

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

Dated: 22.12.2021

MINUTES OF THE 22nd EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON DECEMBER 15-16, 2021

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

Time: 10:30 AM onwards

DAY 1: DECEMBER 15, 2021

(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 21st Meeting of the EAC (Industry-3 Sector) held during November 29, 2021 at MoEFCC through VC.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (Industry-3 Sector) members on the minutes of its **21st Meeting of the EAC (Industry-3 Sector) held during November 29, 2021** conducted through Video Conferencing (VC), and as such no request has been received for modifications, in the minutes of the project/activities, **confirmed the same.**

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

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

Consideration of Environmental Clearance Proposals

Agenda No. 22.1

Setting up of Synthetic Resins manufacturing unit with production Capacity of 48800 TPA located at Plot No A- 8/3, SIPCOT Industrial Complex, Village Thervoy Kandigai, Taluk Gummidipoondi, District Thiruvallur, Tamil Nadu by M/s Star Industries - Consideration of Environmental Clearance

[Proposal no. IA/TN/IND3/234923/2021; File No. No. IA-J-11011/217/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Hubert Enviro Care Systems (P) Ltd, having accreditation number **NABET/EIA/1922/RA0172 valid till 13.10.2022** made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of Synthetic Resins manufacturing unit with production Capacity of 48800 TPA located at Plot No A- 8/3, SIPCOT Industrial Complex, Village Thervoy Kandigai, Taluk Gummidipoondi, District Thiruvallur, Tamil Nadu by M/s Star Industries.

The details of products and capacity as under:

S. No.	Products	Capacity in TPA
1.	Distilled Fatty Acid	8000
2.	Acrylic Resin	1800
3.	Polyester Resin	10000
4.	Alkyd Resin	18000
5.	Polyamide Resin	1800
6.	Rosin Modified Resin	1200
7.	CNSL Resin	2400
8.	Epoxy Resin Solution	1600
9.	Hydrocarbon Solvents	4000
	Total	48800

The project comes under Item 5(f) of the Schedule, as Category A, as per EIA Notification 2006 and its subsequent amendments and due to applicability of general Condition-Tamil Nadu-Andhra Pradesh Interstate boundary within 5 km radius i.e.~3.55km, WNW direction) and are appraised by Central Level by Expert Appraisal Committee (EAC).

The Standard ToR was granted vide letter dated 8th June, 2021. Public Hearing for the proposed project has been exempted since the proposed unit is located inside the Notified Industrial Estate/area (Thervoykandigai SIPCOT Industrial Park).

The proposed project will be established in a land area of 17806.16 Sqm. Industry will develop greenbelt in an area of 38.85 % i.e.,6917.3 m²(1.709 Acres). The estimated project cost is Rs.9.0 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs.1.88 Crore and the Recurring cost (operation and maintenance) will be about Rs.18.00 Lakh per annum. Total Employment will be 35 persons as direct and 15 people as indirect. Industry proposes to allocate Rs. 18 Lakh towards CER.

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. Lake near Teruvai ~0.55km (NNE), KKTK Reservoir~ 0.97km (NNW), Canal near Sengarai ~2.26km (S), Canal near Karadiputtur ~2.81km (WNW), TG/Satya Sai Ganga Canal ~5.72km (W), Arani River ~7.17km (SSE), UttukkottaiEri ~7.58km (WSW), Lake near Vadamadurai ~8.80km (SE), Pallavada Lake ~10.59km (NNE), NNE, Lake near Arani ~12.35km (ESE) and Korttalaiyar River ~ 14.34 km (SSE). It is informed that no litigation is pending against the proposal.

The Ambient air quality monitoring was carried out at 8 locations during January to April, 2021 and average baseline data indicates the ranges of concentrations as PM10 (56.65 $\mu\text{g}/\text{m}^3$ –86.89 $\mu\text{g}/\text{m}^3$), PM2.5 (31.64 $\mu\text{g}/\text{m}^3$ -52.24 $\mu\text{g}/\text{m}^3$), SO₂ (8.21 $\mu\text{g}/\text{m}^3$ -16.42 $\mu\text{g}/\text{m}^3$), NO₂ (20.8 $\mu\text{g}/\text{m}^3$ -37.24 $\mu\text{g}/\text{m}^3$). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 15.88 $\mu\text{g}/\text{m}^3$, 4.20 $\mu\text{g}/\text{m}^3$ and 29.69 $\mu\text{g}/\text{m}^3$ with respect to PM10, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS), however, the concentration of PM 10 and PM2.5 will breach the standard limit when the project will start operating.

PP reported that total water requirement is 64.9 KLD of which fresh water requirement of 47.1KLD will be met from SIPCOT and the recycle water of 17.8 KLD will be sourced from ETP (Effluent Treatment Plant)/RO (Reverse Osmosis)/MEE (Multi Effect Evaporator) ATFD (Agitated Thin Film Dryer) condensate and STP Treated sewage. Effluent of 15 KLD will be treated through proposed ETP with capacity of 20 KLD along with RO and MEE & ATFD. The plant will be based on Zero Liquid Discharge system (ZLD).

Power requirement will be 400 kVA will be met from TANGEDCO. Additionally, 1x380 kVA DG set will be used as the standby during power failure. Adequate Stack height (12 m AGL) will be provided as per CPCB norms. 1x10 & 1x20 Kcal/Hr TFH & 2x3.0 TPH boiler will be installed. Cyclone dust collector 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 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.

The EAC noted that the water treatment scheme adopted by consultant was not satisfactory. EAC also noticed several deficiencies in the proposal (viz. pollution load prediction, poor EMP, process flow, mass balance, waste water treatment plan, green belt plan etc.) and PP/Consultant could not explain 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 have to be increased accordingly. Further the quality of EIA/EMP and the presentation of the consultant were very poor.

The Committee deliberated the issues related to pollution and conservation of environment. The Committee after, detailed deliberation, **returned** the proposal for revisions of the application as per provisions of the EIA Notification, 2006.

The PP was advised to revise the application with justification and resubmit it along with the following information:

- (i) PP mentioned incremental pollution load is Not Applicable. The details pertaining to these need to be quantified and resubmitted.
- (ii) Process flow diagram with mass balance needs to be revised.
- (iii) Detailed conservation plan for Schedule-I species and status of approval needs to be submitted.
- (iv) Revised greenbelt plan (spacing of 2m x 2m and number of trees have to be increased accordingly) along with timelines and budgetary allocations.
- (v) PP should revise the emission table and pollution load too needs to be submitted.
- (vi) PP should commit for the steps under NCAP for ambient air quality. Details of process emissions and fugitive emission and its action plan for mitigation measures needs to be submitted.
- (vii) Briquettes may be used instead of coal for the proposed Boiler & other utilities except DG Set.
- (viii) Details of Onsite emergency plan as per provisions of the MSIHC Rules need to be submitted.
- (ix) **EAC noted that the presentation and the Reports made by the Consultant are inadequate and are of poor. The Committee warned the Consultant asked him to rework and resubmit the reports as per provisions of the EIA Notification, 2006 as most of the documents are not legible.**

Agenda No. 22.2

Setting up of API Manufacturing unit with production capacity 1158 TPA located at Plot No. A-156, RIICO Industrial Area, Ghiloth, District Alwar, Rajasthan by M/s. Rajasthan Antibiotics Ltd.- Consideration of Environmental Clearance

[Proposal No. IA/RJ/IND3/234140/2021; File no. IA-J-11011/438/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Vardan EnviroNet, having accreditation number **NABET/EIA/1922/RA 0166 valid till 06.11.2022** made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the project for setting up of API Manufacturing unit with production capacity 1158TPA located at Plot No. A-156, RIICO Industrial Area, Ghiloth, District Alwar, Rajasthan by M/s. Rajasthan Antibiotics Ltd.

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

S. No.	API	CAS No.	Purposed Quantity (TPA)	Uses
1	Axitinib	319460-85-0	42	Treatment of kidney cancer
2	Azithromycin	83905-01-5	144	Treatment of a number of bacterial infections
3	Bertizomib	179324-69-7	42	Treatment of multiple myeloma and mantle cell lymphoma
4	Busulfan	55-98-1	42	Chemotherapy drug
5	Doripenem	148016-81-3	60	Antibiotic drug
6	Enzalutamide	915087-33-1	42	Non-steroidal ant androgen medication which is used in the treatment of prostate cancer.
7	Erlotinib Hydrochloride	183319-69-9	42	Drug used alone to treat certain types of non-small cell lung cancer
8	Gefitinib	184475-35-2	42	Used for treatment of certain breast, lung and other cancers.
9	Imipenem	74431-23-5	60	Antibiotic useful for the treatment of a number of bacterial infections.
10	Meropenem	119478-56-7	144	Antibiotic useful for the treatment of a number of bacterial infections.
11	Omeprazole	73590-58-6	144	Used in the treatment of gastro esophageal reflux disease, peptic ulcer disease, and Zollinger–Ellison syndrome
12	Pantoprazole	102625-70-7	144	Used for the treatment of stomach ulcers, short-term treatment of erosive esophagitis due to gastro-oesophageal refluxes disease.
13	Cilastatin Acid	82009-34-5	60	Used for treatment of bacterial infections including respiratory, skin, bone, gynecologic, urinary tract, and intra-abdominal as well as septicemia and endocarditis.
14	Clarithromycin	81103-11-9	42	Clarithromycin is an antibiotic It's used to treat chest infections, such as pneumonia, skin problems
15	Piperacillin	66258-76-2	108	Piperacillin injection is used to treat pneumonia and skin, gynecological, and abdominal (stomach area) infections caused

S. No.	API	CAS No.	Purposed Quantity (TPA)	Uses
				by bacteria. Piperacillin is in a class of medications called penicillin antibiotics. It works by killing bacteria that cause infection.
Total			1158 TPA	

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 conditions (Inter-state boundary at approx. 3.9 km in E direction), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

PP reported that the proposed land area is 12493 sqm., which is already allotted to the proponent, vide Allotment Letter No., RM/GHT/2684 dated 24/03/2021. Industry has proposed to develop greenbelt in area of approx. 34.0 % i.e. 4247.62 sq.m. of total plot area. Total 1062 Trees will be planted. The estimated project cost is Rs. 50 Crores. Capital investment on environmental control measures is 222.18 Lakhs and recurring cost of the same is 32.0 Lakhs/annum. Total 120 workers (Construction Phase: 50, Operation Phase: 70) will be appointed. Industry proposes to allocate Rs. 117 lakhs towards CER.

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. No water body present in 10 km radius area from project site. Nimrana Protected Forest is at 6.5 Km towards S direction. The Toposheet number of the project site are 53D8, 53D12, 54A5 and 54A9. It was informed that no litigation is pending against the proposal.

Total Fresh Water requirement of the project is 100 KLD which will be sourced by Ground water. Application for Application for Permission to Abstract Ground Water has been submitted as per Application no. 21-4/16378/RJ/IND/2021 dated 07/12/2021. ETP of 75 KLD capacity has been proposed for Low COD effluent treatment. Additionally, MEE along with Stripper Column of 20 KLD capacity is proposed for separation and treatment of High COD effluent. Total plant will be based on Zero Liquid Discharge Concept (ZLD) and no effluent will be discharged outside the premises. Sewage Treatment Plant of 10 KLD capacity is proposed for treatment of Domestic Sewage.

Power requirement for the project is 2150 kVA which will be sourced from the Rajasthan Electricity Board. Two DG sets of 1000 kVA capacity each are proposed as backup support. Main source of air pollution is from Reactors, boiler (4.0 TPH Capacity Gas Based) and two DG sets of 1000 kVA capacity each.

Details of Process emissions generation and its management.

S. No.	Name of Gas	Approx. in Kg/Day	Treatment Methods	Disposal methods
1	HCL gas fumes	10	Basic Scrubber	The Solurated scrubbed water will be treated in ETP and the Treated water will be Reused
2	Sulphur fumes	10	Basic Scrubber	The Solurated scrubbed water will be treated in ETP and the Treated water will be Reused
3	Ammonia complex	5	Acidic Scrubber	The Solurated scrubbed water will be treated in ETP and the Treated water will be Reused
4	Ammonical Nitrogen	5	Acidic Scrubber	The Solurated scrubbed water will be treated in ETP and the Treated water will be Reused
5	Hydrogen	1	Hydrogen Scrubber	The Solurated scrubbed water will be treated in ETP and the Treated water will be Reused
6	Nitrogen	2	None	The Solurated scrubbed water will be treated in ETP and the Treated water will be Reused

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

Type of Waste	Cat. as per HW Rules 2016	Source of Waste	Quantity per Year	Method of storage	Method of Disposal
Spent Solvents	28.6	Process	12 MT	Stored in covered area with platform	Send to TSDF facility.
Spent Carbon	28.3	Process	10 MT	Stored in covered area with platform	Send to TSDF facility.
ETP Sludge for Land fill	35.3	ETP	230 MT	Stored in covered area with platform	Send to TSDF facility.
MEE salts	37.3	MEE	48 MT	Stored in covered area with platform	Send to TSDF facility.
Distillation residue from SRP	20.3	Process	36 MT	Stored in covering area	Send to TSDF facility.
Empty Barrels/Containers	33.1	Storage go down	2060 Nos	Stored in covered area with platform	Reuse/ send to vendor/ sell to approved RSPCB approved scrap dealer
Used Lub. Oils	5.1	Utilities	1.6 MT	Stored in covered area with platform	Send to TSDF facility.

The Committee was informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 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.

Water Quantity in Lt/batch	Water Quantity in Lt/month	Effluent load in kg/day				Total Effluent Ltr./ batch	Process organic waste kg/batch (Distillate Residue)	Process inorganicwaste kg/batch (ETP Sludge/A TED, Salt)	Spent carbon kg/batch
		TDS	COD Load	HTDS Qty	LTDS Qty				
57936	1361070	107882	409074	20900	37285	58185	125	128	313

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 the 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 their 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 was further informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load. The EAC also deliberated on the pollution load as estimated by the PP/Consultant.

The Committee noted that the PFR/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the greenbelt development in the unit complex and suggested the PP to develop greenbelt on at least 34% areas (1062 trees) around the periphery of the complex. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considering 2m x 2m ratio and suggested to complete plantation within one year. PP also committed to plant 6000 trees additionally in nearby area.

The committee deliberated on quantity of solvent used and recovered, green belt plan and its budget, details of ETP, and various mitigation measures with respect to the NCAP (National Clean Air Programme). The PP committed to comply the mitigative measures under NCAP.

The Committee deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The Committee noted that the PP will use PNG for boilers. 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 EAC deliberated on the proposal with due diligence using the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC also found the proposal in order and recommended for the grant of environmental clearance.

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

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

The EAC, after detailed deliberations, **recommended the project for grant of environmental clearance, 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). 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). PP shall comply the various mitigations measures as mentioned in the National Clean Air Programme. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

- (v). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vi). 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.
- (vii). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.
- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (ix). Total fresh water requirement, sourced from ground water, shall not exceed 100 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (x). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (xi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server.
- (xii). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space 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.
- (xiii). 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.
- (xiv). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed

system into batch reactors. (e) Venting equipment through vapour recovery system.
(f) Use of high-pressure hoses for equipment cleaning to reduce wastewater generation.

