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

Dated: 20.12.2022

MINUTES OF THE 43rd EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON 30th NOVEMBER, 1st & 2nd DECEMBER, 2022

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

Time: 10:30 AM onwards

(i) Opening Remarks by the Chairman

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

(ii) Details of Agenda items by the Member Secretary

The Member Secretary apprised the Committee about the details of Agenda items to be discussed during this EAC meeting.

(iii) Confirmation of Minutes of the 42nd Meeting of the EAC (Industry-3 Sector) held during November 14-15, 2022 through VC.

The EAC noted that the final minutes of the above meeting were issued after incorporating the comments offered by the members and approved by the Chairman.

Agenda No. 43.1

Expansion of the Fertilizer Plant of Deepak Fertilizers and Petrochemicals Corporation Limited located at Plot K1- K5, MIDC Industrial area, Taloja, District Raigad, Maharashtra by M/s Smartchem Technologies Limited – Reconsideration of Amendment in Environmental Clearance

[Proposal No. IA/MH/IND3/276713/2022; File No. J-11011/167/2016-IA II (I)]

1. The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter No. 11011/167/2016-IA II (1) dated 02.09.2019 for Expansion of the Fertilizer Plant of M/s Deepak Fertilisers and Petrochemicals Corporation Limited at Plot K1-K5, MIDC Industrial area, Taloja, District Raigad, Maharashtra.

2. The project proponent has requested for amendment in the EC with the details as under:

Sl. No.	Reference of Approved EC	Description as per Approved EC	To be revised / read as	Justification/Reasons
1.	Pg. No.4, Sr.No.11 (h)	Only 1500 m^3/day wastewater shall be sent to CETP	Only 2309 m^3/day wastewater shall be sent to CETP	We carried out study through IIT, Mumbai for Assessment of the Opportunities for Up-gradation of the Environmental Infrastructure Including Process Water and Wastewater Treatment and Reuse. Our ETP is working smooth complying consented parameters in the present scenario, as will take additional load of proposed expansion. As per the current CTO outlet is 3340.88 m^3/day. To comply NPK EC expansion condition of reducing ETP outlet to 1500 m^3/day, IIT-Mumbai team worked on minimization of waste and increase water reuse, for which, the following projects were taken to reduce ETP load, boost recycle and reuse of treated waters – 1. Reduction of wastewater loads to ETP by installation of PSF-UF-RO-MEE system to recover N&P and enhance reuse of treated water (572 m^3/day), 2. Reuse of ETP treated water in the existing NPK plants as well as for expansion in NPK plant (total 100 m^3/day), and 3. Enhancement of water reuse through reject streams from Advanced Process Water Treatment Plant (634 m^3/day) for polishing raw water using UF & RO. Permeate from APWT plant is used as DM feed thus reducing regeneration cycle by four folds. Reject form APWT plant is used as CT make up thus reducing fresh raw water demand. Beyond this initiative there will be reduction of water footprint but to achieve this we need to use higher fossil fuel which will increase carbon footprint disproportionally. Thus, sustainable discharge from the ETP outlet will be 2309 m^3/day as per mass balances and optimization exercises by IIT Mumbai team. With this, we request to consider our submission. While doing so, also assure to implement innovative technological development in future for environment protection and conservation.

3. The proposal was placed in 34th EAC Meeting held on July 12-13, 2022, wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by the PP on 20th October 2022, which is as follows:

S. No.	Queries Raised by the EAC	Reply by the PP	Observations of the EAC
1.	The EAC deliberated on the issue and observed that the PP previously obtained an	The said EC was obtained in Sep-19 for expansion of multiple grade NPK fertilizer production capacity. Immediately we perused the EC	The EAC found the reply

	amendment in EC on 16.11.2021, The PP needs to justify, as to why this amendment was not proposed at that time.	conditions. There were 3 conditions of our concern. One was related to effluent for which we wanted to try our efforts before seeking any amendment and below mentioned 2 conditions which we were unable to comply wanted to amend immediately and applied for amendment of those 2 conditions: (1) Requirement of 33% of total green belt within the plot on the grounds that this is existing factory established in early 1980s. We submitted to comply condition this by having 31 % green belt within plot & in periphery and remaining 2 % green belt on an area of 2.6 acres (i.e., 10,600 m2) on nearby plots allotted by MIDC for green belt development (2) Condition of 5% ESC to be spent only for providing Laptop in nearby schools. We proposed amendment in condition to provide CER at 0.75 % as stipulated in the OM dated 01.05.2018 and balance 4.25% in EMP related activities mentioned in EIA/EMP report and various commitments/activities made in public consultation. Both above amendments proposed by us were accepted by the EAC, and EC was amended vide File No. J-11011/167/2016-IA II (I) dt 02,09.19. We are thankful to EAC Members and MoEFCC for having granted these amendments, which has ensured that we are compliant to the above clauses. As mentioned above, EC condition No. Pg. No.4, Sr. No. 11(h) required us to restrict effluent discharge quantity to CETP to 1500 cmd. We tried our best to comply the same, but are not able to find a techno economically viable solution, and hence approaching MoEFCC for a second amendment to EC. Initially, we tried internally but later we appointed IIT-Mumbai in Nov-20, to do technical study to assess the environmental infrastructure and studying alternatives strategies for reduction, recycles & reuse of process effluent and / or improvements in Effluent Treatment Methodology. The said study was awarded to lIT in Nov-20 and completed in Apr-21. The study completion got delayed till Apr-21 and subsequently implementation of the recommendations also got delayed due to covid	submitted by the PP to be satisfactory.

		pandemic; But now that we are in the process, we find that this condition to restricting our discharge to 1500 cmd levels is very difficult to comply and hence we are now requesting for a second amendment to EC. We also wish to inform that we have not undertaken our proposed expansion of additional 2 LMPTA of NPK production (for which EC was taken by us in Sep-19) due to our inability to find a technically viable solution for effluent discharge. Thus, reason for delay in applying for amendment is that we did try to find a viable solution, which does not seem to be forthcoming. We request you to consider the same sympathetically and request you to consider our case for grant of second amendment in EC dt Sep-19.	
2.	The amount of wastewater mentioned in the EIA Report is not matching with the quantity mentioned by the PP now.	The EIA Report based on which EC was granted in Sep-19 was carried out in 2017. In this report, some products which were not covered under the Schedule annexed to the EIA Notification were added subsequently like IPA based hand sanitizer, 1AP drumming, ANP (started operating), CFB, DM plant capacity enhancement, hence the total effluent generation as shown in the EIA report (2876 cmd) was less than the average annual flow (3340 cmd) computed by experts from IIT. Now, we have carried out detailed study of water consumption, effluent generation & treatment process from technical experts of IIT-Mumbai by evaluating each production process, their mass balances, related utilities etc., the exercise done by IIT Mumbai shows that the total effluent generation is matching the annual average quantity as given above.	The EAC found the reply submitted by the PP to be satisfactory.
3.	The PP needs to first submit the details mentioned in the EC compliance report submitted to IRO with respect to this condition.	Please refer Annexure-I of EC compliance report (April 2022-Oct 2022) submitted to RO-MOEF&CC.	The EAC found the reply submitted by the PP to be satisfactory.
4.	The amount of wastewater generated after grant of EC year-wise and submit the latest EC compliance report.	Please refer enclosed Annexure-II. Our maximum wastewater generated after EC as requested by you is 3295 CMD and average is 2899, which includes 100 CMD recycle to NPK as per the Annexure-III. The average figure is on the lower side as during this period due to COVID we were operating at lower capacity as per the govt. directive.	The EAC found the reply submitted by the PP to be satisfactory.

