1x1250 Reverse Osmosis Plant will be Installed. For Domestic Sewage- Existing STPs (2x50 KLD) & Additional STP (1x150 KLD) will be Installed.

The PP reported that Power requirement after expansion will be 87.5 MW which will be sourced through captive power plant & Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has standby DG sets of 1x2080 kVA, 2x1500 kVA, 1x1250 kVA, 4x1010 kVA, 4x900 kVA, 1x910 kVA, 4x750 kVA, 1x625 kVA, 4x600 kVA & 1x320 kVA capacity and there is no change in the DG set capacity in the proposed expansion. Stack height of 45 m for 2080 kVA, 45 m for 2x1500 kVA, 17 m for 1250 kVA, 35 m for 1010 kVA, & 10 m for 4x900 kVA, 1x910 kVA, 4x750 kVA, 1x625 kVA, 4x600 kVA & 1x320 kVA has been provided as per CPCB norms.

The PP reported that Existing unit has Boilers of capacity 1x130 TPH, 1x114 TPH & 1x110 TPH (for Power Plant), CS_2 Plant Steam Boiler 1x7 TPH (for CS_2 Plant) & 1x10 TPH & 1x40 TPH(Stand By) are installed. The stack height of the 130 TPH, 114 TPH, 110 TPH boiler, 7 TPH, 10 TPH and 40 TPH boilers are 100 m, 75 m 75 m, 45 m, 42 m and 32 m as per EPA standard. Electrostatic Precipitators (ESP) are already installed with coal based 1x130 TPH, 1x114 TPH & 110 TPH boilers For controlling the particulate emissions the statutory limit of PM -150 mg/Nm^3, SO2- 100 mg/Nm^3 & NOx-50ppm.

The details of existing flue gas stack

S. No.	Stack attached to	Stack Height in Meter	Fuel	UOM for Fuel	Fuel Quantity	Air Pollution Control Measure (APCM)	Emission Parameter	Permissible Limit for Pollutants
Existing Flue Gas Stacks (No Addition of Flue Gas Stacks)								

1	Steam Boiler I (Stand By) - 10 TPH	42	Natural Gas (NG)	SM^3/day	720	Sufficient Stack Height	PM	150 mg/Nm^3
							SO2	100 ppm
							NOx	50 ppm
2	Steam Boiler II (Stand By) - 40 TPH	32	Natural Gas (NG)	SM^3/day	2800	Sufficient Stack Height	PM	150 mg/Nm^3
							SO2	100 ppm
							NOx	50 ppm
3	Coal Fired Boiler 1 of Power Plant 130 TPH	100	Coal/ BioMass	MT/Day	535	ESP & Lime Addition	PM	150 mg/ Nm^3
							SO2	100 ppm
							NOx	50 ppm
4	Coal Fired Boiler 2 of Power Plant 114 TPH	75	Coal/ BioMass	MT/Day	500	ESP & Lime Addition	PM	100 mg/ Nm^3
							SO2	100 ppm
							NOx	50 ppm
5	Coal Fired Boiler 2 of Power Plant 110 TPH	75	Coal/ BioMass	MT/Day	482	ESP & Lime Addition	PM	100 mg/ Nm^3
							SO2	100 ppm
							NOx	50 ppm
6	CS2 Plant Steam Boiler 7 TPH for CS2 Plant	45	Natural Gas (NG)	SM^3/day	191	Sufficient Stack Height	PM	150 mg/ Nm^3
							SO2	100 ppm
							NOx	50 ppm
7	Thermic Fluid Heater (1000000 KCal / Hr)	33	Natural Gas (NG)	SM^3/day	19.58	Sufficient Stack Height	PM	150 mg/ Nm^3
							SO2	100 ppm
							NOx	50 ppm
8	Thermic Fluid Heater (600000 KCal/Hr)	30	Natural Gas (NG)	SM^3/day	77	Sufficient Stack Height	PM	150 mg/ Nm^3
							SO2	100 ppm
							NOx	50 ppm
9	Hot Air Generator (1785000 Kcal/Hr)	11	Natural Gas (NG)	SM^3/day	115	Sufficient Stack Height	PM	150 mg/ Nm^3
							SO2	100 ppm
							NOx	50 ppm
10	DG Set 2080 KVA X 1 Nos (Used in	45	HSD	L/Hr	643	Sufficient Stack Height	PM	150 mg/ Nm^3
							SO2	100 ppm
							NOx	50 ppm

	Emergency)							
11	DG Set 1500 KVA X 2 Nos (Used in Emergency)	45	HSD	L/Hr	927.27	Sufficient Stack Height	PM	150 mg/ Nm^3
							SO2	100 ppm
							NOx	50 ppm
12	DG Set 1250 KVA X 1 Nos (Used in Emergency)	17	HSD	L/Hr	386.0	Sufficient Stack Height	PM	150 mg/ Nm^3
							SO2	100 ppm
							NOx	50 ppm
13	DG Set 1010 KVA x 4 Nos (Used in Emergency)	35	HSD	L/Hr	1249	Sufficient Stack Height	PM	150 mg/ Nm^3
							SO2	100 ppm
							NOx	50 ppm
14	DG Set 900 KVA X 4 NOS (Used in Emergency)	10	HSD	L/Hr	1112.7	Sufficient Stack Height	PM	150 mg/ Nm^3
							SO2	100 ppm
							NOx	50 ppm
15	DG Set - 910 KVA X 1 Nos (Used in Emergency)	10	HSD	L/Hr	281.2	Sufficient Stack Height	PM	150 mg/ Nm^3
							SO2	100 ppm
							NOx	50 ppm
16	DG Set 750 KVA X 4 Nos (Used in Emergency)	10	HSD	L/Hr	927.2	Sufficient Stack Height	PM	150 mg/ Nm^3
							SO2	100 ppm
							NOx	50 ppm
17	DG Set 625 KVA X 1 NOs(Used in Emergency)	10	HSD	L/Hr	193	Sufficient Stack Height	PM	150 mg/ Nm^3
							SO2	100 ppm
							NOx	50 ppm
18	DG Set 600 KVA	10	HSD	L/Hr	714.8		PM	150 mg/ Nm^3

	X 4 Nos (Used in Emergency)					Sufficient Stack Height	SO2	100 ppm
							NOx	50 ppm
19	DG Set 320 KVA X 1 Nos (Used In Emergency)	10	HSD	L/Hr	98.9	Sufficient Stack Height	PM	150 mg/ Nm^3
							SO2	100 ppm
							NOx	50 ppm

Details of Process emissions generation and its management: -

S. No.	Type of Stack	Air Pollution Control Measure (APCM)	Height in (M)	Air Emission		Remarks
				Pollutant	Permissible Limit	
Existing Process Stacks						
PHOSPHORUS TRI CHLORIDE PLANT – PCl_3						
1	PCl_3 Process	Caustic Scrubber for Distillation Section	30 (Common Vent)	HCl	20 mg/Nm3	**Two Plants Hence Two Process Stacks**
				Cl_2	9 mg/nm3	
	PCl_3 Storage tank and drum filling station scrubber	Caustic scrubber for storage tank		PCl_3	9 mg/nm3	
ACROLEIN						
2A*	Fume Incinerator	Thermal Destruction	30	PM	150 mg/nM3	**Two Plants with One Process Stack to Each Plant and One**
				HCl	20 mg/nM3	
				SO2	40 mg/nM3	
				NOx	40 mg/nM3	
2B*	Emergency Stack attached to Process	Emergency	30	VOC	---	**Emergency Stack (Common)**
PENDIMETHALIN PLANT						
*3A	Nitration and Washing	Caustic Scrubber	30	SO2	40 mg/NM3	**Two Plants Hence Six Stacks**
				NOx	40 mg/nM3	
*3B	CDN Water & SBC Wash	Caustic Scrubber	30	HCl	20 mg/NM3	

*3 C	Neutralizatio n Pit	Lime & Caustic Solution	30	HCl	20 mg/NM3	
DMPAT						
7A	Stage 1 Reactor	2 Stage Scrubber Water Followed by Caustic Scrubber	30	HCl	20 mg/nm3	One Plants hence three Process Stacks
7B	Stage 2 & 3 - Monoester & Diester	Caustic Scrubber	30	VOC	20 mg/nm3	
7C	Amination Stage for NH3 Recovery	Water Scrubber with Stripper	30	NH3	175 mg/nM3	
Mancozeb / Antracol Plant						
8A	Reaction - Stage 1	2 Stage Scrubber Caustic Scrubber Followed by EDA Scrubber for Mancozeb & Water Scrubber for Antracol	30	H2S CS2	5 mg/nM3 180 mg/nM3	**One Plant & Two Stacks**
8B	Spray Drier	Water Scrubber Or Bag Filter	30	PM	20 mg/nm3	
Mancozeb Plant						
8A	Reaction - Stage 1	2 Stage Scrubber Caustic Scrubber Followed by EDA Scrubber	30	H2S CS2	5 mg/Nm^3 180 mg/Nm^3	**One Plant & Two Stacks**
8B	Spray Drier	Bag Filter OR Water Scrubber	30	PM	20 mg/Nm^3	
Antracol Plant						
8A	Reaction - Stage 1	2 Stage Scrubber Caustic Scrubber Followed by Water Scrubber	30	H2S CS2	5 mg/Nm^3 180 mg/Nm^3	**One Plant & Two Stacks**
8B	Spray Drier	Bag Filter	30	PM	20 mg/Nm^3	
Glufosinate Existing						

9A	Reaction Stage 1	10% Caustic Scrubber	30	PCl3	9 mg/Nm^3	**Two Plants hence Twenty Six Stacks**
9B	Reaction, Flash Distillation & Decomposition	10% HCl Scrubber	30	VOC	20 mg/Nm^3	
9C	MgCl2 Treatment	10% Caustic Scrubber	30	VOC	20 mg/Nm^3	
9D	Hydrolysis & Esterification With Treatment	Caustic Scrubber	30	HCl HCN VOC	20 mg/Nm^3 30 mg/Nm^3 20 mg/Nm^3	
9E	HCl Furnace 1	Water Scrubber	30	HCl	20 mg/Nm^3	
9F	HCl Furnace 2	Water Scrubber	30	HCl	20 mg/Nm^3	
9G	Hypo Treatment & Sodium Acetate	Caustic Scrubber	30	Cl2 VOC	9 mg/Nm^3 20 mg/Nm^3	
9H	Intermediate Filtration Stage	Water Scrubber	30	VOC	20 mg/Nm^3	
9I	Ammonia Removal Colum of Ethanol Recovery	Water Scrubber	30	NH3	175 mg/Nm^3	
9J	Evaporation Process	Caustic Scrubber	30	VOC HCl	20 mg/Nm^3 20 mg/Nm^3	
9K	Ethanol Recovery Process	Water Scrubber	30	VOC	20 mg/Nm^3	
9L	Amination Stage for NH3 Recovery	Water Scrubber	30	NH3	175 mg/Nm^3	
9M	Filtration & Drying	Water Scrubber	30	VOC NH3	20 mg/Nm^3 175 mg/Nm^3	
CS2 PLANT Existing						
10 A	Fume Gas Incineration (Containing Traces of H2S)	Thermal Destruction	30	H2S	10 mg/Nm^3	**One Plant and Three Stacks**