- (xv). The green belt of at least 5-10 m width shall be developed in at least 34% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and the 1062 number of trees has to be planted accordingly. 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. Additionally, as committed by PP further 6000 trees shall be planted in nearby area.
- (xvi). 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.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 22.3

Setting up of Technical grade pesticides manufacturing unit of production capacity up to 9410 MTPM, located at Plot No. D-3/1/A, Dahej-III, Dahej Industrial Estate, GIDC Dahej, Taluka-Vagra, District: Bharuch, Gujarat by M/s. Dhanuka Agritech-Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/233745/2017; File No. J-11011/403/2017-IA II (I)]

The Project Proponent and the accredited Consultant M/s. Shree Green Consultants having accreditation number **NABET/EIA/2124/IA0072 valid till 24.2.2024** made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for setting up of Technical grade pesticides manufacturing unit of production capacity up to 9410 MTPM, located at Plot No. D-3/1/A, Dahej-III, Dahej Industrial Estate, GIDC Dahej, Taluka-Vagra, District: Bharuch, Gujarat by M/s. Dhanuka Agritech.

The details of products and capacity as under:

S. No.	Product name	CAS No.	Quantity MT/M		
			Products capacity mentioned in Existing EC of 2018*	Proposed	Total
A	Herbicides				
1	Imazethapyr Technical	50512-35-1	15	-15	00
2	Pendimethalin Technical	40487-42-1	10	290	300
3	Atrazine Technical	-	50	-50	00
4	Metribuzine Technical	21087-64-9	20	180	200
5	Glyphosate Technical	1071-83-6	150	150	300
6	Clodinafop- Propargyl Technical	105512-06-9	20	80	100
7	Pretilachlor Technical	-	50	-50	00
8	Paraquat Dichloride Technical	-	20	-20	00
9	2,-4, Dichlorophenoxy Acetic Acid (2,4 D Acid)	94-75-7	200	1300	1500
10	Bispyribac Sodium	125401-92-5	5	95	100
11	Dicamba Tech.	-	10	-10	00
12	Isoprothiolane Tech	50512-35-1	10	40	50
13	Oxyfluorfen Tech.	-	10	-10	00
14	IPA salt of glyphosate	38641-94-0	00	200	200
15	Ammonium salt of glyphosate	114370-14-8	00	50	50
16	Chlorimuron	99283-00-8	00	30	30
17	Sulfosulfuron	141776-32-1	00		
18	Nico Sulfuron	111991-09-4	00		
19	Clomazone	81777-89-1	00	200	200
20	2,4-D Sodium	2709-72-9	00	200	200
21	2,4-D Amine	94-75-7	00	1250	1250
22	2,4-D Ethyl ester	533-23-4	00	200	200
23	2,4-D Butyl ester	94-80-4	00	200	200
24	2,4-D Hexyl ester	1928-43-4	00	200	200
25	Quizalofop Ethyl /Quizalofop-P-Ethyl	76578-14-8	00	20	20
Total(A)			570	4530	5100
B	Fungicide/Insecticide/other pesticide				
26	Tricyclazole Technical	-	50	-50	00
27	Hexaconazole Technical	79983-71-4	50	10	60
28	Difenoconazole Technical	-	50	-50	00

S. No.	Product name	CAS No.	Quantity MT/M		
			Products capacity mentioned in Existing EC of 2018*	Proposed	Total
29	Propiconazole Technical	60207-90-1	50	10	60
30	Myclobutanil Technical	-	15	-15	00
31	Thiophenate Methyl	-	50	-50	00
32	Tebuconazole Technical	107534-96-3	50	10	60
33	Mancozeb Technical	-	300	-300	00
34	Propineb Technical	-	50	-50	00
35	Thiamethoxam Technical	153719-23-4	100	00	100
36	Buprofezine Technical	-	50	-50	00
37	Daifenthiuron Technical	-	50	-50	00
38	Imidacloprid Technical	138261-41-3	100	00	100
39	Fipronil Technical	-	100	-100	00
40	Chloropyrifos Technical	-	100	-100	00
41	Metalaxyl Technical	57837-19-1	50	00	50
42	Alpha Cypermethrin Technical	65731-84-2	30	20	50
43	Cypermethrin Technical	-	50	250	300
44	Lambda Cyhalothrin Technical	91465-08-6	50	00	50
45	Novaluron	-	50	-50	00
46	Bifenthrin Technical	82657-04-3	50	50	100
47	Abamectin Technical	-	50	-50	00
48	Emamectin Benzoate Technical	-	50	-50	00
49	Azoxystrobin Technical	131860-33-8	50	-30	20
50	Deltamethrin Technical	-	20	-20	00
51	Acetamiprid Technical	135410-20-7	25	75	100
52	Trizophos Technical	-	30	-30	00
53	Propargite Technical	-	25	-25	00
54	Fenvalarate	51630-58-1	00	200	200
55	Fenpyroximate	134098-61-6	00	40	40
56	Permethrin	52645-53-1	00	100	100
57	Flucythrinate	70124-77-5	00	20	20
58	Tefluthrin	79538-32-2	00	75	75
59	Pyriproxyfen	95737-68-1	00	75	75
60	Cyfluthrin and Beta cyfluthrin	68359-37-5	00	75	75

S. No.	Product name	CAS No.	Quantity MT/M		
			Products capacity mentioned in Existing EC of 2018*	Proposed	Total
61	Allyl Isothiocyanate	57-06-7	00	150	150
62	Veliphenalate	283159-90-0	00	30	30
63	Banalaxyl	71626-11-4	00	50	50
64	Banalaxyl-M	98243-83-5	00	50	50
65	Tetraconazole and intermediates	107534-96-3	00	75	75
Total (B)			1695	295	1990
C	Intermediate Chemicals				
66	Mono Chloro Acetic Acid	-	100	-100	00
67	IDA	-	100	-100	00
68	PMIDA	-	500	-500	00
69	CMAC	52314-67-7	200	50	250
70	MPBD	-	100	-100	00
71	CCMP	-	100	-100	00
72	Triazoles	-	50	-50	00
73	DHANSAFE (Methyl 2 - Methoxy -2,2-diphenyl acetate 74%)	41858-19-9	00	50	50
74	MPBAD	39515-51-0	00	250	250
75	Metaphenoxy benzyl Alcohol(MPBA)	13826-35-2	00	75	75
76	Phenyl Acetyl Chloride	103-80-0	00	100	100
77	Lambda Cyhalothric Acid	72748-35-7	00	75	75
78	2, 6 Dichloro Phenol	87-65-0	00	100	100
79	2, 4 Dichloro Phenol	120-83-2	00	1200	1200
80	Pilot Plant	-	00	20	20
Total (C)			1150	970	2120
Grand Total (A+B+C)			3415	5795	9210
* Note: EC of 2018 was not commenced.					

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 requires appraisal at Central Level by the Expert Appraisal Committee (EAC) in the Ministry.

The Standard ToR has been issued by the Ministry, vide letter No. IA-J-11011/403/2017-IA-II(I), dated 8th October, 2021. Public Hearing is exempted as the project is located in the GIDC industrial estate, which was notified before 2006. No litigation is pending against the proposal.

The Ministry had issued EC earlier vide No: F. No J-11011/403/2017-IA II(I); dated 30th May

2018 to the existing project of setting up Technical grade pesticide Manufacturing unit in favour of M/s. Dhanuka Agritech Limited. M/s. Dhanuka Agritech Limited has obtained CTE, vide No. no. GPCB/BRCH-B/CTE-529/ID-65510/585407, dated 08/03/2021 for formulation products for the same site. Based on this CTE, preliminary construction activities like boundary wall, canteen, workshop etc. are started at site. M/s Dhanuka Agritech Limited has submitted the certified EC compliance report from MoEF&CC IRO Gandhinagar vide letter dated 17th November, 2021 As per the EC compliance report the project has not started any activity related to the EC dated 30.05.2018. M/s. Dhanuka Agritech Limited has submitted ATR for the non-compliance conditions and justification to MoEF&CC IRO Gandhinagar on 24.11.2021. The Committee deliberated the same and found in order.

PP reported that the Land area 149,698.37 m² will be used for proposed project. Industry will develop greenbelt in an area of 33 % i.e. 49,400 m² out of total area 149,698.37 m² of the project. The estimated project cost for expansion is Rs. 334.00 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs.49.15 Crores and the Recurring cost (operation and maintenance) will be about Rs. 37.22 Crores per annum Total Employment will be 170 persons as 105 persons direct and 65 persons indirect after proposed expansion project. Industry proposes to allocate Rs. 17.0 Lakhs towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Narmada river is flowing at a distance of 7.00 km in South direction and Gulf of Khambhat is flowing at a distance of around 7.8 km in West direction. It was informed that no litigation is pending against the proposal.

The Ambient air quality monitoring was carried out at 8 locations during October 2020 to December 2020 to and the baseline data indicates the ranges of concentrations as: PM10 (43.1–96.3 µg/m³), PM2.5 (15.50- 53.20 µg/m³), SO₂ (12.0-45.10 µg/m³) and NO_x (23.42-48.30 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.08265 µg/m³, 0.42087 µg/m³ and 0.34398 µg/m³ with respect to PM10, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). The Committee deliberated and found in order.

Total water requirement will be 4544 KLD of which fresh water requirement of 2652 KLD will be met from Dahej GIDC water Supply. Effluent of 3306.14 m³/day quantity will be treated through proposed in house ETP, MEE, RO & STP. Approximately 3306.14 KLD (25 KLD Domestic waste water + 3281.14 KLD Industrial Effluent) waste water will be generated from proposed project. Total industrial effluent (3281.14 KLD) will be segregated into two streams having HTDS & LTDS stream. 1761 KLD HTDS process waste water shall be sent to Stripper followed by MEE for further treatment. Organic Condensate collected from stripper shall be sold to actual users or incineration. MEE condensate & part of steam condensate shall be recycled in utility, process & scrubber. Remaining condensate will be sent to ETP for treatment. ATFD condensate will be sent to first stage of MEE. Solid collected from MEE plant shall be disposed to TSDf site. The proposed MEE will have 4 Stage evaporation system along with ATFD. It will be implemented in phases as per the expansion program. 2023.14 KLD Low TDS effluent (Process 580 KLD + Mixed Steam Condensate from plant 503.14 KLD +Washing 123 KLD +Cooling 264 KLD+ Scrubber 50 KLD +MEE Condensate 503 KLD) will be treated in house ETP. Treated water from ETP, meeting the norms as per GIDC drainage/GPCB shall

be sent for final disposal into GIDC underground drainage-Dahej vilayet pipeline/common disposal system up to the sea. Domestic effluent (25 KLD) shall be treated in STP and treated water (25 KLD) will be reused in Gardening.

The PP reported that the Power requirement for proposed project will be 5000 kVA and will be met from Daksin Gujarat Vij Company Limited (DGVCL) Power Supply. Two D.G set (1250 KVA each) will be used as standby during power failure. Stack height 11 meter will be provided as per CPCB norms to the proposed DG sets.

PP reported that Coal fired 4 No. of Boiler (5 TPH, 15 TPH, 20 TPH, 30 TPH) & 2 Nos. of TFH (2 Lac Kcal/hr & 4 Lac Kcal/hr) will be installed. Electrostatic precipitator (ESP)/water scrubber with adequate stack height will be installed for controlling particulate emission.

S. No.	Particulars	Fuel	Stack height (m)	Emission Norms	APCM
1	Steam Boiler- 1 (5 TPH)	Coal 26 Ton/day	35	PM <150 mg/Nm ³ SO ₂ < 100 ppm NO _x < 50 ppm	ESP & water scrubber
2	Steam Boiler- 2 (15 TPH)	Coal 77 Ton/day	50	PM <150 mg/Nm ³ SO ₂ < 100 ppm NO _x < 50 ppm	ESP & water scrubber
3	Steam Boiler- 3 (20 TPH)	Coal 103 Ton/day	55	PM <150 mg/Nm ³ SO ₂ < 100 ppm NO _x < 50 ppm	ESP & water scrubber
4	Steam Boiler- 4 (30 TPH)	Coal 155 Ton/day	60	PM <150 mg/Nm ³ SO ₂ < 100 ppm NO _x < 50 ppm	ESP & water scrubber
5	Thermic Fluid Heater-1 (2 Lac Kcal/hr)	Coal 1.6 Ton/day	30	PM <150 mg/Nm ³ SO ₂ < 100 ppm NO _x < 50 ppm	ESP & water scrubber
6	Thermic Fluid Heater-2 (4 Lac Kcal/hr)	Coal 3.2 Ton/day	30	PM <150 mg/Nm ³ SO ₂ < 100 ppm NO _x < 50 ppm	ESP & water scrubber
7.	D. G. Set (1250 kVA)	Diesel 100 lit/hr	11	PM <150 mg/Nm ³ SO ₂ < 100 ppm NO _x < 50 ppm	Adequate Stack Height
8.	D. G. Set (1250 kVA)	Diesel 100 lit/hr	11	PM <150 mg/Nm ³ SO ₂ < 100 ppm NO _x < 50 ppm	Adequate Stack Height

Details of Process emissions generation and its management.