5	The PP is also required to submit the details of carbon footprints & carbon sequestration study w.r.t proposed project.	As we presented during EAC meeting we can reduce the effluent discharge up to 2309 CMD by use of less fuel and energy intensive technologies like PSF, UF, and RO. To further reduce the effluent by 809 CMD in order to reach the target discharge quantity of 1500 CMD we will need high fuel and energy intensive technologies like MEE, ATFE, ATFD etc. Based on this the carbon footprint generated for reduction of - • 1031 CMD to reach 2309 CMD is 6980 kg/D and • To further reduce by 809 CMD in order to reach 1500 CMD additional carbon footprint of 15525 kg/D is estimated. Based on above, we request to allow us to reduce the effluent up to 2309 CMD and amend the condition in the EC accordingly.	The EAC found the reply submitted by the PP to be satisfactory.
6	Details of onsite and offsite emergency plan.		The EAC found the reply submitted by the PP to be satisfactory.

4. **Deliberations by the EAC**:

The EAC constituted under the provisions 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.

The EAC inter-alia, deliberated on the water balance – current and future, green belt development and initiatives on sustainability & minimising carbon footprint. The PP submitted the revised/updated information/documents of the same and the EAC found it to be satisfactory.

5. After detailed deliberations, the EAC **recommended** the amendment in EC **w.r.t discharge of 2309 m^3/day wastewater to CETP (instead of 1500 m^3/day as per EC**), as detailed in above-mentioned table subject to the following additional conditions:
   (i). All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The Project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.
   (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.

Agenda No. 43.2

Proposed Expansion of the Production Capacity of Formaldehyde from 900 MTPM to 3000 MTPM and Resins from 1000 MTPM to 3000 MTPM in Existing Unit located at S. No. 357/2C, Village - Nani Chirai, Taluka - Bhachau, Dist. Kutch, Gujarat by M/s A K Formaline Pvt. Ltd. - Reconsideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/273389/2011; File No. J-11011/312/2010-IA II (I)]

1. The proposal is for environmental clearance for the proposed expansion of production capacity of Formaldehyde from 900 MTPM to 3000 MTPM and Resins from 1000 MTPM to 3000 MTPM in Existing Unit located at S. No. 357/2C, Village - Nani Chirai, Taluka - Bhachau, Dist. Kutch, Gujarat by M/s A K Formaline Pvt. Ltd.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) as the project is located outside the notified industrial area. Therefore, the project requires appraisal at Central Level.

3. The PP applied for the ToR vide proposal number IA/GJ/IND2/73638/2018 dated 23.3.2022 and the standard ToR was issued by the Ministry, vide letter no. J-11011/312/2010-IA II (I) dated 10.5.2018. The PP submitted that Public Hearing for the existing project has been announced by the State Pollution Control Board on 02.06.2021, but due to COVID-19 pandemic, the Public Hearing was postponed. Later on, the Public Hearing was re-scheduled on 10.12.2021. The main issues during the Public Hearing are related to waste water disposal, employment, CER activity and control of pollution which was presided by Additional District Magistrate. The PP applied for Environment Clearance on 18.05.2022 in Form-2 and submitted the EIA/EMP Report and other documents. The PP in the Form-2 reported that it is an **Expansion case.** Due to some shortcomings, the Project was referred back to the PP on 24.05.2022, 08.06.2022 & 16.06.2022 and reply to the same was submitted on 01.06.2022, 09.06.2022 & 23.06.2022 respectively. The proposal was placed in 34th EAC, wherein the proposal was deferred for want of requisite information. The proposal is now placed in 43rd EAC Meeting held on 30th November, 1st & 2nd December 2022, wherein the Project Proponent and an accredited Consultant, Bhagwati Enviro Care Pvt. Ltd. [Accreditation number QCI/NABET/ENV/ACO/22/2299 valid up to 09.01.2023], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area is 0.3574 Ha and no R& R is involved in the Project. The details of products and by–products are as follows:

Sr. No.	Product Name	CAS No.	Quantity in MT/Month			Uses
			Existing	Proposed	Total	
1	Formaldehyde (37% solution)	50-00-0	900	2100	3000	Manufacturing of resins bonding.

2	Resin • Urea formaldehyde • Phenol formaldehyde • Melamine formaldehyde	9011-05-6 28064-14-4 9003-08-1	1000	2000	3000	Resins are used in the Ply board, flush door, block board, practical boards and decorative laminate.
TOTAL			1900	4100	6000	

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction issued under E (P) Act/Air Act/Water Act.

6. The PP reported that EC was granted by the Ministry vide letter No. J-11011/183/2007-IA II (I) dated 22.09.2008 and No. J-11011/312/2010-IA II (I) dated 10.9.2013. As per the IRO, MoEF&CC, the project was inspected on 06.09.2022 and out of total 54 conditions, 42 are complied, 5 are partly complied, 4 are agreed to comply by the project proponent, 1 condition cannot be ascertained and 2 conditions are not applicable to the unit. These have been explained in the compliance report against each of the conditions.

7. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger /Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Bhimasar Pond is at a distance of 5.55 km towards West and Varsana Pond is at a distance of 2.31 km towards South. The PP reported that no forest area is involved in the proposed project and no Schedule-I species exist within 10 km study area of the project.

8. The PP reported that **Ambient Air Quality** monitoring was carried out at 8 locations during 05th January, 2021 to 04th April,2021 and base line data indicates the ranges of concentrations as: PM_{10} (57-87 µg/m^3), $PM_{2.5}$ (16-26 µg/m^3), SO_2 (7.8 – 9.0 µg/m^3) and NO_2 (14.1-18.3 µg/m^3). AAQ modelling study for point source emissions indicates that maximum incremental GLCs after the proposed project would be 87.003 µg/m^3, 8.73 µg/m^3 and 16.95 µg/m^3 with respect to PM_{10}, SO_x and NOx respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise -** The project site is an industrial area, where the CPCB limits defined for Noise Levels are 75 dB during the day and 70 dB during the night. However, sound pressure levels are considered on higher side for more critical analysis. The maximum predicted cumulative noise levels due to plant operations at the boundary of the project site was observed to be 67.9 dB(A). The noise levels further reduce with distance and the resultant noise levels at the nearby habitations are below 55 dB(A). **Water -** Overall TDS levels in the study area are high due to proximity to sea. The nitrogen levels in the ground water are above limits due to possibility of agricultural discharges percolating to the ground water. **Soil-** Soils in the area are alkaline in nature. Although it is unlikely to have adverse impact on plant structure; however still it need to be ensured that foundations to be designed considering the soil quality.

9. The PP reported the total water requirement is 116 KLD of which fresh water requirement 102.8 KLD will be met from GWIL (Gujarat Water Infrastructure Limited). Total Effluent is 35.5 KLD from that, process effluent of 23 KLD will be treated in ETP-1 (having primary treatment and Fenton process) then evaporated in in House Thermic Fluid Evaporator and other effluent 12.5

KLD will be treated in ETP-2 (having primary treatment) then goes to RO system from that RO Permeate 9.5 KLD reuse within premises and RO Rejected 3.0 KLD evaporated in in House Thermic Fluid Evaporator.

10. The PP reported the source of power will be Paschim Gujarat Vij Company Ltd. The power demand for the proposed expansion manufacturing activity will be 150 KW. If in future, it is required then in alternate unit will install DG set after obtaining required permission.

11. **Details of Process Emissions Generation and their Management:** There is no process emission from existing as well as proposed manufacturing process.

12. **Details of Solid/ Hazardous Waste Generation and its Management**:

S. No	Type of Waste with category Number	Existing	Proposed	Total After Expansion	Management
1.	Discarded Containers (Cat. No.33.3)	61.50 MT/ Year	60.00 MT/ Year	121.5 MT/ Year	Collection, Storage, Transportation, Disposed by selling out to authorized decontaminator.
2.	Used Oil (Cat. No. 5.1)	0.02 MT/ Year	0.04 MT / Year	0.06 MT/ Year	Collection, Storage, Transportation, Disposed by selling out to registered recycler
1.	ETP Sludge (Cat. No. 35.3)	34.3 MT/ Year	36 MT/ Year	70.3 MT/ Year	Collection, Storage, Transportation & Disposed to TSDF of SEPPL, Kutch.

