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

*****

Dated: 22.04.2022

MINUTES OF THE 29th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON APRIL 11-12, 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 11, 2022 [MONDAY]

(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 28th Meeting of the EAC (Industry-3 Sector) held during March 24-25, 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 **28th Meeting of the EAC (Industry-3 Sector) held during March 24-25, 2022** conducted through Video Conferencing (VC), and as such no request has been received for modifications/corrections in the minutes of the 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. 29.1

Setting up of Dyes & Dye Intermediates manufacturing unit of capacity 920 MTPM located at Survey no. 458, Village: Neja, Taluka Khambhat, District Anand, Gujarat by M/s. Jatwin Industries - Consideration of Environment Clearance

[Proposal No. IA/GJ/IND3/212071/2021, F. No. IA-J-11011/215/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. San Envirotech Pvt. Ltd., [Accreditation number NABET/EIA/1922/RA0216 validity till 23 December 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 Dyes & Dye Intermediates manufacturing unit of capacity 920 MTPM located at Survey no.458, Village: Neja, Taluka Khambhat, District Anand, Gujarat by M/s. Jatwin Industries.

The project/activity is covered under Category 'A' of item 5(f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and requires appraisal at Central Level by Expert Appraisal Committee (EAC)

The details of products and capacity as under:

S. No.	Name of the Product(s)	CAS Nos.	Quantity MT/Month	Type of products
1	4-Nitro Toluene-2-Sulfonic Acid (PNTOSA)	121-03-9	**300**	Dye Intermediates
2	Para Nitro Chloro Benzene Ortho Sulfonic Acid (PNCBOSA)	96-73-1		Dye Intermediates
3	Ortho Nitro Chloro Benzene Para Sulfonic Acid (ONCBPSA)	121-18-6		Dye Intermediates
4	Sulfo Tobias Acid (2-Naphthyal Amino 1-5 Disulphonic Acid)	117-62-4		Dye Intermediates
5	Armstrong Acid (1,5-Naphthalenedisulfonic acid)	81-04-9		Dye Intermediates
6	Aniline 2.4 Di-sulfonic Acid	24605-36-5		Dye Intermediates
7	Aniline 2.5 Di-sulfonic Acid	24605-36-5		Dye Intermediates
8	Ortho Anisidine 4 Sulfonic Acid (OA4SA)	98-42-0		Dye Intermediates
9	Schaeffer's Acid	93-01-6		Dye

S. No.	Name of the Product(s)	CAS Nos.	Quantity MT/Month	Type of products
	(6-Hydroxynaphthalene-2-sulphonic acid)			Intermediates
10	Para Toluidine-2,5-Disulfonic Acid (PT2,5DSA)	26585-57-9		Dye Intermediates
11	Chloro Benzene Sulfonic Acid (CBSA)	98-66-8		Dye Intermediates
12	Para Anisidine 2 Sulfonic Acid (PA2SA)	6470-17-3		Dye Intermediates
13	Para Anisidine 3 Sulfonic Acid (PA3SA)	13244-33-2		Dye Intermediates
14	Sulpho OAVS (1-Amino-2-Methoxy-4-Beta Hydroxy Ethyl Sulphone Sulphate Ester)	121-88-0		Dye Intermediates
15	Sulfo VS (3 Sulphonyl-4-Amino Phenyl Beta Hydroxy Ethyl Sulphone Sulphate Ester)	42986-22-1		Dye Intermediates
16	Para Phenylenediamine 2.5 Disulfonic Acid (PPD2,5DSA)	7139-89-1		Dye Intermediates
17	Meta Phenylene Diamine 4.6 Di-Sulfonic Acid (MPD4,6DSA)	137-50-8		Dye Intermediates
18	N-Ethyl-N-Benzyl Aniline Sulfonic Acid (EBAMSA)	101-11-1		Dye Intermediates
19	Para Cresidine Ortho Sulfonic Acid (PCOSA)	6471-78-9		Dye Intermediates
20	Para Nitro Aniline Ortho Sulfonic Acid (PNAOSA)	30693-53-9	**100**	Dye Intermediates
21	Ortho Nitro Aniline Para Sulfonic Acid (ONAPSA)	82324-60-5		Dye Intermediates
22	Para Nitro Aniline (PNA)	100-01-6		Dye Intermediates
23	Ortho Nitro Aniline (ONA)	88-74-4		Dye Intermediates
24	Para Phenylene Diamine 2	88-45-9	**100**	Dye

S. No.	Name of the Product(s)	CAS Nos.	Quantity MT/Month	Type of products
	Sulfonic Acid (PPDOSA)			Intermediates
25	4-Chloro Metanilic Acid	88-43-7		Dye Intermediates
26	6-Chloro Metanilic Acid	98-36-2		Dye Intermediates
27	2-Chloro Para Phenylene Diamine Sulfate	61702-44-1		Dye Intermediates
28	Para Toluidine 2 Sulfonic Acid (PT2SA)	88-44-8		Dye Intermediates
29	Para Phenylene Diamine	106-50-3		Dye Intermediates
30	Para Phenylene Diamine Sulfate	16245-77-5		Dye Intermediates
31	Para Amino Acetanilide (PAA)	122-80-5		Dye Intermediates
32	Meta Amino Acetanilide (MAA)	102-28-3		Dye Intermediates
33	2.5-Diamino Toluene Sulfate	615-50-9		Dye Intermediates
34	Para Amino Benzamide (PABA)	2835-68-9		Dye Intermediates
35	4-Chloro 3-Amino Benzoic Acid	2840-28-0		Dye Intermediates
36	4-Amino Azobenzene-4-Sulfonic Acid (PAABSA)	104-23-4	**100**	Dye Intermediates
37	Metanilic Acid (3-Aminobenzene-1-sulfonic acid)	121-47-1	**100**	Dye Intermediates
38	HEGN Base-[Blue 198 (HEGN) base]	60316-87-2	**20**	Dyes
39	Tartrazine (Trisodium (4E)-5-oxo-1-(4-sulfonatophenyl)-4-[(4-sulfonatophenyl) hydrazono]-3-pyrazolecarboxylate)	1934-21-0	**100**	Food colour (Dyes)
40	Sunset Yellow (Disodium 2-	2783-94-0		Food colour

S. No.	Name of the Product(s)	CAS Nos.	Quantity MT/Month	Type of products
	Hydroxy-1-(4-Sulfonatophenyl Azo) Naphthalene-6-Sulfonate)			(Dyes)
41	Fast Red B Base (2-Amino 5-Nitro Anisole 2-Methoxy 4- Nitro Aniline)	97-52-9	**50**	Dyes
42	Fast Bordeaux GP Base (2-Nitro-Para-Anisidine 4-Methoxy - 2 Nitro Aniline)	96-96-8		Dyes
43	Sodium Naphthionate (SN)	130-13-2	**50**	Dye Intermediates
44	Alpha Naphthylamine	134-32-7		Dye Intermediates
45	Alpha Naphthol	90-15-3		Dye Intermediates
Total			**920**	

The ToR has been issued by the Ministry, vide letter No. IA-J-11011/215/2021-IA-II (I); dated 15/06/2021. Public Hearing for the proposed project has been conducted by the Gujarat Pollution Control Board on 29.12.2021. The Public Hearing was presided over by Resident Additional Collector & Additional District Magistrate. The main issues raised during the Public Hearing are related to local employment, development of greenbelt, safety of workers, utilization of CER fund. The Action Plan on the issues raised during PH was deliberated by the EAC and found in o order. No Litigation is pending against the proposal.

The PP reported that proposed land area of the project is 14232 m^2. Industry will develop greenbelt in an area of 33% i.e. 4700 m^2, out of total area of the project. The estimated project cost is Rs. 12.0 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 2.96 Crore and the Recurring cost (operation and maintenance) will be about Rs. 8.17 Crore per annum. Total employment will be 50 persons as direct. Industry proposes to allocate Rs. 24.0 Lakhs 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 of the project site. Pond of Neja Village is at a distance of 2.4 km in NE direction. Revised activities with budget for conservation of Schedule-I species like feed for peacock and provision for drinking water tank filling for peacock has been prepared.

The ambient air quality monitoring was carried out at 8 locations during March, 2021 to May, 2021 and the baseline data indicates the ranges of concentration as: PM_{10} (63.6 - 74.6 µg/m^3), $PM_{2.5}$ (35.9 - 44.4 µg/m^3), SO_2 (13.3 - 18.2 µg/m^3), NOx (17.3 - 23.1 µg/m^3). AAQ modeling study for point source emission indicated that the maximum incremental GLCs

after the proposed project would be 4.338 μg/m^3, 1.692 μg/m^3 and 1.502 μg/m^3 with respect to PM_{10}, SO_2 and NOx. The resultant concentrations are within the national ambient air quality standards (NAAQS).

The PP reported that total water requirement for the proposed project is 353.5 m^3/day; of which fresh water requirement of 171.5 m^3/day will be met from Ground Water (Bore well). 182 m^3/day will be recycled/treated water. Sources of industrial effluent generation will be from process, scrubber, washing, boiler blow down, cooling bleed off. Total trade effluent (212.5 KLD) will be taken into ETP, after primary treatment effluent will be passed through RO. RO permeate (120 KLD) will be reused within premises and RO reject will be sent to MEE. MEE condensate (50 KLD) will be reused. Slurry of MEE will be Spray Dried in in-house Spray Dryer. Thus, unit proposed to achieve Zero Liquid Discharge (ZLD). Sewage (5.0 KLD) will be disposed into soak pit through septic tank. 12 KLD close loop recycle without treatment from Dyes production.

The PP reported that Power requirement will be 450 kVA and will be met from Madhya Gujarat Vij Company Ltd. (MGVCL). Unit proposed to install two D.G. Sets (320 kVA x 2 nos.) capacity and will be used as standby during power failure. Stack (height 11 meters) will be provided as per CPCB norms to the proposed D.G. Set.

The PP reported to install Briquette/Imported Coal fired Boiler-1 (3 TPH), Boiler-2 (3 TPH), Thermic Fluid Heater-1 (2.5 Lakhs Kcal/hr.), Thermic Fluid Heater-2 (2.5 Lakhs Kcal/hr.), Hot Air Generator-1 (11 Lakhs Kcal/hr.), Hot Air Generator-2 (25 Lakhs Kcal/hr.) Cyclone separator and bag filter with a stack height of 30 m will be installed on Boilers, HAGs & TFHs for controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 for the proposed utilities.

The PP reported that the process emission generation will be from stack attached with Multipurpose Plant-1 (Sulphonation), Multipurpose Plant-2 (Sulphonation), Multipurpose Plant-3 (Other Products), one common vent of 3 nos. of Spin Flash Dryers (300 kg/hr. each), one vent of Spray Dryer for Product (100 lit/hr.) and one vent of Imported Coal/Briquette fired Spray Dryer for effluent (2500 lit/hr.). Two stage Alkali Scrubber will be installed to control process emission from reactor. In-built bag filter will be provided as APCM on vent of Spin Flash Dryer. In-built cyclone and water scrubber will be installed as APCM on vent of Spray Dryer.

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

S. No.	Type of Waste	Category No. as per HWM Rules, 2016	Quantity	Method of Disposal
1.	ETP Waste	35.3	150 MT/month	Collection, Storage, Transportation, Disposal at TSDF site.

2.	Salt of Spray Dryer	35.3	85 MT/month	Collection, Storage, Transportation, disposal at TSDF site.
3.	Iron Sludge	26.1	180 MT/month	Collection, Storage, Transportation, disposal at TSDF site or to Cement industries for co-processing.
4.	Gypsum Waste	26.1	130 MT/month	Collection, Storage, Transportation, disposal at TSDF site or to Cement industries for co-processing.
5.	Used Oil	5.1	1.0 KL/Year	Collection, Storage, Transportation, sell to registered re-processors or use for lubrication within premises.
6.	Discarded Containers/ Liners/Bag	33.3	10.0 MT/month	Collection, Storage, Transportation, Sell to registered recyclers.
7.	Spent Sulphuric Acid	26.3	832 MT/month	Collection, Storage and partly reuse in-house and partly will be sold to actual users under Rule-9.
8.	Sodium Bi sulfite (30-35%)	26.3	90 MT/month	Collection, Storage and partly reuse in-house and partly will be sold to actual users under Rule-9.

The PP reported that Annual Carbon Emissions will be 9582.3 Tons wherein 58.5 Tons per Day carbon emission will be from Carbon Agro Briquette usage at Full capacity. Typical Annual usage at 70% Utility usages shall be 40.95 Tons per Day. 2350 trees to be planted and 1 ton of CO2 used per year by 6 trees, therefore, Annually Carbon Dioxide Captured by trees will be 392 Tons. 42kW solar rooftop plant has been proposed which will mitigate 1292 tonnes Carbon dioxide emissions over the period of 25 years. Therefore, Annual Carbon Dioxide Mitigation will be 52 Tons. Total Emission Captured and Mitigated will be 444 Tons per 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 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, development of approaching roads and revised 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 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). 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 171.5 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). As committed by the PP, the approach road shall be developed by the Project proponent with due approval of the State Government.

(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. 29.2

Expansion of Pesticide & Pesticide Intermediates Manufacturing unit of capacity from 3175 MT/ Annum to 17625 MT/Annum in the existing Unit located at Plot. No. D2/CH-14, Dahej – II, GIDC Industrial Estate,Tal: Vagra, Dist: Bharuch, Gujarat by M/s. Crystal Crop Protection Pvt. Ltd.- Consideration of Environmental Clearance

[Proposal No.IA/GJ/IND3/261984/2021; File No IA-J-11011/7/2016-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Aqua-Air Environmental Engineers Pvt. Ltd [Accreditation number NABET/EIA/2023/IA0062 (Rev. 01) Valid Up to October 7, 2023] made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Expansion of Pesticide & Pesticide Intermediates Manufacturing unit of capacity from 3175 MT/ Annum to 17625 MT/Annum in the existing Unit located at Plot. No. D2/CH-14, Dahej – II, GIDC Industrial Estate,Tal: Vagra, Dist: Bharuch, Gujarat by M/s. Crystal Crop Protection Pvt Ltd.

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.	Products	Existing Quantity (MT/Year)	Additional Quantity (MT/Year)	After Expansion Quantity (MT/Year)	CAS No.	LD50

1.	Boscalid	30	00	30	188425-85-6	2000 mg/kg
2.	Cyproconazole	20	00	20	94361-06-5	1010 mg/kg
3.	Difenoconazole	20	00	20	119446-68-3	2010 mg/kg
4.	Flutriafol	30	00	30	76674-21-0	1140 mg/kg
5.	Epoxiconazole	40	00	40	133855-98-8	3160 mg/kg
6.	Hexaconazole	200	00	200	79983-71-4	2189 mg/kg
7.	Kresoxim methyl	30	00	30	143390-89-0	2150 mg/kg
8.	Mancozeb	400	00	400	8018-01-7	4500 mg/kg
9.	Metalaxyl	100	00	100	57837-19-1	3100 mg/Kg
10.	Pencycuron	30	00	30	66063-05-6	2000 mg/kg
11.	Propiconazole	100	00	100	60207-90-1	1211 mg/kg
12.	Propineb	30	00	30	12071-83-9	3708 mg/kg
13.	Prothioconazole	25	00	25	178928-70-6	2500 mg/kg
14.	Thiophanate methyl	100	00	100	23564-05-8	5000 mg/kg
15.	Tricyclazole	100	00	100	41814-78-2	2000 mg/kg
16.	Bispyribac Sodium	100	00	100	125401-75-4,	2250 mg/kg
17.	Clodinofop-propargyl	100	300	400	105512-06-9	2271 mg/kg
18.	Dicamba	20	00	20	1918-00-9	1190 mg/kg

19.	Diuron	20	00	20	330-54-1	3400 mg/kg
20.	Imazethapyr	100	00	100	81335-77-5	2150 mg/kg
21.	Metribuzin	100	200	300	21087-64-9	1090 mg/kg
22.	Oxyfluorfen	100	00	100	42874-03-3	5000 mg/kg
23.	Pendimethalin	400	00	400	40487-42-1	1421 mg/kg
24.	Penoxsulam	40	00	40	219714-96-2	5000 mg/kg
25.	Propanil	40	00	40	709-98-8	2500 mg/kg
26.	Propaquizafop	100	00	100	111479-05-1	2000 mg/kg
27.	Quizalofop ethyl	100	300	400	76578-14-8	1210 mg/kg
28.	Terbuthylazine	50	00	50	5915-41-3	1000 mg/kg
29.	Diafenthiuron technical	100	00	100	80060-09-9	2068 mg/kg
30.	Fenpyroximate	100	00	100	134098-61-6	2000 mg/kg
31.	Flubendiamide	250	00	250	272451-65-7	5000 mg/kg
32.	Thiamethoxam	200	1800	2000	153719-23-4	1563 mg/kg
33.	Pretilachlor	00	3500	3500	51218-49-6	6099 mg/kg
34.	Cloquintocet				99607-70-2	5000 mg/kg
35.	Bensulfuron Methyl				83055-99-6	2000 mg/kg
36.	Halosulfuron Methyl				100784-20-1	1287 mg/kg

37.	Pyrazosulfuran Ethyl				93697-74-6	2000 mg/kg
38.	Oxadiazon				19666-30-9	8000 mg/kg
39.	Clethodim				99129-21-2	1630mg/kg
40.	2,6-Dichloroquinoxaline				1810-72-6	2000 mg/kg
41.	1,2,4 Triazinone				33509-43-2	20000 mg/kg
42.	2,6-Diethyl-N-(2-Propoxyethyl)Aniline				61874-13-3	750 mg/kg
43.	2-(4-Hydroxyphenoxy) Propanoic Acid Ethyl Ester				65343-67-1	1000 mg/kg
44.	(R)-(+)-2-(4-Hydroxyphenoxy)Propionic Acid				94050-90-5	2500 mg/kg
45.	Sulfosulfuron Methyl	00	3500	3500	141776-32-1	5000 mg/kg
46.	Metsulfuron Methyl				74223-64-6	5000 mg/kg
47.	Carfentrazone				128639-02-1	2250 mg/kg
48.	Fomesafen				72178-02-0	3,000 mg/kg
49.	Mesotrione				104206-82-8	5000 mg/kg
50.	Sulfentrazone				122836-35-5	2250 mg/kg.
51.	Dimethomorph				110488-70-5	3900 mg/kg
52.	Fluxapyroxad				907204-31-3	2000 mg/kg
53.	Mandipropamid				34726-62-2	5000

						mg/kg
54.	Clothianidin				210880-92-5	4000 mg/kg
55.	o-Fluoro Benzotrichloride	00	1200	1200	488-98-2	--
56.	p-Fluoro Benzotrichloride				402-44-8	--
57.	o-Chlorobenzyl chloride				5216-25-1	--
58.	2,4-Dichlorobenzyl chloride				94-99-5	--
59.	3-Chloro pivaloyl chloride				4300-97-4	--
60.	O-Chloro Benzyl Chloride				611-19-8	--
61.	CCMT (2 Chloro 5 Chloromethyl Thiazole)				105827-91-6	--
62.	N- Propyl Bromide	00	1200	1200	106-94-5	3600 mg/kg
63.	N-Butyl Bromide				109-65-9	2761 mg/kg
64.	Iso- Propyl Bromide				75-26-3	2000 mg/kg
65.	Ethyl Bromide				74-96-4	1350 mg/kg
66.	# **Ethylene Di Bromide-This Pesticide is banned vide notification dated 17.07.2001 by the Ministry of Agriculture. This can not be manufactured.**				**106-93-4**	**117 mg/kg**
67.	4-Bromo Anisole				104-92-7	3800 mg/kg
68.	5-Nitro Isophthalic	00	1200	1200	618-88-2	--

	Acid					
69.	Meta Nitro Para Toluidine				119-32-4	--
70.	Nitro Benzoyl Chloride				119-32-4	--
71.	O-M-P Toluidine	00	1200	1200	108-44-1	1160 mg/kg
72.	Dichloro Benzidine Hydrochloride (DCBH)				612-83-9	6000 mg/kg
73.	3 Amino 4-Methyl Benzoic Acid				2458-12-0	--
74.	2, 4, 5-Trichloroaniline				636-30-6	300 mg/kg
75.	2,5 Dichloro 1,4 Phenylene Diamine				20103-09-7	1750 mg/kg
76.	Pilot trials	**00**	**50**	**50**		
Total		**3175**	**14450**	**17625**		
Note # Ethylene Di Bromide-This Pesticide is banned vide notification dated 17.07.2001 by the Ministry of Agriculture. This cannot be manufactured.						

The ToR has been issued by the Ministry, vide letter No. J.-11011/7/2016-IA-II(I);); dated 24th January, 2022. 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 proposed land area of the project is 30000 m^2. Industry will develop greenbelt in an area of 33% i.e. 9900 m^2 out of total area of the project. The PP has planted total 2145 nos. of trees and developed total 8585 sq. meters (approx. 28% greenbelt) of area for green belt within the plant premises. However, in 29th EAC meeting Committee had suggested to develop 1000 nos. of trees within premises. Additionally, PP will do agreement with forest department to develop more than 1000 nos. of tress with outside premises. The Committee deliberated the green belt plan and found in order.

The estimated project cost is Rs 252.87 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 15 Crore and the Recurring cost (operation and maintenance) will be about Rs. 28.66 Crore per annum. Total employment will be of 250 persons as direct. Industry proposes to allocate Rs. 1.90 crore 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. River Narmada is flowing at a distance of 7.02 km in direction. 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 10 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentrations as: PM10 (74.42 – 78.12 µg/m^3), PM2.5 (43.35 – 46.69 µg/m^3), SO2 (15.59 – 17.72 µg/m^3) and NO2 (16.76 – 19.08 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.14 µg/m^3, 0.47 µg/m^3 and 0.17 µg/m^3 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 661 m^3/day of which fresh water requirement of 197 m^3/day will be met from GIDC Supply. Effluent of 435 m^3/day will be treated through Primary ETP, Stripper, MEE facility and then sent to GIDC drain for the final disposal. Total water requirement will be 661.0 KL/Day (Fresh water = 197.0 KL/Day + Reused: 464.0 KL/Day). The wastewater generations will be 435.0 KL/Day (Industrial = 426.0 KL/Day + Domestic = 9.0 KL/Day). Low COD stream from process effluent (41 KL/Day) along with utilities effluent (39 KL/Day) (Boiler, cooling, washing, scrubber & others) will be treated in ETP and the final treated wastewater (80 KL/Day) will be sent to GIDC drain for the final disposal through CETP. High COD stream from process effluent (346 KL/Day) sent to Primary ETP followed by solvent stripper shall go to MEE for further treatment and MEE Condensate (335 KL/Day) will be reuse within plant premises. Domestic wastewater- 9 KL/Day will be treated in STP and reuse for gardening purpose.

The PP reported that Power requirement after expansion will be 5000 kVA including existing and 5000 kVA will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has 2 Nos.of DG sets (1010 kVA & 380 kVA) capacity, no additionally 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.

The PP reported that existing unit has 1 No. of 5 TPH boiler. Additionally, 2 Nos. of 8 TPH fired boiler, 2 Nos. of 2 TPH boiler & 1 No. of Thermic fluid (06 lacs Kcal) & Spray Dryer (150 KL/Day) will be installed. Multi cyclone separator/ bag filter, ESP + Water Scrubber 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.