S. No.	Plant	Stack Height (m)	APCM	Parameters	Permissible limit
.					

1.	MPP 1 (2 Nos.)	15	Water scrubber followed by Two stage Alkali scrubber	HCl SO ₂	20 mg/Nm ³ 100 ppm
2.	MPP 1 A	15	Water scrubber followed by Two stage Alkali scrubber	HCl SO ₂	20 mg/Nm ³ 100 ppm
3.	MPP 2 (2 Nos.)	15	water scrubber followed by Two stage Alkali scrubber	HCl SO ₂	20 mg/Nm ³ 100 ppm
4.	MPP 4	20	Two stage Alkali scrubber	Br ₂	16 mg/Nm ³
5.	MPP 5	20	Water scrubber followed by Alkali scrubber	HCl	20 mg/Nm ³
6.	MPP 6	20	water scrubber followed by Alkali scrubber	HCl	20 mg/Nm ³
7.	MPP 8	15	Water scrubber followed by Alkali scrubber	HCl	20 mg/Nm ³
8.	MPP 10	21	NOX scrubber	NOx	50ppm
9.	MPP-11 A	25	Water scrubber followed by Two stage Alkali scrubber	HCl Cl ₂ PM	20 mg/Nm ³ 09 mg/Nm ³ 150 mg/Nm ³
10	MPP-11 B	25	Water scrubber followed by Alkali scrubber	HCl PM	20 mg/Nm ³ 150 mg/Nm ³
11	MPP- 12	25	Two stage Alkali Scrubber	Br ₂ CO ₂	16 mg/Nm ³ -
12	MPP-13 (2 Nos.)	15	Water scrubber followed by Two stage Alkali scrubber	HCl SO ₂	20 mg/Nm ³ 100 ppm
13	MPP-14	15	Water scrubber followed by Two stage Alkali scrubber	HCl Cl ₂	20 mg/Nm ³ 09 mg/Nm ³
14	Amine formulati on	15	Water scrubber	NH ₃	175 mg/Nm ³

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

S. No.	Type of Waste	Source	Category No. HW RULES 2016	Quantity in (MT/M)			Mode of Disposal
				Exiting	Proposed	Total	
1	ETP sludge	ETP Plant	I -35.3	50	2450	2500	Collection, Storage, Transportation and final disposal at common TSDF site
2.	MEE Salt	MEE	I -35.3	190	5310	5500	Collection, Storage, Transportation and final disposal at common TSDF site
3.	Discarded containers / drums / Barrels/ Bags	Storage Facility	I-33.1	39	81	120	Collection, Storage, Decontamination, Transportation, by sent to authorized vendor.
4	Spent Oil/Used Oil	Process Unit	I-5.1	0.003	0.397	0.4	Collection, Storage, Transportation, disposal by selling to GPCB authorized & registered recyclers or reuse as lubricants in Plant machinery within unit.
5	Process residue & Distillation residue	Manufacturing process	I-29.1	370	180	550	Collection, Storage, Transportation and final disposal at common TSDF site or incineration at common incineration facility or sent for Co-Processing unit.
6	Spent catalyst	Manufacturing process	I-29.5	3.5	1.5	5.0	Collection, storage and send for regeneration to supplier
7	Date-expired and off-specification pesticides/ Products / RMs	Process Unit	I -29.3	00	10	10	Collection, Storage, Transportation, Disposal by incineration at common incineration facility or Co-Processing for cement industries

8	Bromate, (Hypo-Bromates) Aq. & solid Sodium Bromide sol./ HBr	Manufacturing process	II-B6	00	196	196	Aq. & solid Sodium Bromide sol./ Aq. HBr Sol. Recovery: Collection, Disposal, Recovery, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste.
9	Bromate, (Hypo-Bromates) Aq. KBr Solution/Solid	Manufacturing process	II-B6	00	1171.8	1171.8	Aq. KBr Solution: Collection, Disposal, Recovery, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste.
10	Di Sodium sulphite (Aq. Solution)	Manufacturing process	I-29.1	00	3153.20	3153.20	Collection, Disposal, Recovery, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste.
11	Inorganic Acid (Spent Acids)	Manufacturing process	B-15	00	1425.7	1425.7	Spent Sulphuric Acid /Spent Nitric Acid (inorganic acids): Collection, Disposal, Reuse, Storage, Transportation to Rule 9 authorized end users.
12	Spent HCl	Manufacturing process	I-29.6	00	3945	3945	Collection, Disposal, Recovery, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and

							rule 9 permission to receive this waste.
13	Spent Solvent	Manufacturing process	I-29.4	00	184.34	184.34	Collection, Disposal, Recovery, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste or sent to Common incineration facility or sent for Co-Processing
14	Aq. AlCl ₃ Solution	Manufacturing process	I-29.1	00	2455	2455	Collection, Disposal, Recovery, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste.
15	Process Solid waste	Manufacturing process	I-29.1	00	100	100	Collection, Storage, Transportation and final disposal at common TSDf site
16	Sodium acetate (Solid & Aq. Solution)	Manufacturing process	I-29.1	00	192	192	Collection, Disposal, Recovery, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste.
17	Sodium sulphate (Solid & Aq. Solution)	Manufacturing process	I-29.1	00	375	375	Collection, Disposal, Recovery, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste or disposal into Approved TSDf site.

18	Crude POCl ₃	Manufacturing process	I-29.1	00	1.35	1.35	Collection, Disposal, Recovery, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste.
19	Fly ash	From Boiler	--	00	2555	2555	Collection, storage, transportation & disposal by send to Brick manufacturing /cement industry.
20	Clinker	From moving bed Boiler	-	00	1095	1095	Collection, storage, transportation & disposal by send to TSDF site

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 compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee also deliberated on the Plantation schedule and suggested to plant the 8000 trees in first year and 4000 trees in second year. The Committee also suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio. The Committee suggested for the use of Briquette may be preferred. PP committed for the same. However, in case of unavailability of Briquette, coal having ash content less than 15% is to be used as fuel.

The Committee found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee suggested that the PP shall undertake all the possible mitigation measures and latest techniques to reduce the impact of boilers. The Committee suggested that the storage of toxic/explosive raw materials shall be in bare minimum quantity and inventory.

The 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). 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 explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
- (vii). The treated waste water of 2215.14 cum/day shall be discharge through GIDC drainage system for deep sea disposal after conform to the standards prescribed under the Environment (Protection) Rules, 1986.
- (viii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be

transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

- (ix). The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (x). 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.
- (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). 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). 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 shall not exceed 2652 KLD will be met from Dahej GIDC water Supply. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA and renewed from time to time.
- (xvi). 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 company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xviii). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m ratio and as committed by PP shall plant 8000

number of trees in first year and 4000 number of trees in Second year. The plant species can be selected that will give better carbon sequestration.

- (xix). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EIA/EMP report in letter and spirit.
- (xx). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 22.4

Expansion of API's manufacturing unit of production capacity from 50.425 TPM TO 60 TPM, located at RIICO Industrial Area, Village - Keshwana Rajput, Tehsil Kotputli, District Jaipur, Rajasthan by M/s Dhanuka Laboratories Ltd - Consideration of Environmental Clearance

[Proposal No. IA/RJ/IND2/184350/2020; File No. J-11011/8/2013-IA II (I)]

The Project Proponent and the accredited Consultant M/s. EQMS India Pvt. Ltd, with accreditation number **NABET/EIA/1922/RA0197** dated **23.11.2022** made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Expansion of API's and Bulk Drug Manufacturing Unit of production capacity from 50.425 TPM TO 60 TPM, located at RIICO Industrial Area, Village - Keshwana Rajput, Tehsil Kotputli, District Jaipur, Rajasthan by M/s Dhanuka Laboratories Ltd.

The details of products and capacity are as under:

Stream	Products	CAS NO.	End Uses	Production Capacity (MT/month)			No of Products per month per set	Maximum Capacity per month on Campaign basis (MT)
				Existing	Proposed	Total After Expansion		
I	7-ACCA	5399 4-69- 7	-	3	-3	0	2	11
	Telmesartan	1447 01- 48-4	Hypertension	0	8	8		

Stream	Products	CAS NO.	End Uses	Production Capacity (MT/month)			No of Products per month per set	Maximum Capacity per month on Campaign basis (MT)
				Existing	Proposed	Total After Expansion		
	Azilsartan	1474-03-03-0	Hypertension	0	2	2		
	Olmesartan	1446-89-63-4	Blood Pressure	0	3	3		
	Valsartan	1378-62-53-4	Blood Pressure	0	3	3		
	Irbesartan	1384-02-11-6	Blood Pressure	0	1	1		
	Losartan	1147-98-26-4	Blood Pressure & Heart Failure	0	3	3		
	Cefaclor	-	-	3	-3	0		
Cefprozil	-	-	1	-1	0			
Cefcapene	-	-	0.225	-0.225	0			
Ceftibuten	-	-	0.2	-0.2	0			
Levetiracetam	1027-67-28-2	Epilepsy	0	8	8			
Ipidacrine	6273-2-44-9	Alzheimer's Disease Toxic Cognitive Disorders	0	1	1			
Zonisamide	6829-1-97-4	Epilepsy & Parkinson's Disease	0	1	1			
Pregablin	1485-53-50-8	Fibromyalgia	0	3	3			
Amisulpride	5358-3-79-	Chronic Schizophre	0	1	1	2	12	

Stream	Products	CAS NO.	End Uses	Production Capacity (MT/month)			No of Products per month per set	Maximum Capacity per month on Campaign basis (MT)
				Existing	Proposed	Total After Expansion		
		2	nia					
	Allopurinol	315-30-0	Gout & Kidney Stones.	0	4	4		
	Levosulpride	2367-2-07-3	Irritable Bowel Syndrome & Gastroesophageal Reflux Disease	0	2	2		
	Cefuroxime Axetil	-	-	4	-4	0		
	Cefditoren Pivoxil	-	-	1	-1	0		
	Cefpodoxime Proxtil	-	-	4	-4	0		
	Vildagliptin	2749-01-16-5	Diabetes Mellitus	0	3	3		
	Teneligliptin	1572-583-29-9	Diabetes	0	2	2		
	Sitagliptin	4864-60-32-6	Diabetes.	0	1	1		
	Clopidogrel	1136-65-84-2	Stroke, Heart Attack	0	5	5		
	Gabapentin	6014-2-96-3	Prevent & Control Seizures	0	4	4		
III	Gliclazide	2118-7-98-4	Diabetes	0	3	3	2	9
IV	Cefixime	-	-	12	-12	0	2	9

Stream	Products	CAS NO.	End Uses	Production Capacity (MT/month)			No of Products per month per set	Maximum Capacity per month on Campaign basis (MT)
				Existing	Proposed	Total After Expansion		
	Cefdinir	-	-	1	-1	0		
	Citicoline	33818-15-4	Alzheimer Disease, Parkinson Disease, Bipolar Disorder, Lazy Eye (Memory Loss)	0	5	5		
	Benfotiamine	22457-89-2	Diabetes	0	2	2		
	Atorvastatin	134523-00-5	Lower Cholesterol	0	2	2		
	Rosuvastatin	287714-41-4	Lower Cholesterol	0	2	2		
	Ticagrelor	274693-27-5	Heart Attack Or Stroke	0	1	1		
	Phenylephrine	59-42-7	Colds, Allergies, & Hay Fever	0	4	4		
	Sertraline HCl	79617-96-2	Depression , Panic Attacks	2	2	2		
	Gabapentin	-	-	4	-4	0		
	Favipiravir	259793-96-9	New And Reemerging Pandemic Influenza	0	2	2		
V	Lopinavir	192725-17-0	Prevents Human Immunodef	0	2	2	2	7

Stream	Products	CAS NO.	End Uses	Production Capacity (MT/month)			No of Products per month per set	Maximum Capacity per month on Campaign basis (MT)
				Existing	Proposed	Total After Expansion		
			iciency Virus (HIV)					
	Ritonavir	1552 13- 67-5	Prevents Human Immunodeficiency Virus (HIV)	0	2	2		
	Remdesivir	1809 249- 37-3	To Treat People with Coronavirus Disease 2019 (COVID-19)	0	2	2		
	Dolutagravir	1051 375- 16-6	HIV Medications to Help Control HIV Infection.	0	1	1		
	Ingavirin	2196 94- 63-0	Studying The Treatment of Influenza And Common Cold.	0	1	1		
	Azathioprine	446- 86-6	To Prevent Organ Rejection in People	0	2	2		
	Apixaban	5036 12- 47-3	Strokes Or Blood Clots	0	2	2		
	Monteleuka	1589	Asthma	0	5	5		

Stream	Products	CAS NO.	End Uses	Production Capacity (MT/month)			No of Products per month per set	Maximum Capacity per month on Campaign basis (MT)
				Existing	Proposed	Total After Expansion		
	st	66-92-8						
	Dabigatran	211915-06-9	Deep Vein Thrombosis (DVT; A Blood Clot, Usually in The Leg (Blood Thinner')	0	2	2		
	Tapentadol	175591-09-0	Treat Moderate To Severe Acute Pain	0	1	1		
	Aprimilast	608141-41-9	Arthritis	0	2	2		
	R&D Products	-	-	5	10	10		
	Pregabalin	-	-	3	-3	0		
	Clopidogrel	-	-	5	-5	0		
	Pirfenedone	53179-13-8	Treatment of Idiopathic Pulmonary Fibrosis(IP F)	0	2	2		
	Refreximine	80621-81-4	Prevent Episodes of Hepatic Encephalopathy	0	2	2		
	Doxylamine	469-21-6	Treatment Of Insomnia	0	1	1		
VI	Ondansetron	99614-02-	Prevent Nausea	2	2	2	2	12

Stream	Products	CAS NO.	End Uses	Production Capacity (MT/month)			No of Products per month per set	Maximum Capacity per month on Campaign basis (MT)
				Existing	Proposed	Total After Expansion		
		5	and Vomiting Caused by Cancer Chemotherapy, Radiation Therapy, And Surgery					
	Total Production Capacity			50.425				60

The project/activities are covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 (amendment on 27.03.2020, 15.10.2020 & 16.07.2021). Due to applicability of general condition (Interstate boundary Haryana- Rajasthan State is within 5 km from the project location i.e 2.38 km in NW direction, the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry. Public hearing is exempted since the proposed project comes under notified industrial area.

The Ministry had issued EC earlier vide letter no. J-11011/8/2013-IA.II(I); dated 28.10.2015 to the existing project i.e., Bulk Drugs Manufacturing Unit (Production Capacity-50.425 TPM) in favour of M/s Dhanuka Laboratories Limited. Certified compliance report of the exiting environmental clearance conditions has been obtained from IRO, MoEFCC vide letter No. IV/ENC/R/Ind-156/911/2015/SPL-34 to 35, dated 22.03.2021. However, many non-complied points were pointed out. Action taken report for the same has been submitted to MoEF&CC, RO, Lucknow. Subsequently, request for updated certified compliance report has been submitted to RO, MoEF&CC.

The proposed project expansion will be done in a land area of 32800 m² (3.28 Hectares). Industry has already developed greenbelt in an area of 33 % of total plot area i.e., 10824 m² out of total area of the project. The estimated project cost is Rs.70 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.5 Crores and the Recurring cost (operation and maintenance) will be about Rs.60 Lakhs per annum. Total Employment will be 208 no. of persons as direct employment. There will be no change in employment after

proposed expansion.

PP reported that there are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. River Sota at a distance of 0.10 km in West Direction. It was informed that no litigation is pending against the proposal.

PP reported that the total water requirement will be 258 KLD of which freshwater requirement of 150 KLD will be met from groundwater i.e., 1 no. of tube-well. Effluent of KLD quantity is being generated from the projects. 4 KLD of domestic sewage is being treated in Effluent Treatment Plant (Capacity- 200 KLD). 150 KLD industrial effluent is being bifurcated into streams i.e., High COD Stream & Low COD Stream and Organic Solvents. Low COD stream wastewater (78 KLD) along with blow-down stream of Boiler (4 KLD), Cooling Tower (9 KLD) and water treatments plant (4 KLD) is being treated in ETP (200 KLD) followed by RO Plant (300 KLD) to generate 108 KLD permeate that is being completely reused within the plant for gardening (8 KLD) and cooling tower (100 KLD) purposes. 46 KLD RO reject after is generated from RO out of which, 5 KLD is circulated to scrubber for reuse. 5 KLD wastewater from scrubber along with rest of RO reject (41 KLD) is being discharged to MEE (125 KLD) for further treatment. High COD stream wastewater (9 KLD) is firstly being sent through steam strippers for clean-up. Out of which, 1.0 KLD is being sent to Solvent Recovery Unit. 8 KLD water is being directed to MEE (125 KLD) & ATFD to generate 54 KLD condensate. MEE Condensate is sent to ETP for treatment. The unit is a Zero-liquid Discharge Project. There will be no increase in effluent generation as pollution is not being proposed to increase and production process will be limited to frequency basis only that would prevent generation of excessive effluent

The power requirement after expansion will be 2500 kVA and be met from Jaipur Vidyut Vitran Nigam Limited (JVVNL). Existing unit has DG sets of capacity 2x1500 kVA are being during power failure. No additional DG sets have been proposed for expansion. Stack height of 30 m has been provided as per CPCB norms. Existing unit has 2 no. of 5 TPH coal fired boiler. No additional boiler has been installed. Multi cyclone separator/ bag filter with a stack of height of 30 m has been installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers.