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 58.75 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 259.39 Lakh per annum. Industry proposes to allocate ₹ 6.8 Lakh towards corporate Environmental responsibility (CER).

14. The PP reported that Industry has already developed greenbelt in an area of 44.8% i.e. 1600 m^2 out of total area of the project. Industry have planted big and heighted trees (Neem, Peepal, Ashoka, Gulmohar, Ashopalav) about 404 numbers within premises which is helpful to reduce CO_2 emission. Industry have also fruits tree within our premises i.e. Mango, Jamfal, Chiku, Jamun.

Industry have planted flowers and other small plant beside the internal road. Industry will also develop additional 2500 Nos. trees in 10000 Sq. m. area at outside our premise and road side area.

15. The PP proposed to set up an Environment Management Cell (EMC) to engage EHS manager-Executive – EHS- Supervisors & Operator for the functioning of EMC.

16. The PP submitted that Public Hearing for the existing project has been announced by the State Pollution Control Board on 02.06.2021. But due to COVID-19 pandemic public hearing was postponed later on, the public hearing was re scheduled on 10.12.2021. The main issues during the public hearing are related to waste water disposal, employment, CER activity and control the pollution which was presided by Additional District Magistrate.

17. The PP reported that –

CO_2 emission from fuel would be as:

S. No.	Fuel	Consumption L/Day		Emission Factor (kg)	CO2 emission (TPA)	
		Existing	After Expansion		Existing	After Expansion
1	Diesel	30	60	2.65	23.8	47.7

CO_2 emission from process would be as:

Sr. No.	Process of product	Production (TPA)		Emission Factor (kg)	CO2 emission (TPA)	
		Existing	After Expansion		Existing	After Expansion
1	Formaldehyde & Resin	22800	72000	0.0899	2049.72	6472.8

CO_2 emission from transportation would be as:

Raw Material consumption (Consider full capacity of production)	7602 MTPM
Generated hazardous waste	6.0 MTPM
Transportation by Truck Max. loading capacity of Truck	20 MT
Truck transported in one day	15
Required Manpower	10

Transport by	Fuel	No. of vehicle in a day	Daily travel (km)	Mileage (L)	Fuel requirement L/Vehicle	Total Fuel LPD	Emission factor (kg)	CO2 emission (TPA)

Truck	Diesel	15	100	8.0	12.5	187.5	2.65	150
Car	Petrol	2.0	30	15	2.0	4.0	2.33	2.8
Two Wheeler	Petrol	5.0	30	40	0.75	3.75	2.33	2.6

CO_2 emission from electricity/energy source ***CO_2 emission by the respective power plant and they have given commitment for taking mitigation measure/carbon sequestration for particular power plant. Hence, the same is not consider in our carbon footprint.***

Electricity Consumption (KWH per Day)		**Emission factor (kg)**	**CO_2 emission (TPA)**	
Existing	After Expansion		Existing	After Expansion
1680	3600	0.82	414	885.6

Total CO_2 Generated from different source 7496.7 Ton per annum.

Absorption of CO_2 emission by Trees Plantation

No of Trees	**Location**	**Absorb CO2 emission by trees**	**Absorb CO2 emission (TPA)**
404 Trees – Planted	Within premises	6 Mature Trees consume 1 Ton CO2	67.3
2500 Trees – To be planted	Outside premises		416.7

Reduction of CO_2 generation by Renewable Energy

Source of Renewable Energy	**Location**	**Power Reduction (KW)**	**Reduction of CO_2 emission (TPA)**
Solar Panel (205 Panels)	Within premises	100	30
Solar Panel (300 Panels)	At near village	180	54
Solar Street light (800 Nos)	At near village	15	4.5
******Reduction of CO_2 emission in kg/kw***			

Total reduction of CO_2 emission: 572.5 TPA Different between Carbon Footprint and Sequestration: 6924.2 TPA (CO_2 emission)

18. The PP submitted the disaster and Onsite and Offsite Emergency Plans in the EIA report.

19. The estimated project cost is ₹ 4.86 Crore (Existing: 1.48 Cr + Propose: 3.4 Cr). Total employment will be35 persons as direct & 15 persons as indirect for proposed project.

20. The proposal was earlier placed in 34th EAC Meeting held on July 12-13, 2022, wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by PP on 22nd October 2022, which is as follows:

S. No.	Queries Raised by EAC	Reply by PP	Observation of EAC
1.	The PP shall submit the valid Certified Compliance Report from the IRO, MoEF&CC as per requirement of Ministry's O.M. F. No IA 3-22/10/2022-IA.III (E 177258) dated 8.6.2022 in the Form-2.	Certified Compliance Report issued by IRO, MoEF&CC has been submitted.	The EAC found the reply submitted by the PP to be satisfactory.
2.	The PP shall submit a time bound action plan for green belt keeping in mind that species selected should have high carbon sequestration potential, green belt needs to be developed within a year time.	Time bound action plan for green belt (Considering 2500 trees per 10000 Sq. m.) has been submitted.	The EAC found the reply submitted by the PP to be satisfactory.
3.	The PP shall submit the details of carbon foot prints and carbon sequestration study w.r.t. proposed project. Proposed mitigation measures also needs to be submitted for further appraisal of the EAC.	Co_2 emission from fuel- 47.7 TPA CO_2 emission from process-6472.8 TPA. Total CO_2 Generated from different source 7496.7 Ton per annum. Different between Carbon Footprint and Sequestration: 6924.2 TPA (CO_2 emission)	The EAC found the reply submitted by the PP to be satisfactory.
4.	The PP needs to submit the details of Onsite/Offsite emergency plan and mitigation measures to be proposed during implementation of the project.	Onsite/Offsite emergency plan and mitigation measures to be proposed has been submitted.	The EAC found the reply submitted by the PP to be satisfactory.
5.	The PP shall prepare a detailed rain water harvesting plan so that unit may become water positive. The study report shall be	Rain Water Harvesting plan to IRO, MoEF&CC has been submitted.	The EAC found the reply submitted by the PP to be satisfactory.

	submitted to IRO, MoEF&CC and submit the quantity of rain water harvested to before IRO, MoEF&CC before 1st July of every year for the rain water harvested during previous year		
6.	The PP needs to submit an undertaking that it's not a violation case as per SOP dated 7.07.2021 and submit the supporting documents including the actual production of all the products vis-à-vis EC capacity.	Undertaking with attached supporting document for this is not a violation case as per SOP dated: 07.07.2021	The EAC found the reply submitted by the PP to be satisfactory.
7.	In Form -2, the PP uploaded the Consultant NABET Accredited certificate which is not valid, the PP needs to submit the valid certificate of the Accredited consultant. Certificate of consultant for the period of baseline data collection and preparation of EIA/EMP, certificate of testing lab and ensure to attach original test report.	NABET Accreditation (valid up to: 09.01.2023) Certificate has been submitted.	The EAC found the reply submitted by the PP to be satisfactory.
8.	The PP needs to submit the microbial diversity of flora and fauna of the project area and the effect of formaldehyde on the soil.	Manufacturing of Formaldehyde (37%), Melamine Formaldehyde, Urea Formaldehyde and Phenol Phormaldehyde in our unit and for manufacturing of this project we are using Formaldehyde, Methanol, Phenol, Melamine, Urea, Caustic & Polyvinyl alcohol as raw materials. − We are manufacturing Formaldehyde (30%) which we are using in manufacturing process of Melamine Formaldehyde, Urea Formaldehyde and Phenol Phormaldehyde within premises as raw material and	The EAC found the reply submitted by the PP to be satisfactory.

		sell to user. − All Manufacturing process is carried out in closed vessel. − Formaldehyde is transferred in closed piping system	

21. **Deliberations by the EAC**:

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

The EAC noted that the PP 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 PP.