Details of Process emissions generation and its management:

Flue Gas Emission

Part	Stack height	Fuel used with Qty.	Par	Permissible	APCM
Existing					

		Agro Waste or FO/LDO= 6 MT/Day or 1920 Lit/Day	SPM SO_2 NO_x	100 ppm 50 ppm	filter
Proposed					
	30 m & 1 m	Imported	SPM SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm	ESP + Water
	30 m & 1 m	Imported Coal			ESP + Water
	30 m & 0.2 m	Imported			Multi cyclone
	30 m & 0.2 m	Imported			Multi cyclone
	30 m & 0.2 m	Imported Coal	SPM SO_2 NO_x	150 mg/Nm^3 100 ppm 50 ppm	Multi cyclone
	30 m & 0.2 m		SPM SO2 NOx	150 mg/Nm3 100 ppm 50 ppm	Multi cyclone

Process Gas Emission

S. No.	Stack attached to	Stack Height	Air Pollution Control System	Parameter	Permissible Limit
Existing					
1	Process Vent – 1 (From Boscalid)	11 m	Two stages scrubber	HCl SO_2	20 mg/Nm^3 40 mg/Nm^3
2	Process Vent – 2 (From Profenophos)	11 m		HCl HBr	20 mg/Nm^3 05 mg/Nm^3
3	Process Vent – 3	11 m		SO_2	40 mg/Nm^3
Proposed					
1	Process Vent – 4 (From 4-Bromo Anisole)	11 m	Two Stage Alkali Scrubber	HBr	05 mg/Nm^3
2	Process Vent – 5 (From 5-Nitro Isophthalic Acid)	11 m	Two Stage Water Scrubber	NO_x	25 g/Nm^3

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

Sr. No.	Description	Source of wastes	Waste Cat. As	Quantity			Mode of Disposal
				Existing MT/Annum	Additional MT/Annu	Total MT/Annum	

			per HW Rules 2016		**m**		
1.	Discarded Drums /Containers	Raw material storage area	33.1	10	500	510	Collection, Storage, Transportation, Decontamination & sold to authorized vendors
2.	Discarded Bags			0	100	100	Collection, Storage, Transportation, Decontamination & sold to authorized vendors or Landfilling
3.	Used Oil	Machine lubrication	5.1	0.5	30	30.5	Collection, Storage, Transportation & recycle to GPCB authorized recycler
4.	Process Sludge/Process ML	In Process	26.1	250	4750	5000	Collection, Storage, Transportation & sent for co-processing in cement industries or incineration at Common Incineration facility
5.	Distillation Residue	Distillation	36.1	180	1820	2000	Collection, Storage, Transportation & sent for co-processing in cement industries or incineration at Common Incineration

							facility
6.	ETP Sludge	ETP	35.3	300	6482	6782	Collection, Storage, Transportation and Disposal at Nearest TSDF for Secured Landfill.
7.	MEE Salt	ETP	35.3	350	3488	3838	Collection, Storage, Transportation & sent to common TSDF
8.	Inorganic Salt	--	--	1050	13716	14766	Collection, Storage, Transportation & sent to common TSDF
9.	Spent Sulphuric Acid	Process	--	350	1030	1380	Collection, Storage, Transportation & sell to end user having rule -9 permission/Reused
10.	Spent HCL (10 -35 % solution)	Process	29.6	45	2040	2085	Collection, Storage, Transportation & sell to end user having rule -9 permission.
11.	Sodium Acetate Solution	Process	--	00	868	868	Collection, Storage, Transportation & sell to end user having rule -9 permission.
12.	Spent Nitric Acid Solution	Process	29.6	00	160	160	Collection, Storage, Transportation & sell to end user having rule -9 permission.
13.	Spent Acetic Acid	Process	--	00	558	558	Collection, Storage,

	Solution						Transportation & sell to end user having rule -9 permission.
14	Spent Catalyst	Process	29.5	00	2473	2473	Collection, Storage, Transportation & sell to end user having rule -9 permission.
15	Spent Solvent	Process	29.4	00	74950	74950	Collection, Storage & Distill in-house and reuse in plant premises or sell to end user having rule -9 permission.
16	Sodium Sulphate	Process	--	00	1000	1000	Collection, Storage, Transportation & sell to end user having rule -9 permission.
17	NaBr/HBr/KBr Solution	Process & Scrubber	--	00	5600	5600	Collection, Storage, Transportation & sell to end user having rule -9 permission.
18	$ALCL_3$ Solution	Process	--	81	729	810	Collection, Storage, Transportation & sell to end user having rule -9 permission.
19	Potassium Chloride	Process	--	2180	00	2180	Collection, Storage, Transportation & sell to end user having rule -9 permission.
20	Potassium Salt	Process	--	2180	00	2180	Collection, Storage and sell to end user having rule -9

							permission/ TSDF .
21	Battery Waste	IT	--	00	500 nos.	500 nos.	Collection, Storage, Transportation & sent buy back to its supplier or sell as per rule
22	Bio Medical Waste	OHC	--	00	10	10	Collection, Storage, Transportation & sent at TSDF /CHWIF
23	Used filter bag / Cloth	Process	--	00	10	10	Collection, Storage, Transportation & sent for co processing/pre processing/end user having rule -9 permission
24	Filter media	Process	--	00	10	10	Collection, Storage, Transportation & sent for co processing/pre processing/end user having rule -9 permission
25	Contaminated oil socked cotton waste	Process	--	00	10	10	Collection, Storage, Transportation & sent to TSDF/CHWIF
26	E-Waste	IT /Electrical	--	00	10	10	Collection, Storage, Transportation & sent for co processing/pre processing/end user having rule -9 permission
Non-Hazardous Waste							
27	Fly ash	Utility	--	00	2800	2800	Collection, Storage,

							Transportation and sell to brick manufacturer/co processing/pre processing

Total Carbon Footprint (12340 MT of CO_2 per year): The PP reported that Total Carbon load from energy is 4920 MT/annum and by using an alternative energy source about 20% less CO_2 will be required to be sequestrated which is 4182 MT/annum. The PP will develop greenbelt by planting 2145 nos. of tress within premises which will sequestrate1900 MT/annum CO_2. Additionally, 1000 nos. of trees will be developing inside & 1000 nos. of trees will be developing outside premises which will sequestrate 2643.94 MT/annum of CO_2. In the proposed expansion unit for energy total quantity of carbon emission will be 4920 MT/annum which will be mitigate by installing 900KW solar panel and plantation of trees within premises & outside of the plant premises. The PP will sequester 4545 MT/annum (92%) of carbon through the plantation and solar system. The total CO2 emission will 12340 MT/annum and company will sequester ~~CO by~~ 6344 MT/annum CO_2 within one year. The EAC deliberated the details and found in order.

Action Plan of Carbon Footprint with the Time Period: The PP reported that the total emissions converted into kg CO_2 equivalent are ~~and~~ found to be 4417.16 tonnes of CO_2 per annum. By converting the COD and BOD removed by the treatment into kg of CO_2 equivalent, the total impact associated with waste treatment was calculated to be 2670 tonnes per annum. Transport related load was calculated by categorizing into Product to Consumer and Waste to TSDF. The carbon footprint was calculated to be 333 tonnes of CO_2 per annum. Electrical Load of the plant is to be fulfilled by the DGVCL and the emission is found to be: 4920 tonnes of CO_2 per 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 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, 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 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, Carbon foot print and its mitigation measures and Solvent management plan 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.

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 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 '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). As committed by PP, the Industry will use Briquettes-110 MT/Day as a first priority (Primary Fuel) and incase of unavailability, the Unit will use Imported coal- 110 MT/Day 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 GIDC water Supply, shall not exceed 197 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 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. 29.3

Setting up of API Manufacturing Unit with production capacity of 469.77 MT/A by M/s JPN Industries LLP, located at Plot No. N- 28 MIDC Tarapur, Tehsil & District: Palghar, Maharashtra - Consideration of Environmental Clearance

[Proposal No. IA/MH/IND3/248122/2021; File No. IA-J-11011/553/2021-IA-II(I)]

The Project Proponent and the accredited Consultant [M/s. Sadekar Enviro Engineers Pvt. Ltd with Accreditation Number NABET/EIA/2124/SA 0146 valid till 18.04.2023] 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 setting up of API Manufacturing Unit with production capacity of 469.77 MT/A located at Plot No. N- 28 MIDC Tarapur, Tehsil & District: Palghar, Maharashtra by M/s JPN Industries LLP.

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

S. No.	Product Details (Complete Name)	CAS No	Proposed Quantity MT/A	Uses
1	Silver Sulfadiazine	22199-08-2	36	Infected Burn
2	Silver Nitrate	7761-88-8	4	
3	Alendronate Sodium	121268-17-5	26	Osteoporosis
4	Alendronic Acid	66376-36-1	26	
5	Risedronate Sodium	329003-65-8	5	
6	Ibandronate Sodium	138926-19-9	3.5	
7	Ibandronic Acid	114084-78-5	3.5	
8	Pamidronate Sodium	109552-15-0	2	
9	Eplerenone	107724-20-9	2	Antihypertensive
10	Fosphenytoin Sodium	32134-98-0	10	Antiepileptic
11	Phenytoin base	57-41-0	40	
12	Phenytoin Sodium	630-93-3	75	
13	Phenobarbital base / Phenobarbitone	50-06-6	75	Anticonvulsant
14	Phenobarbital Sodium / Phenobarbitone Sodium	57-30-7	30	
15	Trimetazidine Hydrochloride	13171-25-0	30	Cardiovascular system
16	Ticagrelor	274693-27-5	2	Antithrombotic
17	Tizanidine Hydrochloride	64461-82-1	3	Muscle Relaxant
18	Bisacodyl	603-50-9	7	Laxative
19	Sodium Picosulfate	10040-45-6	3	
20	Glycopyrrolate	596-51-0	0.03	Anticholinergic

21	Silodosin	160970-54-7	1.0	Anti-alpha Blockers
22	Febuxostat	144060-53-7	1.5	Genito Urinary System
23	Allupurinol	315-30-0	50	Antigout
24	Ondansetron	99614-02-5	1.5	Antiemetics
25	Ondansetron HCL	103639-04-9	2.0	
26	Palonosetron Hydrochloride	135729-62-3	0.03	
27	Hydrocortisone hemi succinate	2203-97-6	24.0	Corticosteroids
28	Tigecycline	220620-09-7	0.005	Antibiotics
29	Isepamicin	58152-03-7	0.005	
30	Eosin Disodium	17372-87-1	1	Antiseptic
31	Fluorescein sodium	518-47-8	0.2	
32	Propyl Gallate	121-79-9	2	Antioxidant
33	Risperidone	106266-06-2	1	Neuroleptic
34	Pioglitazone HCL	112529-15-4	0.5	Antidiabetic
35	R&D products (API)	--	2	--
Total (Any of three products will be manufactured at any given point of time			**469.77**	

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 that the Project site is located in Tarapur MIDC having CEPI score 93.69 and classified as Critically Polluted area (CPA), accordingly the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The PP reported that the proposed land area is 4050 m^2. Industry will develop greenbelt in an area of 33% i.e., 1644.2 m^2 (40 %) out of total area of the project. The estimated project cost is Rs.15.04 Crores including existing investment of Rs. 4.38 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 2.01Croresand the Recurring cost (operation and maintenance) will be about Rs.1.1665 Crores. Total Employment will be 50 Nos. persons as direct &15 Nos.of persons indirect after establishment. Industry proposes to allocate Rs. 0.3008 Crore towards Corporate Environmental 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 from the project site. River/ water body Banganga river is flowing at a distance of 1.67 km in SE direction. As informed by PP no Litigation is Pending against the project.

The total water requirement is 122.6 m3/day of which fresh water requirement of 81.8 m3/day will be met from M.I.D.C Tarapur water supply. Generated effluent of 11.06 CMD quantity will be treated through Stripper-MVR-ATFD-ETP-RO system; 10.2 CMD will be reused. The plant will be based on Zero Liquid discharge system.

The power requirement after establishment will be 375 KVA including existing -- and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). Additionally1 Nos. of 500 KVA DG sets will be set up and to be used as standby during power failure after establishment. Stack of height 5 m above the roof level will be provided as per CPCB norms to the proposed DG sets. Additionally, 1.5 TPH PNG or LDO fired boiler will be installed. Utilization of cleaner fuel PNG with a stack of height of 30m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm3 for the proposed 1.5 TPH boiler.

Details of Process emissions generation and its management:

S. No.	Name of gas	Source	Quantity (kg/day)	Treatment Method
1	NOx	Manufacturing Process	2.13	5000 CFM capacity alkaline scrubber connected to stack of 5m height above roof will be provided
2	HCL	Manufacturing Process	101.61	5 nos. of 5000 CFM capacity alkaline scrubbers connected to stack of 5m height above roof will be provided (2 nos. standby).
Total Process Emissions			**103.74**	
3	Solvent Vapors (MDC/ Methanol/ Toluene/ DPE/ Acetic Acid/ Acetone/ Ethyl Acetate/ n-Heptane/ Acetonitrile/ MEK/ n-Propanol)	Manufacturing Process	43.75	Double condenser system will be provided to capture emissions& recover solvents.
4	Water vapors	Manufacturing Process	22.17	Double condenser system will be provided.
Total Fugitive emissions			**65.92**	
5	SO_2	LDO fired Boiler Operation	23.62	Adequate stack height of 30 m will be provided; Cleaner fuel PNG will be used primarily.
Total Gaseous emissions			**193.28**	

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

Details of Waste

Hazardous waste:						
S. No.	**Name of waste**	**Source**	**Category as per HW Rules, 2016**	**UOM**	**Quantity**	**Disposal Method**
1	Used/Spent Oil	Manufacturing Process	5.1	kg/day	0.321	Sale to authorized re-processor /

						Disposal to CHWTSDF
2	Spent Hyflow	Manufacturing Process	28.3	kg/day	0.27	Disposal to CHWTSDF / Co-processing
3	Spent Carbon	Manufacturing Process	28.3	kg/day	0.69	Disposal to CHWTSDF / Co-processing
4	Process Residue	Manufacturing Process	28.1	kg/day	0.0040	Recycle within process/ Disposal to CHWTSDF/ Co-processing
5	Spent Solvent	Solvent Recovery	28.6	kg/day	2345.17	Reuse within process / Sale to authorized re-processor
6	ETP Sludge	Effluent Treatment	35.3	kg/day	12.821	Disposal to CHWTSDF / Co-processing
7	Empty drums / carboys/containers	Packaging of Raw Materials / Finished Products	33.1	kg/day	80	Sale to Authorized Vendor/Disposal to CHWTSDF.
8	Used Filter Cloth	Manufacturing Process	33.2	kg/day	0.080	Disposal to CHWTSDF/ Co-processing
9	Evaporation residue (MVR & ATFD)	HTDS Effluent Treatment	37.3	kg/day	7.692	Sale to authorized re-processor / Disposal to CHWTSDF/ Co-processing
10	Spent Catalyst	Manufacturing Process	28.2	kg/day	0.00003	Recycle to process / Sale to authorized recycler
11	Off specifications products	Manufacturing Process	28.4	kg/day	1	Disposal to CHWTSDF
12	Mixed Solvent from stripper (Spent)	Solvent containing Effluent Treatment	28.6	kg/day	40	Disposal to CHWTSDF/Co-processing
Non Hazardous Waste:						
S.	**Name of waste**	**Source**		**UOM**	**Quantit**	**Disposal**

No.				y	Method
1	General Scrap	Admin activities	T/A	1.0	Sale to authorized recycler

E-Waste:

S. No.	Name of waste	Source	Category as per E Waste Rules, 2016	Quantity (T/A)	Disposal Method
1	Personal Computers (Central Processing Unit with input and output devices)	Admin activities	IEW2	0.1	Sale to MPCB authorized recycler / returned to manufacturer / supplier
2	Personal Computing: Laptop Computers (Central Processing Unit with input and output devices)	Admin activities	IEW3	0.1	
3	Printers including cartridges	Admin activities	IEW6	0.5	
4	Telephones	Admin activities	IEW12	0.05	

Battery Waste:

Sr. No.	Name of waste	Source	Quantity (T/A)	Disposal Method
1	Lead batteries from D.G. Sets, UPS system	Admin activities	0.2	Returned to supplier

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.

Kg Per Day																			
WATER	**EFFLUENT WATER**								**SOLID WASTE**									**AIR EMISSIONS**	
Water Input	Effluent Water	InorganicsIn Effluent	Organics In Effluent	TDS	COD	HTDS	LTDS	Total Effluent	Spent Solvent	Chemical sludge from waste water	Concentration or evaporation	Process Residue & Wastes	Empty barrels/containers	Mixed (Spent) Solvents from Stripper	Off specification products	Used / Spent oil	Used Filter Cloth	Spent Catalyst	Spent Carbon	Spent Hyflow	Process emissions	Fugitive loss (Solvent & water
122600	11060	21.03	21.6	21.03	21.6	1210	9850	11060	2345.2	12.821	7.692	0.004	80	40	1	0.321	0.08	0.00003	0.69	0.27	103.74	65.92

EMISSION DETAILS

Kg Per Day														
Fugitive emissions												**Process emissions**		**Flue gas**
MDC	Methanol	Toluene	DPE	Acetic Acid	Acetone	Ethyl Acetate	n-Heptane	Acetonitrile	MEK	n-Propanol	Water vapours	NOx	HCl	SO_2
5.09	28.08	17.12	0.4	0.278	11.472	3.06	2.386	2.4	0.016	0.29	22.17	2.13	101.61	23.62

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, conservation activities and conservation of Schedule–I species, details of carbon foot prints and carbon sequestration study. The EAC also noted that as it is category B2 projects wherein PP/Consultant mentioned that they had not carried out baseline monitoring data in which air quality monitoring is not applicable then How Consultant calculated the incremental value in EMP mentioned on page number 15 ?. Further the details w.r.t. mitigation measures for Chemical accident, mitigation measures related to CPA and Alternative site could not be explained the same before the EAC.

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. The Committee deliberated the issues 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 prosed Unit is to be located in Critically Polluted Area having CEPI Score of 93.69, the PP need to explore the alternative site for this instant project.**

(ii) The MIDC Tarapur having the CEPI score 93.69 and comes under critically polluted area. In this regard the PP shall submit the additional mitigation measures to safeguard to the environment and also to explain how carbon foot print to be minimized?

(iii) The detailed greenbelt plan along with budgetary allocation for completion of greenbelt in one year. 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. proposed project. Proposed mitigation measures also needs to be submitted for further appraisal of the EAC.

(vi) The PP need to submit the details of the chemical accidents in the vicinity of Palghar district.

(vii) The PP needs to explore the possibility to use of bio fuel in place of coal.

(viii) The PP needs to submit details of energy conservation measures proposed in the Unit.

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

Agenda No. 29.4

Proposed for expansion of API manufacturing unit with production capacity of 193 MT/M by M/s. Bajaj Healthcare Ltd., located at Plot No. N-92, MIDC Tarapur, Tehsil & District: Palghar, Maharashtra- Consideration of Environmental Clearance

[Proposal No.IA/MH/IND3/248619/2021; File No. IA-J-11011/550/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Sadekar Enviro Engineers Pvt. Ltd with Accreditation Number NABET/EIA/2124/SA 0146 valid till 18.4.2023 made a detailed presentation on the salient features of the project and informed that:

The proposal is for consideration of the environmental clearance to the project for Proposed for expansion of API manufacturing unit with production capacity of 193 MT/M. located at Plot No. N-92, MIDC Tarapur, Tehsil & District: Palghar, Maharashtra by M/s. Bajaj Healthcare

The details of products and capacity are as under:

S. No.	Name of Product & Therapeutic Uses	CAS Nos.	Existing Quantity	Proposed Quantity	Total quantity	UOM
A.	Anti-inflammatory					
1	Nimesulide	51803-78-2	52	-2	50	MT/M
B.	Anti-diabetics					
2	Vildagliptin,	274901-16-5	0	97	97	MT/M
3	Alogliptin,	850649-62-6	0			MT/M
4	Tenagliptin,	1572583-29-9	0			MT/M
5	Sitagliptin,	486460-32-6	0			MT/M
6	Linagliptin) and similar API	668270-12-0	0			MT/M
C.	ARBs (Hypertension)					
7	Losartan,	114798-26-4	0	25	25	MT/M
8	Temisartan,	144701-48-4	0			MT/M
9	Valsartan and similar API	137862-53-4	0			MT/M
D.	Anthelmintic					
10	Satranidazole and similar API	56302-13-7	0	5	5	MT/M
E.	Antipsychotics					
11	Quetiapine Fumarate and similar API	111974-72-2	0	15	15	MT/M
12	Meta Bromo	--	51	-51	0	MT/M

	Anisole					
13	Meta Chloro Anisole	--	20	-20	0	MT/M
F.	R&D Products (API)	--	--	1	1	MT/M
Total			**123**	**70**	**193**	**MT/M**

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 that the Project site is located in Tarapur MIDC having CEPI score 93.69 and classified as Critically Polluted area (CPA) accordingly the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry

The PP reported that the certified compliance report to the conditions of CTO has been obtained from Maharashtra Pollution Control Board vide No. MPCB/ROT/1174 dated 4.3.2022

PP also reported that the plot was bought by M/s Bajaj Healthcare Ltd. through Public Auction Sale by Saraswat Co-op Bank Ltd. the sale deed was registered with the Sub registrar, Palghar under Sr. No. PLR 2-3245-2020 dated 19/10/2020. The MIDC plot transfer order no. MIDC/ROT/TRP/N-92/3323/2020 was received on 18/11/2020 from M/s Nutraplus India limited to M/s Bajaj Healthcare Ltd. M/s. Nutraplus Products (India) Limited has obtained CTO vide no. BO/C-C/Thane/482/AC-782, dated 31/12/1997 for production of 240 MT/M. Since the instant Unit is prior EIA Notification, 2006, hence EC is not applicable to this Unit. The PP has obtained the certified compliance report to the conditions of CTO from Maharashtra Pollution Control Board vide No. MPCB/ROT/1174 dated 04.03.2022.

The PP reported that Existing land area is 1800 m2, no additional land will be used for proposed expansion. **PP reported that the Unit does not have any existing green belt and neither they have space for the green belt development within the Unit. PP has not even compiled the condition of green belt as prescribed in the CTO conditions.**

The estimated project cost is Rs 21.44 Crores including existing investment of Rs 15.44crores. Total capital cost earmarked towards environmental pollution control measures is Rs 404.6 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 462.6 Lakhs per annum. Total Employment will be 170 persons as direct &50 persons indirect after expansion. Industry proposes to allocate Rs. 6. Lakhs 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. Lower Banganga river is flowing at a distance of 1.94 km in southeast direction.

The PP reported that Total water requirement is 237.2m3/day of which fresh water requirement of 109.49m3/day will be met from Tarapur MIDC. Industrial Effluent of 82.4 CMD quantity will be treated through Stripper, MEE followed by ATFD and full-fledged ETP comprising of primary, secondary and tertiary treatment and R.O plant. The plant will be based on Zero Liquid discharge system. 8.8CMD domestic wastes will be treated in aeration tank of ETP.

The PP reported that the Power requirement after expansion will be 500 KVA including existing150 KVA and will be met from Maharashtra State Electricity Distribution Company limited (MSEDCL). Existing unit has 1 D.G. set of200 KVA capacity (Note: It will be scrap out after expansion), additionally 1 D.G. set of 400 KVA capacity will be used as standby during power failure. Stack height of 3.0 m has been provided for the existing D.G Set and stack height of 6.0 m will be provided as per CPCB norms to the proposed DG sets.