Details of Process emissions generation and its management.

Stage	Production Per month	Gaseous emission	Qty / Batch	Gaseous emission / day	Velocity M/sec	Stack Ht. (Mt)	Dia. (M M)	Efficiency (%)	Outlet conc. (mg/n m3)	Control Equipment
Stage-I	5145	HBr	72.8	72.8	4.2	22	150	99	2	Two stage ventury Scrubber using water & Caustic

Stage-IV	2000	CO2	21	21	4	22	150	99	3	Dispersed into Atm. With water scrubber
Stage-II	3000	CO2	82	82	4	22	150	99	3	Dispersed into Atm. With water scrubber
Stage-I	3000	SO2	49	49	4.2	22	150	99	3	Two stage ventury Scrubber using Caustic
		HCl	28	28	4	22	150	99	2	Two stage ventury Scrubber using water & Caustic
		CO2	44	44	4	22	150	99	3	Dispersed into Atm. With water scrubber
Stage-I	1305	HCl	36	36	4	22	150	99	2	Two stage ventury Scrubber using water & Caustic
		HBr	81	81	4.2	22	150	99	2	Two stage ventury Scrubber using

										water & Caustic
Stage-II	2955	H2	4	4	3	22	150	99	1	Dispersed in atm.using flame arrester
Stage-I	1335	H2	2	2	3	22	150	99	1	Dispersed in atm.using flame arrester
		CO2	2	2	4	22	150	99	3	Dispersed into Atm. With water scrubber
Stage-II	1000	HBr	40	40	4.2	22	150	99	2	Two stage ventury Scrubber using water & Caustic
Stage-III	6720	HCl	30	30	4	22	150	99	2	Two stage ventury Scrubber using water & Caustic
Stage-I	1125	H2	5	5	3	22	150	99	2	Dispersed in atm.using flame arrester
Stage-III	4350	CO2	28	28	4	22	150	99	1	Dispersed into Atm. With water scrubber
Stage-I	7725	HBr	430	430	4.2	22	150	99	2	Two stage

										ventury Scrubbe r using water & Caustic
		CO2	164	164	4	22	150	99	3	Dispers ed into Atm. With water scrubbe r
Stage- II	4020	H2	4	4	3	22	150	99	2	Two stage ventury Scrubbe r using water & Caustic
Stage- I	1740	H2	10	10	3	22	150	99	1	Dispers ed in atm.usi ng flame arrester
Stage- II	2000	CO2	82	82	4	22	150	99	3	Dispers ed into Atm. With water scrubbe r
Stage- III	2886	H2	115	115	3	22	150	99	1	Dispers ed in atm.usi ng flame arrester
Stage- VI	2925	SO2	65	65	4.2	22	150	99	2	Two stage ventury Scrubbe r using Caustic
		CO2	82	82	4	22	150	99	3	Dispers ed into Atm. With water

										scrubbe r
Stage- V	2000	SO2	85	85	4.2	22	150	99	2	Two stage ventury Scrubbe r using Caustic
		CO2	158	158	4	22	150	99	3	Dispers ed into Atm. With water scrubbe r
Stage- II	2000	CO2	82	82	4	22	150	99	3	Dispers ed into Atm. With water scrubbe r
Stage- I	5400	CO2	5.2	5.2	4	22	150	99	3	Dispers ed into Atm. With water scrubbe r
Stage- II	5000	CO2	84	84	4	22	150	99	3	Dispers ed into Atm. With water scrubbe r
Stage- II	1170	CO2	12	12	4	22	150	99	3	Dispers ed into Atm. With water scrubbe r
Stage- II		NH3	5	5	3.5	22	150	99	1	Dispers ed into Atm. With

										water scrubber
Stage-III	1000	CO2	9	9	4	22	150	99	3	Dispersed into Atm. With water scrubber
		O2	6	6	4.2	22	150	99	4	Dispersed into Atm. With water scrubber
		H2	2	2	3	22	150	99	1	Dispersed in atm.using flame arrester
Stage-IV	2000	HCl	7.4	7.4	4	22	150	99	2	Two stage ventury Scrubber using Caustic
Stage-I	2220	N2	13	13	4	22	150	99	4	Dispersed into Atm. With water scrubber
Stage-II	2000	CO2	20	20	4	22	150	99	3	Dispersed into Atm. With water scrubber
II	8333.3	HCl	36.9	36.9	4.2	22	150	99	1	Two stage ventury Scrubber using

										water & Caustic
II	6117.28	Hydrogen	1	1	3	22	150	99	5	Dispersed in atm. using flame arrester
Final	2000	HCL	55	55	4.2	22	150	99	2	Two stage ventury Scrubber using water & Caustic
IV	2133	HCl	10.76	10.76	4.2	22	150	99	1	Two stage ventury Scrubber using water & Caustic
III	7003.5	HCl	107.8	107.8	4.2	22	150	99	1	Two stage ventury Scrubber using water & Caustic
Stage-I	1050	CO2	44.5	44.5	4	22	150	99		Dispersed into Atm. With water scrubber
Stage-II	1000	HCl	83	83	4.2	22	150	99		Two stage ventury Scrubber using water & Caustic
Stage-I	4875	HBr	12	12	4.2	22	150	99		Two stage ventury Scrubber using

										water & Caustic
Stage-II	5325	CO2	49	49	4	22	150	99		Dispersed into Atm. With water scrubber

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

Sr. No	Type of waste	Cat. As per HW Rules 2016	Capacity (MT/Annum)			Facility
			Existing	Proposed	After Expansion	
Hazardous Waste						
1	Distillation Residues	20.3	101.10	10	111.21	Collection, Storage, Transportation, and disposal at authorized TSDF.
2	Spent Carbon	28.3	4.74			Collection, Storage, Transportation, and disposal at authorized TSDF.
3	Chemical Sludge from wastewater treatment	35.3	138.70			Collection, Storage, Transportation, and disposal at authorized TSDF.
4	Ash from flue gas cleaning residues	37.2	3.65			Collection, Storage, Transportation, and disposal at authorized TSDF.
5	MEE Residue from Hold Stream	-	73.00			Collection, Storage, Transportation, and disposal at authorized TSDF.
6	Process Wastewater (LCOD)	-	28470	0.0	28470	To ETP for treatment and recycle.
7	Process wastewater (HCOD)	-	2920	365	3285	To MEE for treatment & recycle and sludge to TSDF
Non-Hazardous/Industrial Waste						

8	Empty barrels (used for non-hazardous materials)	-	5-6 barrels/day	Collected and sold to authorize recyclers after cleaning.
9	Scrap metals	-	73	Collected and sold to authorize recyclers.
10	Used / Spent oil	-	3.65 kL/annum	Collected and sold to authorize recyclers

Deliberations in the EAC:

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

The EAC made deliberations on the certified compliance and observed several non-compliances and partial compliances regarding, Rain water Harvesting structures and other major pollution related issues. The PP had obtained consent to operate for 6 DG Sets of 500 kVA Capacity however, during the site visit 2 DG Sets of 1500 kVA were observed. The stack attached to the DG sets was not adequate and stack height was required to be increased, Analysis report from accredited laboratory regarding noise level monitoring, AQMS was not functional during the site inspection, fly ash management was not adequate, electromagnetic flow meter was not working and storage of Hazardous waste not adequate. Pollution load has also not been submitted by the PP.

It has been also noted that the Project falls under the B2-API category as per provision of EIA notification 2006, but PP/consultant has mentioned Category A in Form-1. The EAC also warned the Consultant/PP not to submit the incomplete proposal and read the various provisions of the EIA Notification, 2006 before submitting the application on Parivesh Portal. As per the recent OM pollution load for product has also not been submitted by the PP.

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

- (i). **The PP shall comply all the non-compliances of earlier EC and CTEs/CTOs and the instant expansion proposal can only be considered by complying all the existing EC/CTO conditions and the IRO, MoEFCC, Jaipur to verify the same.**
- (ii). Project falls under the B2-API category as per provision of EIA notification 2006, but PP/consultant has mentioned Category A in Form-1. Form-I shall be revised accordingly.
- (iii). Copy of PFR document is also not opening on Parivesh Portal. Please re-upload on the Portal for further appraisal by the EAC.
- (iv). Details of pollution load as per MoEFCC circular dated 28.01.2021 needs to be submitted.

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

Agenda No. 22.5

Resin Manufacturing Unit with production capacity of 2800 MTPM, located at survey no. 567 old 395 p1, 395p2, Village Nava Sadulka, Taluka and district Morbi, Gujarat by M/s Reolaxe Lami Art LLP - Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/190942/2021; File No. IA-J-11011/2/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. T. R Associates with accreditation number **NABET/EIA/1922/RA0142 dated 09.10.2022** made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the project of Resin Manufacturing Unit with production capacity of 2800 MTPM, located at survey no. 567 old 395 p1, 395p2, Village Nava sadulka, Taluka and district Morbi, Gujarat by M/s Reolaxe Lami Art LLP.

The details of products and capacity as under:

S. No.	Name of the Product	Production Capacity (MT/Month)	CAS Number
1	Phenol Formaldehyde Resin	1100	9003-35-4
2	Melamine Formaldehyde Resin	500	9003-08-1
3	Urea Formaldehyde Resin	1200	9011-05-6
Total Production Capacity		2800	--

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 its further amendment, the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry as the instant project is located outside of the notified industrial area.

The Standard ToR was issued by MoEFCC, vide letter No. IA-J-11011/2/2021-IA-II(I), dated 22nd February, 2021. Public Hearing for the proposed project has been conducted by the Gujarat Pollution Control Board on 22/07/2021 which was presided over by the District Magistrate. The main issues raised during the public hearing are related to the waste disposal management from industry & CGWA permission. It was also informed that no litigation is pending against the project.

PP reported that the total land area is 16693 m². No additional land will be used for expansion for proposed project. Industry has greenbelt in an area of 33.93 % i.e, 5664.19 m² out of total area (16693 m²) of the project. The estimated project cost for expansion is Rs.75 lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs.22.15 lakhs and the Recurring cost (operation and maintenance) will be about Rs.29.33 lakh per annum. Total Employment will be 10 persons as direct. Industry proposes to allocate Rs. 1.5 Lakhs towards Corporate Environment Responsibility (CER).

PP reported that the existing unit is of manufacturing laminated sheets (2,50,000 Nos/ month) and it does not attract the provisions of the EIA Notification, 2006. The Unit is operating for

laminated sheets with valid CTO obtained from the GPCB. PP also presented the inspection report dated 14.09.2021 submitted by the Regional Office of the Gujarat Pollution Control Board. The Committee deliberated the compliance status of earlier CTO and found in order.

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. It was informed that no litigation is pending against the proposal.

Ambient air quality monitoring was carried out at 8 locations during October to December, 2018 and additional one-month monitoring was carried out in October 2021 to validate the baseline data and October 2021 baseline data indicates the ranges of concentrations as: PM10 (65.19 to 86.28 $\mu\text{g}/\text{m}^3$), PM2.5 (31.09 $\mu\text{g}/\text{m}^3$ to 50.43 $\mu\text{g}/\text{m}^3$), SO₂ (10.86 $\mu\text{g}/\text{m}^3$ to 20.31 $\mu\text{g}/\text{m}^3$) and NO₂ (22.26 $\mu\text{g}/\text{m}^3$ to 39.07 $\mu\text{g}/\text{m}^3$). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.2 $\mu\text{g}/\text{m}^3$, 0.15 $\mu\text{g}/\text{m}^3$ and 0.0015 $\mu\text{g}/\text{m}^3$ with respect to PM10, SO₂ and NO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

PP reported that total water requirement for Resin Project will be 33.91 m³/day (Fresh – 27.31 m³/day + reuse – 6.6 m³/day) which will be met from Bore Well. The unit has already obtained permission to extract ground water. The unit will provide 2 tank of 100 kl for rainwater harvesting for proposed unit. Effluent of 8.31 m³/day quantity will be treated through Effluent Treatment Plant.

Power requirement will be 300 kVA and will be met from Paschim Gujarat Vij Company Ltd. (PGVCL). Industry has one steam boiler of 4 TPH [Fuel: Indonesian coal / Briquettes (5.5 Ton/day)] & D.G. Set (500 KVA) [Fuel: HSD (100 Lit./hr.)]. Unit will provide separate stake for boiler and D.G. set of 30 meter & 11 meter respectively.

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

S. No.	Description	Category	Quantity (MT/Month)	Mode of Disposal
1	ETP Sludge / Evaporation Residue	35.3	3.5	Collection, storage and disposal at approved TSDF site
2	Used Oil	5.1	0.002	Collection, storage and used within premises as a lubricant / sold to registered recycler
3	Discarded Plastic Bags /Barrels	33.1	1.6	Collection, storage & sold to authorized vendor
4	Resin residue	23.1	1.4	Collection, storage and disposal at approved CHWIF site

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 the 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 their 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 is in compliance of the TOR and reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The Committee suggested use Biomass Briquettes as a fuel, natural gas /LPG as committed by the PP. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested that the storage of toxic/explosive raw materials shall be in bare minimum quantity and inventory. The committee also deliberated the action plan on the issues raised in the public hearing and found the reply of PP to be satisfactory.

The EAC noted that the existing unit is manufacturing laminated sheets (2,50,000 Nos/ month) and it does not attract the provisions of the EIA Notification, 2006. The Unit is operating for laminated sheets with valid CTO obtained from the GPCB. PP also presented the inspection report dated 14.09.2021 submitted by the Regional Office of the Gujarat Pollution Control Board. The Committee deliberated the compliance status of earlier CTO and found in order. The Committee also deliberated the conservation plan for schedule-I species and noted that PP has submitted the application to the office of CWLW, State Government.

The Committee also deliberated on the Plantation developed by the PP and found it to be satisfactory, however, it was suggested to improve the plantation where it is possible. The Committee also 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 found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee suggested that the PP shall undertake all the possible mitigation measures and latest techniques to reduce the impact of boilers.