10 B	Furnace Stack attached to Reactor	---	30	NO2	25 mg/Nm^3	
10 C	Emergency Flare	---	35	---	---	
S Metlachlor						
11 A	Imine Reactor & Distillation Column	Caustic Scrubber	30	HCl	20 mg/Nm^3	**One Plant Hence Two Stacks**
11 B	All Intermediate Tanks of Plant	Caustic Scrubber	30	VOC	20 mg/Nm^3	
S Metlachlor (Proposed Under PMC from GPCB Without Increase in Pollution Load : Alternative To Product Acephate)						
11 A	Imine Ractor & Distillation Column	Caustic Scrubber	30	HCl	20 mg/Nm^3	**One Plant with two stacks**
11 B	All Intermediate Tanks of Plant	Two Stage Caustic Scrubber	30	VOC	20 mg/Nm^3	
TEP PLANT EXISTING & PROPOSED						
12 A	PCl_3 Storage Tank	32% Caustic Scrubber	30	HCl Cl_2 PCl_3	20 mg/Nm^3 9 mg/nM3 9 mg/nM3	**Expansion in Existing Plant Hence One Plant with Five Stacks (with/without Changes in dimension of stacks)**
12 B	Reactor, Decanter, Dissolver, Stripper & Column Attached to Process	2 Stage Scrubber - Water Followed by 30% HCl	30	NH3	175 mg/Nm^3	
12 C	TEP Storage Tank	30% HCl Scrubber	30	HCl Cl2	20 mg/Nm^3 9 mg/Nm^3	
12 D	Purge Reactor, NH_3 Stripper, Storage, Multi Effect Evaporator	30% HCl / Water Scrubber	30	NH3	175 mg/Nm^3	
12 E	Ammonium Chloride Drying & Packaging	Bag Filter	16	PM	20 mg/Nm^3	

Sulfentrazone						
13	Stage 1 Process	Single Stage Water Scrubber	24	VOC	20 mg/Nm^3	One Plant Hence 7 Stacks
	Stage 2 Process	1 Stage DMF Scrubber	24	VOC	20 mg/Nm^3	
	Stage 3 & Stage 4 Process (Combined)	Two Stage Scrubber(Primary : Water, Secondary: Caustic)	24	VOC HCl Cl2	20 mg/Nm^3 9 mg/Nm^3	
	Stage 5 Process Vent (Common Vent for Two Process)	Two Stage Scrubber(Primary : Water, Secondary: Caustic)	24	HNO3 SO2 VOC	15 mg/Nm^3 40 mg/Nm^3 20 mg/Nm^3	
	Stage 7 Process	Three Stage Scrubber(One Water followed by Two Caustic)	24	HCl VOC SO2	20 mg/Nm^3 20 mg/Nm^3 40 mg/Nm^3	
	Product Filling	Bag Filter	5	PM	20 mg/Nm^3	
	DMF Recovery Stage 3	Water Scrubber	24	NH3	175 mg/Nm^3	
UPDT / MPBAL Plant						
14	Reaction, Grafting, Mixing & Washing	Water Scrubber	30	VOC	20 mg/Nm^3	**One Plant Hence Two Stacks**
	Saponification & pH Adjustment	Water Scrubber	30	NH_3	175 mg/Nm^3	
TPPI						
15	Process Reactor & Packaging	Water Scrubber	30	HCl	20 mg/Nm^3	One Plant Hence One Stack
POCl3						
16	Reactor and Product Storage	Caustic Scrubber	30	HCl	20 mg/Nm^3	One Plant hence One Stack
Ammonium Acetate Treatment Plant for Recovery of Acetic Acid and Ammonium Sulphate						
17	Acetic Acid Day Tanks of Plant	Water Scrubber	30	Acetic Acid Vapours	75 mg/Nm^3	**Two Plants with Common**

	Process Reactors	Water Scrubber	30	Acetic Acid Vapours	75 mg/Nm^3	**APCM Hence Two Stacks**
TPPA/DPMP Plant						
18	Scrubber Attached to TPPA Process	Water Scrubber Followed by Caustic Scrubber	30	HCl	20 mg/Nm^3	**One Plant Hence One Stack**
CAUSTIC CHLORINE PLANT						
19	56 TPD CCP	Caustic Scrubber system for waste air dechlorination of 56 TPD CCP	30 (Combined Stack)	Cl2	9 mg/Nm^3	**One Plant with Two Process Vents**
	100 TPD CCP	Caustic Scrubber for waste air dechlorination of 100 TPD CCP		Cl_2	9 mg/Nm^3	
20	156 TPD CCP	DM Water scrubber attached to HCL Furnace (Common Furnace)	30	HCl	20 mg/Nm^3	
DMPAT Proposed New Plant						
21 A	Stage 1 Reactor	2 Stage Scrubber Water Followed by Caustic Scrubber	30	HCl	20 mg/Nm^3	One Plants with three Process Stacks
21 B	Stage 2 & 3 - Monoester & Diester	Caustic Scrubber	30	VOC	20 mg/Nm^3	
	Amination Stage for NH3 Recovery	Water Scrubber with Stripper	30	NH3	175 mg/Nm^3	
Glufosinate / L Glufosinate Proposed						
22 A	Reaction Stage 1	10% Caustic Scrubber	30	PCl3	9 mg/Nm^3	**Two Plant with Fourteen Stacks to Each Plant**
	Reaction, Flash Distillation &	10% HCl Scrubber	30	VOC	20 mg/Nm^3	

	Decomposition					
	MgCl2 Treatment	10% Caustic Scrubber	30	VOC	20 mg/Nm^3	
	Hydrolysis & Escertification With Treatment	Caustic Scrubber	30	HCl HCN VOC	20 mg/Nm^3 30 mg/Nm^3 20 mg/Nm^3	
	HCl Furnace 1	Water Scrubber	30	HCl	20 mg/Nm^3	
	HCl Furnace 2	Water Scrubber	30	HCl	20 mg/Nm^3	
	Hypo Treatment & Sodium Acetate	Caustic Scrubber	30	Cl2 VOC	9 mg/Nm^3 20 mg/Nm^3	
	Intermediate Filtration Stage	Water Scrubber	30	VOC	20 mg/Nm^3	
	Ammonia Removal Column of Ethanol Recovery	Water Scrubber	30	NH3	175 mg/Nm^3	
	Evaporation Process	Caustic Scrubber	30	VOC HCl	20 mg/Nm^3 20 mg/Nm^3	
	Ethanol Recovery Process	Water Scrubber	30	VOC	20 mg/Nm^3	
	Amination Stage for NH3 Recovery	Water Scrubber	30	NH3	175 mg/Nm^3	
	Filtration & Drying	Water Scrubber	30	VOC NH3	20 mg/Nm^3 175 mg/Nm^3	
	Kiln of MgO	Water Scrubber	30	HCl	20 mg/Nm^3	
Metlachlor (Proposed)						
22 B	Imine Reactor & Distillation Column	Caustic Scrubber	30	HCl	20 mg/Nm^3	**One Plant with Two Stacks**
	All Intermediate Tanks of Plant	Caustic Scrubber	30	VOC	20 mg/Nm^3	
Methyl Mercaptan (Proposed)						

22 C	Fume Incineration	2 Stage Caustic Scrubber	30	H2S Mercaptans SO2 NOx	10 mg/Nm^3 0.5 ppm 40 mg/Nm^3 40 mg/Nm^3	**One Plant with Two Stacks**
	Emergency Flare System	---	30	---	---	

Details of Solid waste/ Hazardous waste generation and its management is given below:-

Solid Waste Management:

Category	**Type of Waste**	**Treatment method**	**Total Waste (kg/day)**		
			Existing	**Proposed**	**After Expansion**
Biodegradable	Organic Waste	Disposed for treatment in Organic Waste Convertor to get converted to manure and the same will be followed after expansion	107	52	159
Non-Biodegradable	Recyclable Waste	Waste is being sent to approved recycler and the same will be followed after expansion	160	78	238
Total			**267**	**130**	**397**

Hazardous Waste Management

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation			Disposal
				Existing	Proposed	Total after expansion	
1	Brine Sludge from Chlor Alkali Plant (Chemical Waste)	16.3	MT/month	389	0	389	Collection, Generation, Disposal, Treatment, Storage, Transportation and Send to Common TSDF site for landfilling
2	ETP Sludge and Solid Waste from Neutralization of spent Acid (Chemical sludge from wastewater treatment) and Solid /salt from MEE / Evaporation Plant (Chemical sludge from wastewater treatment)	35.3	MT/month	6,794	12,081	18,875	Collection, Generation, Disposal, Treatment, Transportation and Send to Common TSDF site for landfilling
3	Used Oil (Used or spent oil)	5.1	KL/Month	1.16	7.16	8.33	Collection, Recycling, Generation, Disposal, Reuse, Storage, Transportation and Sold to CPCB registered re-recycler(s)

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation			Disposal
				Existing	Proposed	Total after expansion	
4	Discarded Containers / Barrels / Liners (empty barrels / containers /liners contaminated with Hazardous Chemicals / Wastes)	33.1	MT/month OR Nos	50 OR 3957	8 OR 659 Nos	58 OR 4616 Nos	Collection, Recycling, decontamination, Generation, utilization, Disposal, reuse, Storage, Transportation and Decontamination, detoxification and sold to GPCB approved vendors OR Collection, Recycling, decontamination, Generation, utilization, Disposal, reuse, Storage, Transportation and Contaminated discarded containers / barrels / liners send to Common TSDF site.

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation			Disposal
				Existing	Proposed	Total after expansion	
5	Non- recyclable plastic waste gaskets (empty barrels/containers/liners contaminated with hazardous chemicals wastes)	33.1	MT/month	2.5	0	2.5	Collection, decontamination, Generation, utilization, Reuse, Storage, Transportation and Send to Common TSDF site for landfilling
6	Contaminated cotton waste (contaminated cotton rags or other cleaning materials)	33.2	MT/month	1.21	0	1.21	Collection, Generation, Disposal, Treatment, Storage, Transportation and Send to Common TSDF site for landfilling / to CHWIF for incineration/ for co-processing
7	Process Distillation Residue & Aqueous waste (Organic Process waste or residue)	29.1	MT/month	4,290	1,606	5,896	Collection, Generation, Incineration, Disposal, Storage, Transportation and Send to CHWIF for incineration / for co-processing

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation			Disposal
				Existing	Proposed	Total after expansion	
8	Spent Catalyst (Spent Catalysts)	29.5	MT/month	1	0	1	Collection, Generation, Incineration, Disposal, Storage, Transportation and Send to CHWIF for Incineration
9	Spent Solvent	29.4	MT/month	8	0	8	Collection, generation, treatment, storage, transportation and Unit to send their HW to only those with whom Unit has made MoU and Receptor Unit has permission from CPCB / GPCB under Rule9 OR TSDF for Incineration
10	Concentrated waste slurry	29.1	MT/month	2,595	12,342	14,937	Collection, Generation, Treatment, Storage, Transportation and Send to common MEE facility