Existing unit has1 no. of 3.0 TPH boiler fired by FO/LDO and 1 no. of 2 TPH fired by Coal (Note: Both the existing boilers will be scrapped out after expansion). Additionally, 1 no. of 4 TPH boiler fired by Agri-briquette or Coal and 2.0 Lakh Kcal/Hr Thermopack fired by Agri-briquette or Coal respectively will be installed. Cyclone separator with bag filter with a stack of height of 33m and 30m for steam boiler and thermopack respectively will be installed for controlling the particulate emissions within the statutory limit of 115mg/Nm3 for the proposed boilers

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.	Name of the Gas	Quantity in Kg/Day	Treatment Method
1	Ammonia	28	Scrubbed with dilute sulphuric acid solution
2	Bromine	18.3	Scrubbed in caustic scrubber
3	POCl3	10	Scrubbed in caustic scrubber
4	HCl	67	Scrubbed in caustic scrubber
5	Acetic acid	4.666	Scrubbed in caustic scrubber

Details of Solid Waste/ Hazardous Waste Generation and its Management:

Hazardous waste details							
S. No.	**Description**	**Cat. of waste as per HW Rules, 2016**	**UOM**	**Existing**	**Proposed**	**Total**	**Method of Disposal**
1	Used / Spent Oil	5.1	MT/M	0	0.3	0.3	Sale to Authorized Reprocessing or co-processing / or CHWTSDF
2	Spent Organic	28.6	MT/M	0.3	132.3	132.6	CHWTSDF /

Hazardous waste details							
S. No.	**Description**	**Cat. of waste as per HW Rules, 2016**	**UOM**	**Existing**	**Proposed**	**Total**	**Method of Disposal**
	Solvent						Sent to authorized recyclers / co-processing
3	Distillation Residue	20.3	MT/M	0	71	71	CHWTSDF / Sale to Authorized party@/ co-processing.
4	ETP Sludge*	35.3	MT/M	1	73	74	CHWTSDF/ Co-processing
5	Process dust	28.4	MT/M	0	0.1	0.1	CHWTSDF / Sale to Authorized party@/ co-processing
6	Filter & Filter Material which have organic liquid	36.2	MT/M	0	0.5	0.5	CHWTSDF / Sale to Authorized party@/ co-processing
7	Evaporation Residue (ATFD Salt)#	37.3	MT/M	0	225	225	CHWTSDF / Sale to Authorized party@/ co-processing
8	Residue from used Ion Exchanged material in water	35.2	MT/A	0	0.5	0.5	CHWTSDF / Sale to Authorized party@/ co-processing
9	Residue from industrial effluent (Oil & Skimming)	35.4	MT/A	0	1	1	CHWTSDF / Sale to Authorized party@/ co-processing
10	Off Specification Product	28.4	MT/A	0	5	5	CHWTSDF / Sale to Authorized

Hazardous waste details							
S. No.	**Description**	**Cat. of waste as per HW Rules, 2016**	**UOM**	**Existing**	**Proposed**	**Total**	**Method of Disposal**
							party@/ co-processing
11	Spent Catalyst	28.2	MT/A	--	1	1	Sent to authorized vendors@ / CHWTSDF/ co-processing
12	Spent carbon & hyflow	28.3	MT/M	0	13	13	CHWTSDF / Sale to Authorized party/Co-processing
13	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes	33.1	Nos./M	-	200	200	Sent to authorized vendors/ CHWTSDF
14	Centrifuge bags	33.1	MT/M	-	0.3	0.3	Sent to authorized vendors/ CHWTSDF/ Co-processing
15	Recovered Acetic Acid (By-product)	--	MT/M	0	15.5	15.5	CHWTSDF / Sale to Authorized party@
16	Recovered Potassium carbonate (By-product)	--	MT/M	0	68.4	68.4	CHWTSDF / Sale to Authorized party@
17	Sodium sulphate (By-product)	-	MT/M	0	1.2	1.2	CHWTSDF / Sale to Authorized party@

Non-hazardous waste details						
Sr. No.	**Description**	**UOM**	**Existing Quantity**	**Proposed Quantity**	**Total Quantity**	**Method of Disposal**
1	Boiler Ash	MT/M	2.0	63	65	Sale to Brick manufacturer
2	General scrap (Polythene bags, Empty containers, Glass waste, Wood waste and Metal waste)	MT/A	0	120	120	Sale to Authorized party
3	Contaminated glassware	MT/A	0	1	1	Sale to Authorized party
4	Plastic waste	MT/M	0	0.5	0.5	Sale to Authorized party

E-waste waste details						
S. No.	**Description**	**Category as per E Waste Rules, 2016**	**Existing Quantity**	**Proposed Quantity**	**Total Quantity**	**Method of Disposal**
1	E-waste	ITEW2, ITEW3, ITEW6	0	0.5 MT/A	0.5 MT/A	Sale to Authorized Recycler

Battery waste details					
S. No.	**Description**	**Existing Quantity**	**Proposed Quantity**	**Total Quantity**	**Method of Disposal**
1	Battery waste	0	0.2 MT/A	0.2 MT/A	Sale to Authorized Recycler

Biomedical waste details						
Sr. No.	**Description**	**Category of waste**	**Existing Quantity**	**Proposed Quantity**	**Total Quantity**	**Method of Disposal**
1	Biomedical waste	Yellow	0	0.1 MT/A	0.1 MT/A	CHWTSDF

Details of fugitive emissions generation and its management

S. No.	Name of the Gas	Quantity in Kg/Day	Treatment Method
1	Methanol	1944.8	Connected to condenser with chilling arrangement and further connected to scrubber

S. No.	Name of the Gas	Quantity in Kg/Day	Treatment Method
2	Ethylene Dichloride	298.33	Connected to condenser with chilling arrangement and further connected to scrubber
3	Dimethyl aniline	15	Connected to condenser with chilling arrangement and further connected to scrubber
4	Dimethyl Formamide	176	Connected to condenser with chilling arrangement and further connected to scrubber
5	DMF + MDC + Acetonitrile	8849.8	Connected to condenser with chilling arrangement and further connected to scrubber
6	Methylene Dichloride	347.4	Connected to condenser with chilling arrangement and further connected to scrubber
7	Acetonitrile	2.9	Connected to condenser with chilling arrangement and further connected to scrubber
8	Toluene	39.9	Connected to condenser with chilling arrangement and further connected to scrubber
9	Methyl Isobutyl Ketone	2.275	Connected to condenser with chilling arrangement and further connected to scrubber
10	Acetone	9.925	Connected to condenser with chilling arrangement and further connected to scrubber
11	Iso propyl Alcohol	114.1	Connected to condenser with chilling arrangement and further connected to scrubber
12	O - xylene	13.4	Connected to condenser with chilling arrangement and further connected to scrubber
13	Ethyl acetate	49.6	Connected to condenser with chilling arrangement and further connected to scrubber
14	Ethanol	10.8	Connected to condenser with chilling arrangement and further connected to scrubber

Quantification of hydraulic load and pollution load from the effluent

EFFLUENT POLLUTION LOAD	
Hydraulic Load (KLD)	**Pollution Load (Kg/Day)**

			High conc.		Low conc. stream		Total Pollution Load	
Effluent Water	**High conc. stream**	**Low conc. stream**	**TDS**	**COD**	**TDS**	**COD**	**TDS**	**COD**
91.2	70	21.2	7000	3500	42.4	16.96	7042.4	3516.96

Details of quantification of hazardous waste generation and mode of disposal

HAZARDOUS WASTE DETAILS				
S. No.	**Description**	**UOM**	**Quantity on per day basis**	**Mode of disposal**
1	Used / Spent Oil	MT/D	0.01	Sale to Authorized Reprocessing or co-processing / or CHWTSDF
2	Spent Organic Solvent	MT/D	4.42	CHWTSDF / Sent to authorized recyclers / co-processing
3	Distillation Residue	MT/D	2.37	CHWTSDF / Sale to Authorized party@/ co-processing.
4	ETP Sludge*	MT/D	2.47	CHWTSDF/ Co-processing
5	Process dust	MT/D	0.003	CHWTSDF / Sale to Authorized party@/ co-processing
6	Filter & Filter Material which have organic liquid	MT/D	0.02	CHWTSDF / Sale to Authorized party@/ co-processing
7	Evaporation Residue (ATFD Salt)#	MT/D	7.50	CHWTSDF / Sale to Authorized party@/ co-processing
8	Residue from used Ion Exchanged material in water	MT/D	0.02	CHWTSDF / Sale to Authorized party@/ co-processing
9	Residue from industrial effluent (Oil & Skimming)	MT/D	0.033	CHWTSDF / Sale to Authorized party@/ co-processing
10	Off Specification Product	MT/D	0.16	CHWTSDF / Sale to Authorized party@/ co-processing
11	Spent Catalyst	MT/D	0.033	Sent to authorized vendors@ / CHWTSDF/ co-processing
12	Spent carbon & hyflow	MT/D	0.43	CHWTSDF / Sale to Authorized party/Co-

HAZARDOUS WASTE DETAILS				
S. No.	**Description**	**UOM**	**Quantity on per day basis**	**Mode of disposal**
				processing
13	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes	Nos./D	6.67	Sent to authorized vendors/ CHWTSDF
14	Centrifuge bags	MT/D	0.01	Sent to authorized vendors/ CHWTSDF/ Co-processing
15	Recovered Acetic Acid (By-product)	MT/D	0.52	CHWTSDF / Sale to Authorized party@
16	Recovered Potassium carbonate (By-product)	MT/D	2.28	CHWTSDF / Sale to Authorized party@
17	Sodium sulphate (By-product)	MT/D	0.04	CHWTSDF / Sale to Authorized party@

Note - *Schedule I of The Hazardous and Other Wastes (Management and Trans boundary Movement) Rule, 2016.*

@Industry shall ensure disposal to the Actual user having permissions under Rule 9 of Hazardous and Other Waste (M & TM) Rules, 2016.

**ETP Sludge will be generated and disposed from Plot No. L-11 and Plot No. N-92.*
#Evaporation residue (ATFD salt) will be generated and disposed from Plot No. L-11 and Plot No. N-92.

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.

EAC noticed several deficiencies in the proposal (viz. vogue onsite emergency plan, Greenbelt budget and planation schedule, conservation activities and conservation of Schedule–I species, details of carbon foot prints and carbon sequestration study. The EAC also noted that as it is category B2 projects wherein PP/Consultant mentioned that they had not carried out baseline monitoring data in which air quality monitoring is not applicable then it is not clear how the Consultant has calculated the incremental value in EMP ?. Further, the details w.r.t. mitigation measures for Chemical accident, mitigation measures related to CPA and Alternative site could not be explained the same before the EAC.

The EAC also noted that there is non-compliance of green belt and plantation. The **EAC noted that the Unit does not have any existing green belt and neither they have space for the green belt development within the Unit for the instant expansion case. PP has not even compiled the condition of green belt as prescribed in the CTO conditions.**

The Committee deliberated the issues related to pollution and conservation of environment. The Committee after, detailed deliberation, **deferred** the proposal along with the following information:

(i) **The EAC is of the view that since the prosed Unit is to be located in Critically Polluted Area having CEPI Score of 93.69, the PP need to explore the alternative site for this expansion project.**

(ii) The MIDC Tarapur having the CEPI score 93.69 and comes under critically polluted area. In this regard the PP shall submit the additional mitigation measures to safeguard to the environment and also to explain how carbon foot print to be minimized?

(iii) The revised greenbelt plan (spacing of 2m x 2m and number of trees have to be increased accordingly) along with timelines and budgetary allocations. In this context, revised green belt development plan @33 % with high carbon sequestration trees needs to be submitted.

(iv) Details of Onsite emergency plan as per provisions of the MSIHC Rules need to be submitted.

(v) 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.

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

(vii) The PP need to submit the details of the chemical accidents in the vicinity of Palghar district.

Agenda No. 29.5

Proposed for expansion of API manufacturing unit increased production capacity from 15 MT/M to 93 MT/M by M/s. Bajaj Healthcare Ltd.,located at Plot No. N-128, MIDC Tarapur, Tehsil & District: Palghar, Maharashtra- Consideration of Environmental Clearance

[Proposal No.IA/MH/IND3/248472/2021; File No. IA-J-11011/549/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Sadekar Enviro Engineers Pvt. Ltd with Accreditation Number NABET/EIA/2124/SA 0146 valid till 18.4.2023 made a detailed presentation on the salient features of the project and informed that:

The proposal is for consideration of the environmental clearance to the project for expansion of API manufacturing unit increased production capacity from 15 MT/M to 93 MT/M, located at Plot No. N-128, MIDC Tarapur, Tehsil & District: Palghar, Maharashtra by M/s. Bajaj Healthcare Ltd

The details of products and capacity are as under:

S. No.	Name of Product & Therapeutic Uses	CAS Nos.	Existing Quantity	Proposed Quantity	Total Quantity	UOM
A.	**Anti-Convulsant**					MT/M
1	Carbamazepine,	298-46-4	15	23	38	
2	Oxcarbamazepine and similar API's	28721-07-5	0			
B.	**Anti-asthma**					MT/M
3	Doxofylline and similar API's	69975-86-6	0	15	15	
C.	**Vinotonic**					MT/M
4	Calcium Dobesilate and similar API's	20123-80-2	0	10	10	
D.	**Anti-malaria**					MT/M
5	Artemether	71963-77-4	0	21	21	
6	Lumifantrine and similar API's	82186-77-4	0			
E.	**Anti-oxidant**					MT/M
7	Ascorbyl Palmitate and similar API's	137-66-6	0	8	8	
F.	R&D Product (API)	--	0	1	1	MT/M
Total		**--**	**15**	**78**	**93**	**MT/M**
G	**Solvent Distillation for Recovery**	**--**	**0**	**14**	**14**	**KL/Day**

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 that the Project site is located in Tarapur MIDC having CEPI score 93.69 and classified as Critically Polluted area (CPA) , accordingly the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry

The PP reported that the company was initially established in 1992, vide CTE no. RCB/SAT/E-22 of 1990/GDS/A-951 dated 3.5.1992 under the name of Vinod Organics. The entire company name transfer has been take place in 2006 to M/s Bajaj Healthcare Ltd. The plot transfer document vide letter ROT/TRP/ case no -1014/3881 dated 19th June,2006. Since the instant Unit is prior EIA Notification, 2006, hence EC is not applicable to this Unit. The PP has obtained the certified compliance report to the conditions of CTO from Maharashtra Pollution Control Board vide No. MPCB/ROT/1175, dated 04/03/2022.

The PP reported that Existing land area is 2100 m2, additional no land will be used for proposed expansion. The **PP reported that the Unit does not have any existing green belt and neither they have space for the green belt development within the Unit. PP has not even compiled the condition of green belt as prescribed in the CTO conditions.**

The estimated project cost is Rs 3.47 Crores including existing investment of Rs 0.97 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 193.83 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 191.08 Lakhs per annum. Total Employment will be 30 persons as direct &10 persons indirect after expansion. Industry proposes to allocate Rs 2.50 Lakhs 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. Lower Banganga river is flowing at a distance of 2.09 km in southeast direction.

The PP reported that Total water requirement is 128.58 m3/day of which fresh water requirement of 81.99 m3/day will be met from Tarapur MIDC. Industrial Effluent of 40.74CMD quantity will be treated through Stripper, MEE followed by ATFD and full-fledged ETP of 65 CMD comprising of primary, secondary and tertiary treatment and R.O plant. The plant will be based on Zero Liquid discharge system. 1.6 CMD domestic wastes will be treated in aeration tank of ETP. Boiler Blowdown (1.4 CMD) will be treated in ETP at plot no – 219, the remaining effluent along with sewage will be treated at plot no – L-11.

The PP reported that the Power requirement after expansion will be 550 KVA including existing330 KVA and will be met from Maharashtra State Electricity Distribution Company limited (MSEDCL). Existing unit has No D.G. set, additionally 1 D.G. set of 500 KVA capacity will be used as standby during power failure. Stack height of 6.0m will be provided as per CPCB norms to the proposed DG set.

The PP reported that the existing unit has 1 no. of 2.0 TPH boiler fired by Coal (Note: It will be kept as standby after expansion). Additionally, 1 no. of 3 TPH boiler fired by Briquette or Coal will be installed. Cyclone separator with bag filter with a common stack of height of 33mwill be installed for controlling the particulate emissions within the statutory limit of 115mg/Nm3 for the proposed boilers. (**Note: Above Boiler facilities are and will be provided at our sister concern at unit Plot no. N-219)**

Details of Process Emissions Generation and its Management:

S. No.	Name of the Gas	Quantity In Kg/Day	Treatment Method
1	Acetic acid	26.13	Scrubbed in caustic scrubber
2	HCl fumes	14.67	Scrubbed in caustic scrubber

Details of Solid Waste/ Hazardous Waste Generation and its Management:

Hazardous waste details							
S. No.	**Description**	**Cat. of waste as per HW Rules, 2016**	**UOM**	**Existing**	**Proposed**	**Total**	**Method of Disposal**

1	Used / Spent Oil	5.1	MT/M	0	0.12	0.12	Sale to Authorized Reprocessing or co-processing / or CHWTSDF
2	Spent Organic Solvent	28.6	MT/M	0	221	221	CHWTSDF / Sent to authorized recyclers / co-processing
3	Distillation Residue	20.3	MT/M	0	8.8	8.8	CHWTSDF / Sale to Authorized party@/ co-processing
4	ETP Sludge*	35.3	MT/M	0	30	30	CHWTSDF/ Co-processing
5	Process dust	28.4	MT/M	0	0.05	0.05	CHWTSDF / Sale to Authorized party@/ co-processing
6	Filter & Filter Material which have organic liquid	36.2	MT/M	0	0.05	0.05	CHWTSDF / Sale to Authorized party@/ co-processing
7	Evaporation Residue (ATFD Salt) #	37.3	MT/M	0	96	96	CHWTSDF / Sale to Authorized party@/ co-processing
8	Spent carbon	28.3	MT/M	0.3	2.22	2.52	CHWTSDF / Sale to Authorized party/Co-processing
9	Spent resin$	35.2	MT/M	--	0.01	0.01	CHWTSDF / Sale to Authorized party@/ co-processing

10	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes	33.1	Nos./ M	--	60	60	Sent to authorized vendors/ CHWTSDF
11	Off specification product	28.4	MT/M	--	1.0	1.0	CHWTSDF / Sale to Authorized party@/ co-processing
12	Calcium Sulfate (By-product)	--	MT/M	--	51	51	CHWTSDF / Sale to Authorized party@

E-waste waste details						
Sr. No.	**Description**	**Category of waste**	**Existing Quantity**	**Proposed Quantity**	**Total Quantity**	**Method of Disposal**
1	E-waste	ITEW2, ITEW3, ITEW6	0	0.1 MT/A	0.1 MT/A	Sale to Authorized Recycler

Battery waste details					
Sr. No.	**Description**	**Existing Quantity**	**Proposed Quantity**	**Total Quantity**	**Method of Disposal**
1	Battery waste	0	0.1 MT/A	0.1 MT/A	Sale to Authorized Recycler

Biomedical waste details						
Sr. No.	**Description**	**Category of waste**	**Existing Quantity**	**Proposed Quantity**	**Total Quantity**	**Method of Disposal**
1	Biomedical waste	Yellow	0	0.1 MT/A	0.1 MT/A	CHWTSDF

Details of fugitive emissions generation and its management

S. No.	**Name of the Gas**	**Quantity In Kg/Day**	**Treatment Method**

S. No.	Name of the Gas	Quantity In Kg/Day	Treatment Method
1	Toluene + Methanol + Ammonia	392	Connected to condenser with chilling arrangement and further connected to scrubber
2	DMF	1219	Connected to condenser with chilling arrangement and further connected to scrubber
3	IPA	107.25	Connected to condenser with chilling arrangement and further connected to scrubber
4	Methanol + MDC	158.49	Connected to condenser with chilling arrangement and further connected to scrubber
5	MDC	41.85	Connected to condenser with chilling arrangement and further connected to scrubber
6	MDC + n-butanol	213.5	Connected to condenser with chilling arrangement and further connected to scrubber

Quantification of hydraulic load and pollution load from the effluent

EFFLUENT POLLUTION LOAD								
Hydraulic Load (KLD)			Pollution Load (Kg/Day)					
			High conc. stream		Low conc. stream		Total Pollution Load	
Effluent Water	High conc. stream	Low conc. stream	TDS	COD	TDS	COD	TDS	COD
42.34	30	12.34	3000	1500	24.68	61.7	3024.68	1561.7

Details of quantification of hazardous waste generation and mode of disposal

HAZARDOUS WASTE DETAILS				
Sr. No.	Description	UOM	Quantity on per day basis	Mode of disposal
1	Used / Spent Oil	MT/D	0.004	Sale to Authorized Reprocessing or co-processing / or CHWTSDF
2	Spent Organic Solvent	MT/D	7.367	CHWTSDF / Sent to authorized recyclers / co-processing
3	Distillation Residue	MT/D	0.293	CHWTSDF / Sale to Authorized party@/ co-processing
4	ETP Sludge*	MT/D	1.000	CHWTSDF/ Co-

				processing
5	Process dust	MT/D	0.002	CHWTSDF / Sale to Authorized party@/ co-processing
6	Filter & Filter Material which have organic liquid	MT/D	0.002	CHWTSDF / Sale to Authorized party@/ co-processing
7	Evaporation Residue (ATFD Salt) #	MT/D	3.200	CHWTSDF / Sale to Authorized party@/ co-processing
8	Spent carbon	MT/D	0.084	CHWTSDF / Sale to Authorized party/Co-processing
9	Spent resin$	MT/D	0.0003	CHWTSDF / Sale to Authorized party@/ co-processing
10	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes	MT/D	2.000	Sent to authorized vendors/ CHWTSDF
11	Off specification product	MT/D	0.033	CHWTSDF / Sale to Authorized party@/ co-processing
12	Calcium Sulfate (By-product)	MT/D	1.700	CHWTSDF / Sale to Authorized party@

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. vogue onsite emergency plan, Greenbelt budget and planation schedule, conservation activities and conservation of Schedule–I species, details of carbon foot prints and carbon sequestration study. The EAC also noted that as it is a category B2 project the PP/Consultant had mentioned that they had not carried out the baseline monitoring of air quality for obtaining the data as it is not required. How the consultant had calculated the incremental value for EMP is not clear ?. Further the details w.r.t. mitigation measures for chemical accident, mitigation measures related to CPA and alternative site could not be explained to the EAC.

The EAC also noted that there is non-compliance of green belt and plantation. The **EAC noted that the Unit does not have any existing green belt and neither they have space for the green belt development within the Unit for the instant expansion case. PP has not even compiled the condition of green belt as prescribed in the CTO conditions.**

The Committee deliberated the issues related to pollution and conservation of environment. The Committee after, detailed deliberation, **deferred** the proposal along with the following information:

(i) **The EAC is of the view that since the prosed Unit is to be located in Critically Polluted Area having CEPI Score of 93.69, the PP need to explore the alternative site for this expansion project.**

(ii) The revised greenbelt plan (spacing of 2m x 2m and number of trees have to be increased accordingly) along with timelines and budgetary allocations. In this context, revised green belt development plan @33 % with high carbon sequestration trees needs to be submitted.

(iii) Details of Onsite emergency plan as per provisions of the MSIHC Rules need to be submitted.

(iv) The PP shall revise the conservation activities of conservation of Schedule –I species.

(v) This is existing unit. PP has not submitted the certified compliance status of latest CTO conditions for the existing unit. The PP needs to submit the certified compliance status of CTO.

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

(vii) The PP need to submit the details of the chemical accidents in the vicinity of Palghar district.

(viii) The MIDC Tarapur having the CEPI score 93.69 and comes under critically polluted area. In this regard the PP shall submit the additional mitigation measures to safeguard to the environment and also to explain how carbon foot print to be minimized?

(ix) PP need to explore the alternative site for further expansion of the project.