The EAC noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The EAC deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The EAC advised 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 inter-alia, deliberated on the greenbelt development plan, and advised the PP to submit the following:

- Updated table that makes apparent the distinction between Big and Heighted trees and small trees.

The PP submitted the above information/documents and the EAC found it to be satisfactory.

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

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

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority 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 PP 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.

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

(i) The PP shall develop Greenbelt over an area of at least, 1600 m^2 by planting 750 (Big + small trees) and 2500+500 outside the premises within a period of one year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2 m). The budget earmarked for the plantation shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of the expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(ii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage EHS manager- Executive – EHS- Supervisors & Operator. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget propose under EMP is ₹ 58.75 Lakh (Capital cost) and ₹ 6.8 Lakh annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iv) The total water requirement is 116 KLD of which fresh water requirement of 102.8 KLD will be met from GWIL (Gujarat Water Infrastructure Limited). The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawn only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.

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

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

(vii) 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.

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

(ix) 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.

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

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

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

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

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

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

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

Agenda No. 43.3

Setting up of manufacturing plant of synthetic organic chemicals (API & its intermediates) at Plot no. 7904/F, GIDC Estate Ankleshwar, District Bharuch, Gujarat by M/s Apex Pharma - Consideration of Amendment in Environmental Clearance

[Proposal No. IA/GJ/IND3/292501/2022; File No. IA-J-11011/469/2022-IA-II(I)]

1. The proposal is for amendment in the environmental clearance letter no. SEIAA/GUJ/EC/5(f)/1212/2020 dated 12.10.2020 for the Setting up of manufacturing plant of synthetic organic chemicals (API & its intermediates) at Plot no. 7904/F, GIDC Estate Ankleshwar, District Bharuch, Gujarat by M/s Apex Pharma.

2. The project proponent has requested for amendment in the EC with the details as under:

Sr. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons
1.	**Project Address**	**Address:** **Plot No.: 7904-F,** GIDC Estate Ankleshwar, Ta. Ankleshwar, Dist. Bharuch.	**Address:** **Plot No.: 7904-F + 7904-E,** GIDC Estate Ankleshwar, Tal.: Ankleshwar-393002, Dist.: Bharuch.	PP has purchased Plot No.: 7904-E having Plot Area 5095.00 Sq. m. on the name of M/s. Apex Pharma Chem vide FTO No.: GIDC/RM/ANK/TRF/FTO/ANK1/1655 Dated: 17/12/2021 and later on obtained Final Order of Amalgamation of Plot no.: 7904-F & 7904-E (GIDC plot Amalgamation vide letter no.: GIDC/RM/ANK/AM/FO/ANK1/64 Dated: 01/08/2022) Proposal for addition of adjoining plot (i.e., Plot area-5095.00 Sq. m.) in existing environmental clearance. **After Amalgamation, total plot area is 11626.99 Sq. m.**

				This proposal is for providing better work Environment as after this addition of plot; Production area, Raw material Storage, Utility will be distributed in both the plot.
2.	**A2 Water/ Condition no. 24**	Total water requirement for the project shall not exceed **138.9 KLD**. Unit shall reuse 1 KLD of treated industrial effluent within premises. Hence, fresh water requirement shall not exceed **137.9** and it shall be met through tankers only. Prior permission from the concerned authority shall be obtained for withdrawal of water.	Total water requirement for the project shall not exceed **147.9 KLD**. Unit shall reuse **7.0 KLD** of treated industrial effluent within premises. Hence, fresh water requirement shall not exceed **140.9 KLD** and it shall be met through GIDC Water Supply Authority only. Prior permission from the concerned authority shall be obtained for withdrawal of water.	After addition of adjoin Plot, there shall be increase in Greenbelt area. We have Proposed 43% of greenbelt (i.e., 4999.60 m^2) of total plot area (i.e., 11626.99 m^2). Hence, Fresh Water Consumption increased. Water Supply permission letter vide No.: NTA/ANK/DEE(WS)/1045 Dated: 20.08.2022
	A2 Water/ Condition no. 26	The Industrial effluent shall be segregated into two streams (1) High COD & TDS Effluent (2) Low COD &	The Industrial effluent shall be segregated into two streams (1) High COD & TDS Effluent (2) Low COD &	Unit is going from single discharge i.e., common evaporation facility to dual discharge i.e., CETP of ETL & common evaporation facility.

		TDS Effluent and it shall be managed as below **<u>High COD & TDS Effluent (45 KLD)</u>** ➢ 45 KLD, High COD & TDS effluent from process shall be treated in Solvent Stripper. 44.4 KLD treated effluent shall be further treated with Low COD Stream in Primary ETP. **<u>Low COD and TDS Effluent (49.3 KLD)</u>** 44.4 KLD treated effluent from stripper and 4.9 low COD and TDS effluent from utility, cooling, scrubber and washing shall be treated in primary ETP	TDS Effluent and it shall be managed as below **<u>High COD & TDS Effluent (10 KLD)</u>** ➢ 10 KLD, High COD & TDS effluent from process shall be treated in Solvent Stripper. Output of Stripper shall be treated in Primary ETP & send to Common Evaporation Facility. **<u>Low COD and TDS Effluent (40 KLD)</u>** 40.1 KLD effluent from Process filtrate, utility, washing & Scrubbing shall be treated in Primary & Secondary Treatment Units. 40	**High Concentration Effluent (10 KLD)** from process section will be segregated and subjected to stripper & ETP. This treated effluent shall be sent to Common Evaporation facility of BEIL. **CMEE Permission: vide letter No.: BEIL/ANK/2022 dated: 03.10.2022** **Low Concentration Effluent (40 KLD)** from Process filtration, utility, washing & scrubbing shall be treated in Primary ETP & combine with Domestic wastewater shall be subjected to Secondary ETP & then send to CETP-ETL for further treatment & disposal. **CETP Permission- ETL: Vide letter No.: ETL/ANK/2022-23/539 dated: 17.08.2022**

		consists of primary treatment units. 49.3 KLD treated effluent shall be sent to CMEE.	KLD Treated effluent shall be sent to CETP, ETL.	
3.	**A4 Solid/Hazardous Waste/ Condition no. 41**	**Sr. No. 1: ETP Waste** **Specific Source of generation (Name, of the activity, Product, etc.):** Effluent Treatment Plant **Category and schedule as per HW Rules:** 35.3 **Quantity:** 30 MT/Annum **Management of HW:** Collection, Storage, Transportation and disposal at approved TSDF	**Sr. No. 1: ETP Waste** **Specific Source of generation (Name, of the activity, Product, etc.):** Effluent Treatment Plant **Category and schedule as per HW Rules:** 35.3 **Quantity:** 215 MT/Annum **Management of HW:** Collection, Storage, Transportation and disposal at approved TSDF	Unit is going from single discharge i.e., common evaporation facility to dual discharge i.e., CETP of ETL & common evaporation facility.
4.	**A5 Other/ Condition no. 44**	The Project Proponent shall allocate the separate fund of Rs. 8 Lakhs i.e., 2% of the capital investment for	The Project Proponent shall allocate the separate fund of Rs. 12.0 Lakhs i.e., 2% of the capital	--

		the activities in accordance to the MoEFCC's office Memorandum No. F. No.22-65/2017-IA.III dated 01/05/2018. The entire activities proposed under CER shall be monitored and the monitoring report shall be submitted to the Regional Office of MoEF&CC as a part of half yearly compliance Report and to district collector. The Monitoring report shall be posted on the website of the project proponent.	investment for the activities in accordance to the MoEFCC's office Memorandum No. F. No.22-65/2017-IA.III dated 01/05/2018. The entire activities proposed under CER shall be monitored and the monitoring report shall be submitted to the Regional Office of MoEF&CC as a part of half yearly compliance Report and to district collector. The Monitoring report shall be posted on the website of the project proponent.	
5.	**B.2.7 Greenbelt and other Plantation/ Condition no. 119**	The PP shall develop green belt within premises as committed before SEAC. Green belt shall be developed with native plant species	The PP shall develop green belt within premises **(4999.60 Sq. m. i.e., 43% of the total Plot area)** as committed before EAC. Green belt	Greenbelt area increased due to addition of Adjoin Plot (Plot No.: 7904-E)

		that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of Operation phase in consultation with GPCB.	shall be developed with native plant species that are significant and used for the pollution abatement as per the CPCB guidelines. It shall be implemented within 3 years of Operation phase in consultation with GPCB.	