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

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

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or

standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

- (i) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii) 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) 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) Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (v) 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. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.
- (vi) 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.
- (vii) Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (viii) Total fresh water requirement, sourced from MIDC water supply, shall not exceed 27.31 m³/day which will be met from Bore Well. Prior permissions in this regard shall be obtained from the concerned regulatory authority.
- (ix) Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

- (x) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises (if applicable).
- (xi) Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space 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.
- (xii) 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.
- (xiii) The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.
- (xiv) The green belt of at least 5-10 m width shall be developed in 33.93 % of the total project area (as committed by the PP), mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and the number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within one year.
- (xv) The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.
- (xvi) A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.
- (xvii) As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

Agenda No. 22.6

Setting up of Synthetic Organic Chemicals (Resins) manufacturing unit with production Capacity of 1700TPM located at Survey No. 409, Paiki 3, Plot no. 8, Village: Nava Sadulka, Taluka & District-Morbi, Gujarat by M/s. Matru Industries - Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND2/168768/2020; File No. IA-J-11011/179/2020-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. T. R. Associates having accreditation number **NABET/EIA/1922/RA0142 dated 09.10.2022** made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of Synthetic Organic Chemicals (Resin) manufacturing unit with production Capacity of 1700 TPM located at Survey no. 409, Paiki 3, Plot no. 8, Village: Nava Sadulka, Taluka & District-Morbi, Gujarat by M/s. Matru Industries.

The details of products and capacity as under:

S. No.	Name of the Product	Production Capacity (MT/Month)	CAS Number
1.	Phenol Formaldehyde Resin	200	9003-35-4
2.	Urea Formaldehyde Resin	1200	9011-05-6
3.	Melamine Formaldehyde Resin	300	9003-08-1
Total Production Capacity		1700	--

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 Standard ToR was granted vide letter No. IA-J-11011/179/2020-IA-II(I) dated 5th October, 2020. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 20/07/2021 which was presided over by the District Magistrate. The main issues raised during the public hearing are related to the health and safety of workers.

The proposed project will be established in a land area of 587.29 m². Industry has greenbelt in an area of 33.26% i.e, 195.34 m² out of total area (587.29 m²) of the project. The estimated project cost is Rs.90 lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs.14.71 lakhs and the Recurring cost (operation and maintenance) will be about Rs.21.52 lakh per annum. Total Employment will be 5 persons as direct. Industry proposes to allocate 1.8 Lakhs towards Corporate Environment Responsibility.

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. It was informed that no litigation is pending against the proposal.

The Ambient air quality monitoring was carried out at 8 locations during October 2018 to December 2018 as well as additional one-month monitoring is carried out in October 2021 to validate the data and the baseline data indicates the ranges of concentrations as: PM10 (83.6 µg/m³ to 65.19 µg/m³), PM2.5 (31.09 µg/m³ to 49.09 µg/m³), SO₂ (10.86 µg/m³ to 19.67 µg/m³) and NO₂ (35.93 µg/m³ to 22.26 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.5µg/m³,0.05µg/m³and0.01µg/m³with respect to PM10, SO₂, NO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). The Committee deliberated the data and found in order.

PP reported that total water requirement is 9.25 KLD which will be met from Bore Well. As well as unit will provide 1 tank of 25 KLD for rainwater harvesting for proposed unit. Effluent of 2 m³/day quantity will be treated through Effluent Treatment Plant.

Power requirement will be 40 HP and will be met from Paschim Gujarat Vij Corporation limited (PGVCL). Industry has one steam boiler of 0.9 TPH (Bio coal - 2.78 MT/day), &D. G. Set (1 X 50 KVA) (fuel: Diesel15 liter/hr). Unit will provide separate stake for boiler of 30 meter.

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

S. No.	Description	Category	Total Quantity	Mode of Disposal
1.	Used oil / Spent Oil	5.1	0.1 KL/Annum	Collection, storage and used within premises as a lubricant / sold to registered recycler.
2.	Discarded Plastic Bags / Drums / Barrels	33.1	36.85 MT/Annum	Collection, storage & return to supplier or sold to authorized recyclers
3.	ETP Sludge	35.3	3.00 MT/Annum	Collection, storage and disposal at approved TSDF site
4.	Evaporation Residue	35.3	5.00 MT/Annum	Collection, storage and disposal at approved TSDF site
5.	Process Resin Residue	23.1	10.2 MT/Annum	Collection, storage and disposal at approved CHWIF site

Deliberations by the EAC:

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

The EAC noted that the Project Proponent has given an undertaking that the data and

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

The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The committee also deliberated the action plan on the issues raised in the public hearing and found the reply of PP to be satisfactory.

The Committee deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The Committee suggested use Biomass Briquettes as a fuel, natural gas /LPG as committed by the PP. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested that the storage of toxic. The Committee also deliberated the conservation plan for Schedule-I species and noted that PP has submitted the application to the office of CWLW, State Government.

The Committee deliberated on the action plan and budget allocation for green belt development and suggested to complete plantation in one year. The Committee also 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 found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee suggested that the PP shall undertake all the possible mitigation measures and latest techniques to reduce the impact of boilers.

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

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). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEFCC in this regard.
- (iii). The 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 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). No banned Chemicals/Products shall be manufactured by the project proponent. No banned raw materials/chemicals shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government issued in this regard.
- (vi). An Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vii). As already committed by the project proponent, Zero Liquid Discharge (ZLD) shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.
- (viii). 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.
- (ix). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (x). Total fresh water requirement, sourced from Ground Water through, shall not exceed 9.25 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (xi). 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.

- (xii). The continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises (if applicable).
- (xiii). 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 provided with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valves to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xiv). The process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.
- (xv). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.
- (xvi). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and the number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration.
- (xvii). The activities and the action plan proposed by the project proponent to address the socio-economic and public hearing issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made during public hearing shall be satisfactorily implemented.
- (xviii). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

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

Consideration of Environmental Clearance Proposals

Agenda No. 22.7

Expansion of APIs, Bulk Drugs and Chemical Manufacturing Unit with proposed production capacity from 104.13 TPM to 190.83 TPM, located at SP-3, 10 & 11 RIICO Industrial Area, Village-Keshwana Rajpoot, Kotputli, District- Jaipur, Rajasthan by M/s Otsuka Chemical India Pvt. Ltd- Consideration of Environmental Clearance.

[Proposal no. IA/RJ/IND2/89107/2015; File No. IA-J-11011/241/2012-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. EQMS India Pvt. Ltd with accreditation number **NABET/EIA/1922/RA0197 dated 23.11.2022** made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Expansion of APIs, Bulk Drugs and Chemical Manufacturing Unit with proposed production capacity from 104.13 TPM to 190.83 TPM located at SP-3, 10 & 11 RIICO Industrial Area, Village-Keshwana Rajpoot, Kotputli, District- Jaipur, Rajasthan - by M/s Otsuka Chemical India Pvt. Ltd.

The details of products and capacity are as under:

S. No.	Product Intermediates & CAS Number	Existing Capacities as per EC dated 19.07.2019 # & 10.12.2015	Proposed	After Expansion
1.	GCLE 79350-37-1	58.3 TPM (700 MTPA)	66.7 TPM (800 MTPA)	125 TPM (1500 MTPA)
2.	Iohexol 66108-95-0	20.83 TPM (250 MTPA)	0	20.83 TPM (250 MTPA)
3.	BMH 214417-91-1	0	20 MTPM (240 MTPA)	20 MTPM (240 MTPA)
4.	ADA-2 1671-87-0			
5.	Cefexime 79350-37-1	22.5 TPM (270 MTPA)	0	22.5 TPM (270 MTPA)
6.	CefditorenPivoxil 117467-28-4			
7.	Cefdinir 91832-40-5			
8.	Cefprozil 121123-17-9			
9.	ACLE 113479-65-5			
10.	Ceftaroline 400827-46-5			
11.	Ceftibuten 118081-34-8			
12.	CefpodoximeProxetil 87239-81-4			
13.	CefcapenePivoxil 147816-24-8			
14.	Cefuroxime Axetil 64544-07-6			
15.	Tazobactum Sodium 89786-04-9			
16.	Sulbactum Sodium 69388-84-7			

17.	SulbactamPivoxil	69388-84-7			
18.	R&D Products	-	2.5 TPM (30 MTPA)	0	2.5 TPM (30 MTPA)
	Total		104.13 TPM (1250 MPTA)	86.7 TPM (1040 MTPA)	190.83 TPM (2290 MTPA)

The project/activities are covered under Category 'A' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006. Due to applicability of general condition (Interstate boundary Rajasthan- Haryana State Boundary is at 2.38 km from the project location), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry. Public hearing is exempted since the proposed project is located within notified Industrial Area. It was informed that no litigation is pending against the proposal.

Deliberations in the EAC:

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

The EAC noted that Ministry had issued EC earlier vide letter no. J-11011/241/2012-IA II(I) dated 10.12.2015 and 19.07.2019. Construction/installation as per 2015 EC letter has been completed however, construction/installation for 2019 EC has not been started yet. The EAC also deliberated on CGWB permission that Industry has obtained CGWA approval vide letter no. 21-4(47)/WR/CGWA/2006-773 dated 11.5.2015 which was expired on 10.5.2017. Therefore, M/s Otsuka Chemical India Pvt. Ltd is running industry without Prior Permission of CGWA.

The EAC noted that PP reported that Indian Peafowl is categorized as Least Concerned in the IUCN which is totally vague statement whereas Indian Peafowl comes under Schedule –I species for which conservation plan has to be prepared.

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

- (i) Year wise Production details with respect to CTO/EC since inception of the Unit in tabular form along with the details of the Industry and start of production supported by relevant documents, to verify the violation, if any, done by the PP.
- (ii) EAC noted that PP has not uploaded EC dated 10.12.2015 on Parivesh Portal (in form 2) therefore PP shall submit all the documents on Parivesh portal as the whole process is online for EC process.
- (iii) This is existing Unit and PP has applied only now for the approval of the conservation plan for the Schedule-I species. Please justify the reasons and its compliance status.
- (iv) The details of Schedule –I species in in the study area, anticipated impact of the

project and its conservation plan needs to be submitted. PP shall also justify the Indian Peafowl is categorized as Least Concerned in the IUCN. PP shall revise the plan accordingly.

- (v) The action plan for controlling the fugitive emissions from the unit considering the unit proposed in the over exploited Area needs to be submitted.
- (vi) The EAC noted that there is sufficient space available in the Unit. However, the PP has not developed adequate green belt. The density of trees is not adequate. PP needs to plant more trees immediately with dense three tier plantation. PP shall plant the tree with high carbon sequestration species in the greenbelt development program.
- (vii) The EAC noted that the Unit is operating without Prior Permission of CGWA since 2017. The Unit is located in over-exploited area. The PP shall submit the Copy of NOC from CGWB for existing water use and compliance of the same.

The proposal was accordingly **deferred** in its present form for the needful.

Agenda No. 22.8

Proposal for “Revamping of existing Urea Plants (Urea-I @1,03,200 MTPA & Urea II @2,64,000 MTPA= total production capacity 3,67,200 MTPA), located at GSFC Complex at Fertilizernagar, Vadodara, Gujarat (Plant area 328 ha.) by M/s Gujarat State Fertilizers & Chemicals Limited - Consideration of Environmental Clearance.

[Proposal No. IA/GJ/IND3/234048/2021; File no. J-11011/901/2007-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. EQMS India Pvt. Ltd, with accreditation number **NABET/EIA/1922/RA0197 dated 23.11.2022.** made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project Revamping of existing Urea Plants (Urea-I @1,03,200 MTPA & Urea II @2,64,000 MTPA= total production capacity 3,67,200 MTPA), located at GSFC Complex at Fertilizernagar, Vadodara, Gujarat (Plant area 328 ha.) by M/s Gujarat State Fertilizers & Chemicals Limited.

The details of products and capacity are as under:

S. No	Particulars	Unit	Details					Impact /Remarks
			Existing		Proposed	Post Revamping		
1.	Production Capacity	MTPA	Urea -I Unit	10320 0	0 (Revamping)	Post Revamping	36720 0	No Change

			Urea -II Unit	26400 0		Urea Unit	
2.	Technology	-	M/s Toyo Engineering Corporation, Japan, using MTC (Mitsui Toatsu Corporation) Total Recycle "C" process.	Ammonia Stripping	Ammonia Stripping Process	Ammonia Stripping Process is more conservation al and efficient technology.	
3.	Total Plot Area	Ha.	328				No Change
4.	Green Area	Ha.	123.2 (37.56% of total plot area)				No Change
5.	Cost of Project	Rs. (In Crores)	-	306	306	-	
6.	Employment	No.	124	-60	64	Decrease	
7.	Total Water Requirement	KLD	6046.1	-2144.2	3901.9	Decrease	
		m ³ /hr	251.92	-89.34	162.6		
8.	Freshwater Requirement	KLD	5035.7	-2128.1	2907.6	Decrease	
		m ³ /hr	209.82	-88.67	121.15		
9.	Wastewater Generation	KLD	1060.08	-302.4	757.68	Decrease	
		m ³ /hr	44.17	-12.6	31.57		
10.	Wastewater Treatment Scheme	-	Nil	WWT Section	Wastewater Treatment Section (Hydrolyser, Desorber, Hydrolyser Pre-heater, Treated Water Final Cooler, Hydrolyser Feed pump, Treated Condensate Pump).	To Recover NH ₃ , CO ₂ and Urea contained in the process water and to produce clean process condensate that can be used in Cooling Tower Makeup.	
11.		KLD	0	691.2	691.2	Increase	

	Treated Water Recycle	m ³ /hr	0	28.8	28.8	
12.	Process Effluent going to PA Plant	KLD	144	0	144	No Change
		m ³ /hr	6	0	6	
13.	Steam Condensate Export Credit-Recycle as Water	KLD	1010.4	-707.3	303.12	Decrease
		m ³ /hr	42.1	-29.47	12.63	
14	MP Steam export	KLD	-	380.4	380.4	Increase
		m ³ /hr	-	15.85	15.85	
15.	Power Consumption	kWh/MT	205	-22	183	Decrease
16.	Power Backup	kVA	-	500	500	Increase

Table: Details of changes in Environmental parameters due to proposed revamping have been provided below:

S.No.	Particulars	Unit	Existing	Proposed	Post Revamping	Impact/
						Remarks
1	Prill Tower	PM	2	0	2	No Change
		(kg/MT of Urea)				
		NH ₃	175	0	175	
		(mg/Nm ³ of Urea)				
2	Total Water Consumption	m ³ /MT of Urea	5.38	-1.88	3.5	Decrease
3	Freshwater Consumption	m ³ /MT of Urea	4.48	-1.87	2.61	Decrease
4	Liquid Effluent/Wastewater Generation	m ³ /MT of Urea	0.944	-0.263	0.681	Decrease
5	Energy Consumption	GCal/MT of Urea	6.523	-0.75	5.773	Decrease

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

PP reported that M/s. Gujarat State Fertilizers & Chemicals Limited, reported that Both the plants i.e., Urea-I & Urea-II were established in 1967 & 1969 respectively i.e., before the purview of EIA Notification,1994 and its subsequent amendments thereof. Thereafter, no changes were carried out in both the plants. GSFC (Gujarat State Fertilizers & Chemicals Limited) Complex has various production units with several Environmental Clearances as per below mentioned details and is operational in accordance with Latest Consolidated Consent and Authorization (CC&A) granted from GPCB vide Letter No. GPCB/CCA-VRD-83(13)/ID:21968 valid till 31.12.2021.