Re-consideration of Environmental Clearance

Agenda No. 29.6

Proposed Pesticide Manufacturing Project with Production Capacity of 9000 MT/Annum by M/s Advance Agrolife Pvt. Ltd., located at E-39, RIICO Industrial Area, Bagru (EXT.), Jaipur, Rajasthan- Consideration of Environmental Clearance

[Proposal No. IA/RJ/IND3/240534/2021; File No. IA-J-11011/98/2021-IA-II(I)]

The proposal was earlier considered in the 26th EAC meeting held on 16th -17th February, 2022, 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 the existing facility is of formulation Unit and is being operated with CTO issued under Air/Water Act. The Ministry has earlier asked EDS to provide the certified compliance report of CTO from SPCB, however PP has not submitted the CCR. EAC also noted that there is one TOR condition which is also mentioned the requirement of CCR of CTO. In this context, SPCB may be requested to provide CCR on CTO for further appraisal of the project;	Certified Compliance Report of CTO of existing formulation unit has been issued by Regional Officer, MoEF&CC vide F.No. RPCB/ROJP(S)/Bagru-150/1980 dated 15.03.2022. However, that existing formulation unit will be demolished and decommissioned for the proposed establishment of new pesticide manufacturing unit. CTO of existing formulation unit will be surrendered post grant of environmental clearance of proposed pesticide unit. Fresh CTE and CTO of proposed pesticide unit will be applied after grant of Environmental Clearance.	The EAC deliberated the matter and found the reply to be satisfactory.
2.	The Committee noted that PM10 concentration is high near the vicinity of the proposed project. PP/Consultant need to explain the reason behind this data and proper action plan on the mitigation measures needs to be submitted;	PP reported that maximum PM10 value recorded during the baseline study in the study area of 10 km is 135 Microgram per Meter cube. This value is recorded at A4-Bagru Monitoring station located at distance of approx. 2 km from the project site in upwind direction. However, at the same location, the minimum and mean values of PM10 have been observed to be as 68.0 µg/m3 and 91.8 limits. The higher concentration recorded at this location is due to the monitoring location proximity to NH-11C, commercial and residential development near the monitoring station and Bagru industrial area leading to high vehicular movement, other industrial related activity. The monitoring trend of Bagru location shows PM10 values are exceedingly mostly during weekend (Saturday) and are observed to be	The EAC deliberated the matter and found the reply to be satisfactory.

		within limit on other monitoring days. This trend observed can be related to higher vehicular traffic leading to higher PM10 levels during weekend. As per CPCB source apportionment study also the major contributor in the PM10 concentration is observed to be vehicular exhaust and paved/unpaved road dust. Thus, high PM10 value at monitoring station Bagru can be due to high traffic movement on NH11C.Nearest CPCB/RSPCB continuous ambient air monitoring station is observed to be in Jaipur which is approximately 30 km from the monitoring site. Hence no representable correlation with the CPCB monitoring data for the Bagru station can be verified. The site being in upwind direction, no impact on ambient air quality has been predicted due to the proposed project. However, PP will engage in activities and contribute towards green belt development in Bagru as a mitigative measure for reduction in air emissions in the area. Approx. 500 no. of trees will be planted and maintained in Bagru & roadside of NH-11C that will help in reduction of air emissions. Out of proposed contribution towards Corporate Environment Responsibility (CER) i.e., Rs. 0.4 Crores, approx. Rs. 20 Lakhs will be contributed for plantation and maintenance of trees in Bagru and roadside of NH-11C.	
3.	The PP could not explain the life cycle analysis study though it was a part of instructions issued by the EAC in agenda. PP needs to submit details reflecting specific adverse and harmful impacts of agrochemical on microbiota of flora and fauna. PP needs to	PP has submitted target specific details of products mentioning use, storage, precautions, and antidotes of all products. Further, PP committed that the detailed life cycle assessment for all the products will be carried out during execution of project and be submitted with six monthly compliance report.	The EAC deliberated the matter and found the reply to be satisfactory. EAC recommended that there shall be a specific

	submit all the details on the subject.		condition on this aspect and accordingly condition is added in safeguard.
4.	As committed, the PP needs to explore the use of bio fuel/bio briquette and PNG gas as there is already the high Particulate matter;	Commitment of change of fuel from coal to Agrobriquette has been provided.	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 EAC observed that since this is an existing Unit for formulation of pesticide and there is no adequate green belt seen in kml file. The PP needs to submit the revised green belt design and its updated budget allocation and timelines;	The existing site is a pesticide formulation unit without any green area in the premises. The existing unit will be demolished and decommissioned for proposed pesticide manufacturing unit. However, few tree plantations outside the unit have been developed and are being maintained. For new pesticide plant,1320 m2 i.e., 33 % of total plot area will be developed as Green Area. 6 m wide green belt is proposed all over the boundary wall. Approx. 330 no. of trees/shrubs under the greenbelt in their unit. Green belt planning shall be done as per guideline laid by CPCB. Approx. 10 lakhs (Capital Cost) and Rs. 1 Lakhs per year (Recurring Cost) has been allotted for the same.	The EAC deliberated the matter and found the reply to be satisfactory.

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 consideration of the environmental clearance for Setting up of Pesticide Manufacturing Project with proposed production capacity of 9000 MT/Annum, located at E-39, RIICO Industrial Area, Bagru (EXT.), Jaipur, Rajasthan by M/s Advance Agrolife Pvt. Ltd.

The details of products and capacity as under:

Proposed Products			
S. No.	**Name of Product**	**Proposed capacity (MT/Annum)**	**CAS No.**
A. INSECTICIDES			
1	Bifenthrin	100	82657-04-3
2	Cypermethrin	100	52315-07-8
3	Diafenthiuron	100	80060-09-9
4	Fipronil	200	120068-37-3
5	Lambda	500	91465-08-6
6	Thiamethoxam	100	153719-23-4
7	Pymetrozine	100	123312-89-0
8	Emamectin	100	121124-29-6
9	Thiocyclam Hydrogen Oxalate	100	31895-22-4
10	Pyriproxyfen	100	95737-68-1
11	Flonicamid	100	158062-67-0
	Total Insecticides	**1600**	
B. HERBICIDES			
12	2,4-D Sodium Salt	1000	2702-72-9
13	2,4-D Acid	500	94-75-7
14	2,4-D Ethyl Ester	500	533-23-3
15	2,4-D Amine Salt	2000	2008-39-1
16	Bispyribac Sodium	100	125401-92-5
17	Clodinofop	500	105512-06-9
18	Glyphosate	500	1071-83-6
19	Metribuzin	100	21087-64-9
20	Pendimethalin	100	40487-42-1
21	Pretilachlor	100	51218-49-6
22	Atrazine	500	1912-24-9
23	Pyrixasulfon	100	447399-55-5
24	Pinoxaden	100	243973-20
25	Tembotrione	100	335104-84-2
	Total Herbicides	**6200**	
C. FUNGICIDES			
26	Azoxystrobin	100	131860-33-8
27	Captan	100	133-06-2
28	Propiconazole	100	60207-90-1
29	Tebuconazole	100	107534-96-3
30	Thirum	100	137-26-8
31	Hexaconazole	100	79983-71-4
32	Paclobutrazole	100	76738-62-0

33	Copper Oxcychloride	100	1332-40-7
34	Pyroclostrobin	100	175013-18-0
35	Thiophanate Methyl	100	23564-05-8
36	Cyazofamid	100	120116-88-3
	Total Fungicides	**1100**	
	Total Production	**8900**	
Note- No banned pesticides will be manufactured in the Unit.			

Details By Products			
S. No.	**Name of By Product**	**Proposed capacity (MT/Annum)**	**CAS No.**
1	HCL	50.00	7647-01-0
2	Recovered Dichloro Phenol (30%)	50.00	120-83-2
	TOTAL PRODUCTION	**100**	
Note: The above mentioned By Products will be sold to the customers having prior permission under rule 9 of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2021.			

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

The Standard ToR has been issued by the Ministry, vide letter No. J-11011/98/2021-IA-II(I) dated 10th April, 2021. Public Hearing is exempted as the project is located in the notified industrial area.

The PP reported that the total land area of the project site is 4000 m^2. Industry will develop greenbelt in an area of 33 % i.e., 1320 m^2 out of the total area of the project. The estimated project cost is Rs. 40.0 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.150 Lacs and the Recurring cost (operation and maintenance) will be about Rs. 15.0 Lacs per annum. Total Employment will be 95 persons during operation phase. Industry proposes to allocate Rs. 80.0 Lakhs towards CER.

The Project proponent 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 Ambient air quality monitoring was carried out at 8 locations during March to May 2019 and the baseline data indicates the ranges of concentrations as: PM10 (43- 135 µg/m3), PM2.5 (16.4-55.4 µg/m3), SO2 (5.3-15.1 µg/m3) and NO2 (8.2 -28.2 µg/m3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.37 µg/m3, 1.16 µg/m3, 0.512 µg/m3, 1.03 µg/m3, 0.0026 µg/m3, 0.016 µg/m3, 0.0013 µg/m3 with respect to PM10, PM2.5, NOx, SOx, HBr, HCl and Cl2, respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS) except PM10. The EAC deliberated the high concentration of

PM10 and advise the PP to prepare the mitigation measures on the issue and justify the reason for the high concentration.

Total water requirement is 13 KLD of which freshwater requirement of 9.5 KLD will be met from borewell. Effluent of 6 KLD (Industrial Effluent- 4 KLD; Domestic Sewage- 2 KLD) quantity will be treated through ETP (5 KLD) and MEE followed by ATFD (5 KLD). Domestic sewage shall be disposed through Septic Tank. The plant will be based on Zero Liquid discharge system.

The power requirement of the plant will be 750 kVA which will be met through Jaipur Vidyut Nigam Ltd. (JVNL). DG sets of capacity 1x500 kVA (with appropriate stack height as per CPCB norms) are proposed as power backup. 1 nos. of Coal based boiler (2 TPH) 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:

S. No.	Source	Fuel Used	APCM	Stack Height (m)	Expected Pollutants	Maximum Emission (mg/Nm^3)
Process Stacks / Vents						
1	Hot Air Generator with Dust Extraction System (Dryer)	Coal	Multi Cyclone and Bag Filter	30	PM, SO_2&NOx	PM< 800 SO_2< 600 NOx < 300
2	2,4-D Sodium Salt Reactor for HCL	-	Water and Caustic Multistage Scrubber	30	HCl& Cl_2	HCl< 20 Cl_2< 5
3	Lambda Cyhalothrin Reactor for HCL	-	Water and Caustic Multistage Scrubber	30	HCl	HCl< 20
4	Lambda Cyhalothrin Reactor for SO_2	-	Glass Column Packed Scrubber (Caustic)	30	SO_2	SO_2<10
5	Cypermethrin Reactor for HCL	-	Water and Caustic Multistage Scrubber	30	HCl	HCl< 20
6	Cypermethrin Reactor for SO_2	-	Glass Column Packed Scrubber (Caustic)	30	SO_2	SO_2<10
7	Deltamethrin Reactor for HBr	-	Glass Column Packed Scrubber (Caustic)	30	HBr	HBr<5

8	MPB Reactor for HBr	-	Glass Column Packed Scrubber (Caustic)	30	HBr	HBr<5

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

S. No	Type of waste	Category (As per HW Rules, 2016)	Quantity (Per Annum)	Source	Temporary Collection and Storage at Site	Mode of Treatment & Disposal Method
Hazardous waste						
1	MEE Salt	35.3	30 MT	MEE	Separate Yard	Treatment and disposal at TSDF, Udaipur Site
2	ETP Sludge	34.2	17 MT	ETP	Separate Yard	Treatment and disposal at TSDF, Udaipur Site
3	Spent Solvents	20.2	0.4 MT	Process	Separate Yard	Solvent Recovery System
4	Discarded Glue Containers/ Barrels/liners contaminated with hazardous wastes/ chemicals	33.1	10 Nos	Process	Separate Yard	Authorized Vendors
5	Used/spent oil	5.1	0.08 MT	Process / DG sets	Separate Yard	Authorized Vendors
Non-Hazardous/Industrial						
6	Ash from coal Based boiler	-	73 MT	Coal Based Boiler	Silos	Brick/Cement Manufacturers
7	Empty barrels (used for non-hazardous material)	-	100 Nos	Process	Separate Yards	Collection, Storage, Transportation, and given to Authorized Vendors
8	Scrap metals	-	100 kg	Process	Scrap Yard	Collection, Storage, Transportation, and given to Authorized

						Vendors

The PP committed that company will adopt the technology for reducing the carbon emission. Green field technology-company will do sufficient plantation in factory campus. The emitted carbon from boiler is designed with well-equipped Bag filter and scrubber for capturing carbons from boiler. The PP informed that approx. 330 nos. of trees will be planted and an average of 78 kg Carbon will be sequestered per tree, thus 330 trees will have reduced about 257 MT/Year.

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 in 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 order and compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee 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 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. The Committee deliberated on life cycle assessment Carbon footprint and carbon sequestration study, microbiology toxicity modified onsite and offsite emergency plan, conservation plan of schedule –I species, 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). 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 pesticides/chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.

(iii). This EC is subject to obtaining necessary clearances/approvals from the Government/Regulatory Authorities. Project Proponent shall not start the Unit without necessary clearances under various Acts/Rules.

(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 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.

(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 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). As committed by PP, the detailed life cycle assessment of all products will be carried out during execution of project and the same shall be submitted with six monthly compliance report to the IRO, MoEFCC.

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

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

(xvii). 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.

(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). Total fresh water requirement shall not exceed 9.5 KLD will be met from Borewell. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA and renewed from time to time.

(xx). 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.

(xxi). 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.

(xxii). The green belt of at least 5-10 m width shall be developed in at least 33% 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. The plant species can be selected that will give better carbon sequestration.

(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 EIA/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. 29.7

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 earlier considered by the EAC in its 21st meeting held during November 29, 2021, and 26th meeting wherein PP did not attend the meeting however during 21st meeting 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:

<table>
<tr><th>S. No.</th><th>Information/inputs sought by EAC in its meeting held on November 29, 2021</th><th>Reply of PP</th><th>Observation of EAC</th></tr>
<tr><td>1.</td><td>PP needs to superimpose project boundary on the ESZ map so that distance from the project boundary to the ESZ be clarified. Clarification letter regarding location of the Unit outside of ESZ from the concerned department needs to be submitted</td><td>M/s PBL submitted the Distance Certificate and the map superimposing project boundary on the ESZ map to explain the distance from the project boundary to the ESZ. The Conservator of Forest, Wildlife Department have mapped the coordinates of the corners given in the GIB Notification and superimposed on Google Map. The project is 1.82 km from ESZ GIB Patch 97, and 2.23 km from Sanctuary GIB Patch 97.</td><td>The EAC deliberated the matter and found the reply to be satisfactory .</td></tr>
<tr><td>2.</td><td>PP needs to submit Schedule of HW generated as per Pharmaceutical industry. PP shall submit detailed mitigations measures and HW management in the proposed Unit.</td><td>M/s PBL submitted the Schedule of HW generated as per pharmaceutical industry. The guidelines mentioned in Hazardous Waste Management Rules 2016 shall be followed for Segregation, Storage and disposal of the waste generated. PBL is member of the CHWTSDF facility at Ranjangaon.</td><td>The EAC deliberated the matter and found the reply to be satisfactory .</td></tr>
<tr><td>3.</td><td>PP needs to submit study on Greenhouse gases equivalent carbon footprint.</td><td>M/s PBL had conducted a study on GHG and equivalent carbon footprint has been arrived at. We have considered GHG as per Scope 1, 2 & 3 as applicable to PBL. Details of maximum emissions under Scope 1, 2 & 3 have been computed and presented here. Study on proposed Green Belt and GHG attenuation has also been worked out. In addition, we will participate in Community plantation also.</td><td>The EAC deliberated the matter and found the reply to be satisfactory .</td></tr>
<tr><td>4.</td><td>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.</td><td>Proposed Trees List is submitted by PBL.<table><tr><td>Total plot area</td><td>: 12012 m2</td></tr><tr><td>Green belt area</td><td>: 3963.96 m2 (33% of total Plot area), Width of green belt ~4-8 m Distance from centre to centre : 3m</td></tr><tr><td>No. of trees required</td><td>: 150 Nos.</td></tr><tr><td>No. of trees proposed</td><td>: 250 Nos.</td></tr></table></td><td>The EAC deliberated the matter and found the reply to be satisfactory .</td></tr>
</table>

<table>
<tr><td></td><td></td><td><table><tr><td>Type of Species</td><td>: 11 Nos.</td></tr></table></td><td></td></tr>
<tr><td>5.</td><td>Detailed effluent management plan needs to be submitted.</td><td>i. Proposed Effluent Treatment Plant of capacity 90 m3/d with Tertiary Treatment Facilities.
ii. High TDS and High COD wastewater (concentrated Stream- 60 m3/day) from Manufacturing process is sent for Primary Treatment (Neutralization and Settling Tank) and followed by Multi Effect Evaporator and ATFD. ETP and MEE Plant Layout is shown in figure 2 and 3 resp.
iii. Effluent from Diluted Stream, (Washing, Boiler and Cooling Tower Blowdown) will undergo separate Primary treatment.
iv. The Effluent from Diluted i.e., LCOD/LTDS effluent stream i.e. (16.5 m3/day) (after primary treatment) and Concentrated stream (55 m3/day) (after treatment in MEE and ATFD) will be sent for further treatment (Total: 71.5 m3/day) to rmove traces of solvents.
v. After treatment 45.5 m3/d will be sent to CETP and 26 m3/d will undergo tertiary treatment and will be reused for Cooling Tower (6 m3/d), Scrubber(5m3/d) and gardening (15 m3/d).
vi. Domestic sewage generated (4.5 m3/d) will be treated STP and will be reused for gardening.
vii. Solvent recovery system shall be implemented for all the reactors.
viii. Waste water inlet and outlet parameters are given in below table, ETP process flow diagram is given in below figure Effluent water parameter before treatment
<table><tr><th>S. No.</th><th>Parameters</th><th>Inlet</th><th>Outlet</th><th>SPCB std.</th></tr><tr><td>1</td><td>COD mg/lit</td><td>55000</td><td>250</td><td>250</td></tr><tr><td>2</td><td>BOD mg/lit</td><td>28000</td><td>100</td><td>100</td></tr><tr><td>3</td><td>pH</td><td>4-5</td><td>6-8</td><td>6-8</td></tr></table></td><td>The EAC deliberated the matter and found the reply to be satisfactory.</td></tr>
</table>

		<table><tr><td>4</td><td>TDS ppm</td><td>8500</td><td>2100</td><td>2100</td></tr><tr><td>6</td><td>TSS ppm</td><td>15-20</td><td>15-20</td><td>100</td></tr></table> MEE Details: 80 m3/day MEE i. Striping of air shall be done to remove solvent from waste water through striping column. ii. After Stripping column waste water feed to MEE. iii. Slurry generated will be fed to ATFD. iv. Salt generated from MEE shall be collected separately. v. MEE condensate shall be collected separately. vi. Condensate shall be further sent for secondary treatment.	
6.	Detailed mitigation measures towards Air, Water, Noise and Soil pollutions.	Detailed mitigation measures towards Air, Water, Noise and Soil pollutions is submitted.	The EAC deliberated the matter and found the reply to be satisfactory .
7.	PP needs to submit the pollution load as per Ministry's OM dated 28.01.2021	Product wise pollution generation in terms of characteristic of effluent, solid waste and air emissions w.r.t. the material balance) is submitted.	The EAC deliberated the matter and found the reply to be satisfactory

The Project Proponent and the accredited Consultant [M/s Enviro Analyst and Engineers Pvt. Ltd having Accreditation number NABET/EIA/2023/RA 0206 valid till 13.05.2023] 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 setting up of Active Pharmaceutical Ingredients (API's) manufacturing unit of production capacity 2184 MTPA located at Plot No: F-27 MIDC Chincholi, Village Chincholi, Taluka: Mohol, District: Solapur, Maharashtra by M/s. PBL Life Care Pvt. Ltd

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

S. No.	Product Name	Quantity in MT/Annum	CAS No	Therapeutic Use

S. No.	Product Name	Quantity in MT/Annum	CAS No	Therapeutic Use
1.	Albendazole	60	54965-21-8	Anthelmintic, anti-worm medication
2.	Salbutamol Sulphate	60	51022-70-9	Bronchodilater medicine
3.	Levosalbutamol sulphate	36	34391-04-3	Used in the treatment of asthma and chronic obstructive pulmonary disease (COPD)
4.	Praziquantel	48	55268-74-1	Parasitic worm infections in mammals, birds, amphibians, reptiles and fish
5.	Diminazene Diaceturare Tetra Hydrate	36	908-54-3	Skin infection medicine
6.	Phenyl Epherene Hydrochloride	36	61-76-7	To treat nasal and sinus congestion of the eustachian tube
7.	Butaphosphane	48	17316-67-5	Used with combination with Vitamine B12 to reduce phosphorus deficiency
8.	Cetrizine Dihydrochloride	60	83881-52-1	Used in the treatment as antihistamines
9.	Riboflavin Sodium Phosphate	60	6184-17-4	It is used to treat an eye problem called keratoconus
10.	Triclabendazole	60	68786-66-3	It is used to treat fasciolliasis, an infection caused by the liver fluke parasite
11.	Toldimphos sodium	24	5787-63-3	It is indicated for the treatment and prophylaxis of diseases
12.	Metformin Hydrochloride	60	1115-70-4	Used in treatment of Type 2 Diabetics
13.	Trimetazidine	48	142643	Its dihyrochloride and citrate salts, used in veterinary medicine as an athelmintic in pigs
14.	Etofyline	48	519-37-9	Antiasthmatic and bronchodilater properties and is used for treating asthma, shortness of breath and chest tightness especially in newborns
15.	Telmisartan	72	144701-48-	To treat high blood

S. No.	Product Name	Quantity in MT/Annum	CAS No	Therapeutic Use
			4	pressure (hypertension). Lowering high blood pressure helps prevent strokes, heart attacks and kidney problems
16.	Oxfendazole	60	53716-50-0	Oxyfendazole is used in horses for treatment of large roundworms
17.	Alpha Pinene epoxide	360	1686-14-2	To treat inflammatory and neuropathic processes
18.	Nitroxynil	60	1689-89-0	Nitroxynil is an anthelmintic, a veterinary medicine againts parasitic worms in sheep and cattle
19.	Cis Imidazole Alcohol	60		Antifungal medications
20.	Imidazole	60	288-32-4	Antifungal medications
21.	Fenbendazole	48	43210-67-9	Anthelmintic used to treat common helminth infections, including ascarids, hookworms, whipworms and a single species of tapeworm, Taenia pisiformis in Animals
22.	Ricobendazole	48	54029-12-8	Effective in controlling the Gastro intestinal infections caused by round worms and respiratory round worms in sheeps, goats and cattles.
23.	Ensulizole (Phenyl Benzamidazole sulphonic acid)	180	27503-81-7	Ensulizole is primarily a UVB protecting agent providing only minimal UVA protection
24.	Avobenzene	240	70356-09-1	UVB protecting agent providing only minimal UVA protection
25.	Theobromine	180	83-67-0	Theobromine is used to control blood pressure. It functions as Vasodilotor
26.	Bromohexine Hydrochloride	24	611-75-6	Bromohexine Hydrochloride is used to treat Bronchial Asthma and

S. No.	Product Name	Quantity in MT/Annum	CAS No	Therapeutic Use
				Chronic Pneumonia
27.	Moxifloxacin Hydrochloride	48	186826-86-8	Moxifloxacine is an antibiotic used to treat a number of bacterial infection. This includes pneumonia,conjunctivitis, endocarditis, tuberculosis and sinusitis
28.	Vancomycine	12	1404-93-9	Vancomycine is an antibiotic medication used to treat a number of bacterial infection
29.	Fidaxomycine	12	873857-62-6	Fidaxomicun is used to treat diarrhea caused by infection with clostridium difficile
30.	Tobramycine	12	32986-56-4	Tobramycine is an antibiotic which used in the treatment of infections of the skin heart, blood, stomach, brain and spinal cord and the urinary tract
31.	Cyclosporine	12	59865-13-3	used as an immunosuppressant medication.
32.	Tacrolemus	12	104987-11-3	It is used to treat eczema (skin infection)
Total (Any five products will be manufactured at any given point of time)		**2184**		

LIST OF BY-PRODUCTS AND ITS QUANTITIES

S. No	Name of the product	Name of the By-Product	Quantity in Kg/Day
01	Salbutamol sulphate	Spent catalyst Sent for reactivation	50
02	Oxfendazole	Acetic acid Recycled in the process	200
03	Ensulizole (Phenyl Benzamidazole sulphonic acid)	Sulphuric acid Reused in the process	5180
Note: The quantity of By-products based on respective products being manufactured.			

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 (amendment on 27.03.2020, 15.10.2020 & 16.07.2021). Due to applicability of general condition of presence of the Great Indian Bustard Sanctuary is within 1.8 km from the project location the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The PP reported that the proposed land area is 12012 sqm. Industry will develop greenbelt in an area of 3964 sqm which is 33% out of the total project area. The estimated project cost is Rs.16.92 Crore. The proposed project cost is about Rs.16.92 Cr. Total capital cost earmarked towards environmental pollution control measures is Rs.1.52 Cr and the recurring cost (operation and maintenance) will be about Rs.0.53 Cr. per annum. Total Employment under proposed project will be of 50 persons.