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation			Disposal
				Existing	Proposed	Total after expansion	
11	Aqueous waste from Ammonium Acetate treatment*	29.1	MT/month	1,040	0	1,040	Send to CHWIF for incineration / co processing
12	Spent Ion Exchange resin containing toxic metals	35.2	MT/month	0.17	0	0.17	Send to CHWIF for incineration
13	Ammonium Acetate treatment sludge	35.5	MT/month	1,816	0	1,816	Send to Common TSDF site for landfilling
14	Filter aids (Spent Carbon or Filter Medium)	36.2	MT/month	0.21	0	0.21	Send to CHWIF for incineration
15	Inorganic solid waste (Phosphate compounds except Phosphates of Aluminum, Calcium and Iron)	B-35	MT/month	63	-63	0	To be Surrendered due to Discontinuation of Product
16	Date Expired / off specification product (date expired and off specification pesticides)	29.3	MT/month	2	1	3	Send to CHWIF for Incineration
17	Spent Resin from DM Plant	35.2	MT/month	0.17	0	0.17	Collection, Generation, Disposal, Storage, Transportation and Spent Resin from DM Plant, Send to

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation			Disposal
				Existing	Proposed	Total after expansion	
							CHWIF for incineration
18	Incineration / Furnace Ash (ash from incineration and flue gas cleaning residue)	37.2	MT/month	2	0	2	Send to Common TSDF site for landfilling
19	Asbestos (role, gland, PPE etc) (Asbestos)	B01	MT/month	0.42	0	0.42	Send to Common TSDF site for landfilling
20	Waste insulation material (asbestos)	B01	MT/month	2.33	0	2.33	Send to Common TSDF site for landfilling
21	White and Red Phosphorus Plant Phosphorus Residue	B-40	MT/month	49	-49	0	To be Surrendered due to Discontinuation of Product
22	Used contaminated personal protective equipment (PVC and plastic waste)	Z46	MT/month	0.67	0.58	1.25	Send to Common TSDF site for landfilling
23	Dilute Sulphuric Acid 78 % (Spent Acids)	29.6	MT/month	155	0	155	Collection, Generation, Disposal, Storage, Transportation and Recycle or Unit to send their HW to only those with whom Unit has made MoU

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation			Disposal
				Existing	Proposed	Total after expansion	
							and Receptor Unit has permission from CPCB / GPCB under Rule 9
24	HCl 30 % (Spent Acids)	29.6	MT/month	2,616	0	2,616	Collection, Generation, Disposal, Storage, Transportation and Recycle or Unit to send their HW to only those with whom Unit has made MoU and Receptor Unit has permission from CPCB / GPCB under Rule9
25	Spent H_2SO_4 Acid (Spent Acid)	29.6	MT/month	2,750	0	2,750	Collection, Generation, Disposal, Storage, Transportation and Recycle or Unit to send their HW to only those with whom Unit has made MoU and Receptor Unit has permission from CPCB /

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation			Disposal
				Existing	Proposed	Total after expansion	
							GPCB under Rule9
26	Nitric Acid (Spent Acids)	29.6	MT/month	419	0	419	Collection, Generation, Disposal, Storage, Transportation and Recycle or Unit to send their HW to only those with whom Unit has made MoU and Receptor Unit has permission from CPCB / GPCB under Rule9
27	(Halogen-containing compound which produce acidic vapors on contact with humid air or water e.g. silicon tetrachloride, aluminum chloride, titanium tetrachloride)	B10	MT/month	6,773	0	6,773	Collection, Disposal, Storage, Transportation and Recycle or Unit to send their HW to only those with whom Unit has made MoU and Receptor Unit has permission from CPCB / GPCB under Rule9

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation			Disposal
				Existing	Proposed	Total after expansion	
28	Methanol	29.4	MT/month	68	-68	0	No Disposal Since Proposed To Surrender The Quantity
29	Ammonium Chloride Solid	B10	MT/month	2,596	-2,596	0	No Disposal Since Proposed To Take Under By Product
30	Propionic Acid	29.6	MT/month	32	-32	0	No Disposal Since Proposed To Surrender The Quantity
31	Ammonium Chloride NH_4CL	B10	MT/month	295	-295	0	No Disposal Since Proposed To Take Under By Product
32	Ammonia Solution (Ammonia)	A10	MT/month	2,193	0	2193	Collection, Generation, Treatment, Storage, Disposal, Transportation and Disposal by sell out to authorized users who is having authorization with valid CCA and Rule 9 Permission to receive this

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation			Disposal
				Existing	Proposed	Total after expansion	
							waste to receive this waste
33	HCl (30%)	29.6	MT/month	45	0	45	Collection, Generation, Treatment, Storage, Disposal, Transportation and Disposal by sell out to authorized users who is having authorization with valid CCA and Rule 9 Permission to receive this waste to receive this waste
34	Sodium sulfite – (Mesotrione)	B23	MT/month	220	0	220	OR
35	Methyl Acetate (Isoxaflutole)	2,040.0	MT/month	47	0	47	Ethyl Chloride, Ammonium Chloride, Ammonium Hydroxide (20%), Sodium Hypochlorite from Fosthiazate
36	Acetic Acid (Isoxaflutole)	A41	MT/month	38	0	38	Collection, disposal, storage,

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation			Disposal
				Existing	Proposed	Total after expansion	
							transportation and Recycle or Unit to send their HW to only those with whom Unit has made MoU and Receptor Unit has permission from CPCB / GPCB under Rule9
37	Ferro Phosphorus	B9	MT/month	45	-45	0	No Disposal Since Proposed To Surrender The Quantity
38	Calcium Silicate	B9	MT/month	2,310	-2,310	0	No Disposal Since Proposed To Surrender The Quantity
39	Zinc Hydroxide	B32	MT/month	49	0	49	Collection, disposal, storage, transportation and Recycle or Unit to send their HW to only those with whom Unit has made MoU and Receptor Unit has permission from CPCB /

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation			Disposal
				Existing	Proposed	Total after expansion	
							GPCB under Rule9
40	TPPa	B35	MT/month	5	-5	0	No Disposal Since Proposed To Surrender The Quantity
41	Ethyl Chloride	A31	MT/month	45	-45	0	No Disposal Since Proposed To Surrender The Quantity
42	Ammonium Hydroxide 20%	B32	MT/month	117	-117	0	No Disposal Since Proposed To Take Under By Product
43	$POCl_3$	B10	MT/month	400	-400	0	No Disposal Since Proposed To Surrender The Quantity
44	Sodium Sulphite	B23	MT/month	1,200	-1,200	0	No Disposal Since Proposed To Surrender The Quantity
45	Succinimide	C15	MT/month	337	-295	42	Collection, Generation, Storage, Transportation and Disposal by sell out to authorized

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation			Disposal
				Existing	Proposed	Total after expansion	
							users who is having authorization with valid CCA and rule 9 permission to receive this waste.
46	Sodium Bromide	B2040	MT/month	271	-237	34	Collection, Generation, Storage, Transportation and Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste.
47	Sodium Hypochlorite	B7	MT/month	355	-355	0	Considered as a Product Since TheNaOCl is a Part Of Chlor Alkali Products
48	Sodium Sulphate Solution	B32	MT/month	51,576	-51,576	0	Considered as a Product Since The Na2SO4 is a Part Of Product and Is being sold to Actual User for

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation			Disposal
				Existing	Proposed	Total after expansion	
							Making Valuable Products.
49	Manganese Hydroxide	A6	MT/month	728	-728	0	Considered as a Product Since The Na2SO4 is a Part Of Product and Is being sold to Actual User for Making Valuable Products.
50	Ammonium Sulphate Solution*	A10	MT/month	3,600	0	3,600	Collection, generation, treatment, storage, transportation and Recycle or Unit to send their HW to only those with whom Unit has made MoU and Receptor Unit has permission from CPCB / GPCB under Rule9.
51	Ammonium Sulphate Solid	A10	MT/month	750	0	750	Collection, disposal, storage, transportation and Recycle or Unit to send

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation			Disposal
				Existing	Proposed	Total after expansion	
							their HW to only those with whom Unit has made MoU and Receptor Unit has permission from CPCB / GPCB under Rule9
52	NaSH / Na_2S (from Mancozeb, Antracol and CS_2)	A13	MT/month	18,294	-18,294	0	Considered as a Product Since The Na2SO4 is a Part Of Product and Is being sold to Actual User for Making Valuable Products.
53	Sodium Sulphate 96% (Solid)	B32	MT/month	13,159	-13,159	0	Considered as a Product Since The Na2SO4 is a Part Of Product and Is being sold to Actual User for Making Valuable Products.
54	Ammonium Acetate	A10	MT/month	4,391	0	4,391	Collection, generation, treatment, storage, transportation

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation			Disposal
				Existing	Proposed	Total after expansion	
							and Recycle or Unit to send their HW to only those with whom Unit has made MoU and Receptor Unit has permission from CPCB / GPCB under Rule9
55	Or Acetic Acid & Ammonium Sulphate	A10	MT/month	4,633	0	4,633	Collection, generation, treatment, storage, transportation and Recycle or Unit to send their HW to only those with whom Unit has made MoU and Receptor Unit has permission from CPCB / GPCB under Rule9
56	Or Ammonium sulphate & Sodium Acetate (30%)	A10	MT/month	5,920	0	5,920	Collection, generation, treatment, storage, transportation and Recycle or Unit to send their HW to only those with

S.No.	Waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation			Disposal
				Existing	Proposed	Total after expansion	
							whom Unit has made MoU and Receptor Unit has permission from CPCB / GPCB under Rule9

Non-Hazardous Waste management

Process Waste	Unit	Quantity of generation (Existing)	Quantity of generation (Proposed)	Quantity of generation (Total after expansion)	Treatment/Disposal
Batteries (Lead)	TPM	17.5	0.0	17.5	To be Given To Recycler / Buy Back To Dealer
Fly ash from coal fired power plant (fire ash)	TPM	8335	-2083.33	6251.67	To Brick Manufactures /Landfill
Intact / Broken tube light, Broken glass	TPM	0.17	0.00	0.17	To Recyclers Or TSDF Landfill
Di Calcium Phosphate (DCP) Sludge from Ammonium chloride treatment (TEP)	TPM	9.00	-9.00	0.00	No Disposal Since Proposed To Surrender The Quantity

Deliberations in the EAC:

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

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

It was informed to the EAC that the para 7(ii) of the EIA Notification, 2006, inter-alia, mentioned that *All applications seeking prior environmental clearance for expansion with increase in the production capacity beyond the capacity for which prior environmental clearance has been granted under this notification or with increase in either lease area or production capacity in the case of mining projects or for the modernisation of an existing unit with increase in the total production capacity beyond the threshold limit prescribed in the Schedule to this notification through change in process and or technology or involving a change in the product –mix shall be made in Form I and they shall be considered by the concerned Expert Appraisal Committee or State Level Expert Appraisal Committee within sixty days, who will decide on the due diligence necessary including preparation of Environment Impact Assessment and public consultations and the application shall be appraised accordingly for grant of environmental clearance.*

As per Office memorandum dated 11.4.2022 subject to the fulfilment of the conditions mentioned in the said OM, the application for this expansion of proposed project up to 50% of capacity as mentioned in the existing EC, in minimum three phases under para 7(ii)(a) of EIA Notification, 2006. Comes under slab second i.e Required Revised EIA/EMP report, certified compliance report, no public consultation. Accordingly the PP has submitted the application. The EAC deliberated the various requirement as per instant OM and found in order.