3. The proposal was earlier considered in the 41st EAC meeting held on 31.10.2022 wherein the EAC deferred the proposal for want of requisite information. Reply to the same was submitted by the PP, which is as follows:

<table>
<tr><th>S. No.</th><th>Queries Raised by EAC</th><th>Reply by PP</th><th>Observation of EAC</th></tr>
<tr><td>1.</td><td>PP needs to first comply the greenbelt condition as per Exiting EC and submit the details of green belt developed along with aerial photographs and video.</td><td>As per EC Condition (Condition no. 119 under B.2.7 Green Belt and Other Plantation): The unit shall develop green belt within premises as per the CPCB guidelines. However, if the adequate land is not available within the premises, the unit shall take up adequate plantation on roadsides and suitable open areas in GIDC estate or any other open areas in consultation with the GIDC / GPCB and submit an action plan of plantation for next three years to the GPCB.
Unit is under Construction Phase.
Unit has not converted EC into Consent to Operate.
However, Greenbelt Development work is going on simultaneously with other construction & installation of machineries.
<table>
<tr><th></th><th>Existing Greenbelt</th><th>Greenbelt recently developed</th><th>Total Greenbelt developed</th></tr>
<tr><td>Greenbelt area</td><td>850 Sq. m.</td><td>511 Sq. m.</td><td>1361 Sq. m.</td></tr>
<tr><td>% of Greenbelt area</td><td>13.0% of existing plot area</td><td>7.82% of existing plot</td><td>20.82% of existing plot</td></tr>
</table>
</td><td>The EAC found the reply submitted by the PP satisfactory.</td></tr>
</table>

<table>
<tr><td></td><td></td><td>
<table>
<tr><td></td><td>(6531.99 Sq. m.)</td><td>area (6531.99 Sq. m.)</td><td>area (6531.99 Sq. m.)</td></tr>
<tr><td>No. of trees</td><td>213 Nos.</td><td>127 Nos.</td><td>340 Nos.</td></tr>
</table>
</td><td></td></tr>
<tr><td>2.</td><td>PP should calculate the number of trees by considering a maximum survival rate of 80% and shall also revise the budget for the green belt development.</td><td>PP shall plant 1250 trees i.e., (4999.6 sq. m. approx. 43% of total plot area (11626.99 Sq. m.)) by considering a maximum survival rate of 80%. Accordingly, we have revised budget for the greenbelt development.

M/s. Apex Pharma Chem located at Ankleshwar industrial Estate having ready infrastructure develop by industrial estate only. Total plot area is 11626.99 sq. m. Green belt shall be developed 4999.60 Sq. m. within premises (approx. 43%). In Green belt area total 1250 Nos. trees will be planted within premises.</td><td>The EAC found the reply submitted by the PP satisfactory.</td></tr>
<tr><td>3.</td><td>The revised water balance by incorporating the rain water harvesting (roof top).</td><td>Water collected through Rain Water Harvesting shall be reuse for Gardening/Greenbelt purpose.
Accordingly, Industry have Revised Water Balance Diagram.
<table>
<tr><th>S. no.</th><th>Condition no. in which Amendment is proposed.</th><th>As per EC</th><th>As per proposed amendment</th><th>Justification</th></tr>
<tr><td>2.</td><td>A2 Water/ Condition no. 24</td><td>Total water requirement for the project shall not exceed 138.9 KLD. Unit shall reuse 1 KLD of treated</td><td>Total water requirement for the project shall not exceed 147.9 KLD. Unit shall reuse 7.0 KLD of treated</td><td>After addition of adjoin Plot, there shall be increase in Greenbelt area.
We have Proposed 43% of greenbelt (i.e., 4999.60 m^2) of total plot area (i.e., 11626.99 m^2).
Hence, Fresh Water Consumption increased.</td></tr>
</table>
</td><td>The EAC found the reply submitted by the PP satisfactory.</td></tr>
</table>

				industrial effluent within premises. Hence, fresh water requirement shall not exceed **137.9** and it shall be met through tankers only. Prior permission from the concerned authority shall be obtained for withdrawal of water.	industrial effluent within premises. Hence, fresh water requirement shall not exceed **140.9 KLD** and it shall be met through GIDC Water Supply Authority only. Prior permission from the concerned authority shall be obtained for withdrawal of water.	**Water Supply permission letter vide No.: NTA/ANK/DEE(WS)/1045 Dated: 20.08.2022**	
4.	**Undertaking w.r.t details of additional plot (construction etc.)**	Plot No.: 7904-E was allotted to Rang Tex Industries and till transfer it was vacant and not taken any legal permission for industrial activity.					The EAC found the reply submitted by the PP satisfactory.

5.	**Compliance/action plan w.r.t each of the mitigation measure for CPA mentioned in the Ministry's O.M. dated 31.10.2019**	Compliance w.r.t each of the mitigation measure for CPA mentioned in the Ministry's O.M. dated 31.10.2019	The EAC found the reply submitted by the PP satisfactory.

4. **Deliberations by the EAC**:

The EAC constituted under the provisions 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.

The EAC inter-alia, deliberated on the greenbelt development plan and water balance and advised the PP to submit the following:

- Revised greenbelt development plan
- Revised water balance and commitment for treating the domestic wastewater and reuse for greenbelt.

The PP submitted the above information/documents and the EAC found it to be satisfactory.

5. After detailed deliberations, the EAC **recommended** amendment in the EC, as detailed in above mentioned table subject to the following additional conditions:

(i). About 1250 saplings shall be planted within one year considering a density of 2500 trees per ha. and 80% survival rate.

(ii). Treated domestic wastewater shall be reused in greenbelt/gardening.

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

(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.

Agenda No. 43.4

Proposed expansion for the installation of Specialty Chemicals Manufacturing Unit (10,808 MT/Month) within existing API Manufacturing Unit (130.01 MT/Month) located at Plot No.

406, GIDC Estate, Panoli, Taluka Ankleshwar, District Bharuch, Gujarat by M/s Omkar Chemical Industries Private Limited - Consideration of ToR

[Proposal No. IA/GJ/IND3/401571/2022; File No. IA-J-11011/411/2022-IA-II(I)]

1. The proposal is for the ToR for preparation of EIA/EMP for proposed expansion by installation of Specialty Chemicals Manufacturing Unit (10,808 MT/Month) within existing API Manufacturing Unit (130.01 MT/Month) located at Plot No. 406, GIDC Estate, Panoli, Taluka Ankleshwar, District Bharuch, Gujarat by M/s Omkar Chemical Industries Private Limited. **The PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the CPCB.**

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry. However, since the project site is located in a critically polluted area, the project attracts the general condition and considered as Category 'A' at Centre.