The PP reported that the Great Indian Bustard Sanctuary is located within a distance 5 km. ESZ of the Great Indian Bustard Sanctuary is located within a distance 1.8 km. The proposed Unit is located outside of the ESZ. The Sina River is flowing at a distance of about 7.0 km in SW direction.

Total water requirement is 101 KLD out of which fresh water requirement is 71 KLD which will be met from MIDC Chincholi and 30 KLD shall be met through recycled water. Effluent of 76.5 KLD quantity will be treated through ETP on site and will be sent to CETP MIDC Chincholi for final treatment and disposal. Sewage generated 4.5 KLD will be treated in STP and reused for gardening.

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

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.	Name of the Gas	Quantity in kg/d	Treatment Method
1	Ammonia	16.63	Water in Ist stage, 5 % Hydrochloric acid in IInd stage
2	Hydrobromic acid	36.63	Water in Ist stage, 5-10 % caustic solution in IInd stage
3	Hydrochloric acid	63.14	Water in Ist stage, 5-10 % caustic solution in IInd stage

S. No.	Name of the Gas	Quantity in kg/d	Treatment Method
4	Sulphur dioxide	567.07	Dispersion through tall chimney
5	Carbon Dioxide	6.22	Alkali Scrubber
6	Hydrogen Iodide	3.47	Water in Ist stage, 5-10 % caustic solution in IInd stage

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

S. No.	Category as per HW Rules 2016	Name of the Waste	Quantity	Disposal Method
Hazardous Waste details				
1.	35.3 Sch – I	ETP Sludge	25 kg/d	CHWTSDF @ Ranjangaon
2.	5.1/5.2 Sch – I	Used Lubricants	one drum per month	Authorized recyclers
3.	33.1 Sch – I	Used Containers (Metal & Plastic)	25 Nos.	Decontamination & Re- use or sell to Scrap vendors
4.	28.1 Sch – I	MEE Residue	20 kgs/d	CHWTSDF @ Ranjangaon
5.	28.1 Sch – I	Process Residue	50 kg/d	CHWTSDF @ Ranjangaon
6.	28.1 Sch-I	Distillation Residue	25 kg/d	CHWTSDF @ Ranjangaon
7.	28.3 Sch-I	Spent Carbon	50 kg/d	CHWTSDF @ Ranjangaon
Non-Hazardous Solid waste details				
1.	--	Dry Garbage	10 Kg/day	Hand over to authorized recyclers
2.	--	Wet Garbage	10 Kg/day	Vermi Composting
3.	--	HDPE/ LDTE/ Gunny Bags	25 per day	Re- use or sell to Scrap vendors

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

Kg Per Day														
EEFFLUENT WATER									**SSOLID WASTE**					
Water Input (Fresh water)	**Effluent Water**	**Inorganics in Effluent**	**Organics In Effluent**	**TDS**	**COD**	**HTDS**	**LTDS**	**Total Effluent**	**Organic Solid waste**	**Inorganic Solid waste**	**Spent Carbon**	**Distillation Residue**	**Process emissions**	**Fugitive loss**
71000	49184	14009	16246	49185	291369	40724	8461	49184	85	499	98	708.02	710.68	approx70

HAZARDOUS SOLID WASTE DETAILS

Kg Per Day			
SOLID WASTE			
Organic solid waste	Inorganic solid waste	Spent Carbon	Distillation Residue
85	499	98	708.02

EMISSION DETAILS

Kg Per Day	
Process emissions	Fugitive emissions
213203	70

Kg Per Day					
CO2	**H2**	**NH3**	**HBr**	**HCl**	**SO2**
6.22	17.50	16.63	36.63	63.14	567.08

PP reported that a total of 640.52 TCO2e/year emissions will be generated due to fuel consumption. Now PP committed that maximum 24 Hrs /month DG Set will be used. This will drastically reduce the TCO2e/year due the project activity. The PP also informed that about 1000 Nos. of trees of different varieties will be planted and will also installed solar PV panels of 100kW capacity for mitigation. The PP also committed that they will use natural gas instead of LSHS for the boiler. Though this about 29.65% TCO2e/year 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 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 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 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 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 six months. 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 measures to reduce the Carbon foot print, conservation plan of schedule –I species, submitted by the 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). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). 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.

(iii). 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.

(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 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.

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

(viii). The treated effluent of 76.5 KLD proposed to discharge to the CETP. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

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

(x). 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.

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

(xii). Total fresh water requirement, sourced from MIDC Chincholi, shall not exceed 71 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

(xiv). 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.

(xv). 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.

(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 & 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.

(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. Trees have to be planted with spacing of 2m x 2m. The plant species can be selected that will give better carbon

sequestration. All trees must be planted within one year from the receipt of Environmental Clearance.

(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 EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

(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. 29.8

Setting up of Active Pharmaceutical Ingredients and API Intermediate Manufacturing Unit by Ms. Shalini Organics Pvt. Ltd., located at D-10, MIDC Paithan, Dist. Aurangabad Maharashtra–Consideration of corrigendum in Environmental Clearance

[Proposal No. IA/MH/IND3/261552/2022; File No. IA-J11011/281/2020-IA-II(I)]

The instant EC proposal was recommended by the EAC in its 14th meeting held during July 22-23, 2021. The EC was granted vide F.No. IA-J-11011/281/2020-IA-II(I) dated 11, August, 2021. Further, PP requested that there is minor correction/corrigendum in the EC w.r.t. production capacity, as detailed below:

As per EIA/EMP report	**As per EC granted on 11.08.2021**	**Seeking corrigendum in EC**
Details of total capacity, in summarized table, is mentioned **42.76MT/M.** However, in the table of individual Products it is correctly mentioned (viz. 112 MTM @API and 1171 MTM @Intermediate i.e. total capacity of API & Intermediate is 1283 MTM or 42.76 MT/D.	Details of total capacity, in summarized table, is mentioned **42.76MT/M.** However, in the table of individual Products it is correctly mentioned (viz. 112 MTM @API and 1171 MTM @Intermediate i.e. total capacity of API & Intermediate is 1283 MTM or 42.76 MT/D.	PP mentioned that the mistake is from their end and accordingly sought apology and requested the factual correction. PP requested that details of total production capacity, in summarized table, is to be mentioned **42.76 MT/D** so that SPCB may grant correct CTO for operation of the project.

Deliberations by the EAC:

It was informed to the Committee that the instant EC proposal was recommended by the EAC in its 14th meeting held during July 22-23, 2021 in which EC was granted vide letter IA-J-11011/281/2020-IA-II(I), dated 11, August, 2021 and now the PP has requested to correct the total capacity from 42.76MT/M to 42.76 MT/D. On detailed examination the EAC noted

that the data is same as given by PP in Form-I, PFR and EIA/EMP report and Minutes of the EAC. The details as per Environment clearance letter is as below:

The details products and capacities, as mentioned in earlier EC, is as under:

S. No.	Product details	Nos.	Tonnage (MT)
1.	API	6	112
2.	API Intermediate	43	1171
	Total	49	1283
	Per Month capacity	42.76 MT/ M	

API

S. No.	Product Name	UOM	Qty /Month	CAS NO	Remark
1	Albendazole	MT	60	54965-21-8	Anthelmetis
2	Frusemide	MT	10	54-31-9	Anti Diuretic
3	Tizanidine	MT	2	51322-75-9	Muscle Relaxar
4	Fenbendazole	MT	15	43210-67-9	Antihelmintis
5	Triclabendazole	MT	15	68786-66-3	Anti Liver flukes.
6	8-Hydroxy Quinoline	MT	10	148-24-3	Antimalarial/ Anti corona
	Total API	**MT**	**112**	-	-

API Intermediates

S. No.	Product Name	UOM	Qty. /Month	CAS NO	Remarks
1	2-Nitro-4-propyl thioaniline	MT	80	54393-89-4	Albendazole Inter.
2	2-Amino -4-Propyl thioaniline/ 4-Propyl Thiodiamine	MT	80	229326-17-4	Albendazole inter
3	2-Nitro Thiocyano aniline/ 2-Nitro-4-propyl sulfanyl aniline	MT	80	54029-45-7	Albendazole inter
4	2-Nitro -5-Phenyl mercapto Aniline	MT	10	43156-47-4	Albendazole/Fabental/Fenb.
5	ThiophenoL	MT	30	108-98-5	Starting raw material
6	5-Chloro -4-Amino-2,1,3-Benzothiadiazole	MT	1	30536-19-7	Tizanidine Intermediate
7	Sodium Bromide	MT	50	7647-15-6	Reagent
8	Sodium Sulphide Flakes/ NAHS soln	MT	50	1313-82-2	Reagent
9	4-Bromo-2-fluoro Aniline	MT	15	367-24-8	Flurbiprofen Intermediate
10	2-Fluoro Aniline	MT	20	106-94-5	Flurbiprofen Intermediate

11	4-nItro Benzamide	MT	30	619-80-7	Dimizimine HCl int
12	3,4 Dimethoxy Aniline	MT	15	6315-89-5	Common inter
13	3-Hydroxy - Acetonephenone	MT	10	121-71-1	Phenyl epherine interm.
14	Chloro Acetaldehyde Dimethyl Acetal	MT	20	97-97-2	Intermediate
15	Lasamide	MT	20	2736-23-4	Frusemide Inter
16	3-Nitro Acetophenone	MT	15	121-89-1	PHEP Intermediate
17	4-Chloro-(2,3-dichloro phenoxy)-2-Nitroaniline	MT	20	139369-42-9	Triclabendazole Int
=	6-Chloro-5-(2,3-dichlorophenoxy-1H-Benzimidazole	MT	=	100648-13-3	Triclabendazole int.
=	2-Nitro 4,5-dichloroacetanilide	MT	=	5462-30-6	Triclabendazole int
18	2-Chloro 1-(2,4-difluorophenyl)ethanone	MT	5	51336-94-8	Fluconazole int.
19	2-(4-Amino 4,5-dihydro-[1,2,4-]triazole-1yl}-1-(2,4-difluoro ethanone	MT	5	86404-63-9	Fluconazole intermediate
20	5-Amino Salicylic acid	MT	20	89-57-6	Intermediate
21	1[4-chlorophenyl] phenyl methyl piperzine	MT	10	300543-56-0	Cetrizine diHCl int.
22	Tetra Butyl ammonium Bromide	MT	30	1642-19-2	Catalyst.
23	2-(4-methoxyphenyl) acetic acid	MT	30	104-01-8	Dextromethorpan HBr.int.
24	Hydrogenation of Aldehydes and Amines[Aldehyde to Alcohol]	MT	15	NA	General hydrogenation of aldehydes and Amines.
25	1(2,4-dichloro phenyl)-2-(1-H-imidazole -1-yl) Etanone/Ethanol	MT	20	24155-42-8	Miconazole Inter.
26	1-(carbamethyl-cyclohexyl)Acetic acid	MT	20	1157262-35-5	Gabapentin Intermediate
27	5-(4-(Ethylphenylethoxy) benzyl thiozolidine-2,4-dione	MT	10	112529-15-4	Pioglutazone intermediate
28	4-(4-Ethylphenyl-ethoxy) benzaldehyde	MT	15	114393-97-4	Pioglutazone intermediate.
29	2-(5-ethyl pyridine-ethanol)	MT	=	5223-06-3	Pioglutazone Intermediate
30	Ammonium thiocyanate	MT	100	1762-95-4	Intermediate
31	Hydrogen Cynamide	MT	50	420-04-2	Intermediate

32	N-Propyl Bromide	MT	25	106-94-5	Intermediate
33	Cyanuric acid	MT	25	108-80-5	Starting raw material
34	5-Methoxy-2-mercapto benzimidazole	MT	20	37052-78-1	Omeprazole Intermediate
35	2-Chloro-5-Iodo Benzoic acid	MT	5	19094-56-5	API Intermediate
36	4-Hydroxy coumarin	MT	5	1076-38-6	Warfarin inter.
37	Cyanoacetic acid	MT	25	372-09-8	Intermediate
38	5-Chloro-2- Ntroaniline	MT	50	1635-61-6	Tricalbendazole Intermediate
39	2-Nitro Aniline	MT	100	88-74-4	Intermediate
40	2-Bromo Isopropyl Isobutyrate	MT	10	51368-55-9	Finofibrate Intermediate
41	m-Nitro Benzaldehyde	MT	05	99-61-8	Intermediate
42	2,2,4-Trichloro Acetophenone	MT	15	4252-78-2	Miconazole Nitrate Interm.
43	4-Amino Benzonitrile	MT	10	873-74-5	Intermediate
	Total Intermediate	**MT**	**1171**	**-**	**-**

The PP mentioned that the mistake was happens from their end and accordingly sought apology and requested the factual correction. PP requested that details of total production capacity, in summarized table, is to be mentioned 42.76 MT/D so that SPCB may grant correct CTO for operation of the project.

After detailed deliberations by the EAC, the EAC noted that details of total capacity, in summarized table, was mentioned 42.76MT/M (in EIA/EMP Report/Minutes and EC). However, in the table of individual Products it is correctly mentioned (viz. 112 MTM @API and 1171 MTM @Intermediate i.e. total capacity of API & Intermediate is 1283 MTM or 42.76 MT/D. Therefore, the EAC has accepted the request of proponent and **recommended** for the correction in EC vide letter dated 11.08.2021, as it is a factual correction. **The proposed correction/corrigendum in the said EC, may be corrected now as stated below.**

The details products and capacities are as under:

S. No.	Product details	Nos.	Tonnage (MT/M)
1.	API	6	112
2.	API Intermediate	43	1171
	Total	49	1283 MT/ M
	Per Day capacity	42.76 MT/D	

The EAC, after detailed deliberations, **recommended** the above mentioned factual correction in the EC with additional specific conditions:

(i). 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.

(ii). 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.

***

Consideration of Environmental Clearance Proposals

Agenda No. 29.9

Setting up of Synthetic organic chemicals industry manufacturing unit of capacity 12,250 MTPM of Formaldehyde located at Plot No. 127 Paiki 8/9, Manekpore, Taluka: Chikhli, Dist: Navsari, Gujarat by M/s. Shree Chemicals LLP. -Consideration of Environmental Clearance

[Proposal NO: IA/GJ/IND3/195760/2021, File No.: IA-J-11011/41/2021-IA-II(I)]

The Project Proponent and the accredited Consultant [M/s Envision Enviro Technologies Pvt. Ltd., Accreditation number: NABET/EIA/2023/ RA 0212 Valid Up to 7 December 2023] 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 Synthetic organic chemicals industry for manufacturing of formaldehyde with proposed capacity of 12,250 MTPM, located at Plot No. 127 Paiki 8/9, Manekpore, Taluka: Chikhli, Dist: Navsari, Gujarat by M/s. Shree Chemicals LLP.

The project/activity is covered under Category 'A' of item 5(f) 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 Details (Complete Name)	CAS No.	Existing Quantity	Proposed Quantity	Total Quantity	Uses
1	Formaldehyde (37%)	50-00-0	-	6,000 MT/M	6,000 MT/M	Resin, Pharma, Dyes, Paper, Textile, Leather, Cosmetics, Rubber industries
2	Phenol Formaldehyde Resin	9003-35-4	-	500 MT/M	500 MT/M	Waterproof Plywood
3	Melamine Formaldehyde	82115-62-6	-	500 MT/M	500 MT/M	MDF board & laminate sheet
4	Liquid Urea Formaldehyde Resin	9011-05-6	-	4,500 MT/M	4,500 MT/M	Commercial plywood& Particle Board

5	Powder Urea Formaldehyde Resin	9011-05-6	-	750 MT/M	750 MT/M	Commercial plywood & Particle Board
Total				**12,250 MT/M**		

The ToR has been issued by the Ministry, vide letter No IA-J-11011/41/2021-IA-II(I) dated 12 March 2021. Public Hearing for the proposed project has been conducted by the Gujarat Pollution Control Board on 10 December, 2021. The Public Hearing was presided over by Additional collector and Additional district magistrate. The main issue raised during hearing were how this proposed project will benefit village, which products will be manufactured and what are their uses, Air pollution generation & provision for Waste disposal. PP reported that No litigation is pending against the proposal.

The PP reported that proposed land area of the project is. 2,782.45 m^2 Industry will develop greenbelt in an area of 33% i.e. 920 m^2 out of, total area of the project. The estimated project cost is Rs 7.5 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 76 lakh and the Recurring cost (operation and maintenance) will be about Rs. 18.5 lakh per annum. Total employment will be 60 persons as direct & 25 persons indirect Industry proposes to allocate Rs. 15 Lakh 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. River Kaveri is flowing at a distance of 2.36 km in SSE direction. Conservation of Schedule-I species has been prepared and PP committed to implement the plan in one year.

The ambient air quality monitoring was carried out at 8 locations during March-2021 to May-2021 and the baseline data indicates the ranges of concentrations as: PM10 (37-89 µg/m^3), PM2.5 (24-58 µg/m^3), SO_2 (5.8-9.7 µg/m^3) and NO_2 (9.3-23.2 µg/m^3). The AAQ modeling study for point source emissions has indicated that the maximum incremental GLCs after the proposed project would be 0.42 µg/m^3, 0.69 µg/m^3 and 0.25 µg/m^3 with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS)

Total water requirement is 121.81 m^3/day of which fresh water requirement of 104.21 m^3/day will be met from ground water through borewell. Effluent of 20.35 KLD (Domestic 2.0 KLD + Industrial 18.35 KLD) quantity will be treated through Septic tank/soak pit (2 KLD) & from 18.35 KLD, 11 KLD RO Reject will be sent to MEE, 3.6 KLD scrubber (spray dryer) water will be reused in process and remaining 3.75 KLD effluent from Boiler, cooling, scrubbing and washing will be treated in primary ETP and sent to MEE for further treatment. The plant will be based on Zero Liquid discharge system.

The PP reported that Power requirement will be 350 kVA and will be met from Dakshin Gujarat Vij Company Limited , additionally 350 kVA x 1 No. DG sets will be used as standby during power failure. Stack (height) of 15 m will be provided as per CPCB norms to the proposed DG sets.

The PP reported that 1 TPH of imported coal/bio coal fired boiler will be installed. Multi cyclone separator+ bag filter+ water scrubber with a stack of height as per CPCB norms 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.	Specific Source of emission (Name of the Product)	Parameter	Stack Height (meter)	Air Pollution Control Measures (APCM)
1	Spray dryer (100 m^3) (For product)	PM	30 m	Bag filter+ Cyclone Separator + Water Scrubber

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

S. No.	Name of Waste	Category & Schedule	Source	Quantity (MT/Annum)	Mode of Disposal
Hazardous Waste					
1	Used or Spent Oil	Plant Machinery	Schedule I Category 5.1	50 Lit/Year	Collection, storage, transportation and dispose at authorized recyclers.
2	Empty barrels/bags /containers/liners contaminated with hazardous chemicals /wastes	Raw material storage	Schedule I Category 33.1	60	Collection, storage, transportation and dispose at authorized recyclers or authorized decontamination Facility.
3	Chemical Sludge from wastewater treatment	ETP	Schedule I Category 35.3	14	Collection, storage transportation and dispose at TSDF for Land filling.
4	MEE Salt	MEE	Cat.: 37.3 Sch-I	20	Collection, storage transportation and dispose at TSDF for Land filling.

5	Spent Catalyst	Process	-	0.6	Collection, storage, Sent for regeneration and reused back.
Solid Waste					
1	Fly Ash	-	Boiler, Hot Air Generator	120	Collection, Storage, Transportation & Sell to brick manufacturer.

The PP reported that due to consumption of coal 2390.38 MT/Annum CO2 will be emitted and due to electricity load 2010 MT CO2 will be emitted. However, PP reported that carbon footprint is generated by the respective power plants and its commitment for mitigation measures/carbon Sequestration /carbon credit is part of that particular power plant. Hence, the same is not considered in Company carbon footprint. Therefore, total 2390.38 MT/Annum CO2 will be emitted from the unit. The Unit has proposed to develop around 33% greenbelt area within plant premises with total 155 Nos. of trees. Further, unit will contribute to the social forestry with the local forest department to plant around 800 Nos. of trees. This green belt will sequestrate about 965 MT of CO2. Unit will install 40 KW rooftop solar which will contribute to the 14% of total energy saving.

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 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 revised 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/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 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). Conservation of Schedule-I species should be implemented within time limit and as per the approval of the Competent Authority.

(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 104.21 m^3/day. 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 Briquettes as a first priority (Primary Fuel) and incase of unavailability, the Unit will use coal as an alternative fuel.

(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 vapor 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 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.

(xxi). 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.

(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. 29.10

Setting up of Specialty Chemical (Acetonitrile-900 MTPM) Manufacturing Unit, located at Survey No. 1366/1+2,1366/3,1366/4 & 1367/2, Village Nayaka, Navagam – Nayaka Road, District Kheda, Gujarat by M/s. Expede -Tech Research & Development Private Limited- Consideration of Environmental Clearance

[Proposal No.: IA/GJ/IND2/180657/2020 F.NO: IA-J-11011/258/2020-IA-II(I)]

The Project Proponent and the accredited Consultant [M/s. Aqua Air Environmental Engineers Pvt. Ltd.**,** Accreditation number: NABET/EIA/2023/IA0062 (Rev. 01), Valid Up to 07 Oct 2023] has made a detailed presentation on the salient features of the project and informed that:

The proposal is for Environmental Clearance to the setting up project for Setting up of Specialty Chemical (Acetonitrile-900 MTPM) Manufacturing Unit located at Survey No. 1366/1+2,1366/3,1366/4 & 1367/2, Village Nayaka, Navagam – Nayaka Road, District Kheda, Gujarat by M/s. Expede -Tech Research & Development Private Limited.

The project/activity is covered under Category 'A' item of S.N. 5(f) 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.	**Name of the Products**	**CAS no.**	**Proposed Quantity MT/Month**	**End-use of product**
1	Acetonitrile	75-05-8	900	Specialty Chemical
	Total		**900 MT/Month**	

The ToR has been issued by the Ministry, vide letter No IA-J-11011/258/2020-IA-II(I); dated 28/11/2020. Public Hearing for the proposed project has been conducted by the Gujarat Pollution Control Board Gandhinagar on 7th August 2021. The Public Hearing was presided over by Resident Additional Collector and Add. District Magistrate. The main issues raised during the Public Hearing are related to Employment, CSR/CER activity and other technical issue. The EAC deliberated the Action Plan on the issues raised during PH and found in order. PP reported that No litigation is pending against the proposal.

The PP reported that proposed land area of the project is Rs. 12849 m^2. Industry will develop greenbelt in an area of 35% of total area of the project. PP committed that company will develop additionally 1600 Nos. of tress outside premises. The estimated project cost is 87.80 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs.10.50 Crore and the Recurring cost (operation and maintenance) will be Rs. 8.09 Crore per annum. Total employment will be of 100 persons as direct & Industry proposes to allocate Rs. 1.75 Crore 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. River Sabarmati River is flowing at a distance of 3.30 kms in South direction. . Conservation of Schedule-I species has been prepared and PP committed to implement the conservation plan within two years.

The PP reported that Ambient air quality monitoring was carried out at 10 locations during October 2020 to December 2020 and the baseline data indicates the ranges of concentrations as: PM10 (68.28 – 71.84 µg/m^3), PM2.5 (41.92 – 43.42 µg/m^3), SO_2 (9.15 – 12.62 µg/m^3) and NO_2 (11.74 – 14.86 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.08 µg/m^3, 0.015 µg/m^3 and 0.009 µg/m^3 with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The PP reported Total water requirement is 248.9 m^3/day of which fresh water requirement of 149.9 m^3/day will be met from ground water. Effluent of 66.4 m^3/day quantity will be treated through ETP & MEE. The plant will be based on Zero Liquid discharge system. The wastewater generation will be 66.4 KL/Day. This unit will total Zero Liquid Discharge unit**.** Process Effluent (32 KL/Day) along with Utility effluent (28.8 KL/Day) will be sent to ETP consists of primary, secondary treatment facilities. Then effluent will send to MEE for further treatment and MEE Condensate (55.2 KL/Day) will be reused in plant premises for process and cooling purpose. Domestic wastewater 5.6 KL/Day will be treated into STP and will reuse for domestic and gardening purpose.