The Committee, after detailed deliberations, noted that the Ministry had issued Environmental Clearance earlier for project for chlor alkali plant and captive power plant vide letter No. J-11011/42/95-IA II(I) dated 17.05.1996 and vide letter No. J-11011/26/96-IA II(I) dated 24.02.1996 respectively. Further, EC has been granted to the unit located at plot no. 750 for new pesticide intermediates and new technical unit & expansion of chlor alkali along with a captive power plant in an existing unit in GIDC industrial unit by M/s United Phosphorus Ltd vide letter No. J-11011/325/2006-IA II(I) dated 25.07.2007. For expansion of agro & other organic Chemical manufacturing unit at plot no. 746 &750, EC has been granted to the unit located at vide letter No. J-11011/80/2015-IA II(I) dated 05.04.2018. Project is operational vide CTO AH – 108451 dated 20.10.2020. The Committee deliberated on the compliance status of the Certified Compliance Report and found in order.

The Committee noted that the reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for green belt development. PP committed to plant High crown density plant with 4 to 5 rows of plants along the boundary. The Committee deliberated

on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The committee also deliberated the pesticide usage and the effect of pesticide on crops and pests Carbon footprint and carbon sequestration study, Life cycle assessment, Glufosinate Microbial studies and eco-toxicological impact data ,modified onsite and offsite emergency plan, conservation plan of schedule –I species, submitted by PP and found satisfactory. The Committee also deliberated on the Accidents cause in the premises of UPL and about the NGT case

The Committee deliberated the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

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

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

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

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

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

(ii). The PP shall comply with all the conditions mentioned in the earlier ECs. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

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

(iv). The project proponent shall comply with the environment norms for 'Pesticide Industry and Organic Chemicals Manufacturing Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 446 (E), dated 13th June 2011, GSR 608(E), dated 21.07.2010 respectively under the provisions of the Environment (Protection) Rules, 1986.

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

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

(vii). Domestic effluent shall be treated in STP and the treated domestic effluent shall be used for greenbelt development and other suitable purposes within premises.

(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 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.

(ix). 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 Integrated Regional Office of Ministry and SPCB along with the compliance report.

(x). The Sodium Cyanide manufactured by the unit shall not be used as insecticidal purpose nor it shall be used for manufacturing of banned pesticide mentioned in the Notification issued on 18th August, 2018 by the Ministry of Agriculture & Farmers Welfare.

(xi). Total fresh water requirement shall not exceed 70 KLD, proposed to be met from groundwater. Necessary permission obtained in this regard shall be renewed from time to time.

(xii). Implementation of outcome of Process safety and risk assessment studies using 3D CFD Consequence Analysis and its mitigating measures shall be implemented accordingly.

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

(xiv). 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.

(xv). 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.

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

(xvii). 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.

(xviii). 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.

(xix). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology.

(xx). 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.

(xxi). 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.

(xxii). 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. Trees have to be planted with spacing of 2m x 2m and number of trees has to be increased accordingly. PP committed to plant 70000 nos. trees with 4 to 5 rows of plants along the boundary. The plant species can be selected that will give better carbon sequestration and plantation shall be started from first year onwards.

(xxiii). 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.

(xxiv). 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. 30.14

Proposed Chemical Fertilizer and Synthetic Organic Chemical Manufacturing Plant located at Plot No. 141, 144, 145, AKVN Industrial Area, Meghnagar, Dist.-Jhabua, Madhya Pradesh by M/s Krishana Phoschem Limited (A Unit of Ostwal Group of Industries), – Consideration of Environmental Clearance

[Consultant: EQMS India Pvt. Ltd.; Valid upto 23.11.2022]

[Proposal No. IA/MP/IND3/214399/2021; File No. IA-J-11011/248/2021-IA-II(I)]

The project Proponent and the accredited Consultant [M/s. EQMS India Pvt. Ltd. having accreditation number NABET/EIA/1922/RA0197 valid till 23.11.2022] made a detailed presentation on the salient features of the project and informed that:

The proposal is for Environmental Clearance to Proposed Chemical Fertilizer and Synthetic Organic Chemical Manufacturing Plant located at Plot No. 141, 144, 145, AKVN Industrial Area, Meghnagar, Dist.-Jhabua, Madhya Pradesh by M/s Krishana Phoschem Limited (A Unit of Ostwal Group of Industries)

The details of product with capacity are as under

S.No.	Particulars	Quantity (MTPA)
A.	**CHEMICAL FERTILIZERS**	
1	DAP/NPK (Zincated, Boronated Sulphur)/Water Soluble Fertilizer	330000
2	Ammonium Sulphate	20000
3	PROM	66000
4	Sulphur Bentonite	66000
5	Gypsum Granular	300000
6	Potash from Molasses	33000
7	Di Calcium Phosphate	100000
B.	**BIO FERTILIZERS**	
8	City Compost	66000
C.	**METALLIC SULPHATES**	
9	Zinc Sulphate	13200
10	Sulphate of Potash	19800
D.	**SPECIALTY CHEMICALS**	
11	Phosphoric Acid	150000
12	Sulphuric Acid-98% & Allied Product	300000
13	LABSA	60000
14	Nitric Acid	66000
15	Ammonia	99000
16	Calcium Nitrate	66000
17	Aluminium Fluoride	20000
18	Cyanuric Acid	20000
19	Di Methyl Sulfide (DMS)	5000
20	Insoluble Sulfur	10000
E.	**INTERMEDIATE DYES**	
21	H Acid – using hydrogenation process/ Vinyl Sulphone /DASDA	12500

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

The PP reported that ToR has been issued by the Ministry vide letter No. vide letter No. IA-J-11011/248/2021-IA-II(I) dated 15.06.2021. Public Hearing is exempted as the Unit is located in notified industrial area.

The PP reported that the total land area of the project site is 160000 m2. Industry has proposed to developed greenbelt in an area of 52878 m2 i.e., 33% out of total area of the project. The estimated project cost is Rs 500 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 826 Lakhs and the Recurring Cost (Operation and Maintenance) will be about Rs. 76.6 Lakhs per annum. Total Employment will be 600 no. of persons (Permanent & Contractual) during operation phase. Industry proposes to allocate Rs. 7.5 Crores towards Corporate Environment Responsibility (CER).

The PP reported that There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Anas River is flowing at 3.50 km (SE), Jhonsali River is flowing at 8.36 Km (NE) and Pat River is flowing at 8.04 km (NW) from the project site. Total 9 no. of Reserved/Protected Forests are present within the study area.

The PP reported that Ambient air quality monitoring was carried out at 8 locations during 1st December 2020 to 28th February 2021 and the baseline data indicated the ranges of concentrations as PM10 (40-82 µg/m3), PM2.5 (18-44 µg/m3), SO2 (5.0-9.7 µg/m3) and NO2 (9-20.6 µg/m3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.72 µg/m3, 1.38 µg/m3, 1.79 µg/m3, 3.35 µg/m3, 1.73 µg/m3, 0.58 µg/m3, 0.57 µg/m3 with respect to PM10, PM2.5, NOx, SO2, NH3, F and Acid Mist, respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement of project after expansion will be 43426.2 KLD of which, freshwater requirement of 35732.45 KLD will be met from 4 no. of French wells sourced from Mahi River. 2 no. of French wells are located at Parthampura and rest 2 no. of French wells are located at IOCL Refinery.

The PP reported that Total freshwater requirement is 3234 KLD which will be met from MPIDC Supply. The total wastewater generation from project will be 215 KLD (Domestic Sewage- 20 KLD; Industrial Effluent- 195 KLD). Out of total industrial effluent, wastewater from dye intermediates i.e., 145 KLD will be treated in separate Effluent Treatment Plant followed by RO & MEE with ATFD. Rest of industrial effluent i.e., 50 KLD will be treated in ETP followed by RO and MEE with ATFD. MEE treated water will reused in the premises. The plant will be based on Zero Liquid discharge system.

The PP reported that The power requirement of the plant will be 8000 KVA which will be met through Madhya Pradesh Paschim Kshetra Vidyut Vitaran Company Limited (MPPKVVCL). DG sets of capacity 1x500 kVA (with appropriate stack height as per CPCB norms) are proposed as power backup.1 no. of Biomass based boiler will be installed. Bag Filter &

Scrubber with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 800 mg/Nm3 for the proposed boiler.

Details of Process emissions generation and its management:

Stack Attached to	Stack Height	Stack Dia	Temp.	Velocity	Pollutant	APCM	Norms
	m	m	(^{0}C)	m/s			mg/Nm3
Ammonia Primary Reformer	70	0.6	147	9	NOx	Stack	400
Ammonia Purification stack	65	0.8	50	9	NH3	Wet scrubber	150
Absorption tower of Sulphuric Acid Plant	80	0.8	50	35	SO2	Mist separator and Double absorption tower	1.2 kg/MT SA
Rock phosphate grinding unit of phosphoric acid plant	30	0.4	50	9	PM	Bag Filter 3 stage wet Scrubber	125
Digester Scrubber stack of phosphoric acid plant	40	1.2	35	12.75	F	HF Gas scrubber	20
Tail gas stack of nitric acid plant	50	0.3	50	6	NOx	Absorption Tower	400
Process vent-I DAP/NPK Plant	50	0.6	53	10	NH3	Ammonia Scrubber	150
Process vent-II DAP/NPK Plant	50	0.6	53	10	NH3	Ammonia Scrubber	150
Vent III of DAP/NPK Plant	50	0.6	53	10	F	HF gas scrubber	20
Coal fired furnance of DAP/NPK Plant	30	0.2	60	4	PM	Multi cyclone separator followed by scrubber	800
					SO2		600
					NOX		300
Process stack of Zinc Sulphate	30	0.4	50	5	Acid Mist	Process stack	50
Coal fired furnace of gypsum granular	30	0.2	70	5	PM	Multi cyclone separator followed	800
					SO2		600
					NOX		300

						by scrubber	
Process stack of vinyl Sulphone	30	0.4	50	6	HCl (Acid Mist)	3 Stage scrubbers	35
Reduction process stack of vinyl sulphone	30	0.4	50	6	Acid Mist	3 Stage scrubbers for Acid Mist	35
Process stack of cyanuric acid	30	0.4	50	6	Acid Mist	3 Stage scrubbers for Acid Mist	35
Calcium Nitrate stack	30	0.3	45	7	NOx	3 Stage Wet Scrubber	400
Sulphate of potash	30	0.8	50	6	Acid mist	Absorption Tower	35
Di-calcium Phosphate	30	0.8	50	10.6	F	Wet Scrubber	20
Boiler	30	0.2	172	5	PM	-	250

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

S. No	Name of Waste	Source of Generation	Category No. (As per HW Rules 2016)	Quantity	Mode of Treatment & Disposal Method
1.	Discarded Containers/Bags /Liners	Storage & Handling of Raw Materials	Sch-I/33.3	800 Nos/ year	Collected, Stored, and is Sold to MPPCB/CPCB approved Parties
2.	Used/Spent Oil	Used/Spent Oil	Sch-I/5.1	5 MTPA	Collected and stored in MS drum and is Sold to MPPCB approved registered recyclers.
3.	ETP Sludge	In-house ETP	Sch-I/34.3	3000 MTPA	Collected in Drying Pits, stored in HDPE bags, Transported, and disposed off to MPPCB approved TSDF site for land filling.
4.	MEE Sludge	In-house MEE	Sch-I/34.3	6.6 MTPA	Collected in Drying Pits, stored in HDPE bags, Transported, and disposed off to MPPCB approved TSDF site for land filling.