3. The PP applied for the ToR vide proposal number No. **IA/GJ/IND3/401571/2022** dated 1.10.2022. The proposal was referred back to the PP on 9.10.2022 and its reply was submitted on 18.10.2022. and the proposal was considered in the 41st EAC meeting wherein the proposal was deferred. The proposal is now placed in 43rd EAC Meeting held on 30th November, 1st & 2nd December 2022, wherein the PP and an accredited Consultant, Envision Enviro Technologies Pvt. Ltd. [Accreditation number NABET/EIA/2023/RA0212 (Rev. 01), Valid up to 7.12.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported the product details are as follows:

Sr. No.	Product Details (Complete Name)	CAS No.	Quantity (MT/Month)			Uses
			Existing	Proposed	Total	
	Existing API Products					
1	Atorvastatin Calcium	134523-00-5	130	0	130	API/Dyslipidemia
2	Tetra-butyl 2-((4R,6R)-6-(2-aminoethyl)-2,2-dimethyl-1,3-dioxan-4-yl)acetate	125995-13-3				Atorvastatin Calcium /Cholesterol and fats
3	Tert-butyl 2-((4R,6R)-6-(2-(2-(4-fluorophenyl)-5-isopropyl-3-phenyl-4-(phenylcarbamoyl)-l H-pyrrol-1 -yl)ethyl)-2,2-dimethyl-1,3-dioxan-4-yl)acetate	125971-95-1				Atorvastatin Calcium /Cholesterol and fats
4	Torsemide	56211 - 40-6				API/Heart failure, liver disease, and kidney disease
5	2-aminobenzene sulfonic acid	88-21-1				Torsemide/Heart failure, liver disease, and kidney disease

Sr. No.	Product Details (Complete Name)	CAS No.	Quantity (MT/Month)			Uses
			Existing	Proposed	Total	
6	4-chloropyridine-3-sulfonamide	18368 - 64-4				Torsemide/Heart failure, liver disease, and kidney disease
7	4-(m- tolylamino)pyridine-3- sulfonamide	72811 - 73-5				Torsemide/Heart failure, liver disease, and kidney disease
8	Amisulpiride	53583 - 79-2				API/Antipsychotic
9	Bisoprolol Fumarate	66722 - 44-9				API/High blood pressure, heart attacks, and kidney problems
10	4-((2-isopropoxyethoxy)methyl)phenol	17703 4-57-0				Bisoprolol Fumarate/High blood pressure, heart attacks, and kidney problems
11	2-((4-((2-isopropoxyethoxy) methyl)phenoxy)methyl) oxirane	66722 - 57-4				Bisoprolol Fumarate/High blood pressure, heart attacks, and kidney problems
12	1-(4-((2-isopropoxyethoxy)methyl)phenoxy)-3-(isopropylamino)propan-2-ol	5790-46-5				Bisoprolol Fumarate/High blood pressure, heart attacks, and kidney problems
13	Topiramate	97240 - 79-4				API/Control seizures (epilepsy).
14	2,3,4, 5-Bis-O-(1-MethylEthylidene)-B-D-fructopyranose	20880 - 92-6				Topiramate /Control seizures (epilepsy
15	Levitiracetam	10276 7-28-2				API / Antiepileptic
16	Azithromycin dihydrate	11777 2-70-0				Azithromycin dihydrate /Skin infections, ear infections, eye infections
17	Irbesartan	13840 2-11-6				API/Antihypertensive
18	4'-(2-Butyl-4-oxo-1,3-diazaspiro[4,4]non-1- ene-3-yl methyl)biphenyl-2-carbonitrile	13840 1 -24-8				Irbesartan /Blood pressure,heart attacks, and kidney problems
19	2-n-butyl-4-spiro cyclopenetrate-1 -((2'-triphenyl methyl tetrazol-	12475 1 -00-4				Irbesartan /Blood pressure,heart attacks, and kidney problems

Sr. No.	Product Details (Complete Name)	CAS No.	Quantity (MT/Month)			Uses
			Existing	Proposed	Total	
	5-yl) biphenyl-4-yl methyl)-2-imidazole					
20	Flurbiprofen	5104-49-4				API/Painkiller
21	Cloxacillin Sodium	7081-44-9				API/Antibiotic
22	Terbinafine Hydrochloride	78628 - 80-5				API/Antifungal
23	Terbinafine	91161 - 71-6				Terbinafine Hydrochloride/ Antifungal
24	Azithromycin	83905 - 01-5				API/Antibiotic
25	Roxithromycin	80214 - 83-1				API/Antibiotic
26	Tramadol Hydrochloride	36282 - 47-0				API/Painkiller
27	Ornidazole	16773 - 42-5				API/Antiprotozoal
28	Des Loratadine	10064 3-71-8				API/Anti-Allergic
29	Fexofenadine Hydrochloride	15343 9-40-8				API /Anti-Allergic
30	4-(4-(hydroxydiphenylmethyl) piperidin-1 -yl)-1 -(4-(2-methyl-3-oxobutan-2-yl)phenyl)butan)-1 -one	15343 9-40-8				Fexofenadine Hydrochloride/reliev e allergy symptoms such as watery eyes, runny nose, itching eyes/nose, sneezing, hives, and itching
31	Sertraline Hydrochloride	79559 - 97-0				API/Antidepressant
32	(4-(3,4-dicholoro- phenyl)-1,2,3,4- tetrahydro-naphthalen-1 - ylidene)-methyl-amine	11980 84-29-5				Sertraline Hydrochloride /Antidepressant
33	Sertraline	79617 - 96-2				Sertraline Hydrochloride /Antidepressant
34	Clarithromycin	81103 - 11-9				API/Antibiotic
35	Lisinopril	83915 - 83-7				API/Antihypertensiv e
36	Artesunate	88495 - 63-0				Artesunate /Antimalerial

Sr. No.	Product Details (Complete Name)	CAS No.	Quantity (MT/Month)			Uses
			Existing	Proposed	Total	
37	2-chloro-1 -(2,7-dichloro-9H-fluoren-4-yl)ethane-1-ol	131023-37-5				Lumefantrine /treat non-severe malaria. This medication is used only to treat malaria
38	2-chloro-1-(2,7-dichloro-9H-fluoren-4-yl)ethane- 1-ol	131023-37-5				Lumefantrine /treat non-severe malaria. This medication is used only to treat malaria
39	2-(dibutylamino)-1-(2,7-dichloro-9H-fluoren-4-yl)ethane-1-ol	69759 - 61-1				Lumefantrine /treat non-severe malaria. This medication is used only to treat malaria
40	Tinidazole	19387 - 91-8				API/Antibiotic
41	2-((2-(2-methyl-5-nitro-1H-imidazol-1-yl)ehyl(thio)ethan-1-ol	16156 - 94-8				Tinidazole /Antibiotic
42	Carvedilol Phosphate	610309-89-2				API/ Antihypertensive
43	Carvedilol	72956 - 09-3				Carvedilol Phosphate /Blood pressure and heart failure
44	Omeprazole Sodium	95510 - 70-6				API /Antiulerative
45	5-Methoxy-2(-4-methoxy-3-5-dimethyl- pyridin-2-ylmethylsulfanyl)-1H-benzoimidazole	73590 - 85-9				Omeprazole Sodium/ Antiulerative
46	Fluconazole	86386 - 73-4				API/Antifungal
47	Arteether	75887 - 54-6				API/Antimalerial
48	Gabapentin	60142 - 96-3				API/ Antidepressant
49	(1-aminomethyl-cyclohexyl)-acetic acid	60142 - 95-2				Gabapentin /Gelieve nerve pain following shingles in adults
50	Hydrochlorothiazide	58-93-5				API /Antihypertensive
51	Atenolol	29122 - 68-7				API/Antihypertensiv e
52	Domperidone	57808 - 66-9				API /Antiemetic
53	Dabigatran	211915-06-9				API /prevent blood clots