The PP reported that Power requirement will be 1250 kVA and will be met from Uttar Gujarat Vij Company Ltd. (UGVCL). Unit will have 1 Nos. of DG sets of 250 kVA. capacity, additionally DG sets are used as standby during power failure. Stack (11 m) will be provided as per CPCB norms to the proposed DG sets.

The PP reported that Unit will have 1 No. of TFH (Capacity: 15.0 Lac Kcal/Hr) & 1 Nos. of Boiler (Capacity: 15 TPH). Additionally TPH fired boiler will be installed. Multi cyclone separator/ bag filter with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 for the proposed boilers.

Details of Process emissions generation and its management:

FLUE GAS EMISSION

S. No.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Thermic Fluid Heater(15 lakh kcal/Hr)	30	Imported Coal/Briquettes	10	SPM<150 mg/Nm3 SO2 <100 ppm NOx<50	ESP + Scrubber

					ppm	
2	Boiler (Capacity: 15 TPH)	30	Imported Coal /Briquettes	40	SPM<150 mg/Nm3 SO2 <100 ppm NOx<50 ppm	ESP + Scrubber
3	DG Set (250 KVA)	11	Diesel	2.4	SPM<150 mg/Nm3 SO2 <100 ppm NOx<50 ppm	Adequate Stack Height

PROCESS GAS EMISSION

Sr. No.	Specific Source of emission	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1	Process Vent	NH_3	11	Two Stage Water Scrubber

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

S. no.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category & Schedule as per HW Rules, 2016	Quantity (MT/ Annum)	Management of HW
1	Discarded Drums/Bags	Raw Material and Storage	SCH-I/ 33.1	10/1	Collection, Storage, Transportation and sell to Register Re-processors after decontamination.
2	Used / Spent Oil	Equipment & Machinery	SCH-I/ 5.1	0.05	Collection, Storage, Transportation and sell to registered recycler.

3	ETP Sludge	ETP	SCH-I/ 35.3	180.0	Collection, Storage, Transportation and sent to common TSDF.
4	MEE Salt	MEE	SCH-I/ 35.3	200.0	
5	Spent Catalyst	Process	SCH-I/ 28.2	16.2	Collection, storage, transportation and send to regenerator under Rule-9.
6	Process Residue	Process	SCH-I/28.1	1008	Collection, Storage, Transportation and sent for co-processing in cement industries or sent to common incineration.
7	Off Specification Products	From mfg. Process (Batch failure)	Sch-I/ 28.4	24.0	Collection, Storage, Transportation and sent for co-processing in cement industries or sent to common incineration.
8	Sodium Acetate Solution (31%)	Process	SCH-I/28.1	5400	Collection, storage, transportation and sell to end user under Rule-9 permission.
9	Liquor Ammonia (24%)	Scrubber	SCH-I/28.1	1368	Collection, storage, transportation and sell to end user under Rule-9 permission.
Solid Waste					
10	Fly Ash	--	--	144	Collection, Storage, Transportation and sent for co-processing in cement industries or brick manufacture.

The PP reported that total emissions from Fuel used in boiler and thermic fluid heater are found to be 2783.24 tonnes of CO2 per annum. By converting the COD and BOD removed by treatment into kg of CO2 Equivalent, the total impact associated with waste treatment was calculated to be 95.23 tonnes of CO2 per annum. By transportation the Carbon footprint was calculated to be 323.63 tonnes of CO2 per annum. Electrical Load of the plant is assumed to be fulfilled by the DGVCL and the emission found to be 590 tonnes of CO2 per annum. Therefore, total Carbon Footprint will be 3792.1 Tonnes of CO2 per annum. Total Carbon load from energy is 590 MT/annum and by using an alternative energy sources will be about 25% CO2 sequestrated which will be 442 MT/Annum within one Years. PP committed that the company will develop greenbelt by planting 1124 nos. of tress within premises which will sequestrate CO_2 by 1105 MT/annum. Also, 1600 nos. of trees will be developed outside premises which will sequestrate CO_2 by 1572.16 MT/annum. Therefore, total CO_2 emission will 3792.1 MT/Annum and company will sequestrate CO_2 by 3060 MT/annum within one 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 water balance, storage and handling of chemicals 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, 1124 number of trees should be planted. 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 details of carbon foot prints and carbon sequestration study w.r.t. proposed project and found satisfactory.

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 149.9 m^3/day. 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 Briquettes as a first priority (Primary Fuel) and incase of unavailability, the Unit will use coal as an alternative fuel.

(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 vapor 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 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.

(xxi). 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.

(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.

Re-Consideration of Environmental Clearance Proposals

Agenda No. 29.11

Amalgamation and expansion of pesticide intermediates & technical production capacity from 1195 TPM to 2193 TPM along with Synthetic Organic chemical exiting production capacity of 1000 TPM, within the existing premises located at Plot No. 2901 to 2906 and 2806, GIDC Panoli, Taluka - Ankleshwar, District: Bharuch Gujarat by M/s. Tagros Chemicals India Pvt. Ltd.-Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/254568/2017, F.NO IA-J-11011/82/2017-IA-II(I)]

The EC proposal was earlier placed before the EAC (Industry 3 Sector) in its meeting held during 24-25 March, 2022 wherein EAC sought certain requisite information/inputs. In this context, PP has uploaded the requisite information and accordingly the proposal is placed in this instant meeting. Information desired by the EAC and response submitted by the project proponent is as under:

S. No.	ADS Point raised by EAC	Reply of PP	Observation of EAC
1.	The PP shall first do the preparatory work for the implementation of green belt development or to explore the adjacent plots for the green belt development. PP should revise greenbelt plan (with ~2500 trees/ha) along with budgetary allocations and timelines.	PP reported that the plot allocated for green belt development is within 1 km distance only (0.93 km). Ground preparation is completed and 25 % of the land parcel has been sowed with saplings of various species like Peltophorum, Rain tree, Pongame oil tree, Neem Tree, Acacia, Black Board tree etc. in adjacent plot for the green belt. PP submitted methodology adopted and steps towards achieving 40% i.e. 15974 sq. m. (5973.60 m^2 Green belt inside and 10,000 m^2 outside the plant premises) Along with photographs.	The EAC deliberated the matter and found the reply to be satisfactory.
2	The GIDC Panoli having the CEPI score of 80.21 and comes under critically polluted area. In this regard the PP shall submit the additional mitigation measures to safeguard to the environment and also to explain how carbon foot print to be minimized?	PP has taken efficient emission control measures to mitigate the pollution generated from the unit and control the carbon foot print. Following measures are taken to avoid any additional pollution load to environment: **Mitigation measures to safeguard to the environment** • On-site recovery of solvent/s. Recovered solvent/s will be recycled back for re-used • We ensure maximum reuse of treated water in utility & process. Treated sewage will be reused for gardening purpose.	The EAC deliberated the matter and found the reply to be satisfactory.

		• By product (Spent sulphuric acid, Spent Mix acid & Spent HCl etc.) will be sold out to authorized users for ensuring re use or coprocessing of the same. • Reduce water consumption by proper housekeeping, utilizing low-flow, drip or micro spray irrigation systems and technologies that reduce water loss. • PP has installed adequate emission controls measures for air pollution control. (i.e ESP, bag filter, Two stage alkali scrubber etc.) **Mitigation measures for reduce carbon footprint:** • Tagros already signed an agreement for a Hybrid power supply i.e. solar and wind energy as an alternative to GEB power to equivalent to 30 % of the capacity. • Further PP has installed 66 kVA substation where the weekly power staggering's are done away with and The DG set usage has been restricted to twice in a year as compared to roughly 40 Times in a year, thus reducing the consumption of Diesel in DG sets by 95%. • PP is phasing out traditional light bulbs with LED lights. Resulting into a reduction 3/4th of the total energy consumption. • The cooling tower fans are connected to temperature sensor, as soon as the sump temperature reaches the desired value the cooling tower switches off. • The chillers and brine plants are installed with VFD's whereby there is huge savings during startup. Further, when the chilling load reduces, the power drawn for operating automatically reduces • Power saving devices installed in Boilers also.	

		• Use of solar energy for street lights, lifts, common area lights etc in entire complex • The selection of appropriate sustainable building materials for construction of factory buildings. • A motion sensor light will be installed in Admin building, canteen wherever possible. • Computers installed are with a system which will make sure to put it into hibernation mode when not in use. • PP is collecting the canteen waste and decompose it to manure. • Provision of common transport facility to employees to reduce carbon foot print. • PP will shift to electrical vehicles for senior executives travel. • PP is going to develop 40% i.e. 15973 sq. m. area green belt. Total plot area is 40000 m²; out of this 5973.60 m² (i.e. 15% of total area) will be developed as greenbelt and other forms of greenery. Remaining 10,000 m² area will be developed as greenbelt outside of premises and their proper care in long run.	
3	Since the instant project is amalgamation and expansion case. The PP should submit product details in tabular format mentioning the earlier ECs, CTOs, Product mix details vis-à-vis existing and proposed products of both the Units.	Unit had obtained EC vide F. No. J-11011/82/2016-IA II (I), dated 13.04.2018 for expansion of pesticide technical & intermediates manufacturing unit in name of M/s. Gujarat Agrochem Pvt Ltd at Plot No. 2901 to 2906, GIDC Panoli, District-Bharuch, Gujarat. Further this EC got transferred in the name of M/s. Tagros Chemicals India Pvt. Ltd. EC vide No. J-11011/82/2017-IA II (I) dated 26th April, 2020. M/s. Micro Chemtech Pvt. Ltd has obtained EC F. No. J-11011/175/2009-IA II (I) dated 10th June, 2009 for setting up 1000 TPM of synthetic organic chemicals at Plot No. 2806 GIDC Panoli, District- Bharuch, Gujarat.	The EAC deliberated the matter and found the reply to be satisfactory.

		Further this EC got transferred in the name of M/s. Tagros Chemicals India Pvt. Ltd. EC vide File No. J-11011/175/2009-IA II (I) dated 2nd February, 2022. EC copies is submitted. M/s. Tagros Chemicals India Pvt.Ltd also obtained valid CCA Order No. AWH-107891 issued vide letter no. GPCB/ANK/CCA-110(16)/ID-15129/563014dated 26.06.2020. Validity up to 04/01/2025. CCA Copy is submitted**.** Product list for existing EC, CTO, CTE is also submitted.	
4	The PP shall submit the treated effluent details for Pesticides and synthetic organic chemical separately. Detailed effluent management plan needs to be submitted	There is no industrial effluent generation from the manufacturing of synthetics organic chemical products. Only domestic effluent generation will be there which will be treated along with domestic effluent generated from pesticides manufacturing plant in common STP and treated water will be reused for gardening.	The EAC deliberated the matter and found the reply to be satisfactory.
5	The PP shall submit the undertaking for the banned pesticide/chemical shall not be manufactured by the project proponent	PP submitted Notarized undertaking for the banned pesticide/chemical shall not be manufacture.	The EAC deliberated the matter and found the reply to be satisfactory.
6	The Certified compliance report shows that some conditions are partially complied, therefore, Action Plan along with timelines and budgetary allocations for compliance of the EC conditions needs to be submitted	PP has obtained the certified EC compliance report on 28/02/2022. The certified compliance report shows that Seven conditions are partially complied and one condition is non-complied. Please note that all the conditions mentioned under partially complied and non-complied were already complied. Action Taken Report enclosed has been submitted.	The EAC deliberated the matter and found the reply to be satisfactory.

The Project Proponent and the accredited Consultant [M/s. Shree Green Consultants [Accreditation Number NABET/EIA/2124/IA0072 valid till 24 Feb 2024], made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Amalgamation and expansion of pesticide intermediates & technical production capacity from 1195 TPM to 2193 TPM along with Synthetic Organic chemical exiting production capacity of 1000 TPM, within the existing premises located at Plot No. 2901 to 2906 and 2806, GIDC Panoli, Taluka - Ankleshwar, District: Bharuch Gujarat by M/s. Tagros Chemicals India Pvt. Ltd.

The project is covered under 5(b) Pesticides industry and pesticide specific intermediates (excluding formulations) & 5 (f) 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 of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are requires appraisal at Central Level by Expert Appraisal Committee (EAC).

The details of products and capacity are as under:

S. No.	CAS No.	Products	Category	Production Capacity (TPM)		
				Existing**	Proposed	Total
Pesticides Intermediates & Technical						
1	52314-67-7	DV Acid Chloride	5(b)	250	100	350
2	39515-51-0	Meta Phenoxy Benzaldehyde	5(b)	250	350	600
3	120068-37-3	Fipronil	5(b)	00	100	100
4	463-71-8	Thiophosgene	5(b)			
5	-	Ortho Chloro Benzyl Trifluromethyl sulphide	5(b)			
6	52315-07-8	Cypermethrin (Tech.) or intermediates	5(b)	200	200	400
7	52645-53-1	Permethrin (Tech.) or intermediates	5(b)	100	30	130
8	67375-30-8	Alphamethrin (Tech.) or intermediates	5(b)	50	30	80
9	41394-05-2	Metamitron (Tech.)	5(b)	150	0	150
10	-	MBB Forcut	5(b)	45	108	153
11	26225-79-6	Ethofumesate (Tech.)	5(b)	100	50	150
12	7473-98-5	Hydroxy Benzo Furan (HBF)	5(b)			
13	91465-08-6	Lambda Cyhalothrin (Lambamethrin)	5(b)			
14	2431-96-1	Diethyl Phenyl Acetamide (Tech.) (DEPA)	5(b)			
15	210880-92-5	Clothainidin	5(b)	0		

16	1224510-29-5	BETA Cypermethrin*	5(b)	0		
17	95737-68-1	Pyriproxypane	5(b)	50	30	80
18	79538-32-2	Tefluthrin or Mepafluthrin	5(b)			
19	118712-89-3	TransFluthrin	5(b)			
	Total (A)			**1195**	**998**	**2193**
Synthetic Organic Products						
20	100-44-7	Benzyl Chloride	5(f)	500	0	500
21	100-52-7	Benzaldehyde	5(f)	250	0	250
22	98-88-4	Benzal Chloride	5(f)	50	0	50
23	98-07-7	Benzo trichloride	5(f)	100	0	100
24	100-51-6	Benzyl alcohol	5(f)	100	0	100
	Total (B)			1000	0	1000
Grand Total (A+B)				**2195**	**998**	**3193**
Inorganic Products not requiring EC						
1	7757-83-7	Sodium Sulfite or Sodium Metabisulfite	-	487	275	762
2	12125-02-9	Ammonium Chloride	-	217	111	328
3	7447-40-7	Potassium Chloride	-	140	1398	1538
4	1327-41-9	PAC / Aluminium Chloride (30%)	-	1031	1604	2635
Total				**1875**	**3388**	**5263**
Note: * The above-mentioned products as per CCA amendment No: AWH- 108252 issue vide Letter No: GPCB/ANK/CCA-110(16)/ID- 15129/563021 dated 26/06/2020						

The Ministry had issued EC earlier vide letter no. F. No J-11011/82/2017-IA II(I); dated 13th April 2018 to the existing project of expansion of pesticide technical & intermediates manufacturing unit in favour of M/s. Gujrat Agrochem Pvt. LTD. Further, this EC got transferred in the name of M/s. Tagros Chemicals India Pvt. Ltd., vide Letter no. F. No J-11011/82/2017-IA II(I); dated 26th April 2020. M/s. Micro Chemtech Pvt. Ltd has obtained EC vide Letter no. F. No. J-11011/175/2009-IA II (I), dated 10th June, 2009 for setting up 1000 TPM of synthetic organic chemicals at Plot No. 2806 GIDC Panoli, District- Bharuch, Gujarat. Further this EC got transferred in the name of M/s. Tagros Chemicals India Pvt. Ltd., vide File No. J-11011/175/2009-IA II (I); dated 2nd February, 2022. Based on this the standard ToR for amalgamation and expansion has been issued by the Ministry vide letter no. J-11011/82/2017-IA-II(I); dated 11th January 2022. Public Hearing is exempted because the project is located inside the notified industrial area. The PP reported that No Litigation pending against the proposal.

The Certified EC Compliance Report has been obtained from IRO, MoEFCC Gandhinagar vide File No. J-11/4-2022-IROGNR dated 28th February, 2022. Out of total 40 conditions, 27 are complied, 7 are partly complied, 5 are agreed to comply and 1 is not complied. IRO, MoEFCC has asked PP to take necessary and time bound action for early compliance in respect of the relevant conditions.

The PP reported that land area is 40000 m^2; no additional land will be used for expansion project. Total plot area is 40000 m^2; out of this 5973.60 m^2 (i.e. 15% of total area) will be developed as greenbelt and other forms of greenery. Remaining 10,000 m^2 area will be developed as greenbelt outside of premises, therefore total 40% i.e. 15973 sq. mtr area green belt will be developed. The estimated project cost is Rs. 200 crores Total capital cost earmarked towards environmental pollution control measures is Rs. 23.50 Crores and the Recurring cost (operation and maintenance) will be about Rs. 6.909 Crores per Annum. Total Employment will be 67 persons as direct & 112 persons as indirect during construction phase and 200 persons as direct & 330 persons as indirect during operation phase after proposed expansion project Industry proposes to allocate Rs. 1.50 crores 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. River/ water body Narmada river is flowing at a distance of 14.26 km in North direction**.**

The ambient air quality monitoring was carried out at 8 locations during 1st October 2021 to 31st December 2021 to and the baseline data indicates the average ranges of concentrations as: PM_{10} (51.5–92.94 µg/m^3), $PM_{2.5}$ (29.1 – 41.3 µg/m^3), SO_2 (23.6- 52.1 µg/m^3) and NOx (28.50-57.0 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 7.180 µg/m^3, 9.676 µg/m^3 and 0.895 µg/m^3 with respect to PM_{10}, SO_x and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The PP reported that total water requirement is 1056.04 m^3/day of which fresh water requirement of 727.24 m^3/day will be met from Panoli GIDC water Supply. Effluent of 635.41 m^3/day quantity will be treated through proposed in house ETP, MEE, RO. Total waste water will be 635.41 KLD (Industrial 600.41 KLD + Domestic 35 KLD).Process & washing waste water 508.41 KLD and RO reject 61.66 KL/day will be treated in MEE and MEE condensate (468.47 KLD) will be sent to ETP.MEE condensate along with waste water from Boiler and cooling (92 KLD) & Domestic effluent (35KLD), Total: 595.5 KLD will be treated in ETP. Treated waste water (150 KLD out of 540.47 KLD) will be sent to FETP of M/s. NCT for further treatment and final disposal into dep sea and remaining treated waste water 390.47 KLD will be sent to RO. RO permeate (328.8 KLD) will be reused in utility & process and RO Reject (61.66 KLD) will be sent to MEE.

The PP reported that Power requirement for proposed project will be 5000 kVA and will be met from Daksin Gujarat Vij Company Limited (DGVCL) Power Supply. Seven D.G set (725 KVA × 3) (625 KVA × 1) (1010 KVA × 3) will be used as standby during power failure. Stack height 11 meter will be provided as per CPCB norms to the proposed DG sets.

The PP reported that 4 No. of Boiler (20 TPH, 20 TPH, 20 TPH & 16 TPH as Stand By) & 2 Nos. of Thermos pack (5 & 2.5 million Kcal/hr) will be installed. Electrostatic precipitator (ESP), Alkali scrubber, Dust collector bag filter with adequate stack height will be installed for controlling particulate emission.

Details of utility:

S. No.	Plant	Stack Height (m)	Type of Pollutant	Permissible Limit	APCM
	Existing Scenario				
1	Boiler-I (8 TPH)**	30	PM SO_2 NOx	150 mg/Nm^3 100 ppm 50 ppm	Bag Filter/ESP
2	Boiler-II (8 TPH)**				
3	Boiler-III (10 TPH)** (2 Nos.)				
4	Boiler – VI (16 TPH –Stand by)				
5	Thermo Pack (2 No.) (10 million kcal/hr)				
6	D.G. Set (1010 KVA × 3)	11			Adequate stack height
7	D.G. Set (725 KVA × 3)	11			
8	D.G. Set (625 KVA × 1)	11			
After Proposed Expansion					
1	Boiler-I (20 TPH)	46.5	PM SO_2 NOx	150 mg/Nm^3 100 ppm 50 ppm	Dust collector + bag filter + ESP+ Alkali scrubber
	Boiler-II 20 TPH)				
	Thermo Pack (2 No.) (5 & 2.5 million Kcal/hr)				
2	Boiler-III (16 TPH)	30			ESP followed by Alkali scrubber
	Boiler-IV (20 TPH – Stand By)				
3	D.G. Set (1010 KVA × 3)	11			Adequate stack height
4	D.G. Set (725 KVA × 3)	11			Adequate stack height
5	D.G. Set (625 KVA × 1)	11			Adequate

					stack height

Note: *Existing scenario as per EC vide F. No. J-11011/82/2017-IA II (I) dated 13/04/2018.

**3 Nos of Boilers will be removed. (2 x 8 TPH & 2x 10 TPH) and 2 Thermo pack having capacity
10 million kcal/hr will be removed.

Details of Process emissions generation and its management:

S. No.	Plant	Stack Height (m)	Type of Pollutant	Permissible Limit	APCM
Existing*					
1	MPP-(1,2,3) vent attached in recovery plant	20	SO_2 HCl NH3	40 mg/Nm^3 20 mg/Nm^3 175 mg/Nm^3	Water scrubber + caustic scrubber
2	MPP-4 vents attached in Bromine recovery plant	20	Cl_2 HBr HCl	5 mg/Nm^3 5 mg/Nm^3 20 mg/Nm^3	Water scrubber + caustic scrubber
Proposed					
1	MPP-5	20	Cl_2 HBr HCl	5 mg/Nm^3 5 mg/Nm^3 20 mg/Nm^3	Water scrubber + caustic scrubber

Note: **As per CCA order no. AWH-107891 issued vide letter no. GPCB/ANK/CCA-110(16)/ID- 15129/563014 dated 26/06/2020

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

S. No.	Hazardous Waste	Cat. As per HW Rules 2016	Quantity			Mode of Disposal
			Existing	Proposed	Total	
1.	Used Lube Oil	I-5.1	50 Liters/ Month	12 Liters/ Month	62 Liters/ Month	Collection, Storage, transportation and disposal by reused in plant & machinery as lubricant or sell it to

S. No.	Hazardous Waste	Cat. As per HW Rules 2016	Quantity			Mode of Disposal
			Existing	Proposed	Total	
						authorized refiners /recycler.
2.	Spent Solvents	I-20.2	200 MT/Month	362 MT/Month	562 MT/ Month	Collection, Storage, Transportation and reuse within Factory Premises or co-processing in cement industries for AFR or incineration at CHWIF or sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MOU.
3.	Process Distillation Residue & Residual Waste (After Effluent Treatment)	I-29.1	73.3** MT/Month	35 MT/Month	108.3 MT/ Month	Collection, Storage, Transportation & Incineration at CHWIF or Sent to for AFR cement Industries & other industries for Co-processing
			150 MT/Month	55 MT/Month	205 MT/ Month	
4.	MEE Salt	I-35.3	1200 MT/Month	750 MT/Month	1950 MT/ Month	Collection, Storage, Transportation & disposal to common TSDF site.
5.	NaCl	I-35.3	1091 MT/Month	Nil	1091 MT/ Month	Collection, Storage, Transportation & disposal to common TSDF site
6.	Packing Materials (a)Empty Bags (b) Barrels	I-33.3	1100 Nos./ Month 1350 Nos./Month	150 Nos./ Month 150 Nos./Month	1250 Nos./ Month 1500 Nos./Month	Collection, Storage, decontamination, Transportation and disposal by reuse after in-house decontamination or send it to authorized decontamination facility/ recycler or send back to supplier.
7.	ETP Sludge	I-35.3	10 MT/Day	12 MT/Day	22 MT/Day	Collection, Storage, Transportation and Final Disposal at common TSDF site.
8.	Spent Carbon from ETP	I-36.2	0.6** MT/Month	1.5 MT/Month	2.1 MT/Month	Collection, Storage, Transportation and Final Disposal at common TSDF site or Sent to

S. No.	Hazardous Waste	Cat. As per HW Rules 2016	Quantity			Mode of Disposal
			Existing	Proposed	Total	
						cement Industries for Co-Processing.
9.	Fly Ash (Coal Ash)	-	120** MT/Month	36 MT/Month	156 MT/Month	Collection, Storage, Transportation and Final Disposal at bricks manufacturers or common TSDF site.
10.	Spent HCl (30%)	B-15	338.4** KL/Month	961.60 KL/month	1300 KL/Month	Collection, Storage, reuse, Transportation and Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MOU.
11	$Cu(OH)_2$ Powder	I-29.1	2.63 MT/Month	1.05 MT/Month	3.68 MT/Month	
12.	Spent sulphuric acid	I-29.1	528 MT/Month	-	528 MT/Month	
13.	Spent Mix Acid (H_2SO_4+HCl)	I-29.1	-	758 MT/Month	758 MT/Month	Collection, Storage, Transportation & Sent to cement Industries for Co-processing or sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MOU.
Note: * The above-mentioned products as per CCA amendment No: AWH- 108252 issue vide Letter No: GPCB/ANK/CCA-110(16)/ID-15129/563021 dated 26/06/2020						

The PP reported that M/s Tagros already signed an agreement for a Hybrid power supply i.e. solar and wind energy as an alternative to GEB power to equivalent to 30 % of the capacity. Further, PP has installed 66 kVA substation where the weekly power staggering's are done away with and The DG set usage has been restricted to twice in a year as compared to roughly 40 Times in a year, thus reducing the consumption of Diesel in DG sets by 95%. PP is phasing out traditional light bulbs with LED lights. Resulting into a reduction 3/4th of the total energy consumption. The cooling tower fans are connected to temperature sensor, as soon as the sump temperature reaches the desired value the cooling tower switches off. Power saving devices installed in Boilers too. Use of solar energy for street lights, lifts, common area lights etc in entire complex. The selection of appropriate sustainable building materials for construction of factory buildings. Provision of common transport facility to employees to reduce carbon foot print. PP is going to develop 40% i.e. 15973 sq. mtr area green belt. Total plot area is 40000 m^2; out of this 5973.60 m^2 (i.e. 15% of total area) will be developed as greenbelt and other forms of greenery.