S. No.	Environmental Clearance granted to Complex by SIEAA/MoEFCC	Dated	Remarks
1.	SEIAA/GUJ/EC/5 (E)/684/2020	09.06.2020	Expansion in manufacturing plant of "Petrochemical based Processing Plant" i.e., Nylon-6 Chips from 2035.4 MT/month to 3770.4 MT/month. <i>However, details of all products have been described in the EC Letter under which Urea-I & II plants have also been mentioned with production capacity i.e., 8600 MT/month (1,03,200 MTPA) and 22,000 MT/month (2,64,000 MTPA) respectively.</i>
2.	J-11011/901/2007-IA. II(I) & further amendment for total water requirement	06.03.2019 08.05.2020	Expansion of Existing Ammonium Sulphate Plant to total production capacity of 1,46,000 MTPA.
3.	SEIAA/GUJ/EC/5 (f)/228/2016	31.03.2016	Expansion of total production capacity of Melamine from 15000 MTPA to 55000 MTPA by setting up new Melamine Plant within existing GSFC Complex of capacity 40,000 MTPA.
4.	SEIAA/GUJ/EC/5 (e)/131/2013	05.07.2013	Expansion of Nylon-6 Chips plant by setting up new Nylon-6 Plant of capacity 16,425 MTPA within existing GSFC Complex.
5.	J-11011/901/2007-IA(II)	31.07.2008	Revamping of Existing Ammonia-I Plant into Methanol Plant (525 TPD)

The project has been obtained the Certified Compliance Report from RO, MoEF&CC, Bhopal vide File No. 5-33/2019 (Env)/560 dated 08.08.2021; File No. 18-A-59/2020(SEAC)/559 dated

08.08.2021 and File No. 5-193/2008(Env)/658 dated 05.10.2021. It was informed that no litigation is pending against the proposal. The **Details of Certified Compliance Report of GSFC Complex are as below:**

S. No	Certified Compliance	Dated	EC Letter	Status
1.	5-33/2019(Env)/560	08.08.2021	EC from MoEF&CC -11011/901/2007-I(A)II dated 06.03.2019 & further amendment for total water requirement dated 08.05.2020 (146000 MTPA AS-I Plant)	Complied for all conditions.
2.	5-193/2008(Env)/658	05.10.2021	EC from SEIAA, Gujarat SEIAA/GUJ/EC/5(f)/228/2016 dated 31.03.2016 (40000 MTPA Mela-III Plant) EC from MoEF&CC J-11011/901/2007-IA(II) dated 31.07.2008 (525 MTPD Methanol Plant)	Complied for all conditions.
3.	18-A-59/2020(SEAC)/559	08.08.2021	EC from SEIAA, Gujarat SEIAA/GUJ/EC/5(e)/684/2020 dated 09.06.2020 (Nylon-6 chip project)	Complied for all conditions.

PP reported that the Existing land area i.e., 3280000 m² (328 Hectares) has already been developed into GSFC Complex under which Urea-I & II are located. Revamping will be done by demolition of few parts of existing Urea -I & II plants and modifications in existing machinery and installation of several new machineries for construction of revamped plant. Industry has already developed greenbelt in an area of 1232000 m² (123 Hectares) i.e., 37.56% of total plot area. The estimated project cost is Rs. 306 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 400 Lakhs. Total Employment will be 900 persons as direct & indirect for project. Industry proposes to allocate Rs. 96 Lakhs in next 1 year of the additional project cost towards Corporate Environment Responsibility.

M/s. Gujarat State Fertilizers & Chemicals Limited 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. There are few distributaries within 10 km distance of the project site like Galiath River (4.58 km, NE), Vishwamitri River (5.71 km, E), Meni River (7.00 km, W), Parevi River (7.08 km, N), Surya River (8.04 km, E) & Mahi River (9.35 km, W). However, distributaries or rivers located nearby project site are dry riverbeds. No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wild life Corridors etc. lies within 10 km distance. It was informed that no litigation is pending against the proposal

Ambient air quality monitoring was carried out at 9 locations during December,2020 to February, 2021 and the baseline data indicates the ranges of concentrations as: PM₁₀ (40-96 µg/m³), PM_{2.5} (18-49 µg/m³), SO₂ (5-12.8 µg/m³) and NO₂ (9-20.6 µg/m³). Since there will be no increase in air pollution sources, no increase in GLC of pollutants will occur.

Total water requirement will be 3901.9 KLD (162.6 m³/hr) of which freshwater requirement of 2907.6 KLD (121.15 m³/hr) will be supplied from 4 no. of French wells sourced from Mahi River. 2 no. of french wells are located at Parthampura and rest 2 no. of french wells are located at IOCL Refinery. The total wastewater generation will be 757.68 KLD (31.57 m³/hr). Process condensate generated from plant i.e., mainly vacuum evaporator section will be treated in Wastewater Section and treated water i.e., 691 KLD (28.8 m³/hr) will get directly reused in cooling tower makeup. 144 KLD (6 m³/hr) will be sent to Phosphoric Acid Plant for recycle. Rest of wastewater i.e., 613.68 KLD (25.57 m³/hr) CT blow down will be directed to effluent disposal pond. 3 KLD domestic sewage will be disposed as per existing practices.

M/s. Gujarat State Fertilizers & Chemicals Limited reported that the existing connected load for GSFC Complex is 157 MW. For existing Urea Plants, specific power consumption is 205 kWh/MT Urea. After revamping, specific power consumption will get reduced to 183 kWh/MT Urea. For power backup, 1 No. of DG set of capacity 500 kVA will be installed in revamped urea plant that will be used during emergency only. Stack height of 30 m will be provided as per CPCB norms.

Details of Process emissions generation and its management.

S. No	Plant	Stack attached to	APC Device	Diameter (m)	Stack height (m)	Avg. Emission Rate (Nm ³ /hr)	Velocity (m/sec)	Temperature (°C)	Parameters
1	Urea – I	Prilling Tower	Water Scrubber	4 x 1 (3 nos.)	38	155000	4.12	61	SPM: - 2 Kg/T Urea. NH ₃ : - 175 mg/Nm ³
2	Urea – II	Prilling Tower	Water Scrubber	1.45 x 4.36 (6 nos.)	70	520000	4.05	60	SPM: - 2 Kg/T Urea; NH ₃ : - 175 mg/Nm ³
3	Urea – Mel (Urea EC S)	Condenser oxidation column	H ₂ SO ₄ Scrubber (Eff. 99.5%)	1.25	38	1200	-	-	NH ₃ : - 175 mg/Nm ³

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

S. No.	Name of Waste	Hazardous Waste Category as per HW Rules 2016	Quantity		Method of Collection/Storage	Method of Disposal
			As per Authorization from GPCB	Total after Revamping		
1.	Discarded Containers	Sch-1/33.3	10000 Nos./year (including 100 Nos/year for Urea-I & II)	10000 Nos./year (including 85 Nos/year for Revamped Urea)	Storage Yard	Collection, storage & decontamination within factory premises and then transportation & Sale to Vendor
2.	Insulation waste	Sch-1/33.1	75 MT/year (including 3.0 MT/year for Urea-I & II)	75 MT/year (including 3.0 MT/year for Revamped Urea)	Stored in bags at specified storage area.	Disposal at TSDF
3.	Contaminated cotton rages & other cleaning materials	Sch-1/33.2	5 MT/year (including 1.1 MT/year for Urea-I & II)	5 MT/year (including 1.1 MT/year for Revamped Urea)	Stored in bags at specified storage area.	Disposal at CHWIF of M/s NECL /SEPPL/DIPL/BEIL/co-processing sites.
4.	Used Oil	Sch-1/5.1	250 MT/year (including 90 MT/year for Urea-I & II)	250 MT/year (including 90 MT/year Revamped Urea)	Drums/Tanks in Room	Collection, storage, transportation, and Sale to register refiner

The PP reported that the impacts anticipated vary from moderate to low significance and magnitude. No Major impact is anticipated during the construction phase as only some mechanical work is required to be done for proposed revamping and all basic facilities are

available at the site to overcome the impact. However, during operation phase, impact is anticipated due to increased polluted air quality, wastewater generation and increased noise level. The project also has various positive impacts like indirect employment generation, reduction of energy, availability of latest technology fertilizer products for better productivity and sustainability.

Deliberations in the EAC:

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

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

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

The EAC deliberated on the proposal of PP and accepted the request to consider the proposal under para 7 (ii) of the EIA Notification, 2006 under modernization project as the capacity remains unchanged and there is no requirement for obtaining fresh TOR etc. The project proponent has prepared the Addendum to Environmental Impact Assessment Report for Revamping of Urea-I & II Plants at GSFC Complex at Fertilizernagar, Vadodara. The Committee deliberated on the report and its mitigation measures and found in order.

The Committee, after detailed deliberations, noted that both the plants i.e., Urea-I & Urea-II were established in 1967 & 1969 respectively i.e., before the purview of EIA Notification, 1994 and its subsequent amendments thereof. Thereafter, no changes were carried out in both the plants. GSFC (Gujarat State Fertilizers & Chemicals Limited) Complex has various production units with several Environmental Clearances as mentioned above and is operational in accordance with Latest Consolidated Consent and Authorization (CC&A) granted from GPCB vide Letter No. GPCB/CCA-VRD-83(13)/ID:21968 valid till 31.12.2021. The project has been obtained the Certified Compliance Report from RO, MoEF&CC, Bhopal vide File No. 5-33/2019

(Env)/560 dated 08.08.2021; File No. 18-A-59/2020(SEAC)/559 dated 08.08.2021 and File No. 5-193/2008(Env)/658 dated 05.10.2021. The Committee deliberated on the Certified Compliance Report and found it in order.

The Committee noted that the reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for green belt development. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The committee also deliberated the pesticide usage and the effect of pesticide on crops and pests. The Committee also deliberated on the water balance and carbon reduction.

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

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

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

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

- (i). The Unit shall comply with all the Specific and General EC conditions, as mentioned in the existing ECs. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP and other Reports in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (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). No banned raw materials/chemicals shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
- (v). The continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (vi). The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Integrated Regional Office of Ministry and SPCB along with the compliance report.
- (vii). The treated waste water 757.68 KLD shall be discharge through GFSC drainage system for deep sea disposal after conform to the standards prescribed under the Environment (Protection) Rules, 1986.
- (viii). Total fresh water requirement shall not exceed 2907.6 KLD. Necessary permission obtained in this regard shall be renewed from time to time. The fresh water demand shall be reduced by 10% using rain water harvesting system.
- (ix). As proposed by PP, Rs. 12.0 crore shall be allocated towards Corporate Environment Responsibility (CER). As proposed, the CER allocation shall be completed within 5 years. The amount proposed in CER shall be spent during execution of the project and shall not be linked with the CSR.
- (x). 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.
- (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). 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.
- (xiii). Necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents.
- (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). The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology.

- (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 company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.
- (xviii). The green belt of at least 5-10 m width shall be developed in nearly 33 % of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration and plantation shall be started from first year onwards.
- (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.
- (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.

Re-Consideration of Environmental Clearance

Agenda No. 22.9

Setting up of Synthetic Organic Chemicals (Bulk Drug and Intermediates) manufacturing unit, located at SY.NO. 221(Part), Ramannapalem Village, Tiruvuru Mandal, Krishna District, Andhra Pradesh by M/s DESI'S LABS.

[Proposal No. IA/AP/IND2/73245/2018; File No. IA-J-11011/77/2018-IA-II(I)]

The proposal was earlier considered by the EAC (Industry-2) in its meeting held on 23-25 October, 2019 and 27th February, 2020. The requisite information desired by the Committee and response submitted by the PP are as under:

PP submitted that the unit acquired 10 acres of land for proposed project on lease for 25 years. Land conversion for industrial use obtained vide File no. RDONZD-LANDONALA(PRC) / 34/2021-JA (G) –RDO (NZD) – NZDDVN dated 05.11.2021 and File no. RDONZD-LANDONALA (PRC) / 35/2021-JA (G) –RDO (NZD) – NZDDVN dated 05.11.2021. The submission made by the PP were found to be satisfactory.

The Project Proponent and the accredited Consultant M/s. Team Labs and Consultants, with accreditation number **QCI/NABET/ENV/ACO/21/2003** dated **06.01.2022** made a detailed presentation on salient features of the project and informed that:

The Proposal is for Environmental Clearance (EC) for Setting up of Synthetic Organics Chemicals (Bulk Drug and Intermediates) manufacturing unit at Sy. No. 221(Part), Kakarla panchayati, Ramannapalam village, Tiruvurumandal, Krishna district, Andhra Pradesh by M/s. Desi's Labs.

The details of products and capacity are as under:

S.No.	Name of Product	CAS No	Capacity	
			Kg/Day	TPM
1	Alogliptin	850649-61-5	25	0.8
2	Apixaban	503612-47-3	25	0.8
3	Aripiprazole	129722-12-9	25	0.8
4	Brexipiprazole	913611-97-9	25	0.8
5	Brivaracetam	357336-20-0	50	1.5
6	Cariprazine Hydrochloride	1083076-69-0	40	1.2
7	Cilostazole	73963-72-1	50	1.5
8	Dabigatran EtextilateMesilate	872728-81-9	100	3
9	DexRabeprazole Sodium	171440-18-9	20	0.6
10	Dex-Lansoprazole	138530-94-6	25	0.8
11	Diltiazem Hydrochloride	33286-22-5	100	3
12	Doxazosin Mesylate	77883-43-3	10	0.3
13	Duloxetine Hydrochloride	136434-34-9	25	0.8
14	Efinaconazole	164650-44-6	25	0.8
15	EletriptanHydrobromide	177834-92-3	25	0.8
16	Erlotinib	183321-74-6	15	0.5
17	Esomeprazole	217087-09-7	100	3
18	Febuxostat	144060-53-7	50	1.5
19	Ilaprazole	172152-36-2	25	0.8
20	Itraconazole	84625-61-6	100	3
21	Ivabradone Hydrochloride	148849-67-6	25	0.8
22	Lansoprazole	103577-45-3	200	6
23	Lesinuard	878672-00-5	25	0.8
24	Levetiracetam	102767-28-2	250	7.5
25	Lurasidone Hydrochloride	367514-87-2	25	0.8
26	Olanzapine	132539-06-1	25	0.8
27	Omeprazole	73590-58-6	25	0.8
28	Oxiracetam	62613-82-5	50	1.5
29	Paliperidone	144598-75-4	30	0.9
30	Pantoprazole Sodium Sesquihydrate	102625-70-7	300	9
31	Quetiapine Hemifumarate	111974-72-2	300	9