Sr. No.	Product Details (Complete Name)	CAS No.	Quantity (MT/Month)			Uses
			Existing	Proposed	Total	
54	(4-Cyano-phenylamino)acetic acid	42288 - 26-6				Dabigatran /prevent blood clots
55	3-({2-[(4-cyano-phenylamino)-methyl]-1 - methyl-1H-benzoimidazole-5-carbonyl}-pyridine-2-yl-amino)-propionic acid ethyl ester methane sulfoate	21191 5-84-3				Dabigatran /prevent blood clots
56	3-({2-[(4-carbamimidoyl-phenylamino)-methyl]-1 - methyMH-benzoimidazole-5-carbonyl}-pyridine-2-yl-amino)-propionic acid ethyl ester hydrogen chloride	7647-01-0				Dabigatran /prevent blood clots
57	3-[(2-{[4-(Hexyloxycarbonylamino - imino-methyl)-phenylamino)-methyl}-1 - methyl-1H-benzoimidazole-5-carbonyl)-pyridine-2-yl-aminoj-propionic acid ethyl ester	21191 5-06-9				Dabigatran /prevent blood clots
58	Strontium Renelate	13545 9-90-4				API /Osteoporosis
59	Diethyl 3-oxopentanedioate	105-50-0				Strontium Renelate /postmenopausal women with osteoporosis
60	Ethyl 5-amino-4-cyano- 3-(2-ethoxy-2-oxoethyl)thiophene-2-carboxylate	58168 - 20-0				Strontium Renelate/postmenopausal women with osteoporosis
61	Diethyl 2,2'-((3-cyano-4-(2-ethoxy-2-oxoethyl)-5-(ethoxycarbonyl)thiophe n-2-yl)azanediyl)diacetate	58194 - 26-6				Strontium Renelate /postmenopausal women with osteoporosis
62	Phenylepherine HCI	61-76-7				API /stuffy nose, sinus, and ear symptoms

Sr. No.	Product Details (Complete Name)	CAS No.	Quantity (MT/Month)			Uses
			Existing	Proposed	Total	
63	3-acetylphenyl acetate	2454-35-5				PhenylepherineHCI /stuffy nose, sinus, and ear symptoms
64	3-(2-bromoacetyl)phenyl acetate & 2-(benzyl(methyl)amino- 1-(3- hydroxyphenyl)ethane-1-one	38396 - 89-3 & 71786 - 67-9				PhenylepherineHCI /stuffy nose, sinus, and ear symptoms
65	3-(1-hydroxy-2-(methylamino)ethyl)phenol	532-38-7				PhenylepherineHCI /stuffy nose, sinus, and ear symptoms
66	Azilsartan Kamedoxomil	86303 1-21-4				API /high blood pressure
67	Methyl(E)-2-ethoxy-1-«2'-(N'-((ethoxycarbonyl)oxy)carbamimidoyl-[1,1-biphenyl]- 4-yl)methyl) - 1 H-benzo[d]imidazole- 7-carboxylate	-				AzilsartanKamedoxomil /high blood pressure
68	Methyl 2-ethoxy-1 -((2-(5-oxo-4,5-dihydro- 1,2,4-oxadiazol-3-yl)- [1,1-biphenyl]-4- yl)methyl)-1H- benzo[d]imidazole-7-carboxylate	147403-52-9				AzilsartanKamedoxomil /high blood pressure
69	Methyl 2-ethoxy-1 -((2- (5-oxo-4,5-d i hyd ro- 1,2,4-oxadiazol-3-yl)- [1,1-biphenyl]-4- yl)methyl)-1H- benzo[d]imidazole-7-carboxylic acid	147403-52-9				AzilsartanKamedoxomil /high blood pressure
70	(5-methyl-2-oxo-1,3-dioxol-4-yl)methyl 2-ethoxy-1-((2'-(5-oxo-4,5-dihydro-1,2,4-oxadiazol-3-yl)-[1,1-biphenyl]-4-yl)methyl)-1H-benzo[d]imidazole-7-carboxylate	86303 1-21-4				AzilsartanKamedoxomil /high blood pressure
71	Dapoxetine	12993 8-20-1				API/ Antidepressant
72	3-chloro-1-phenyl propan-1-ol	18776 - 12-0				Dapoxetine/marketed as Priligy, is a

Sr. No.	Product Details (Complete Name)	CAS No.	Quantity (MT/Month)			Uses
			Existing	Proposed	Total	
						medication used for the treatment of premature ejaculation (PE) in men 18-64 years old
73	Hydroxyl Naphthyl Ether	-				Dapoxetine/marketed as Priligy, is a medication used for the treatment of premature ejaculation (PE) in men 18-64 years old
74	Rosuvastatin Calcium	147098-20-2				API/ Lowers "bad"cholesterol
75	N-[5-(bromo methyl)-4- (4-fluoro phenyl)-6- isopropyl pyrimidin-2-yl]- N-methyl methane sulfonamide.TPP salt	799842-07-2				Rosuvastatin Calcium/ Lowers "bad" cholesterol
76	Tert-butyl2-((4R,6S)-6-((E)-2-(4-(4-flurophenyl)-6-isopropyl-2-(N-methylmethylsulfonamido) pyrimidin-5-yl)vinyl)-2,2-dimethyl-1,3-dioxan-4-yl)acetate	289042-12-2				Rosuvastatin Calcium/ Lowers "bad" cholesterol
77	Monomethylamine salt of rosuvastatin	-				Rosuvastatin Calcium/ Lowers "bad" cholesterol
78	Clopidogrel Bisulphate	120202-66-6				API /prevent blood clots if you have chest pain
79	(+) Thiophene Gtycine ester HCI	-				ClopidogrelBisulphat e /prevent blood clots if you have chest pain
80	Cetrizine Dihydrochloride	83881 - 52-1				API /Relieve allergy symptoms such as watery eyes, runny nose, itching eyes/nose, sneezing, hives, and itching
81	4-chloro benzhydrylpiperazine ethanol	109806-71-5				CetrizineDihydrochlo ride /Relieve allergy symptoms such as watery eyes, runny nose, itching eyes/nose,

Sr. No.	Product Details (Complete Name)	CAS No.	Quantity (MT/Month)			Uses
			Existing	Proposed	Total	
						sneezing, hives, and itching
82	Itopride Hydrochloride	122892-31-3				API/Gastrointestinal symptoms of functional, nonulcer dyspepsia (chronic gastritis)
83	Rabeprazole Sodium	117976-90-6				API/Gastroesophag eal reflux disease (GERD)
84	2-[4-(3-methoxy-propoxy)-3-methyl-pyridin-2-yimethanesulfinyl]-1 H-benzomidazole	-				Rabeprazole Sodium/gastroesoph ageal reflux disease (GERD), duodenal ulcers
85	Lansoprazole	103577-45-3				API/ certain stomach and esophagus problems
86	2[4-(2,2,2-tri fluoroethoxy)-3-methyl pyridinenyl]methyl thio]-1H-benzimidazole	-				Lansoprazole/ certain stomach and esophagus problems
87	Amoxicillin Trihydrate	61336 - 70-7				API /Antibiotic
88	Venlafaxine Hydrochloride	99300 - 78-4				API/Antidepressant
89	Donepezil Hydrochloride	120011-70-3				API/Antidepressant
90	Celecoxib	169590-42-5				API /pain or inflammation
91	4,4,4-trifluoro-1-(4- methyl phenyl) butano- 1,3-diono	720-94-5				Celecoxib/pain or inflammation
92	Pantoprazole Sodium	138786-67-1				API/stomach and esophagus problems
93	5-Difluoromethoxy-2-(3,4-dimethoxy-pyridin- 2-yimethylsulfanyl)-1H-benzoimidazole	102625-64-9				Pantoprazole Sodium /stomach and esophagus problems
94	Artemether	71963 - 77-4				API/Antimalerial
95	Valsartan	137862-53-4				API/High blood pressure
96	Methyl N-valeryl-N-[(2-cyanobiphenyl-4-yl)methyl]-l-valinate	137863-90-2				Valsartan /high blood pressure