Process Waste					
5.	Spent Catalyst	Process	Sch –I/35.2	4 MTPA	Collected and stored in MS drum / HDPE drums, Sold to MPPCB/CPCB approved registered recyclers
6.	Spent Resin	Process	Sch–I/ 34.2	0.5 M^3/Year	Collected and stored in HDPE bags, Transported, and disposed off to MPPCB approved TSDF site / Co-processing in cement industries.
7.	Fly Ash	Hot Air Generator	Non-Hazardous	1000 MTPA	Reused as filler.
8.	Sulphur Sludge	Melter Pit	-	100 MTPA	Reuse in SSP Plant
9.	Hydrofluorosilicic Acid (H2SiF6)	Phosphoric Acid Plant	-	400 MTPA	Recycle for acid granulation
10.	Phosphogypsum	Phosphoric Acid Plant	-	782068 MTPA	For gypsum granulation
11.	Silica	Phosphoric Acid Plant	-	200 MTPA	Filler
12.	Lime Sludge	Dye Intermediate	-	90000 MTPA	Cement Mfg Companies
13.	NOx abator used Catalyst	Nitric Acid	Sch-I/18.1	2 MTPA	Collected in Drying Pits, stored in HDPE bags, Transported, and disposed off to MPPCB approved TSDF site for land filling.
14.	Catalyst (Pt /Rh)	Sulphuric Acid Plant	Sch-I/18.1	2 MTPA	Collected in Drying Pits, stored in HDPE bags, Transported, and disposed off to MPPCB approved TSDF site for land filling.
15.	Plastic Waste	Packaging	-	0.5 MPTA	Will be Sold/Disposed off to Registered recycler

The Project proponent will comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

Deliberations by the EAC:

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

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

The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. As committed by the PP the Committee suggested use Biomass Briquettes as a fuel. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The Committee deliberated on the product-wise preventive safety measures, characteristics of waste water treatment, use of biomass as fuel for the project, and on the usage of mud as raw material of PROM (Phosphate Rich Organic Manure). PP committed the same and EAC found to be satisfactory. The Committee deliberated on the action plan and budget allocation for green belt development and suggested to complete plantation in one year and trees shall be planted considered 2m x 2m ratio inside the plant. The Committee found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee suggested that the PP shall undertake all the possible mitigation measures and latest techniques to reduce the impact of boilers. The Committee also deliberated the details of carbon foot prints and carbon sequestration study w.r.t. proposed project.

The Committee deliberated the Onsite and Offsite Emergency plan and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

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

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

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

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

(i). The PP 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 and other Reports in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). No banned chemicals/dyes 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.

(iii). The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology.

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

(v). The project proponent shall comply with the environment norms for Organic Chemical Industry as notified by the Ministry of Environment, Forest and Climate Change, *vide* GSR 608(E), dated 21.07.2010 under the provisions of the Environment (Protection) Rules, 1986.

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

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

(viii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no treated/untreated wastewater 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.

(ix). Total fresh water requirement shall not exceed 3234 KLD will be met from MPIDC Supply Necessary permission obtained in this regard shall be renewed from time to time. The fresh water demand shall be reduced by 10% using rain water harvesting system.

(x). The PP shall implement all the recommendations made in the Charter on Corporate Responsibility for Environmental Protection (CREP) for fertilizer industries.

(xi). The project authorities shall install efficient scrubbing system to control emission and bag filters and other modern technology for dust control in the plant.

(xii). The 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.

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

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

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

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

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

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

(xix). The 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.

(xx). 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.

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

(xxii). The Close loop solvent recovery system with adequate condenser system shall be provided to recover solvent vapors in such a manner that recovery shall be maximum and recovered solvent shall be reused in the process within premises (i.e. there is in-house solvent recovery and in-house distillation).

(xxiii). The Leak Detection and Repair (LDAR) program shall be prepared and implemented as per the CPCB guidelines. LDAR Logbook shall be maintained.

(xxiv). The Unit shall explore the possibilities for environment friendly methods for disposal of Incinerable & landfillable waste before sending to CHWIFT/TSDF sites respectively.

(xxv). All measures shall be taken to prevent soil and ground water contamination.

(xxvi). The PP shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations within the plant.

(xxvii). 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.

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

Consideration of TOR

Agenda No. 30.15

Expansion of Formaldehyde Manufacturing Unit with the existing production capacity 1000 Ton per Month to 2500 Ton per, located at Plot No. G-1-788, Phase-2, RIICO Industrial Area, Bhiwadi, Tehsil Tijara, District Alwar, Rajasthan month by M/s Suchem Organics Pvt. Ltd. – Consideration of TOR Violation Case

[Proposal No. IA/RJ/IND3/268773/2022; File No. IA-J-11011/319/2019-IA-II(I)]

[Consultant: Vardan Environment)

The project proponent and their accredited Consultant [M/s. Vardan Enviro Net, Gurugram Haryana, having accreditation number NABET/EIA/1922/RA 0166 valid till 06.11.2022] made a detailed presentation on the salient features of the project and informed that:

The proposal is for Terms of Reference (ToR) for Expansion of Formaldehyde Manufacturing Unit with the existing production capacity 1000 Ton per Month to 2500 Ton per, located at Plot No. G-1-788, Phase-2, RIICO Industrial Area, Bhiwadi, Tehsil Tijara, District Alwar, Rajasthan month by M/s Suchem Organics Pvt. Ltd

The unit has obtained CTE from RSPCB vide F.12(2203)/NOC/669-670 dated 09.06.1994 for 300 tons per month formaldehyde manufacturing capacity. In the year 2008 PP has enhanced its production capacity from 300 per month to 1000 ton per month after obtaining consolidated CTE-CTO from RSPCB vide RPCB/RO/BWD/OR-175/3081 dated 26.02.2009 valid from 01.09.2008. Again, CTO was renewed from RSPCB vide F(Tech)/Alwar/(Tijara)/1942(1)/2014-2015/763-765 dated 31.07.2014 for a period of 26.07.2013 to 30.06.2015

The plant was established in 1994 after obtaining CTE from RSPCB for 300 ton per month production capacity but PP has enhanced its production capacity from 300 ton per month to 1000 ton per month in the year 2008 i.e., after EIA Notification 2006, without obtaining prior Environmental Clearance. Hence the project has violated the conditions of said Notification.

Production Capacity

Product	**Capacity (1995-2008)**	**Capacity (2008-till date)**	**Proposed Capacity**	**Total Capacity after Expansion**
Formaldehyde	300 ton per day	1000 ton per day	1500 ton per day	2500 ton per day

The project comes under Item 5(f) of the Schedule, as Category A, as per EIA Notification 2006 and its subsequent amendments and, therefore requires appraisal at central level by Expert Appraisal Committee (EAC) in the Ministry.

The PP reported the Chronology of the Project:

S. No.	**Description**	**Date/Year**
1	NOC obtained from RSPCB vide F.12 (2203)/NOC/669-670 for 300 ton per month formaldehyde manufacturing capacity.	09.06.1994
2	In the year 2008 PP has enhanced its production capacity from 300 ton per month to 1000 ton per month after obtaining consolidated CTE-CTO from RSPCB vide RPCB/RO/BWD/OR-175/3081.	26.02.2009 valid from 01.09.2008.
3	Again, CTO was renewed from RSPCB vide F(Tech)/Alwar/(Tijara)/1942(1)/2014-2015/763-765 for a period of 26.07.2013 to 30.06.2015	31.07.2014
4	Rajasthan State Pollution Control Board had issued a letter regarding applicability of EIA Notification vide letter no. RPCB/RO/BWD/175/1488	26.08.2019

5	Final show cause notice for intended refusal of CTO vide letter no. F.Tech/(CD-634)/RPCB/CD/551.	18.01.2021
6	The final NGT order for the Original Application No. 840/2019 concluded “no further direction appears to be necessary except that the State PCB may ensure that the unit does not re-start functioning without requisite statutory clearance”.	03.06.2021
7	The final NGT order for Original Application No. 287/2020 concluded “Since prior EC is statutory mandate, the same must be complied. We have no doubt that the stand of the private respondents will be duly considered by the concerned regulatory authorities, including the MoEF&CC on merits and in accordance with law but till compliance of statutory mandate, the units cannot be allowed to function. For past violations, the concerned authorities are free to take appropriate action in accordance with polluter pays principle, following due process.”	03.06.2021
8	RSPCB issued an inspection report for the inspection of plant dated 05.07.2021.	05.07.2021
9	RSPCB had issued directions for closure under Section 33A of the Water Act, 1974 and 31A of the Air Act, 1981 vide Reference No. F.Tech/CD-634/RPCB/CD/118	14.07.2021
10	Show Cause Notice for intended refusal of applications for CTO under Air and Water Act	02.09.2021
11	Judgement of the Hon’ble Supreme Court with Civil Appeal No. 5154 of 2021 (Suchem Organics Pvt. Ltd. Vs Central Ground Water Authority and Ors.) concluded “The judgement and order impugned is set aside. The matter is remitted back to the learned National Green Tribunal for deciding the same in accordance with law after affording an opportunity of hearing to the appellants. The consequential orders shall also stand set aside. It is clarified that consequential orders are those orders which have been passed consequent to the impugned order of the learned Tribunal and not any pre-existing orders. The appeals are accordingly disposed off”.	13.09.2021
12	RSPCB had issued a letter regarding “Revocation of Direction for closure issued which concluded “The Hon’ble Supreme Court vide order dated 13.09.2021 has set aside the NGT order dated 03.06.2021 and consequential orders. Therefore, in compliance to the order of Hon’ble Supreme Court the directions for closure issued vide letter dated 14.07.2021 is hereby revoled/withdrawn”	27.09.2021
13	The NGT order for the Original Application No. 298/2020 (Vineet Nagar Vs Central Ground Water Authority & Ors.) concluded “Since the Tribunal has merely asked the unit not to operate till compliance which order has to be reiterated. As regards past violations, the Tribunal has asked the State Board to verify the factual position before taking any action	21.12.2021

	for the past violations. No further order is necessary. This order will also be subject to any contra decision of the Hon'ble Supreme Court in pending matters. The matter will stand disposed of accordingly".	
14	Show Cause Notice for intended refusal of applications for Consent to Operate under Section 25/26 of the Water Act 1974 and Section 21 of the Air Act 1981 and intended directions for closure.	15.02.2022
15	NGT order for the Original Application No. 298/2020 (Vineet Nagar Vs Central Ground Water Authority & Ors.) dated 21.12.2021 and Show Cause Notice for intended refusal of applications for Consent to Operate under Section 25/26 of the Water Act 1974 and Section 21 of the Air Act 1981 dated 15.02.2022; was challenged at Supreme Court.	25.3.2022
16	The case was considered on 25th March 2022 and given next date i.e. 28.03.2022 for consideration	25.3.2022
17	The case was considered and ordered to consider the same after three weeks	28.03.2022
18	Further the case was likely to be listed on 22.04.2022 but further extended the date of consideration on 13.05.2022	22.04.2022

The PP reported that the project is located in 0.11 Hectares. Industry will develop greenbelt in an area of 40.02% i.e., 440 m2 out of total area of the project. The estimated project cost is Rs 2.07 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 14.5 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 5.5 Lakhs per annum. The manpower requirement during operation phase after expansion will be approx. 20. Industry proposes to allocate Rs 5 Lakhs @ 2.4% towards CER.