32	Rabeprazole Sodium	117976-90-6	300	9
33	Rivaroxaban	366789-02-8	50	1.5
34	Rosuvastatin Calcium	147098-20-2	50	1.5
35	Safinamide Methane Sulphonate	202825-46-5	50	1.5
36	Sertraline Hydrochloride	79559-97-0	250	7.5
37	Sitagliptin Phosphate	654671-78-0	50	1.5
38	Sorafenib	284461-73-0	25	0.8
39	Tamsulosin Hydrochloride	106463-17-6	10	0.3
40	Telmisartan	144701-48-4	25	0.8
41	Tenatoprazole	113712-98-4	25	0.8
42	Topiramate	97240-79-4	200	6
43	Trazadone Hydrochloride	25332-39-2	25	0.8
44	Vilazodone Hydrochloride	163521-08-2	50	1.5
45	Vildagliptin	274901-16-5	25	0.8
46	Dibenzo [b, f] [1, 4] thiazepin-11(10H)-one	111974-74-4	750	22.5
47	11-Piperazino Dibenzo [b, f] [1, 4] Thiazepine. Hydrochloride	13349-82-1	250	7.5
48	1-[2-(2-Hydroxy ethoxy)Ethyl]Piperazine	675198-19-3	400	12
49	2-Hydroxy methyl-3-methyl-4-(3-methoxy propoxy) Pyridine Hydrochloride	153259-31-5	400	12
50	2-Chloromethyl-3-methyl-4-(3-methoxy propoxy) Pyridine Hydrochloride	117977-21-6	250	7.5
51	2-[[[4-(3-methoxy propoxy)-3-methyl-2-pyridinyl] methyl] thio]-1H-benzimidazole	253345-80-1	200	6
52	2-(Hydroxy methyl)-3-methyl-4-(2,2,2-trifluoroethoxy) Pyridine. Hydrochloride	127337-60-4	500	15
53	2-(Chloro methyl)-3-methyl-4-(2,2,2-trifluoroethoxy) pyridine Hydrochloride	103577-40-8	400	12
54	2-[[[3-methyl-4-(2,2,2-trifluoro ethoxy)-2-pyridinyl]methyl] sulfanyl]-1H-benzimidazole	152402-98-7	400	12
55	2[[[3-Methyl-4-(nitro)-2-pyridinyl] methyl] sulfanyl]-1H-benzimidazole	89848-21-5	25	0.8
56	4-[4-[4-(4-Hydroxy phenyl) -1-piperazinyl] phenyl] 2,4-dihydro- 2-(1-methyl propyl)-3H-1,2,4-Triazol-3-One	67914-86-7	250	7.5
57	Cis-[[2-(2,4-Dichloro phenyl)-2-(1H-1,2,4-triazol-1-yl-methyl)-1,3-dioxolan-4-yl] methyl] methane	119532-26-2	250	7.5

	sulfonate			
Total (Worst Case 14 Product on Campaign Product)			5000	150

List of By-Products

S. No	Name of Product	Stage	Name of By Product	Quantity (Kg/Day)
1	Pantoprazole Sodium Sesquihydrate	II	Phosphoric acid	125.3
2	11-Piperazino Dibenzo [b, f] [1, 4] Thiazepine. Hydrochloride	IV	PiperazineHCl	92.4
		III	Polyphosphoric acid (20%)	5372.9
3	Cis-[[2-(2,4-Dichloro phenyl)-2-(1H-1,2,4-triazol-1-yl-methyl)-1,3-dioxolan-4-yl] methyl] methane sulfonate	II	TriethylamineHCl	84.3
4	1-{2-Hydroxy ethoxy ethyl} piperazine	I	PiperazineHCl	281.5
5	Oxiracetam	I	Imidazole HCl	45.3
6	Quetiapine Hemifumarate	III	Polyphosphoric acid (20%)	2610
7	Dibenzo [b, f] [1, 4] thiazepin-11(10H)-one	III	Polyphosphoric acid (20%)	2465
8	Esomeprazole	II	Sodium Acetate	13.7
			Spent Acetic Acid (20%)	50.2
9	Omeprazole	II	Dimethyl sulfide ammonium persulfate	15
			Dimethyl sulfide ammonium persulfate	27.8
10	Rabeprazole Sodium	II	Sodium Acetate	95.2
			Spent Acetic acid (20%)	348.2
11	Dex -Rabeprazole Sodium	II	Sodium Acetate	8.8
			Spent Acetic acid (20%)	32.1
12	2- [[[4-(3-methoxy propoxy)-3-methyl-2-pyridinyl] methyl] thio]-1H-benzimidazole	II	Sodium Acetate	57.2
			Spent Acetic acid (20%)	209.1
13	2-Chloromethyl-3-methyl-4-(3-methoxypropoxy) pyridine HCl	II	Sodium Acetate	82.9
			Spent Acetic acid (20%)	303.2
14	2-Hydroxy methyl-3-methyl-4-(3-methoxy propoxy) pyridine	II	Sodium Acetate	132.5
			Spent Acetic acid (20%)	484.8
15	Lansoprazole	II	Sodium Acetate	66.8
			Spent Acetic Acid	65
16	Dex-Lansoprazole	II	Sodium Acetate	11.8
			Spent Acetic Acid	50
17	2-(Hydroxy methyl)-3-methyl-4-(2,2,2-trifluoroethoxy) Pyridine HCl	I	Spent Acetic Acid	481.5
			Sodium Acetate	159.2
18	2-(Chloro methyl)-3-methyl-4-	I	Spent Acetic Acid	320

	(2,2,2-trifluoroethoxy) pyridine HCl		Sodium Acetate	127.8
19	2-[[[3-methyl-4-(2,2,2-trifluoroethoxy)-2-pyridinyl]methyl]sulfanyl]-1H-benzimidazole	I	Spent Acetic Acid	300
			Sodium Acetate	121

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 sectoral Expert Appraisal Committee (EAC) in the Ministry as the Unit is located outside of the Industrial Estate.

Deliberations in the EAC:

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

The EAC noted the duration of baseline data collection i.e. March to May, 2018 and it was observed during the meeting that on the KML the density of trees around the plant is decreased from 2014 to 2021. In view of this, EAC warned the consultant and advised him to read the provisions of the EIA Notification, 2006 before submission of the application on Parivesh portal

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

- (i) The EAC (on KML file timeline data) noted that the Industry has cutted many trees and is unable to produce the approval of forest department in this regard. PP shall submit the permission for cutting of trees with the detailed species.
- (ii) The Consultant also mentioned that they have not checked it before coming to the EAC.
- (iii) The presentation made by the Consultant is also not adequate and not reflecting the mitigation measures on the proposed impact of the project.
- (iv) Considering that the baseline data is of March to May, 2018, additional one month (recent) AAQ baseline data to be collected to validate the existing data.
- (v) As Kakarla Reserve Forest is present at a distance 0.04 km, PP shall submit the anticipated impacts on RF due to the emission from the industry.
- (vi) PP has not submitted the detailed pollution load as per OM dated 28.01.2021.
- (vii) **EAC noted that the presentation and the Reports made by the Consultant are inadequate and poor and warned the Consultant to rework and resubmit the reports as per provisions of the EIA Notification, 2006.**

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

Extension of validity of Environmental Clearance

Agenda No. 22.10

Expansion of Chemical unit (From 24,980,04 to 1,45,685,04 MTPA) Located at Survey No. (194, to 199), 200, (202, to 206), 265B, 266A, (285 to 294), 296, 297, 298, 321, 322, 323, 326, 327 & 449, Coastal Highways, Village Mujpur, Tehsil: Padra District Vadodara, M/s Gulbrandsen Chemicals Pvt. Ltd.–Extension of validity of Environmental Clearance.

[Proposal No. IA/GJ/IND3/242509/2021, File No. J-11011/490/2011-IA-II(I)]

The proposal was earlier considered in the 19th EAC meeting held on 25-26th October, 2021, whereas EAC recommended the proposal for validity of the EC. The PP at the same time made the application for withdrawal for uploading some additional documents. Therefore, the proposal could not be further processed as the whole process is online on Parivesh portal. Accordingly, the PP has submitted the proposal and accordingly placed before the EAC in this meeting.

The proposal is for extension of the validity of the EC dated 23rd January, 2014 issued to the project for Expansion of Chemical unit (From 24,980,04 to 1,45,685,04 MTPA) Located at Survey No. (194, to 199), 200, (202, to 206), 265B, 266A, (285 to 294), 296, 297, 298, 321, 322, 323, 326, 327 & 449, Coastal Highways, Village Mujpur, Tehsil: Padra District Vadodara, M/s Gulbrandsen Chemicals Pvt. Ltd.

The details of products and capacity as under:

S. No.	Name of Products	Proposed in EC	Present status of proposed Expansion	Still Pending for Expansion
		MTPA	MTPA	MTPA
1	Organometallic compounds	32700	27000	5700
2	Polyethylene wax	20000	20000	0
3	R&D Products Organometallic Compounds/Organic/inorganic chemicals	25.0	25.0	0
4	Aluminum Chloride (25%) (AlCl ₃)	48510	48510	0
5	Ethyl Iodide (C ₂ H ₅ I)	19470	0	19470
	Total	120705	95535	25170

PP earnestly requested for extension of Environmental Clearance validity for further three years.

Deliberations in the EAC in its meeting held during October 25-26, 2021

The Committee noted that the proposal was earlier placed before the EAC in its meeting held on December 8-9, 2020 wherein the EAC at the first instance noted that the Ministry has extended the validity of the environmental clearances ending till March, 2021 for further period

of six months and accordingly PP can execute the project without stopping it. The Committee, however, was very annoyed on the compliance status of the existing EC conditions. The Committee has advised the project proponent to complete the greenbelt development along the periphery of the plant, to combat the pollution and emissions from the unit. The Committee had suggested the PP to at first comply with the EC conditions and submit the monitoring report from the Regional Office of the Ministry. The Committee opined that the PP can approach the EAC/Ministry before completion of the EC validity period for further extension, if required, as per the EIA Notification, 2006. The proposal was accordingly returned in its present form for the needful.

In this context, PP has submitted the application for validity of EC on Parivesh Portal on 08.10.2021. PP reported that IRO, MoEFCC has submitted the certified compliance report of EC conditions vide their letter dated 12.08.2021. The Committee deliberated the compliance status and its action plan and found in order.

The EAC made detailed deliberations on the proposal. The Committee discussed the submission of the project proponent regarding the production in phased manner and preparedness. The Committee noted that the EC validity was 7 years and can be extended for 3 more years as per the provisions of the EIA Notification, 2006. The validity period of the EC was deemed extended by the Ministry due to lockdown/pandemic situation for a specific period (01.04.2020 – 31.03.2021).

The Committee, after detailed deliberations, **recommended** for extension of validity of the EC dated 23th January, 2014 for three years i.e. till 22th January, 2024 to complete the project work as per scope of the project. All other terms and conditions shall remain unchanged.

Deliberations in the EAC in present meeting during December 15-16, 2021 :

The Committee noted that the proposal was earlier recommended by the EAC in its 19th meeting held on 25-26th October, 2021, for validity of the EC.

The Member Secretary informed to the EAC that PP at the same time made the application for withdrawal for uploading some additional documents. Therefore, the proposal could not be further processed as the whole process is online on Parivesh portal. Accordingly, the PP has submitted the fresh proposal and accordingly placed before the EAC in this meeting.

The Committee, after detailed deliberations, **recommended** for extension of validity of the EC dated 23th January, 2014 for three years i.e. till 22th January, 2024 to complete the project work as per scope of the project. All other terms and conditions shall remain unchanged.

Agenda No. 22.11

Presentation by M/s. AM Enviro Engineers and M/s. Right Source Industrial Solutions Pvt. Ltd. on Status and Implementations of API Projects which were granted EC from MoEFCC at Central Level:

As per the notification vide S.O. 1223(E) dated 27.03.2020, S.O. 3636(E) dated 15.10.2020 and S.O. 2859(E) dated 16.07.2021, the Ministry has granted many environmental clearances to the Active Pharmaceutical ingredients (API) projects under the category 'B2'-API projects after the due deliberations and with the recommendations of the EAC. In the earlier 19th EAC meeting held on November 11-12, 2021, it was recorded that the implementation status of the ECs issued under category 'B2'-API projects have to be presented before the EAC by the consultants. Therefore, the consultants of M/s. Right Source Industrial Solutions Pvt. Ltd. and M/s. AM Enviro Engineers were called for making the detailed presentations on the status of the implementation of the projects and its compliances status to ensure the conditions stipulated in the EC is being complied or not.

In the 22nd EAC held on 15-16, December, 2021, both the Consultant made a presentation before the EAC and the information are as follows:

List of status of Pharmaceutical Industries provided by the consultant M/s Right Source Industrial Solutions Pvt. Ltd.

S. No	Name of the Project Proponent	Location	Date of EC granted	Consent to Establishment	Remarks
1.	M/s Alister Pharma Pvt Ltd	Telangana	29.11.2021	Not yet applied	-
2.	M/s GMK Labs Pvt Ltd	Andhra Pradesh	26.02.2021	Submitted CTE/CFE application to APPCB on 31.08.2021 and obtained CFE on 20.10.2021	After the CFE received, we have initiated the modifications in the plant and will complete by January-22 end and we will submit our CFO application immediately.
3.	M/s GVSR Pharma Pvt Ltd	Andhra Pradesh	26.02.2021	Not yet applied	As this project falls under Andhra Pradesh Capital Regional Development Authority (APCRDA) region. But recently Govt. has put a proposal to cancel CRDA. Hence, the approval Building plans were kept pending by Govt. of Andhra Pradesh

4.	M/s Meenakshi Pharma Parks Pvt Ltd	Telangana	19.05.2021	Not yet applied	-
5.	M/s Myland Life Sciences Pvt Ltd.	Telangana	08.04.2021	Not yet applied	-
6.	M/s ORCH Pharma Pvt Ltd	Andhra Pradesh	04.02.2021	Not yet Submitted	As this project falls under Andhra Pradesh Capital Regional Development Authority (APCRDA) region. But recently Govt. has put a proposal to cancel CRDA. Hence, the approval Building plans were kept pending by Govt. of Andhra Pradesh
7.	M/s Pranu Pharma	Andhra Pradesh	08.04.2021	Submitted CFE Application to Andhra Pradesh Pollution Control Board (APPCB) on 20.11.2021	APPCB CFE meeting was held on 09.12.2021 and waiting for CFE (Consent for Establishment) from Andhra Pradesh Pollution Control Board (APPCB).
8.	M/s RA Chem Pharma	Andhra Pradesh	25.01.2021	Submitted CTE/CFE application to APPCB on 05.04.2021, CFE meeting was held on 07.05.2021	During CFE meeting, the members raised a query to submit the clarification on Proposed ZLD. Hence, the project proponent has submitted the clarifications on 22.11.2021 and Waiting for CFE (Consent for Establishment) from Andhra Pradesh Pollution Control Board (APPCB).
9.	M/s Ramsay Laboratories Pvt. Ltd	Karnataka	18.11.2020	Obtained CTE vide Consent Order No. CTE-327946 PCB ID: 105633 Dated: 11.11.2021	Ramsay Laboratories has submitted the EC transfer application to MoEF&CC in the name of Ramsay Laboratories Pvt. Ltd. on 17.09.2021 and EC transferred on 08.10.2021 in the name of Ramsay Laboratories Pvt. Ltd. and

					Submitted application to KIADB for Building plans approval and waiting for the permission from KIADB to start the building construction.
10.	M/s Sri Sairam Life Sciences	Andhra Pradesh	11.06.2021	Not yet applied	As this project falls under Andhra Pradesh Capital Regional Development Authority (APCRDA) region. But recently Govt. has put a proposal to cancel CRDA. Hence, the approval Building plans were kept pending by Govt. of Andhra Pradesh
11.	M/s SRR Laboratories	Telangana	18.11.2020	Not yet applied	Due to financial constraints the project proponent has sold the unit to the Racemic Labs Pvt. Ltd. The EC Transfer application was submitted on 23.10.2021 to MoEF&CC, New Delhi and the EC transfer was granted on 23.11.2021 in the name of Racemic Labs Pvt. Ltd.
12.	M/s Varahi Pharma Pvt. Ltd	Andhra Pradesh	25.01.2021	Submitted CTE/CFE application to APPCB, CFE meeting was held on 11.11.2021.	Obtained CFE vide Order No. 191/APPCB/CFE/RO-ATP/HO/2012 Dated: 25/11/2021
13.	M/s Vinta Labs Pvt. Ltd	Telangana	Awaiting for EC	NA	

List of Status of Pharmaceutical Industries in Kadechur Industrial Area, Yadgiri, Karnataka provided by the consultant M/s AM Enviro Engineers.