Remaining 10,000 m² area will be developed as greenbelt outside of premises and their proper care in long run.

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 PP and found it satisfactory. The Committee deliberated on the action plan and budget allocation for green belt development inside and outside of the plant 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 revised schedule-I conservation plan and found satisfactory. The EAC also deliberated the Action Plan to comply with the earlier partial and non-compliance observed by IRO and found the plan is in order. The Committee also noted that as the proposal is for amalgamation and expansion of the EC, therefore, the company should comply with the conditions mentioned in the earlier EC.

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/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 project proponent shall comply with the environment norms for “Organic Chemical Industry” and “Pesticide Industry” as notified by the Ministry of Environment, Forest and Climate Change, *vide* GSR 608(E), dated 21.07.2010 and GSR 446 (E), dated 13th June 2011 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). 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.

(vii). 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.

(viii). 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 727.24 m^3/day. 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 vapor 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 40% 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.

(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 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. 29.12

Setting up of Pesticide Technical, Pesticides Specific Intermediates & Specialty Chemicals of capacity 550.5 MTPM Manufacturing Unit located at Plot No. 1032-11, Phase-II, GIDC Industrial Estate-Panoli, District Bharuch, Gujarat by M/s Remark Technologies - Reconsideration of Environmental Clearance - reg.

[Proposal No.: IA/GJ/IND3/233790/2021, File No.: IA-J-11011/430/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Aqua-Air Environmental Engineers Pvt. Ltd. (NABET Accreditation No.: NABET/EIA/2023/IA0062 (Rev. 02) Valid Up to October 7, 2023) 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 Pesticide Technical, Pesticides Specific Intermediates & Specialty Chemicals of capacity 550.5 MTPM Manufacturing Unit located at Plot No. 1032-11, Phase-II, GIDC Industrial Estate-Panoli, District Bharuch, Gujarat by M/s Remark Technologies.

The project/activity is covered under Category 'A' item of 5(b) & 5(f) of Schedule of Environmental Impact Assessment (EIA) Notification and are appraised at Central Level by Expert Appraisal Committee (EAC).

The details of products and capacity are as under:

S. No.	Product Name	CAS No.	Quantity MT/Mo	LD 50	End use	Category of Produ

			nth			**ct**
Group 1						
1	Hexaconazole (T)	79983-71-4	50	612 mg/kg	Fungicide	5(b)
2	Dicamba (T)	1918-00-9		757 mg/kg	Herbicide	5(b)
3	Bispyribac Sodium (T)	125401-92-5		>56200 mg/kg	Herbicide	5(b)
4	Metribuzin (T)	21087-64-9		2300 mg/kg	Herbicide	5(b)
5	Transfluthrin (T)	118712-89-3		>5000 mg/kg	Insecticide	5(b)
6	Deltamethrin (T)	52918-63-5		4640 mg/kg	Insecticide	5(b)
7	Bifenthrin (T)	82657-04-3		70 mg/kg	Insecticide	5(b)
8	Pymetrozine (T)	123312-89-0		>2000 mg/kg	Insecticide	5(b)
9	Lambda Cyhalothrin (T)	91465-08-6		632 mg/kg	Insecticide	5(b)
Group 2						
10	Meta Phenoxy Benzaldehyde	39515-51-0	100	7017 mg/kg	Used as a pesticide intermediate	5(b)
11	2,6-Dichloroquinoxaline	18671-97-1		>2500 mg/kg	Intermediate for the production of herbicides	5(b)
12	2 chloro 4 fluoro 5 nitro benzyl chloride	120890-66-6		>2500 mg/kg	Drug /organic Intermediate	5(f)

13	Tetrabutyl ammonium hydroxide (40% solution)	2052-49-5		128.2 mg/L	used as a strong base and phase-transfer catalyst	5(f)
14	Meta Bromo Anisole	2398-37-0		3800 mg/kg	Used as chemical intermediate in pharmaceutical industries.	5(f)
15	2,4-Dichlorobenzyl chloride	94-99-5		4640 mg/kg	used as starting reagent	5(f)
16	7-chloro- 4 - (5-(N-ethyl-N-2-hydroxyethylamino)-2-pentyl) aminoquinoline diphosphate	1951-03-27		--	Specialty Chemical	5(f)
17	fluorobenzonitrile	1194-02-1		--	Used as chemical intermediate	5(f)
18	fluoroacetanilide or bromo fluoro acetanilide or bromo fluoro aniline or bromo fluorobiphenyl	351-28-0 1009-22-9 367-24-8 41604-19-7		180 mg/kg	used as an intermediate	5(f)
19	Tetra Butyl Ammonium Fluoride Trihydrate or Tetra Methyl Ammonium Fluoride Trihydrate	87749-50-6 87749-50-6		1650 mg/kg	used as a phase transfer catalyst	5(f)
20	ethyl 3-methyl-3-phenyloxirane-2-carboxylate (Aldehyde C16)	77-83-8		---	Used as perfumery product	5(f)
21	methyl 3-(4-methoxy-4-methylpentyl)-3-methyloxirane-2-carboxylate (MMGE) OR methyl 3-methyl-3-(4-	274689-93-9 8500		--	Intermediate of API	5(f)

	methylpentyl)oxirane-2-carboxylate (RNGE)	6-31-1				
22	(*S*)-2-Pyrrolidinecarboxamide	85006-31-1		--	Intermediate of API	5(f)
23	Preparation of fluoro benzoyl chloride OR fluoro benzoic acid OR fluoro benzoic acid ester	393-52-2 445-29-4 403-33-8		180 mg/kg	It is used in the synthesis of polyphenylene ether and thioether ketones	5(f)
24	*N*-[2-Amino-6-[[4-fluorophenyl)methyl]amino]-3-pyridinyl]carbamic acid ethyl ester maleate	755077-68-5		--	used as a painkiller	5(f)
25	5-chloro-2-(6-methylpyridin-3-yl)-3-[4-(trideuteriomethylsulfonyl)phenyl]pyridine	202409-33-4		--	used to minimise inflammation	5(f)
26	Pottasium Fluoride	7789-23-3		245 mg/kg	used in etching glass, as a preservative, and as an insecticide	5(f)
27	Sodium Fluoride	7681-49-4		200 mg/kg	used to prevent cavities in teeth	5(f)
28	4-Fluorophenol Or 2-Fluorophenol	371-41-5		312mg/kg	used intermediate in the industrial production of pharmaceuticals cisapride	5(f)
29	3-Bromo Benzotrifluoride	401-78-5		2720 mg/kg		5(f)
30	Difluoronitrobenzene	446-35-5		200 mg/kg	useful as an intermediate for the synthesis of medicines and agrochemicals	5(f)
31	Fluoroanisole	321-28-8		--	Specialty Chemical	5(f)

32	Fluorobenzaldehyde Or Fluoro Benzoic Acid	459-57-4 456-22-4		1600 mg/kg	used as a synthetic intermediate	5(f)
33	Bromo Fluorobenzene	460-00-4		2700 mg/kg	It has uses as a precursor to some pharmaceuticals, as an agrochemical intermediate.	5(f)
34	Hexafluoro phosphoric acid	16940-81-1		--	used as a metal cleaner	5(f)
35	Borontrifluoride Diethylether	109-63-7		496 mg/kg	used as a reagent	5(f)
36	Phenylethyl Chloride	622-24-2		--	Specialty Chemical	5(f)
37	Dibenzo [b,f][1,4] Thiazepin-11-11(10H)-one	3159-07-7		--	Specialty Chemical	5(f)
38	6-Chloro-4-hydroxy-2-methyl-N-(2-pyridinyl)-2H-thieno[2,3-e][1,2]thiazine-3-carboxamide 1,1-dioxide	70374-39-9		--	used as a painkiller	5(f)
39	Preparation of 2H-1,3-benzodioxol-5-ol (Sesamol)	533-31-3		--	Paroxetine Intermediate	5(f)
40	5-Amino salicylic acid OR 3,6-dichloro salicylic acid OR 4-hydroxy salicylic acid OR Bon acid (3-Hydroxy naphthalene-2-carboxylic acid) OR 5-chloro salicylic acid OR 4-trifluoromethyl salicylic acid	89-57-6 3401-80-7 99-96-7 92-70-6 321-14-2 328-90-5		321 mg/kg	used to treat a certain bowel disease	5(f)

41	Preparation of 2, 3, 5, 6-Tetrafluorobenzyl alcohol	4084-38-2		--	used as a reagent in the synthesis of Metofluthrin	5(f)
Group 3						
42	Hydrogenation job work of aromatic and aliphatic pharma and specialty Compounds		400	--	used in soap perfumes & Specility Chemical	5(f)
43	2, 5 Di Chloro Aniline	95-82-9		1600 mg/kg	used in the accumulation of nitrite in the culture medium	5(f)
44	Pyridine 3 – aldehyde (3-Nicotinaldehyde)	500-22-1		2355 mg/kg	Specialty Chemical	5(f)
45	Preparation of 2-Methyl Pentanoic Acid	97-61-0		2500 mg/kg	used as an internal standard for gas chromatographic analysis of microbial end products	5(f)
46	Preparation of fluro benzyl alcohol OR fluoro benzyl chloride/ fluoro benzyl bromide	459-56-3 459-46-1		--	used as a general solvent for inks, waxes, shellacs	5(f)
47	Preparation of benzylidene acetone or benzyl acetone	122-57-6		2031 mg/kg	used as a flavouring ingredient in food and perfumes	5(f)
48	2-Fluoro Phenyl Acetic Acid Or 4-Fluoro Phenyl Acetic Acid	451-82-1 405-50-5		--	used as an intermediate	5(f)
49	2,4-Difluorobenzylamine	72235-52-0		669 mg/kg	used in the synthesis of N-fluoroarylmethyl	5(f)
50	N-methyl-D-glucamine (Meglumine) derivatives	6284-40-8		--	used in conjunction with iodinated compounds in industrial as well as pharmaceutical app	5(f)

					lications	
51	5- (N-ethyl-N-2-hydroxyethylamino) - 2 – pentylamine (KSM of Hydroxy chloroquine)	6955 9-11-1		--	useful synthetic intermediate	5(f)
52	R & D Product	--	0.5	--	--	
	Total	**--**	**550.5**	**--**	**--**	

The ToR has been issued by the Ministry, vide letter No IA-J-11011/430/2021-IA II (I); dated 21th October 2021. Public hearing is exempted as the Unit is located in Notified Industrial estate of GIDC Panoli. The PP reported that No litigation is pending against the proposal.

The PP reported that proposed land area of the project is 1706.9 m^2. Industry will develop Greenbelt in an area of 40% i.e., 684.86 m^2 out of total area. The estimated project cost is Rs. 4.490 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 0.499 Crores and the Recurring cost (operation and maintenance) will be about Rs. 0.830 Crores per annum. Employment will be of 15 nos. persons as direct and 10 nos. persons indirect for proposed project. Industry proposes to allocate of Rs. 18 Lakhs (approx.) in next 2 years towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance from the project site. River Narmada is flowing at distance of 13.25 Km in North direction. 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 10 locations during March, 2021 to May, 2021 and the baseline data indicates the ranges of concentrations as: PM10 (72.96 – 82.48 µg/m3), PM2.5 (40.48 – 47.08 µg/m3), SO2 (12.56 – 20.42 µg/m3) and NO2 (14.32 – 21.64 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.042 µg/m3, 0.098 µg/m3 and 0.036 µg/m3 with respect to SPM, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The PP reported that Total water requirement is 71.4 KL/Day of which fresh water requirement of 25.3 KL/Day and will be met from GIDC Water Supply. Total water requirement will be 71.4 KLD (Industrial: 67.4 KLD + Domestic: 2 KLD + Gardening: 2 KLD). Total wastewater generations will be 28.1 KLD (26.5 KLD Industrial + 1.6 KLD Domestic). Stream I: High COD effluent (13 KLD) will be passed through solvent stripper after that (12.9 KLD) treated effluent along with Cooling blow down (2 KLD) & Boiler blow down (3 KLD) will be treated in ETP giving Primary treatment after that (5.2 KLD) will be sent to Common Spray Dryer, Panoli and (12.7 KLD) will be sent to Common MEE. Stream II: Washing water (5.0 KLD) will be passed through RO system while (4.5 KLD) RO Permeate will be reused within premises and RO reject will be sent to Common MEE. Domestic Waste Water (1.6 KLD) will be treated in STP after that it will be Reused in Gardening. Scrubber media- 3.5 KLD wastewater will be sold under rule-9 permission.

The PP reported that Power requirement for proposed project will be 100 kVA will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Unit will have 1 No. DG sets of 125 kVA capacity is used as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG sets.

The PP reported that the Unit will have 1 Nos. Steam Boiler (1.5 TPH) & 1 Nos. D.G. Set (125 kVA) will be installed. Stack height will be installed as per CPCB norms for controlling the particulate emissions (within the statutory limit of 150 mg/Nm^3).

Details of Process emissions generation and its management:

Flue Gas Stack

S. No.	Source of Emission With Capacity	Stack Height (Meter)	Type of Fuel	Quantity of Fuel	Type of Emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1.	Steam Boiler (Capacity - 1.5 TPH)	20	Natural Gas	2000 SCM/Day	PM $\leq$150 mg/Nm^3 $SO_2 \leq$100 ppm NOx$\leq$50 ppm	Adequate stack height
2.	D.G. set (Capacity - 125 KVA)	11	Diesel	150 Liter/Day		Adequate stack height

Process Stack

S. No.	Vent attached to	Stack Height	Pollutants	Air pollution Control System
1	Process Vent-I	12 Meters	HBr/ HCl Br_2 / Cl_2	Two stage water +Alkali Scrubber
2	Process Vent-II	12 Meters	SO_2 HCl	Two stage water +Alkali Scrubber
3	Process Vent-III	12 Meters	NH_3 / NO_x	Two Stage Water Scrubber

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

Sr. no.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules 2016.	Total Quantity MT/Annum	Management of HW
1	Discarded/ Containers/ Barrels/ liners	Storage & handling of Raw Materials	SCH-I /33.1	200	Collection, Storage, Transportation, Decontamination & Disposal by selling to registered recycler.
2	Used/Spent oil	Equipment & Machineries	SCH-I /5.1	0.5 KL	Collection, Storage, Transportation and reused for Machine Lubrication / Given to GPCB registered reprocessor.
3	Sludge from ETP	ETP	SCH-I /35.3	65	Collection, Storage, Transportation and dispose to Landfill at TSDF.
4	Distillation Residue	Solvent Distillation	SCH-I / 29.1	500	Collection, Storage, Transportation and sell to co-processing or send to Common Incineration Facility.
5	Stripper Residue	Solvent Stripper	SCH-I /35.3	36	
6	Spent Catalyst	Process (Product No: 17, 23,29,30,36,41,43, 44,45,46,48,49,50)	Sch-I / 29.5	612	Collection, Storage, Transportation and send to regenerator.
7	Spent Carbon	Process (Product No: 24)	Sch-I / 28.3	52	Collection, Storage, Transportation and sent to co-processing / CHWIF.
8	Spent Solvent	Process (Product No: 2,	Sch-I / 28.6	70200	Collection, Storage, Transportation and Sold to solvent distillation unit

		5,7,10,12,18,41 ,42,49)			under Rule-9 or distilled within premises and reuse within premises.
9	Spent Acetic Acid	Process (Product No: 24)	Sch-I/ 28.1	180	Collection, Storage, Transportation and reused within premises or sell to end users having Rule-9 Permission.
10	Hydrochloric acid solution (30%)	Scrubber	SCH-II / B15	146	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9.
11	HBr Solution	Scrubber	Sch-I / 29.6	2400	
12	Sodium Sulphate	Process (Product No: 2,4)	Sch-I / 29.1	2700	
13	NaBr Solution	Scrubber	Sch-I / 29.6	2800	

The PP reported that total emission will be 20.25 ton of CO_2 per annum with waste treatment, 179.6 ton of CO2 per annum from Transport related load and 472.32 ton of CO2 per annum from Electrical Load of the plant. Therefore, Total Carbon Footprint will be 671.07 ton of CO2 per Annum from the plant.

The unit will install 20 KW of Solar Panel, So Carbon Foot print will be reduce from 472 Ton to 354 Ton Co2 Equivalent. After Developing 172 No. of trees within plant premises, Carbon Foot print will be reduce 181.91 Tonnes due to In-house Greenbelt. And additionally 350 No. of trees will be develop in the Umarwada Village, Carbon Foot print will be reduce 373 tonnes due to outside greenbelt. Therefore, the Company will sequesterate carbon up to 672.91 Ton per Annum through the plantation and solar system.

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 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, Life Cycle analysis, revised water balance, CER activity, safety measures taken and found satisfactory. The EAC also deliberated the Schedule-I conservation plan and its implementation schedule and found the plan 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/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 project proponent shall comply with the environment norms for 'Organic Chemical Industry' and 'Pesticide Industry' as notified by the Ministry of Environment, Forest and Climate Change, *vide* GSR 608(E), dated 21.07.2010 and GSR 446 (E), dated 13th June 2011 respectively under the provisions of the Environment (Protection) Rules, 1986.

(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). 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). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no treated/untreated waste water shall be discharged outside the premises. 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). 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 25.3 KL/Day. 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 Briquettes as a first priority (Primary Fuel) and incase of unavailability, the Unit will use coal as an alternative fuel.

(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 vapor 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 40% of the total project area (@2500 Tress/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.

(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 EIA 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. 29.13

Setting up of Pesticides and pesticide specific intermediates & Synthetic Organic Chemicals of capacity 201480 TPA and Co-Generation Power Plant of 4.9 MW, located at Plot no. 41/1, GIDC Notified Industrial Estate, Jhagadia 393110, District Bharuch, Gujarat by M/s Aarti Industries Limited-consideration of Environmental clearance.

[Proposal No. IA/GJ/IND3/236925/2021, F. No. IA-J-11011/458/2021-IA-II(I))]

The Project Proponent and the accredited Consultant [M/s Eco Chem Sales and Services [Accreditation number NABET/EIA/2023/RA0181 validity till 03 Feb 2023] made a detailed presentation on the salient features of the project and informed that:

The proposal is for Environmental Clearance to the setting up of Pesticides and pesticide specific intermediates & Synthetic Organic Chemicals project with proposed capacity of 201480 TPA and Co-Generation Power Plant of 4.9 MW, located at Plot no. 41/1, GIDC Notified Industrial Estate, Jhagadia 393110, District Bharuch, Gujarat by M/s Aarti Industries Limited.