The PP reported Total water requirement for project after expansion will be 70 KLD. The water requirement will be met through groundwater. Permission for the same is yet to be obtained from CGWA. 2 KLD of water from the total 70 KLD will be used for domestic purpose. Approx. 1.6 KLD (80% of total domestic water consumption) will be generated as domestic sewage. Waste water will be treated in Septic Tank (2 KLD) and after treatment, it will be used for cleaning, washing, water sprinkling and other non-portable domestic purpose. No effluent will be generated from the manufacturing process. It is a completely based on Zero Liquid Discharge Plant.

Details of Violation:

S. No.	Period	Production	Remarks
1	2008 to till date	Formaldehyde Manufacturing (1000 ton per month)	Prior EC was not secured before enhancing formaldehyde production capacity from 300 ton per month to 1000 ton per month, hence covered under violation as per EIA Notification 2006 and subsequent amendments.

Deliberations by the EAC:

The Member Secretary has informed to the EAC that the Ministry had issued a Notification vide S.O. 804 (E) dated 14th March, 2017 for appraisal of projects for grant of terms of reference/ Environmental Clearance, which have started the work on site, expanded the production beyond the limit of Environmental Clearance, or changed the product mix without obtaining prior Environmental Clearance under EIA Notification, 2006. The above said notification i.e., Notification vide S.O. 804 (E) dated 14th March, 2017 was an open window for 6 months. The projects or activities which are in violation as on date of this notification only will be eligible to apply for environmental clearance under this notification and the project proponents can apply for environmental clearance under this notification only within six months from the date of this notification.

The Member Secretary has also appraised to the EAC that there were three recent court cases in the Hon'ble NGT [viz. Dastak NGO vs Syncochem Prganics Pvt. Ltd. & ors in OA No. 287 of 2020, Vineet Nagar Vs. Central Ground Water Authority & Ors, in OA No. 298 of 2020, and Ayush Garg Vs Union of India & Ors. in OA No. 840 of 2019], which were disposed of by Hon'ble NGT vide its Order dated 03.06.2021 with the following directions:

(i) For past Violations, the concerned Authorities are free to take appropriate action in accordance with polluter pays principle, following due process.

(ii) Since having prior EC is statutory mandate, it has to be complied with by the formaldehyde producing industrial units barring which the units cannot be allowed to function.

(iii) The State PCB may assess and recover compensation for illegal operation of the Units on 'Polluter Pays' principle.

(iv) The State PCB may ensure that the unit does not re-start functioning without requisite Statutory Clearance.

(v) To be duly considered by the concerned regulatory authorities including MOEFCC on merits and in accordance with law.

It was informed to the Committee that the Hon'ble NGT(WZ) in the matter titled Appeal No. 34/2020 titled Tanaji B. Gambhire vs. Chief Secretary, Govt. of Maharashtra & Ors. vide order dated 24.05.2021 directed that a proper SoP (Standard Operating Procedure) be laid down for grant of EC in violation cases so as to address the gaps in binding law and practice being currently followed. The Hon'ble NGT further suggested MoEFCC to consider circulating such SoP to all SEIAAs in the country. Standard Operating Procedure (SOP) for identification and handling of violation cases under EIA Notification, 2006 vide office memorandum dated 7th July, 2021 was issued, as per extant regulations, Terms of Reference (TOR) shall be issued with directions to complete the impact assessment studies & submit Environmental Impact Assessment (EIA) report & Environmental Management Plan (EMP) in a time bound manner.

It was further informed that the Hon'ble Supreme Court in another matter titled **Electrosteel Steels Ltd. Vs. Union of India & Ors** (Civil Appeal No. 7576-7577 of 2021) vide judgment dated 09/12/2021, inter-alia, held vide the following paragraphs that :

"……93. The interim order passed by the Madras High Court appears to be misconceived. However, this Court is not hearing an appeal from that interim

order. The interim stay passed by the Madras High Court can have no application to operation of the Standard Operating Procedure to projects in territories beyond the territorial jurisdiction of Madras High Court. Moreover, final decision may have been taken in accordance with the Orders/Rules prevailing prior to 7th July, 2021.

94. In passing the impugned order the High Court overlooked the consequences of closure of an integrated steel plant with a work force of 300 regular and 700 contractual workers. The High Court also failed to appreciate that the judgment of this Court in Alembic Pharmaceuticals (supra) was distinguishable on facts. Furthermore, continuance of the interim orders allowing operation of an industrial establishment or even the grant of revised EC to the industrial establishment cannot stand in the way of action against that establishment for contraventions, including the imposition of penalty, on the principle 'polluter pays'. The scope and effect of Section 32A of the IBC is a different issue. This Court need not examine into the question of whether penal action can be initiated against the Appellant or, whether compensation can be recovered from the Appellant, at this stage. The issue may be decided by the appropriate authority at the appropriate stage when it adjudicates an action for penalization of the Appellant or recovery of compensation from the Appellant. The application of the Appellant for revised EC, CTO etc. shall be considered strictly in accordance with environmental norms.

95. The appeals are allowed. The impugned order is set aside. The Respondent No.1 shall take a decision on the application of the Appellant for revised EC in accordance with law, within three months from date. Pending such decision, the operation of the steel plant shall not be interfered with on the ground of want of EC, FC, CTE or CTO……"

Further, the Ministry has issued an OM on 25/08/2021 and forwarded the directions of the Hon'ble Supreme Court in the matter of Electrosteel Steels Ltd. Vs. Union of India & Ors (Civil Appeal No. 7576-7577 of 2021) vide judgment dated 09/12/2021 to regulatory authority.

The EAC also noted that N.M.R Phyrochem has been included as party by petitioner/respondents on their own will without any intimation to us in the case of Supreme Court vide Civil Appeal Nos. 448/2022 on 19/01/2022 of JRS Industries vs Vineet Nagar & ORS. Judgment in above referred case as released on 07/02/2022 read as "This order, however, will not prevent the appellant from pursuing its applications, if any, for consent to operate/environmental clearance with the authorities concerned. Considering the huge investment claimed to have been made by the appellant, the concerned authorities shall proceed with the applications, in accordance with law, at the earliest, preferably within two months from the date of communication of this order." This case has been dismissed and disposed. No court case is pending, where N.M.R Phyrochem are petitioner or respondent.

It was also informed to the EAC that the Hon'ble Supreme Court vide its judgement dated 24/03/2022 in Civil Appeal No. 4795 of 2021 titled M/s Pahwa Plastics Pvt. Ltd. and ANR vs. Dastak NGO and Ors, which dealt with the issue of dealing with violation cases of the formaldehyde producing industries and their requirement of Environment Clearance thereafter. In the judgment the Hon'ble Supreme Court has held that vide Office Memorandum, being F.No. 22-21/2020-1A III, dated 7 th July 2021, the MoEF&CC issued Standard Operating Procedure (SOP) for identification and handling of violation cases under

EIA Notification 2006. In terms of the SOP, the proposal for grant of EC in cases of violation are to be considered on merits, with prospective effect, applying principles of proportionality and the principle that the polluter pays and is liable for costs of remedial measures**.** Hence all the violation cases are to be held in accordance with the procedures as enumerated in the SOP dated 07/07/2021.

It was informed to the EAC that the proposal was placed before the EAC Meeting held on **March 24-25, 2022 wherein the EAC had deferred the proposal**. Detailed deliberations of EAC Meeting held on March 24-25, 2022 are as below;

After detailed deliberations and examination of application in Form-I, PFR, other reports, by the Committee it is emerged that the instant application is not as per the Standard Operating Procedure (SOP) dated 7.7.2021 for identification and handling of violation cases under EIA Notification, 2006. Even PP has not proposed the violation TOR as per provisions of the SOP dated 07.07.2021 and PP has not submitted the correct application.

During the presentation the PP/Consultant has accepted that they had missed out some of the important details related to the project. They have requested the EAC to consider this one-time and allow us to furnish the requisite details about the proposed TOR as per SOP dated 07.07.2021 and other parameters in the PFR & Form-1 which is requisite documents as per provision of the EIA Notification, 2006.

The EAC has also advised that the Consultant to submit the application with all the details for appraisal of the EAC.

After, detailed deliberations, the EAC accepted the request of the PP for revision of application on Parivesh portal. Accordingly, the EAC deferred the proposal for revision of application as per SOP dated 07.07.2021.

Based on the revised application submitted by the **PP, the proposal was again placed before the instant EAC meeting.**

The Committee, after detailed deliberations, **recommended** for issuing **Standard ToR [Annexure-I]** in addition to the **additional ToR with public hearing**, as per the provision of the EIA Notification, 2006, as the project site is not located in the notified industrial area:

(i) The PP shall follow the Standard Operating Procedure (SoP) issued by the Ministry on 07.07.2021 for handling of violation cases under EIA Notification, 2006.

(ii) To complete the impact assessment studies & submit Environmental Impact Assessment (EIA) report & Environmental Management Plan (EMP) (Damage Assessment, Remedial Plan and Community Augmentation Plan) in a time bound manner.

(iii) Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR).

(iv) Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.

(v) The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter (13) in the EIA report by the accredited consultants.

(vi) Budget of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be completed within three years and to be prepared accordingly.

(vii) The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.

(viii) 1% of the project cost (attributable to the expansion activity) incurred upto the date of filing of application along with EIA/EMP report plus 0.25% of the total turnover (attributable to the expanded activity/capacity) involved during the period of violation.

(ix) The State Government/SPCB to take action against the project proponent under the provisions of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC

(x) The SPCB/State Government should issue under section 5 of the Environment (Protection) Act, 1986 to stop the violating activities till the EC is obtained.

(xi) Action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.

(xii) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.

(xiii) Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

(xiv) The PP should develop 33% Greenbelt 2500 saplings/ha of the project area and additional 500 more Trees shall be planted, accordingly the plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Trees have to be planted with spacing of 2m x 2m and number of trees has to be calculated accordingly.

(xv) The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.

Agenda No. 30.16

Existing Formaldehyde Manufacturing Unit with Production Capacity of 60 TPD, located at Khasra No. 56//1 Village: Ramnagar, Tehsil: Ganaur, Dist.: Sonipat, Haryana by M/s Shri Laxmi Chemical – Consideration of TOR Violation Case

[Consultant: Vardan EnviroNet] [Proposal No. IA/HR/IND3/267199/2022; File No. IA-J-11011/258/2021-IA-II(I)]

The project proponent and their accredited Consultant [M/s. Vardan EnviroNet, Gurugram Haryana, having accreditation number NABET/EIA/1922/RA 0166 valid till 06.11.2022] made a detailed presentation on the salient features of the project and informed that:

The proposal is for Terms of Reference (ToR) for Existing Formaldehyde Manufacturing Unit with Production Capacity of 60 TPD, located at Khasra No. 56//1 Village: Ramnagar, Tehsil: Ganaur, Dist.: Sonipat, Haryana by M/s Shri Laxmi Chemical.