S. No	Name of the Project Proponent	Location	Date of EC granted	Consent to Establishment
1.	M/s. Telangana Pharmatech	Karnataka	11.06.2021	06.12.2021

2.	M/s. Mansfield Pharma Pvt. Ltd	Karnataka	11.06.2021	26.10.2021
3.	M/s. Jetlife Sciences	Karnataka	17.06.2021	Not yet applied
4.	M/s. Swara Labs Pvt. Ltd	Karnataka	23.06.2021	Not yet applied
5.	M/s. Formel Labs Pvt. Ltd	Karnataka	23.06.2021	Under process
6.	M/s. Tetrachem Labs	Karnataka	23.06.2021	26.10.2021
7.	M/s. Sai Nikhil Pharma	Karnataka	07.07.2021	26.10.2021
8.	M/s. Chemwin Laboratories	Karnataka	07.07.2021	Not yet applied
9.	M/s. Fleming Laboratories	Karnataka	07.07.2021	Applied, waiting for approval.
10.	M/s. Sanovi Pharmaceuticals	Karnataka	07.07.2021	Not yet applied
11.	M/s. Laureatz Technochem Pvt. Ltd	Karnataka	03.08.2021	Not yet applied
12.	M/s. Vineela Biologics	Karnataka	21.09.2021	Not yet obtained
13.	M/s. 4S Laboratories	Karnataka	21.09.2021	11.11.2021
14.	M/s. Bluepal Labs Pvt. Ltd	Karnataka	04.10.2021	Not yet obtained
15.	M/s. Arani Life Sciences	Karnataka	16.11.2021	Not yet applied
16.	M/s. Laxmi Genchem Sciences Pvt. Ltd	Karnataka	23.11.2021	Not yet applied

On submission of the detailed information the EAC observed that till date most of the project proponent had not started the work or even not applied for the Consent to Establishment.

As per presentation of M/s. Right Source Industrial Solutions Pvt. Ltd., out of 13 projects only 1 had got CTE; and only 3-4 had submitted the information and rest of even not applied for further processing at SPCB.

As per presentation of M/s. AM Enviro Engineers, out of 16 projects, only 5 projects had applied and received CTE and rest of not even applied for the CTE to SPCB.

Further, the Member Secretary has also informed to the EAC that a total of 1196 ECs were granted by SEIAA at States Level and 48 ECs were granted by the MoEFCC at Central level under this notification [API-Cat B2]. The detailed status as compiled from the Parivesh Portal (as on 16.12.2021) are as follows:

S. No.	State	EC granted by SEIAA at State Level	EC granted by MoEFCC at Central Level
1.	Andhra Pradesh	72	7

2.	Chhattisgarh	1	-
3.	Gujarat	777	-
4.	Haryana	6	-
5.	Himachal Pradesh	3	-
6.	Karnataka	18	23
7.	Madhya Pradesh	4	-
8.	Maharashtra	33	13
9.	Punjab	6	-
10.	Rajasthan	4	-
11.	Tamil Nadu	6	-
12.	Telangana	263	5
13.	Uttar Pradesh	2	-
14.	Uttarakhand	1	-
Total		1196	48

The Committee, after detailed deliberation, is of the view that the Project Proponents/State Governments shall implement the projects on priority basis as these APIs are very important for the Nation and being required to use of Covid related medicine/drugs. The Ministry/SEIAA has already granted many ECs to API Projects. Now State Governments may implement the projects for availability of APIs in the Country.

Re-Consideration of TOR

Agenda No. 22.12

Expansion of Manufacturing Units located at Penta Division at Plot No. B5–B10, SIPCOT Industrial Complex, Kudikadu Village, Cuddalore Taluk, Cuddalore District, Tamil Nadu by M/s Asian Paints Ltd - Re-Consideration of TOR

(Proposal No. IA/TN/IND3/219681/2021; File No. IA-J-11011/283/2021-IA-II(I))

The proposal was earlier considered by the EAC (Industry-3) in its meeting held on 20th September, 2021. The requisite information desired by the Committee and response submitted by the PP are as under:

Current status of the CPAs and Hon'ble NGT proceedings and directions. The Committee also desired that the project proponent shall require submitting compliance status of the existing EC conditions and present baseline air quality data of the project site.

PP submitted vide letter 28.10.2021 that EC was challenged by NGT in appeal no.01/2018(SZ). The said appeal is part and pending before the NGT and scheduled to be listed for hearing 15th November, 2021. And most of the conditions in the certified compliance report are complied. And PP also reported that manufacturing unit is not located in severely polluted area. The submission made by the PP were found to be satisfactory.

The project proponent and their consultant made a detailed presentation on the project and informed that:

The proposal is for ToR to the project for Capacity Expansion at Penta Division at Plot No. B5–B10, SIPCOT Industrial Complex, Kudikadu Village, Cuddalore Taluk, Cuddalore District, Tamil Nadu by M/s Asian Paints Ltd.

The details of products and capacity as under:

Name of Product	Existing (MTM)	Proposed (MTM)
Pentaerythritols (powder & Solution)	730	1500
Sodium Formate (powder & solution)	480	1050
Formaldehyde (100% concentration)	675	1800

The project/activities are covered under Category 'B' of item 5(f) 'Synthetic Organic Chemicals Industry' of the Schedule to the Environment Impact Assessment Notification, 2006. The project proponent informed that the project is located within 5 km of the CPA and hence requires appraisal at Central Level by the Expert Appraisal Committee (EAC) in the Ministry.

PP reported that the expansion activity is proposed in the existing area of 29.20 Acres situated in SIPCOT Industrial Complex, Cuddalore. Well-developed greenbelt is available in an area of 40% of the total plot area (i.e., 47621.76 m² out of 1,18,168.15 Sq.m. of the project area). The cost for the proposed expansion is estimated at 16.43 Crores. Since the proposed expansion is planned with the help of process automation by upgrading distribution Control system, there will not be any additional manpower requirement. The existing manpower is 140 Nos.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Uppanar River – 0.55 Km (E), Bay of Bengal – 1.89 Km (E), Capper Hills Lake – 4.45 Km (NE), Perumal Lake – 8.84 Km (SES) are located within 10km from the project site.

The total Fresh water requirement after expansion will be around 1500 KLD. The entire quantity of raw water will be supplied by SIPCOT. Total Sewage generation will be around 45 KLD and treated in STP of capacity 50 KLD. The treated water from STP will be used for greenbelt development. Present Effluent generation is 131 KLD which is treated in ETP of capacity 250 KLD. After expansion the effluent generation will be treated in existing ETP of capacity 250 KLD. Total power requirement for the project is 2.0 MW in addition to the existing of 1.5 MW. Tamil Nadu electricity board will be the power supplier in addition to captive power generation.

Asian Paints Limited, Penta Division has proposed to increase the production capacity of Pentaerythritol from 730 MTM to 1500 MTM, Sodium Formate from 480 MTM to 1050 MT/M and Formaldehyde from 675 MT/M to 1800 MT/M through debottlenecking certain unit operations at SIPCOT industrial complex. Steam boilers both the existing 16 TPH and 14 TPH boilers will run simultaneously to cater to the steam requirement. Air Emissions for existing plant, measures are taken up for control of stack emissions. All the stacks are attached to process units, Boilers, DG Sets. The solid waste generated from existing is 2840 MT and proposed is expected around 7935.75 MT and it will be disposed to authorized recycler.

Raw Material Requirement

S. No.	Raw Material	Existing Requirement, MTM	Expected Requirement, MTM	Mode of Transport
1	Methanol	800	2160	Tanker
2	Acetaldehyde	292	750	Tanker
3	Caustic Soda	640	1500	Tanker

Deliberations in the EAC:

The EAC made deliberations on proposal. The EAC noted that existing EC was challenged by an NGO in Hon'ble NGT vide appeal no.01/2018(SZ). EAC noted that the instant case is related to authority for categorization of project w.r.t. CPA.

It was informed to the EAC that the TOR was granted by the EAC/Ministry and as a policy decision, further the instant case was transferred to SEIAA for consideration of EC at State Level due to change of CEPI score etc. Thereafter, the SEAC/SEIAA has granted EC based on the approved TOR. TOR has a condition that the PP has to submit EIA/EMP report to the SEIAA for their further consideration. Accordingly, PP has submitted final EIA/EMP Report to SEIAA and after recommendations of the SEAC, the SEIAA has granted EC to PP.

The Ministry has also filed its affidavit before the Hon'ble NGT. The case is listed many times but final order is awaited. Since now due to change of CEPI score the project again comes under the CPA and the PP has applied to the Ministry for consideration of TOR proposal for its expansion project. The Committee also noted that most of the conditions in the certified compliance report are complied. The EAC is of the view that the expansion TOR proposal may be considered for preparation of detailed EIA/EMP Report and conducting baseline data/study.

The Committee, after detailed deliberations, **recommended** for issuing **Standard ToR** [Annexure-I] in addition to following **additional ToR**.

- (i). The instant TOR is subject to outcome of Hon'ble NGT Order.
- (ii). Certified compliance status of the existing EC conditions form IRO, MoEFCC Chennai needs to be submitted along with EIA/EMP Report. .
- (iii). Details on requirement of raw materials (binders, solvents, pigments, additives, resin, driers etc.), their source and storage at the plant.
- (iv). Details on composition, generation and utilization of waste from the plant–left out raw materials, paint sludge, filter cartridges, off-specification paint, etc
- (v). Existing ambient air quality for expected emissions (VOCs, pigment dust, etc.) from paint industry.
- (vi). Details of various mitigation measures as the Unit is located in CPA needs to be incorporated in the EIA/EMP Report.

Agenda No. 22.13

Expansion of pesticide & pesticide intermediates manufacturing of production capacity from 3175 mt/ annum to 17625 mt/annum 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 – Re-Consideration of TOR

[Proposal No.IA/GJ/IND3/221809/2016; File No. IA-J-11011/7/2016-IA-II(I)]

The project proponent **did not attend** the EAC meeting. The PP vide email dated 14.12. 2021 requested to postpone the proposal due to non-availability of technical expert. The Committee, after detailed deliberation, accepted the request of PP.

Agenda No. 22.14

Any other Items with permission of the Chair. Representation of M/s Indian Polyurethane Association regarding classification of Polyurethane Manufacturing Unit for the purposes of the EIA Notification, 2006-Regarding.

M/s Indian Polyurethane Association did not attend the EAC meeting.

The meeting ended with thanks to the Chair.

Standard TOR for 5 (h) Category

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. List of raw materials required and their source along with mode of transportation.
- vi. Other chemicals and materials required with quantities and storage capacities
- vii. Details of Emission, effluents, hazardous waste generation and their management.
- viii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
- ix. Details of boiler/gensets (including stacks/exhausts) and fuels to be used
- x. Process description along with major equipment's and machineries, process flow sheet (quantitative) from raw materials to products to be provided
- xi. Hazard identification and details of proposed safety systems.
- xii. 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) Forest, wildlife and CRZ related issues (if applicable):

- 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.
- 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 carried out 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 Integrated Paint Industry

1. Details on requirement of raw materials (binders, solvents, pigments, additives, resin, driers *etc.*), their source and storage at the plant.
2. Whether any of the material content lead if so details thereof.
3. Details on solvent management including loss accounting.
4. Details on composition, generation and utilization of waste from the plant—left out raw materials, paint sludge, filter cartridges, off-specification paint, *etc*
5. Existing ambient air quality for expected emissions (VOCs, pigment dust, *etc.*) from paint industry

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GENERAL EC CONDITIONS

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

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	Interim 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.) Pradeep Kumar Mishra Department of Chemical Engineering & Technology, Indian Institute of Technology (BHU) Varanasi, Varanasi - 221005 E-mail: pkmishra.che@itbhu.ac.in / drpkm18@gmail.com	Member
5.	Prof. (Dr.) Vijay S. Moholkar Professor in Department of Chemical Engineering, Block-K (Academic complex), Room No. 111, India Institute of Technology Gawahati, Gawahati – 781039 E-mail: vmoholkar@iitg.ac.in	Member
6.	Shri Santosh Gondhalkar 'Shree' Apartment, Flat 401, Plot No. 22, Tukaram Society, Santnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
7.	Dr. Suresh Panwar House No.4, Gayateri Green Society, NH 58 Bypass, Kankerkhera, Meerut, Uttar Pradesh Email- sppcpri@gmail.com	Member
8.	Shri Tukaram M Karne "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2, PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	Member
9.	Prof. (Dr.) Suneet Dwivedi, Professor in K Banerjee Centre of Atmospheric and Ocean Studies, University of Allahabad, Allahabad - 02	Member

	Uttar Pradesh E-mail:dwivedisuneet@rediffmail.com /suneetdwivedi@gmail.com	
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: 011-24695362 E-mail: rb.lal@nic.in	Member Secretary

MoEFCC		
1.	Dr. Bhawana K Negi Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Technical Officer
2.	Mr. Ritin Raj Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Research Assistant

Approval of EAC Chairman

Email

Additional Director MoEFCC Dr R B LAL

Re: Zero Draft Minutes of the 22nd EAC (Industry 3 Sector) meeting held during December 15-16, 2021 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir.

From : ab pandit <ab.pandit@ictmumbai.edu.in>

Wed, Dec 22, 2021 10:24 AM

Subject : Re: Zero Draft Minutes of the 22nd EAC (Industry 3 Sector) meeting held during December 15-16, 2021 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir.

📎 1 attachment

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

Dear Dr. Lal,
Please find attached the signed and approved minutes,
Thanks and Warm Regards
Pandit

Minutes Approved



(Professor Aniruddha B Pandit)