The project/activity is covered under Category 'A' of item 5(b) and 5(f) 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 are as under:

S. No.	Product	CAS Number	Quantity (TPA)	End use/ application	LD50
1. Pesticides and pesticide specific intermediates (excluding formulations)					
1	Fomesafen	72178-02-0	1000	Pesticides	Oral (rat) LD50: 1250 mg/kg
2	Prodiamine	29091-21-2	3000	Pesticides	Oral(rat) LD50

			(either/or)		:5000 mg/kg
3	Diflufenican	83164-33-4		Pesticides	Oral(rat) LD50 :2000 mg/kg
4	Oxyfluorfen	42874-03-3		Pesticides	Oral(rat) LD50 :5000 mg/kg
5	Triflumuron*	64628-44-0		Pesticides	Oral(rat) LD50 :5000 mg/kg
6	Metolachlor	51218-45-2	16000	Pesticides	Oral(rat) LD50 :2780 mg/kg
7	Mesotrione	104206-82-8	3000 (either/or)	Pesticides	Oral(rat) LD50 D>2000 mg/kg
8	Diafenthiuron	80060-09-9		Pesticides	Oral(rat) LD50 :2068 mg/kg
9	Aclonifen	74070-46-5		Pesticides	Oral(rat) LD50 :5000 mg/kg
10	Chlorothalonil	1897-45-6		Pesticides	Oral(rat) LD50 :10000 mg/kg
11	Dicamba	1918-00-9	16000	Pesticides	Oral(rat) LD50 :1707 mg/kg
12	Diquat dibromide	85-00-7	4000	Pesticides	Dermal (rat) LD50: 750 mg/kg (R-Pubchem MSDS)
13	Diuron	330-54-1	8000	Pesticides	Oral (rat) LD50: 3400 mg/kg
14	Bromoxynil	1689-84-5	2000 (either/or)	Pesticides	Dermal (rat) LD50:190 mg/kg
15	Bromoxynil Octanoate	1689-99-2		Pesticides	Dermal (rat) LD50: 245 mg/kg (P-MSDS)
16	Bromoxynil Heptanoate	56634-95-8		Pesticides	Oral(rat) LD50: 359 mg/kg

17	Mecoprop-P (MCPP)	16484-77-8	2100 (either/or)	Pesticides	Oral(rat) LD50: 1050 mg/kg
18	4-Chloro-2-methylphenoxyacetic acid (MCPA)	94-74-6		Pesticides	Oral(rat) LD50: 700 mg/kg
19	Salicyl-aldehyde	90-02-8		Pesticides	Oral(rat) LD50: 520 mg/kg (P-MSDS)
20	4-Methyl-2-hydrazino benzothiazole (HMBT)	20174-68-9	3000	Pesticides	Oral(rat) LD50: 697 mg/kg
21	1,3-diisopropyl-2-isothiocyanato-5 phenoxybenzene (DIPPI)	80058-93-1	2000	Pesticides	Oral(rat) LD50: 125 mg/kg
Total Pesticides and pesticide specific intermediates (excluding formulations)			**60100**		
2. Synthetic Organic Chemicals					
1	Anthraquinone	84-65-1	3000	Pharma intermediate, Colorant intermediate	
2	1- Nitro Anthraquinone	82-34-8	2000	Colorant intermediate	
3	1- amino anthraquinone	82-45-1	1500	Colorant intermediate	
4	Bromamine Acid	116-81-4	4000	Colorant intermediate	
5	1,4 dihydroxy anthraquinone	81-64-1	1000 (either/or)	Colorant intermediate	
6	1,8 dinitro -4,5 dihydroxy anthraquinone	39003-36-6		Colorant intermediate	
7	Beta naphthol	135-19-3	25000	Pharma intermediate, Colorant intermediate	
8	BON Acid	92-70-6	4000	Pharma intermediate, Colorant intermediate	
9	Tobias Acid	81-16-3	4000	Colorant intermediate	

10	Alpha Naphthol	90-15-3	1000	Pharma intermediate
11	Cyclohexanone*	108-94-1	20000	Pharma intermediate, Colorant intermediate
12	6 hydroxy 2 naphthoic acid	16712-64-4	2000	Pharma intermediate
13	Benzoic acid	65-85-0	10000	Pharma intermediate, Colorant intermediate
14	Sodiumbenzoate	119-61-9	15000	Pharma intermediate
15	Benzoylchloride	98-88-4	3000	Pharma intermediate, Colorant intermediate
16	N-Tertiarybutyl-2-benzothiazole sulfennamide (TBBS)	95-31-8	10000 (either/or)	Rubber Intermediate, Food Chemical Intermediate
17	N-cyclohexyl-2-benzothiazolesulfenamide (CBS)	95-33-0		Rubber Intermediate, Food Chemical Intermediate
18	2,2,4-Trimethyl-1,2-dihydroquinoline (TMQ)	26780-96-1	2400	Rubber Intermediate, Food Chemical Intermediate
19	N-1,3-Dimethylbutyl-N -phenyl-pphenylenediamine (6 PPD)	793-24-8	8000	Rubber Intermediate
20	O-tolyl benzonitrile	114772-53-1	3000 (either/or)	Pharma intermediate
21	2 cyano-4-bromo methyl biphenyl	114772-54-2		Pharma intermediate
22	2,4,5 trifluorobromobenzene	327-52-6	1000 (either/or)	Pharma intermediate
23	3,4,5 trifluorobromobenzene	138526-69-9		Pharma intermediate
24	dibromo - tri-fluoromethoxy aniline	88149-49-9		Pharma intermediate

25	L-Menthol*	2216-51-5	9000 (either/or)	Pharma intermediate	
26	Vitamin E	59-02-9		Pharma intermediate	
27	Thymol	89-83-8		Pharma intermediate	
28	1,4-Dihydroxy-2,3,5-trimethylbenzene (2,3,5-TMHQ)	700-13-0		Pharma intermediate	
29	M-hydroxy benzoic acid	99-06-9		Pharma intermediate	
30	DL-Menthol*	89-78-1		Pharma intermediate	
31	2,6-Diisopropylaniline	24544-04-05	2000 (either/or)	Specialty Chemical intermediate	
32	2-Isopropylaniline*	643-28-7		Pharma intermediate	
Total Synthetic organic chemicals			**130900**	**--**	
*** Indicates have Co product**					
3. List of Co products					
S. No.	**Product**	**CAS Number**	**Quantity (TPA)**	**End use/ application**	**LD50**
1	1H-imidazole	288-32-4	1680	Pesticides	Oral(rat) LD50: 970 mg/kg
2	Cyclohexanol	108-93-0	700	Polymers	--
3	D-Menthol	15356-60-2	3780	Pharma intermediate	
4	Isomenthol	3623-52-7	1620	Pharma intermediate	
5	Neomenthol	2216-52-6	2700	Pharma intermediate	
Total Co products			**10480**		
Total 1+2+3			**201480**		
4	**Co-Generation Power Plant (1 No.)**		**4.9 MW**	Captive use	

The ToR has been issued by the Ministry, vide letter No..J-11011/458/2021-IA-II(I) dated 16.11.2021. The public hearing for the proposed project is exempted as it is located in Notified Industrial Estate, Jhagadia. No Litigation is Pending against the proposal.

The PP reported that Proposed land area of the project is 112435 m^2. Industry will develop greenbelt in an area of 33% i.e. 37166 m^2 out of total area of the project. The estimated project cost is Rs.1669.80 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs 87Crore and the Recurring cost (operation and maintenance) will be about Rs. 165 Crore. Total employment will be 150 persons as direct. Industry proposes to allocate Rs. 10.15 Crore towards CER.

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 and submitted by the Consultant accredited by the NABET on behalf of the Project Proponent.

The Committee noted during the appraisal that Green belt plan was not as per the norms specified by CPCB. The committee noted that PP had not adequately prepared onsite emergency plan and mitigation measures to be adopted during implementation of the project. The carbon sink/carbon sequestration data was not satisfactory.

The Committee, after detailed deliberations, **deferred** the proposal and desired for requisite information/inputs in respect of the following:

(i). The PP should revise the greenbelt plan (with ~2500 trees/ha) along with budgetary allocations and timelines. EAC noted that since this is an existing Unit. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. 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.

(ii). The Project proponent shall revise 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.

(iii). The PP should submit the revised water balance with improvement in recycle/reuse and revise water scheme accordingly.

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

(v). The EAC noted that there is availability of Natural gas in the area, then why PP want to use Coal as a fuel ?. Please justify the reason. Also the PP needs to explore the possibility to use of bio fuel/briquettes in place of coal.

(vi). The EAC noted that PP has not presented the Life Cycle Analysis Study which was already communicated through Agenda. In this regard, PP needs to rework and submit the same for appraisal of the EAC.

(vii). Details of carbon content of Soil and study w.r.t. microbial flora needs to be submitted as deliberated during the EAC meeting.

(viii). The PP should revise the Schedule-I species conservation plan as suggested by the EAC.

The proposal was accordingly ***deferred*** for the needful.

Consideration of Amendment/Modification in Environmental Clearance

Agenda No. 29.14

Proposed Pesticides Technical and Pesticides Intermediates manufacturing plant at plot no. DP - 154, GIDC- Chemical Zone, Saykha-II, Tal: Vagra, Dist: Bharuch, Gujarat by M/s Dharmaj Crop Guard Ltd. (Unit-II) – Amendment in Environment Clearance

[Proposal No. IA/GJ/IND3/259776/2022, F. No. IA-J-11011/419/2019-IA-II(I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter no. IA-J-11011/419/2019-IA-II(I), dated 25.01.2021 for the project of Pesticide Technical and Pesticide Intermediates manufacturing plant at Plot No. DP - 154, GIDC-Chemical Zone, Saykha-II, Tal: Vagra, Dist: Bharuch, Gujarat in favour of M/s. Dharmaj Crop Guard Ltd. (Unit-II).

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

S. No.	Para of EC issued by MoEF&CC	Details as per EC	To be revised/read as	Justification/ Reasons by PP
1.	Sr. no. 6, pg no. 5 of 11	Total fresh water requirement is estimated to be **450 cum/day**, which is proposed to be met from GIDC water supply. Effluent of 400 cum/day shall be treated through comprehensive effluent treatment comprising of Fenton Treatment, in-house MEE, SBT, Primary Treatment of ETP. Treated water of 375 cum/day shall be sent	Total fresh water requirement is estimated to be **500 cum/day**, which is proposed to be met from GIDC water supply. Effluent of 400 cum/day shall be treated through comprehensive effluent treatment comprising of Fenton Treatment, in-house MEE, SBT, Primary Treatment of ETP. Treated water of 375 cum/day shall be sent	50 KLD water consumption will increased due to increase in the capacity of boiler.

		to CETP Saykha for final treatment & disposal. Domestic wastewater of 10 KLD will be disposed through Septic Tank/ Soak Pit.	to CETP Saykha for final treatment & disposal. Domestic wastewater of 10 KLD will be disposed through Septic Tank/Soak Pit.	
2.	Page no-6 of 11, para-3	Unit shall install one **Natural Gas** fired Steam Boiler (8 TPH), one **Natural Gas based** Thermopack (2 x 1000 U) and 2 D. G. Sets (Diesel-200 Liter/Day). Stack of height of 11 m will be installed for controlling the particulate emissions within statutory limit of 150 mg/Nm^3	Unit shall install one **Agro Briquettes (88 TPD)/Coal (78 TPD)** fired Steam Boiler (20 TPH), one **Agro Briquettes (20 TPD)/ Coal (17.5 TPD)** based Thermopack (2 x 1000 U) and 2 D. G. Sets (Diesel-200 Liter/Day). Stack of height of 40 m (For boiler), 21 m (for Thermopack and 11 m (for D G Set) will be installed for controlling the particulate emissions within statutory limit of 150 mg/Nm^3	PP reported that project need continuous and uninterrupted steam requirement in process to maintain reaction parameters. At the time of application of EC, we assumed that we will obtain un-interrupts Natural Gas supply. Now Supply of Gas is also irregular and Gas price is also too high and we are unable to get viability of project. Viability chart of **Agro Briquettes/Coal is given in addendum of EIA report.** In such situation, our humble request to give the amendment for change in fuel from Natural Gas to **Coal/Agro Briquettes.** We commit to give first priority to use **Agro Briquettes** as fuel and consume coal only during unavailability of briquette as fuel. We will install ESP as air pollution control measure with Boiler & Thermopack. The unit always sticks to the

				use of low Sulphur content (<0.5%) Coal is used in the plant. In addition to above, we need to increase capacity of boiler from **8 TPH to 20 TPH**. Proposal of **8 TPH boiler which was our mistake to proposed.** This is due to precise calculation to meet maximum production as granted by MoEFCC.

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.

The EAC noted that, PP requested to amend the Environmental Clearance with respect total and fresh water requirement, and fuel requirement for Boiler. i.e. Agro Briquettes/Coal shall be used in place of Natural Gas.

The EAC suggested deliberated on the fuel requirement for Boiler and fresh water requirement and opined that change in the configuration of the boiler and fuel may increase the pollution load from the unit. EAC noted that there is availability of natural gas in the area then why PP want to change the fuel ?. Further Natural gas is considered clean because unlike other fuel, natural gas emits very less byproducts into the atmosphere as pollutants. Therefore, the request of PP was not accepted by the EAC in the amendment category.

The proposal was accordingly ***returned*** in the present form.

Consideration of Terms of Reference

Agenda No. 29.15

Formaldehyde manufacturing unit with Production capacity of 80 MTPD, located at village Kohand, Tehsil - Gharaunda, District: Karnal, Haryana by M/s JRS Industries – Consideration in TOR- Violation Case submitted by Project Proponent on Parivesh Portal on 02.04.2022 – Consideration of TOR proposal

(Hon'ble Supreme Court order dated 07.02.2022 in the matter of CIVIL APPEAL NO. 448 OF 2022, JRS INDUSTRIES V/s VINEET NAGAR & ORS.)

[Proposal No. IA/HR/IND3/ 265667/2022; File No. IA-J-11011/172/2021-IA-II(I)]

The project proponent and the accredited consultant [M/s SBA Enviro Systems Pvt. Ltd. Consultants having accreditation number NABET/EIA/2023/ RA0198 valid till 24.5.2023] has made a detailed presentation on the salient features of the project and informed that:

The proposal is for Terms of Reference (ToR) for Formaldehyde manufacturing unit with Production capacity of 80 MTPD, located at village Kohand, Tehsil - Gharaunda, District: Karnal, Haryana by M/s JRS Industries

The Existing plant was established based on Consent to Establish granted vide file no. HSPCB/Consent/313096618KARCTE5628233 dated 14.9.2018 without prior Environmental clearance, thus the Project has violated the provisions of the EIA Notification, 2006.

Production Capacity

Product	Existing Capacity	Proposed Capacity	Total Capacity
Formaldehyde	80 MTPD	80 MTPD	80 MTPD

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 that the existing land area is 4375.62 sq.m. The existing plant was established after the grant of Consent to Establish (CTE) by Haryana State Pollution Control Board (HSPCB) vide File No. HSPCB/Consent/313096618KARCTE5628233 dated 14.09.2018. HSPCB passed an order vide Order No. HSPCB/HWM/31-306/2020/1044 dated 27.08.2020 revoking the CTE of the unit as the PP was operating the manufacturing unit in violation of the conditions of the CTE under Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 and without obtaining prior-EC from Ministry of Environment, Forests & Climate Change (MoEF&CC). The fixed cost for the existing project is Rs. 325.13 Lakhs which includes land, building, plant & machinery

The PP reported that the Total water requirement is 56 KLD for the production 80 MTPD Formaldehyde, 52.5 KLD for industrial use, 0.5 KLD for domestic purpose and 3 KLD for greenbelt plantation. NOC for Groundwater abstraction from HWRA will be obtained before the re-commencement of manufacturing activities

Details of Violation:

Period	Production	Remarks
August, 2018- August, 2020	Formaldehyde Manufacturing (80 MTPD)	Prior EC was not taken before setting up and operating the Unit, hence covered under violation of the provisions of the EIA Notification, 2006

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

(iv) 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.

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.

The Member Secretary further informed to Committee that the instant matter was placed before the EAC, in pursuance of the directions given by the Hon'ble Supreme Court order dated 07.02.2022 for the Original Application No. 4480f 2022 (JRS Industries Vs. Vineet Nagar & Ors.) concluded "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".

Accordingly, the proposal was placed before the EAC Meeting held on **March 7-8, 2022 wherein the EAC had deferred the proposal**. Detailed deliberations of EAC Meeting held on March 7-8, 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 on 2nd April 2022, the proposal was again placed before the instant EAC meeting held during April 11-12, 2022.**

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.

(i) 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).

(ii) 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.

(iii) 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.

(iv) 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.

(v) 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.

(vi) 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.

(vii) 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

(viii) Direction to be issued by SPCB under section 5 of the Environment (Protection) Act, 1986 to stop the violating activities till the EC is obtained.

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

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

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

(xii) The PP should develop Greenbelt 2500 saplings/ha, 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.

(xiii) 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. 29.16

Existing Formaldehyde manufacturing unit with capacity of 60 TPD by M/s NMR Phyrochem Pvt. Ltd., located at village Pundri, Tehsil - Gharaunda, District: Karnal, Haryana – Consideration of TOR- Violation Case submitted by Project Proponent on Parivesh Portal on 02.04.2022- Consideration of TOR

[Proposal No. IA/HR/IND3/ 265704/2022; File No. IA-J-11011/47/2022-IA-II(I)

The project proponent and the accredited consultant M/s SBA Enviro Systems Pvt. Ltd., Consultants having accreditation number NABET/EIA/2023/ RA0198 valid till 24.5.2023 has 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 capacity of 60 TPD., located at village Pundri, Tehsil - Gharaunda, District: Karnal, Haryana by M/s NMR Phyrochem Pvt. Ltd

The Existing plant was established based on Consent to Establish granted vide file no. HSPCB/Consent/313282118KARCTE5150340, Dated- 05/04/2018 without prior Environmental clearance, thus the Project has violated the provisions of the EIA Notification, 2006. Haryana State Pollution Control Board has issued a closure order to the unit vide letter no HSPCB/YMN/2020/175 dated 22.01.2020 to close down the operation, for violating the section 31A of Air (Prevention & Control of Pollution) Act, 1981 and 33-A of Water (Prevention & Control of Pollution) Act 1974 by manufacturing Formaldehyde without obtaining prior Environmental Clearance under EIA Notification 2006.

Production Capacity

Product	Existing Capacity	Proposed Capacity	Total Capacity
Formaldehyde	60 TPD	60 TPD	60 TPD

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 that the existing land area is 2318 sq.m and built up area is 1068 sq.m. The fixed cost for the existing project is Rs. 2.81 Crore which includes land, building, plant & machinery

The PP reported that the Total water requirement is 40.0 KLD for the production 60 TPD Formaldehyde, 37.5 KLD for industrial use (which include 36 KLD for process & 1.5 KLD) for cooling tower, 0.5 KLD for domestic purpose and 2KLD for greenbelt development. The water requirement will be fulfilled through groundwater abstraction and necessary permission from HWRA shall be obtained

Details of Violation:

Period	Production	Remarks
April 2018-January 2020	Formaldehyde Manufacturing (60 TPD)	Prior EC was not taken before setting up and operating the Unit, hence covered under violation of the provisions of the EIA Notification, 2006

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

(iv) 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 on 2nd April 2022, the proposal was again placed before the instant EAC meeting held during April 11-12, 2022.**

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) Direction to be issued by SPCB 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) PP should develop Greenbelt 2500 saplings/ha, 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.

Agenda No. 29.17

Existing Formaldehyde Manufacturing Unit with capacity of 60 TPD by M/s Decent Drugs Pvt. Ltd., located at Salempur Bangar road, Village- Chhachhrauli, District Yamuna Nagar, Haryana– Consideration of TOR- Violation Case submitted by Project Proponent on Parivesh Portal on 01.04.2022- Consideration of TOR Proposal

[Proposal No. IA/HR/IND3/ 265505/2022; File No. IA-J-11011/48/2022-IA-II(I)]

The project proponent and the accredited consultant M/s SBA Enviro Systems Pvt. Ltd., Consultants having accreditation number NABET/EIA/2023/ RA0198 valid till 24.5.2023 has 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 capacity of 60 TPD by M/s Decent Drugs Pvt. Ltd., located at Salempur Bangar road, Village- Chhachhrauli, District Yamuna Nagar, Haryana by M/s Decent Drugs Pvt. Ltd

The existing plant was established based on CTE granted vide File No. HSPCB/YMN/2009/10901, Dated- 21.01.2009 HSPCB has issued closure order vide no HSPCB/PC/2019/2305-2308 dated 9.09.2019 under section 33-A of the Water Act, 1974 & under section 31-A of Air (Prevention & Control of Pollution) Act, 1981 due to not obtaining Environmental clearance and violated the provisions of consent policy of Board.

PP reported that As per EIA Notification 2006 and its subsequent amendments the project falls under schedule 5 (f) “Synthetic Organic chemical Project”. This project was established after EIA Notification 2006 without securing Environmental Clearance; hence the project has violated the conditions of said Notification. Considering this, we are applying the proposal as per SOP released by MoEF&CC dated 7th July 2021 vide File No. 22-21/2020-IA.III under EAC (Violation)

Production Capacity

Product	Existing Capacity	Proposed Capacity	Total Capacity
Formaldehyde	60 TPD	60 TPD	60 TPD

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 that Total area of the existing project is 4046.86 sq.m of land, out of which 2023.43 sq. meters of area is used for installation of manufacturing unit and other utility facilities. The land is on lease with Decent Drugs Pvt. Ltd. The Unit has 1003.40 sq. m. of total land area as green belt development, which is almost 50% of the unit area. Total gross cost for the project was 1.23 Crore.

The PP reported that the Total water requirement is 40.0 KLD for the production 60 TPD Formaldehyde, 39.5 KLD for industrial use which include 38 KLD for process & 1.5 KLD for cooling tower, 0.5 KLD for domestic purpose. The water is supplied by Public Health Engineering Department, Haryana

Details of Violation:

Period	Production	Remarks
January 2009 September 2019	Formaldehyde Manufacturing (60 TPD)	Prior EC was not taken before setting up and operating the Unit, hence covered under violation of the provisions of the EIA Notification, 2006

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

(iv) 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.

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 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 on 1st April 2022, the proposal was again placed before the instant EAC meeting held during April 11-12, 2022.**

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) Direction to be issued by SPCB 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) PP should develop Greenbelt 2500 saplings/ha, 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

Agenda No. 29.18

Setting up of Formaldehyde (200 TPD) and Melamine Formaldehyde Resin (100 TPD), by M/s Kuber Industries, Located at Khewat no. 124, Khasra no. 51/2/2, 51/9/2, 51/12/2, VPO Kohli, Tehsil- Mandi Adampur, District- Hisar, Haryana–Consideration of TOR Proposal

[Proposal no. IA/HR/IND3/ 265502/2022; File No. IA-J-11011/78/2022-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 to the project for Setting up of Formaldehyde (200 TPD) and Melamine Formaldehyde Resin (100 TPD), Located at Khewat no. 124, Khasra no. 51/2/2, 51/9/2, 51/12/2, VPO Kohli, Tehsil- Mandi Adampur, District- Hisar, Haryana by M/s Kuber Industries,

The details of products and capacity are as under:

S.No.	Proposed Products	CAS No.	Capacity (TPD)	Uses
1	Formaldehyde	50-00-0	200	• It is used in pressed-wood products, such as particleboard, plywood, and fiber board; glues and adhesives; permanent-press fabrics; paper product coatings; and certain insulation materials. • It will also use in-house for the production of Melamine

				Formaldehyde Resin
2	Melamine Formaldehyde Resin	9003-08-1	100	• It is used in plywood and particleboard adhesives, laminated countertops and table-tops, dishwasher-safe tableware, and automotive surface coatings.

As per the provision of "EIA Notification No. S. O. 1533 (E)" dated 14.09.2006 as amendments thereto; the proposed project is listed at S.N. 5 (f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and to be appraised at Central Level by Expert Appraisal Committee (EAC) as the proposed Unit is located outside of the Industrial area. PP reported that the project is green field and no activity in the site has started. The activity will start only after taking necessary clearances under the various Acts/Rule.

PP reported the total land area for the proposed project is 8346.83 Sq.m. The land in under possession of M/s Kuber Industries. The land was sold to M/s Kuber industries by Omapati etc. and registration of sale deed was obtained vide certificate no. HAW2018HQ on dated24.08.2018. The project site is located outside the Urban Areas/Controlled Areas and NOC has been received by Directorate of Town & Country Planning, Haryana for setting up industrial unit by letter no. - 129265/2021/TCP-OFA/1366/2021 on dated 17.07.2021 Total employment will be 24 persons. The estimated project cost is Rs.10.0 Crores.

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. Kishangarh Sub-Branch canal is flowing at 2.61 km in SE direction. The Toposheet number of the project site is H43P7, H43P8, H43P11 & H43P12

Total Fresh water requirement is 160 m^3/day sourced from Ground water Application to withdraw ground water has been submitted to HWRA vide no. HWRA/IND/N/2022/3548 dated 14.03.2022.

Power requirement for the proposed project is 400 KVA and will be met from Uttar Haryana Bijli Vitran Nigam Ltd. (UHBVNL). DG sets of (1 no.) 500 KVA will be used as standby during power failure. Stack of (6 m above building) will be provided as per CPCB norms to the proposed DG sets.

Proposed unit will install 1.0 TPH &0.5 TPH HSD fired Boiler. Boiler with a 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.

Deliberations in the EAC:

The EAC deliberated on the proposal. The Committee deliberated water recycling plan, green belt development plan and other uses of other pollution control devises for mitigation of air, water and noise pollution. Based on the KML file presented by the PP, the proposed Unit is green filed project and no activities on the site started and no violation case is observed.

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

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

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

(iv) PP should conduct Public Hearing and all issues should be addressed in the EIA/EMP.

(v) PP should develop Greenbelt 2500 saplings/ha, 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 ae tolerant to air pollution. Trees have to be planted with spacing of 2m x 2m and number of trees has to be calculated accordingly.

(vi) 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.

****

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.

***

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 NH3*,chlorine*,HCl*,HBr*,H2S*,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.

***

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	EAC Chairman
2.	**Dr. Ashok Kumar Saxena, IFS** Bunglow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
3.	**Prof. (Dr.) S. N. Upadhyay** Research Professor(Hon.), Department of Chemical Engineering & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi E-mail:snupadhyay.che@iitbhu.ac.in	Member
4.	**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

***

Annexure-III

Approval of EAC Chairman

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

Re: Zero Draft Minutes of the 29th EAC (Industry 3 Sector) meeting held during April 11-12, 2022 (through Video Conferencing) for approval of the Chairman

From : ab pandit <ab.pandit@ictmumbai.edu.in> **Thu, Apr 21, 2022 06:46 PM**

Subject : Re: Zero Draft Minutes of the 29th EAC (Industry 3 Sector) meeting held during April 11-12, 2022 (through Video Conferencing) for approval of the Chairman

To : Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in>

Dear Dr. Lal,

Please do find attached the signed minutes of the meeting.

Thanks and with warm Regards
Pandit

Minutes Approved by Prof A B Pandit

(Prof A B Pandit)