PP reported that Land for the facility was purchased on 30.03. 2017.Change of Land Use has been obtained from District Town and Country Planning vide Memo No. STP(R)/NOC-293(S)/2466 dated 16.04.2018. Construction of the plant has been started in the month of April 2018 without obtaining CTE from SPCB. Plant came into operation phase in Sep 2019 for a period of 12 days without obtaining CTO from SPCB. Plant was constructed as well as operated without obtaining prior Environmental Clearance.

The plant was established in 1994 after obtaining CTE from RSPCB for 300 ton per month production capacity but PP has enhanced its production capacity from 300 ton per month to 1000 ton per month in the year 2008 i.e., after EIA Notification 2006, without obtaining prior Environmental Clearance. Hence the project has violated the conditions of said Notification.

Production Capacity

Product	**Capacity (1995-2008)**	**Capacity (2008-till date)**	**Proposed Capacity**	**Total Capacity after Expansion**
Formaldehyde	300 ton per day	1000 ton per day	1500 ton per day	2500 ton per day

As per EIA Notification 2006 and its subsequent amendments the project falls under schedule 5 (f) “Synthetic Organic Chemical Project”. The plant is located outside the Notified Industrial Area which makes it “A” category project. The presence of interstate boundary of Haryana-Uttar Pradesh at a distance of approx. 5.3 km from the project site in East direction makes the general condition applicable on the project. The project requires appraisal/approval at central level in the Ministry. The plant was established in 2018, after EIA Notification 2006, without securing Environmental Clearance.

The PP reported the Chronology of the Project:

S. No.	**Description**	**Date/Year**

1	Unit has been established without obtaining CTE from SPCB.	Year 2018
2	Unit started operation for period of 12 days without obtaining CTO from SPCB.	Sep, 2019
3	Unit established as well as operated without obtaining prior Environmental Clearance hence.	Violation of EIA Notification 2006 and sub-sequent amendments.
4	The final NGT order for the Original Application No. 840/2019 concluded "no further direction appears to be necessary except that the State PCB may ensure that the unit does not re-start functioning without requisite statutory clearance".	03.06.2021
5	The final NGT order for Original Application No. 287/2020 concluded "Since prior EC is statutory mandate, the same must be complied. We have no doubt that the stand of the private respondents will be duly considered by the concerned regulatory authorities, including the MoEF&CC on merits and in accordance with law but till compliance of statutory mandate, the units cannot be allowed to function. For past violations, the concerned authorities are free to take appropriate action in accordance with polluter pays principle, following due process."	03.06.2021
6	The NGT order for the Original Application No. 298/2020 (Vineet Nagar Vs Central Ground Water Authority & Ors.) concluded "Since the Tribunal has merely asked the unit not to operate till compliance which order has to be reiterated. As regards past violations, the Tribunal has asked the State Board to verify the factual position before taking any action for the past violations. No further order is necessary. This order will also be subject to any contra decision of the Hon'ble Supreme Court in pending matters. The matter will stand disposed of accordingly".	21.12.2021

The PP reported The project is located in 0.1658 Hectares (1658.08). Industry will develop greenbelt in an area of 34.98% i.e., 580 m^2 out of total area of the project. The estimated project cost is Rs 1.02 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 13.0 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 4.6 Lakhs per annum. The manpower requirement during operation phase will be approx. 10. Industry proposes to allocate Rs 3 Lakhs towards CER.

The PP reported Total water requirement for project after expansion will be 40 KLD. The water requirement will be met through groundwater. Permission for the same is yet to be obtained from CGWA.1.5 KLD of water from the total 40 KLD will be used for domestic purpose. Approx. 1.2 KLD (80% of total domestic water consumption) is generated as domestic sewage. Waste water is treated in Septic Tank (2 KLD) and after treatment, it will be used for cleaning, washing, water sprinkling and other non-portable domestic purpose. No

effluent will be generated from the manufacturing process. It is a completely based on Zero Liquid Discharge Plant.

Details of Violation:

S. No.	Period	Production	Remarks
1	April 2018	Construction of Unit and Operation of Formaldehyde Manufacturing (60 TPD)	Prior EC was not secured before setting up and operation of the unit, hence covered under violation as per EIA Notification 2006 and subsequent amendments.

Deliberations by the EAC:

The Member Secretary has informed to the EAC that the Ministry had issued a Notification vide S.O. 804 (E) dated 14th March, 2017 for appraisal of projects for grant of terms of reference/ Environmental Clearance, which have started the work on site, expanded the production beyond the limit of Environmental Clearance, or changed the product mix without obtaining prior Environmental Clearance under EIA Notification, 2006. The above said notification i.e., Notification vide S.O. 804 (E) dated 14th March, 2017 was an open window for 6 months. The projects or activities which are in violation as on date of this notification only will be eligible to apply for environmental clearance under this notification and the project proponents can apply for environmental clearance under this notification only within six months from the date of this notification.

The Member Secretary has also appraised to the EAC that there were three recent court cases in the Hon'ble NGT [viz. Dastak NGO vs Syncochem Prganics Pvt. Ltd. & ors in OA No. 287 of 2020, Vineet Nagar Vs. Central Ground Water Authority & Ors, in OA No. 298 of 2020, and Ayush Garg Vs Union of India & Ors. in OA No. 840 of 2019], which were disposed of by Hon'ble NGT vide its Order dated 03.06.2021 with the following directions:

(vi) For past Violations, the concerned Authorities are free to take appropriate action in accordance with polluter pays principle, following due process.

(vii) Since having prior EC is statutory mandate, it has to be complied with by the formaldehyde producing industrial units barring which the units cannot be allowed to function.

(viii) State PCB may assess and recover compensation for illegal operation of the Units on 'Polluter Pays' principle.

(ix) State PCB may ensure that the unit does not re-start functioning without requisite Statutory Clearance.

(x) To be duly considered by the concerned regulatory authorities including MOEFCC on merits and in accordance with law.

It was informed to the Committee that the Hon'ble NGT(WZ) in the matter titled Appeal No. 34/2020 titled Tanaji B. Gambhire vs. Chief Secretary, Govt. of Maharashtra & Ors. vide

order dated 24.05.2021 directed that a proper SoP (Standard Operating Procedure) be laid down for grant of EC in violation cases so as to address the gaps in binding law and practice being currently followed. The Hon'ble NGT further suggested MoEFCC to consider circulating such SoP to all SEIAAs in the country. Standard Operating Procedure (SOP) for identification and handling of violation cases under EIA Notification, 2006 vide office memorandum dated 7th July, 2021 was issued, as per extant regulations, Terms of Reference (TOR) shall be issued with directions to complete the impact assessment studies & submit Environmental Impact Assessment (EIA) report & Environmental Management Plan (EMP) in a time bound manner.

It was further informed that the Hon'ble Supreme Court in another matter titled **Electrosteel Steels Ltd. Vs. Union of India & Ors** (Civil Appeal No. 7576-7577 of 2021) vide judgment dated 09/12/2021, inter-alia, held vide the following paragraphs that :

"……93. The interim order passed by the Madras High Court appears to be misconceived. However, this Court is not hearing an appeal from that interim order. The interim stay passed by the Madras High Court can have no application to operation of the Standard Operating Procedure to projects in territories beyond the territorial jurisdiction of Madras High Court. Moreover, final decision may have been taken in accordance with the Orders/Rules prevailing prior to 7th July, 2021.

94. In passing the impugned order the High Court overlooked the consequences of closure of an integrated steel plant with a work force of 300 regular and 700 contractual workers. The High Court also failed to appreciate that the judgment of this Court in Alembic Pharmaceuticals (supra) was distinguishable on facts. Furthermore, continuance of the interim orders allowing operation of an industrial establishment or even the grant of revised EC to the industrial establishment cannot stand in the way of action against that establishment for contraventions, including the imposition of penalty, on the principle 'polluter pays'. The scope and effect of Section 32A of the IBC is a different issue. This Court need not examine into the question of whether penal action can be initiated against the Appellant or, whether compensation can be recovered from the Appellant, at this stage. The issue may be decided by the appropriate authority at the appropriate stage when it adjudicates an action for penalization of the Appellant or recovery of compensation from the Appellant. The application of the Appellant for revised EC, CTO etc. shall be considered strictly in accordance with environmental norms.

95. The appeals are allowed. The impugned order is set aside. The Respondent No.1 shall take a decision on the application of the Appellant for revised EC in accordance with law, within three months from date. Pending such decision, the operation of the steel plant shall not be interfered with on the ground of want of EC, FC, CTE or CTO……"

Further, the Ministry has issued an OM on 25/08/2021 and forwarded the directions of the Hon'ble Supreme Court in the matter of Electrosteel Steels Ltd. Vs. Union of India & Ors (Civil Appeal No. 7576-7577 of 2021) vide judgment dated 09/12/2021 to regulatory authority.

The EAC also noted that N.M.R Phyrochem has been included as party by petitioner/respondents on their own will without any intimation to us in the case of Supreme Court vide Civil Appeal Nos. 448/2022 on 19/01/2022 of JRS Industries vs Vineet Nagar &

ORS. Judgment in above referred case as released on 07/02/2022 read as “This order, however, will not prevent the appellant from pursuing its applications, if any, for consent to operate/environmental clearance with the authorities concerned. Considering the huge investment claimed to have been made by the appellant, the concerned authorities shall proceed with the applications, in accordance with law, at the earliest, preferably within two months from the date of communication of this order.” This case has been dismissed and disposed. No court case is pending, where N.M.R Phyrochem are petitioner or respondent.

It was also informed to the EAC that the Hon’ble Supreme Court vide its judgement dated 24/03/2022 in Civil Appeal No. 4795 of 2021 titled M/s Pahwa Plastics Pvt. Ltd. and ANR vs. Dastak NGO and Ors, which dealt with the issue of dealing with violation cases of the formaldehyde producing industries and their requirement of Environment Clearance thereafter. In the judgment the Hon’ble Supreme Court has held that vide Office Memorandum, being F.No. 22-21/2020-1A III, dated 7 th July 2021, the MoEF&CC issued Standard Operating Procedure (SOP) for identification and handling of violation cases under EIA Notification 2006. In terms of the SOP, the proposal for grant of EC in cases of violation are to be considered on merits, with prospective effect, applying principles of proportionality and the principle that the polluter pays and is liable for costs of remedial measures**.** Hence all the violation cases are to be held in accordance with the procedures as enumerated in the SOP dated 07/07/2021.

It was informed to the EAC that the proposal was placed before the EAC Meeting held on **March 24-25, 2022 wherein the EAC had deferred the proposal**. Detailed deliberations of EAC Meeting held on March 24-25, 2022 are as below;

After detailed deliberations and examination of application in Form-I, PFR, other reports, by the Committee it is emerged that the instant application is not as per the Standard Operating Procedure (SOP) dated 7.7.2021 for identification and handling of violation cases under EIA Notification, 2006. Even PP has not proposed the violation TOR as per provisions of the SOP dated 07.07.2021 and PP has not submitted the correct application.

During the presentation the PP/Consultant has accepted that they had missed out some of the important details related to the project. They have requested the EAC to consider this one-time and allow us to furnish the requisite details about the proposed TOR as per SOP dated 07.07.2021 and other parameters in the PFR & Form-1 which is requisite documents as per provision of the EIA Notification, 2006.

The EAC has also advised that the Consultant to submit the application with all the details for appraisal of the EAC.

After, detailed deliberations, the EAC accepted the request of the PP for revision of application on Parivesh portal. Accordingly, the EAC <u>deferred</u> the proposal for revision of application as per SOP dated 07.07.2021.

Based on the revised application submitted by the **PP, the proposal was again placed before the instant EAC meeting.**

The Committee, after detailed deliberations, **recommended** for issuing **Standard ToR [Annexure-I]** in addition to the **additional ToR with public hearing**, as per the provision of the EIA Notification, 2006, as the project site is not located in the notified industrial area:

(i). The PP shall follow the Standard Operating Procedure (SoP) issued by the Ministry on 07.07.2021 for handling of violation cases under EIA Notification, 2006.

(ii). The PP should conduct Public Hearing as per provisions of the EIA Notification, 2006 and all issues and its Action Plan should be addressed in the EIA/EMP.

(iii). To complete the impact assessment studies & submit Environmental Impact Assessment (EIA) report & Environmental Management Plan (EMP) (Damage Assessment, Remedial Plan and Community Augmentation Plan) in a time bound manner.

(iv). Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR).

(v). Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.

(vi). The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter (13) in the EIA report by the accredited consultants.

(vii). Budget of remediation plan and natural and community resource augmentation plan corresponding to the ecological damage shall be completed within three years and to be prepared accordingly.

(viii). The project proponent shall be required to submit a bank guarantee equivalent to the amount of remediation plan and natural and community resource augmentation plan with the SPCB prior to the grant of EC. The quantum shall be recommended by the EAC and finalized by the regulatory authority. The bank guarantee shall be released after successful implementation of the EMP, followed by recommendations of the EAC and approval of the regulatory authority.

(ix). 1% of the project cost (attributable to the expansion activity) incurred upto the date of filing of application along with EIA/EMP report plus 0.25% of the total turnover (attributable to the expanded activity/capacity) involved during the period of violation.

(x). The State Government/SPCB to take action against the project proponent under the provisions of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC

(xi). The SPCB/State Government should issue under section 5 of the Environment (Protection) Act, 1986 to stop the violating activities till the EC is obtained.

(xii). Action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.

(xiii). Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.

(xiv). Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

(xv). The PP should develop 33% Greenbelt 2500 saplings/ha of the project area and additional 500 more Trees i.e 150 trees inside the premises and 50 at the periphery of the plant and 350 on an additional land shall be planted, accordingly the plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Trees have to be planted with spacing of 2m x 2m and number of trees has to be calculated accordingly.

(xvi). The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.

The meeting ended with thanks to the Chair.

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ANNEXURE

GENERAL EC CONDITIONS

(i) No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.

(ii) The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.

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

(iv) The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

(v) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.

(vi) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.

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

(viii) The project proponent shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.

(ix) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Integrated Regional Office 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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STANDARD TERMS OF REFERENCE CONDITIONS

A. STANDARD TERMS OF REFERENCE

1) Executive Summary

2) Introduction

i. Details of the EIA Consultant including NABET accreditation
ii. Information about the project proponent
iii. Importance and benefits of the project

3) Project Description

i. Cost of project and time of completion.
ii. Products with capacities for the proposed project.
iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
iv. Details of existing products and production, if any, along with present product/production details in tabular format, to verify the compliance of the EIA Notifications.
v. Details of existing products and production, if any, along with present product/production details in tabular format, to verify the compliance of the EIA Notifications.
vi. List of raw materials required and their source along with mode of transportation.
vii. Other chemicals and materials required with quantities and storage capacities
viii. Details of Emission, effluents, hazardous waste generation and their management.
ix. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
x. Details of boiler/gensets (including stacks/exhausts) and fuels to be use
xi. Details of boiler/gensets (including stacks/exhausts) and fuels to be used
xii. Process description along with major equipment's and machineries, process flow sheet (quantitative) from raw materials to products to be provided
xiii. Hazard identification and details of proposed safety systems.
xiv. Expansion/modernization proposals:

a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, copy of the latest CTO and status of compliance of Consent to Operate for the ongoing/existing operation of the project from SPCB shall be attached with the EIA-EMP report.
b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units

operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4) Site Details

i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
ii. A topo-sheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
iii. Details w.r.t. option analysis for selection of site
iv. Co-ordinates (lat-long) of all four corners of the site.
v. Google map-Earth download of the project site.
vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
viii. Land-use break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
x. Geological features and Geo-hydrological status of the study area shall be included.
xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land. Documents related to conversion of land for Industrial purpose.
xiii. R&R details in respect of land in line with state Government policy

5) <u>Forest, wildlife and CRZ related issues (if applicable):</u>

i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
ii. Land-use map based on High resolution satellite imagery of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha)*
iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon

v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife
vii. Recommendations and NOC from the concerned State/UT Coastal Zone Management Authority on CRZ angle

6) Environmental Status

i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
   - AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Study should indicate minimum, maximum value of different parameters for the period (3 months) collected. Collected data should be supported by the reference data of either CPCB or SPCB. AAQ data & GLC of pollutants from stack emissions should suggest technology/ measures- Best Practiced Technology (BPT) indicating best achieved results.

ii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
iii. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
iv. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
v. Ground water monitoring at minimum at 8 locations shall be included.
vi. Noise levels monitoring at 8 locations within the study area.
vii. Soil Characteristic as per CPCB guidelines.
viii. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
ix. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
x. Socio-economic status of the study area.

7) Environment Impact and Environment Management Plan

i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a

location map showing the location of project site, habitation nearby, sensitive receptors, if any.

ii. Water Quality Modelling – in case of discharge in water body

iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.

iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules 1986.

v. Details of stack emission and action plan for control of emissions to meet standards.

vi. Measures for fugitive emission control

vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.

viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.

ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.

x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.

xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.

xii. Action plan for post-project environmental monitoring shall be submitted.

xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8) Occupational health

i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers

ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre-placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.

iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are

not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,

iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

9) Corporate Environment Policy

i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.

ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.

iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.

iv. Does the company have system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

v. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

10) Corporate Environmental Responsibility (CER)

i. Adequate funds, as per the Ministry's OM/Guidelines, shall be earmarked towards the Corporate Environmental Responsibility based on Public Hearing issues/socio-economic issues and item-wise details along with time bound action plan shall be included (CER activities shall be related to environment). Socio-economic development activities need to be elaborated upon. For the projects where public hearing is not conducted, CER plan shall be provided based on socio-economic study of the area.

10) Additional studies/Measures to be considered

(i). Provide latest and ecofriendly technology for product manufacturing.

(ii). Emphasize on Green chemistry/Clean Manufacturing

(iii). Provide CAS No. of products along with product list.

(iv). Provide details of amount of carbon sequestered in their unit through greenbelt/other modes, in case of expansion project.

(v). Life structure and sustainability for carbon and water foot print.

(vi). Detailed pollution Load estimation.

(vii). Transportation of Hazardous substance, effluents etc shall be carriedout through authorized and GPS enable vehicles/Trucks only.

(viii). Category of Hazardous Wastes shall be mentioned in the EIA/EMP report and in presentation.

(ix). Details of greenhouse gases and emissions shall be provided.

(x). Greenbelt shall be developed in the first year of the project and wind breaks shall be erected.

(xi). Study area map shall be overlapped with all the associated features.

(xii). Emphasize on green fuels.

(xiii). The project from NCR shall not use Coal as fuel. Further, PP shall avoid use of Coal in the CPAs and elsewhere also if alternatives are available.

(xiv). Provide the Cost-Benefit analysis with respect to the environment due to the project.

11) Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

12) A tabular chart with index for point wise compliance of above TORs and its details needs to be submitted in the EIA/EMP Report.

B. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR 5(f) CATOGORY SYNTHETIC ORGANIC CHEMICALS INDUSTRY (DYES & DYE INTERMEDIATES; BULK DRUGS AND INTERMEDIATES EXCLUDING DRUG FORMULATIONS; SYNTHETIC RUBBERS; BASIC ORGANIC CHEMICALS, OTHER SYNTHETIC ORGANIC CHEMICALS AND CHEMICAL INTERMEDIATES)

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like NH_3*,chlorine*,HCl*,HBr*,H_2S*,HF*,*etc*.,(*-as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9. Action plan for utilization of MEE/dryers salts.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

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Annexure-II

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

S. No.	Name of Members	Designation
1.	**Prof. (Dr.) A.B. Pandit** Vice Chancellor, Institute of Chemical Technology, Mumbai, Sir JC Bose Fellow, Government of India Email: ab.pandit@ictmumbai.edu.in	Chairman
2.	**Dr. Ashok Kumar Saxena, IFS** Bunglow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
3.	**Prof. (Dr.) S. N. Upadhyay** Research Professor(Hon.), Department of Chemical Engineering & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi E-mail:snupadhyay.che@iitbhu.ac.in	Member
4.	**Prof. (Dr.) Vijay S. Moholkar** Professor in Department of Chemical Engineering,Block-K (Academic complex), Room No. 111, Inidia Institute of Technology Gawahati, Gawahati – 781039 E-mail: vmoholkar@iitg.ac.in	Member
5.	**Shri Santosh Gondhalkar** 'Shree' Apartment, Flat 401, Plot No. 22, Tukaram Society, Santnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
6.	**Dr. Suresh Panwar** House No.4, Gayateri Green Society, NH 58 Bypass, Kankerkhera, Meerut, Uttar Pradesh Email-spcppri@gmail.com	Member
7.	**Shri Tukaram M Karne** "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2, PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	Member
8.	**Prof. (Dr.) Suneet Dwivedi,** Professor in K Banerjee Centre of Atmospheric and Ocean Studies, University of Allahabad, Allahabad - 02 Uttar Pradesh E-mail:dwivedisuneet@rediffmail.com /suneetdwivedi@gmail.com	Member

9.	**Shri Sanjay Bisht** Scientist 'E', Room No. 517, Office of the Director General of Meteorology, Indian Meteorological Department, Musam Bhawan, Lodhi Road, New Delhi -110003 E-mail: sanjay.bist@imd.gov.in	Member
10.	**Shri Dinabandhu Gouda** Additional Director, DH IPC-I, Room No. 309A, Third Floor, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 110032 E-mail: dinabandhu.cpcb@nic.in	Member
11.	**Dr. R. B. Lal** Scientist 'E'/Additional Director Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Room No. V-304, Vayu Wing, Jor Bag Road, New Delhi-110003 Telefax: 011-20819346 E-mail: rb.lal@nic.in	Member Secretary

MoEFCC		
1.	**Dr. Abhilasha S Mathuriya** Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Scientist D
2.	**Dr. Bhawana K Negi** Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Technical Officer
3.	**Mr. Ritin Raj** Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Research Assistant

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Approval of EAC Chairman

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

Re: Zero Draft Minutes of the 30th EAC (Industry 3 Sector) meeting held during April 26-27, 2022 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir.

From : ab pandit <ab.pandit@ictmumbai.edu.in> Thu, May 05, 2022 02:53 PM

1 attachment

Subject : Re: Zero Draft Minutes of the 30th EAC (Industry 3 Sector) meeting held during April 26-27, 2022 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir.

To : Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in>

Dear Dr. R. B. Lal
PFA
Thanks and Best Wishes
Pandit

The Minutes of the 30th Expert Appraisal Committee (Industry-3 Sector) meeting held on April 26-27, 2022 are approved.

Prof. A. B. Pandit
Vice Chancellor
Institute of Chemical Technology