Sr. No.	Product Details (Complete Name)	CAS No.	Quantity (MT/Month)			Uses
			Existing	Proposed	Total	
97	Ampicillin Trihydrate	7177-48-2				API/Antibiotic
98	(2S, 5R, 6R)-6-[(R)-2-Amino-2-phenylacetamido]-3, 3-dimethyl-7-oxo-4-thia- l-azabicyclo	20448-79-7				Ampicillin Trihydrate /Antibiotic
99	Linezolid	165800-03-3				API/bacterial infections
100	Levosulpiride	23672 - 07-3				API/symptoms of schizophrenia, anxiety disorders, and dysthymia
101	2-methoxybenzoic acid	579-75-9				Levosulpiride /symptoms of schizophrenia, anxiety disorders, and dysthymia
102	2-methoxy-5-sulfamoylbenzoic acid	22117 - 85-7				Levosulpiride /symptoms of schizophrenia, anxiety disorders, and dysthymia
103	Methyl 1,2-methoxy-5-sulfamoylbenzolate	33045 - 52-2				Levosulpiride /symptoms of schizophrenia, anxiety disorders, and dysthymia
104	S-1 -Ethyl-2-aminomethyl pyrolindine	22795 - 99-9				Levosulpiride /symptoms of schizophrenia, anxiety disorders, and dysthymia
105	Telmisartan	144701-48-4				API/high blood pressure
106	Methyl 4-butyramido-3-methyl-5-nitrobenzoate	152628-01-8				Telmisartan /high blood pressure
107	Methyl 7-methyl-2- propyl-1H- benzo[d]imidazole-5-carboxylate	152628-00-7				Telmisartan /high blood pressure
108	Pregabaline	148553-50-8				API/ Antiepileptic
109	(3s)-3-cyano-2-(ethoxycarbonyl)-5-methylhexanoic acid	181289-37-2				Pregabaline/ Antiepileptic

Sr. No.	Product Details (Complete Name)	CAS No.	Quantity (MT/Month)			Uses
			Existing	Proposed	Total	
110	Moxifloxacin	186826-86-8				API/ Antibiotic
111	5,8-dihydronaphthalen-1-yl acetate	51927 - 56-1				Moxifloxacin/ Antibiotic
112	Glimepiride	93479 - 97-1				API / to control high blood sugar
113	3-ethyl-4-methyl-2-oxo-2,5-dihydro pyrrole-1-carboxylic acid phenethyl amide	-				Glimepiride/ to control high blood sugar
114	3-ethyl-4-methyl-2-oxo-2,5-dihydro pyrrole-1-carboxylic acid[2-4(-sulfamoyl phenyl) ethyl] amide	119018-29-0				Glimepiride/ to control high blood sugar
115	Losartan Potassium	114798-26-4				API /high blood pressure
116	Losartan	-				Losartan Potassium/ high blood pressure
117	Quitiapine Hemifumarate	111974-69-7				API /schizophrenia, bipolar disorder
118	2-nitro thio phenol	4875-10-9				Quitiapine Hemifumarate /schizophrenia, bipolar disorder
119	Phenyl-2-(phenylthio) amine	1134-94-7				Quitiapine Hemifumarate /schizophrenia, bipolar disorder
120	Phenyl-2-(phenylthio)-phenyl carbonate	-				Quitiapine Hemifumarate /schizophrenia, bipolar disorder
121	Dibenzo[b,f]thiazepin-1,1(10H)-one	3159-07-7				Quitiapine Hemifumarate /schizophrenia, bipolar disorder
122	Clotrimazole	23593 - 75-1				API /Antifungal
123	Levofloxacin	100986-85-4				API /Antibiotic
124	Ciprofloxacine	85721 - 33-1				API /Antibiotic
125	Ofloxacin	82419 - 36-1				API /Antibiotic

Sr. No.	Product Details (Complete Name)	CAS No.	Quantity (MT/Month)			Uses
			Existing	Proposed	Total	
126	Hydroxychloroquine	118-42-3				API /treat rheumatoid arthritis
127	4, 7-Dichloroquinoline	86-98-6				hydroxychloroquine /treat rheumatoid arthritis
128	R & D	--	0.01	0	0.01	--
Sub Total (A)			**130.01**	**0**	**130.01**	
	Proposed Specialty Products					
	Group 1: Ethylene Oxide [EO] / Propylene Oxide Condensate					
129	Castor Oil/ Hydrogenated Castor Oil Ethoxylate And Or Propoxylate	72986-44-8/ 61790-96-3	0	1500	1500	Use as additive in manufacturing of textile and Agro Ind.
130	Fatty Alcohol Ethoxylates And/ Or Propoxylate	68439-50-9/ 68409-59-6.				Cosmetic Industries, Textile & Paint Industries
131	Alkyl phenol Ethoxylate And/ Or Propoxylate	26027-38-3/ 68891-11-2.				Oil refinery, Paint, Pigment and Textile, Industries & Use as additive in manufacturing of textile and Agro Ind.
132	Sorbitan Esters Ethoxylates And/ Or Propoxylate	9005-67-81/ 1338-41-6.				Oil refinery and Textile Industries
133	Fatty Acid Ethoxylate And/ Or Propoxylate	61791-29-5/ 74499-34-6.				Cosmetic and Textile Industries
134	Fatty Amine Ethoxylates And/ Or Propoxylate	68213-26-3/ 68213-26-3				Agro and Leather Industries
135	Glycol Ethoxylate And/ Or Propoxylate/ PEG	31694-55-0/ 9082-00-2				Cosmetic and Plastic Industries
136	Glycerole Ethoxylate And/Or Propoxylate	68551-14-4/ 51258-15-2				Printing ink Industries and Metal Work

Sr. No.	Product Details (Complete Name)	CAS No.	Quantity (MT/Month)			Uses
			Existing	Proposed	Total	
137	Vegetable Oil Ethoxylate And/ Or Propoxylate	61791-23-9/ 106168-35-8				Use as additive in manufacturing of textile and Agro Ind.
138	Ethoxylate And/ Or Propoxylates of Phenol Or Phenol Derivatives	9004-78-8				Textile Industries
139	Alkyl phenol formaldehyde Ethoxylate / Propoxylate	NA/ NA				Oil field Industries
140	EO-PO Block Co-Polymer	9003-11-6				Textile & Agro Industries
141	Synthetic Alcohol Ethoxylate And/Or Propoxylate	68439-50-9/ 70955-07-6				Paper, Plastic and Detergent industries, Cosmetic and Agro Industries, Plastic and Detergent industries
142	Iso Propanol Ethoxylate And/Or Propoxylate	78330-20-8/ 67-63-0				Cosmetic and Oil Field Industries
143	Di Ethyl Amino ethanol Ethoxylate And/Or Propoxylate	100-37-8/ 100-37-8				Metal Industries
144	Hydroxyl Ethyl Piperdine Ethoxylate And/Or Propoxylate	3554-74-3/ 103331-86-8				Intermediate for pharmaceutical
145	Hydroxyl Ethyl Morpholine Ethoxylate And/Or Propoxylate	53404-03-8/ 61788-44-1				Textile & Paint Industries
146	Hydroxyl Ethyl Pyrolidine Ethoxylate And/Or Propoxylate	2955-88-6				Intermediate for pharmaceutical
147	Mono Iso Propanol Amine Ethoxylate And/Or Propoxylate	78-96-6				Construction and Agro Industries
148	Di Iso Propanol Amine Ethoxylate And/Or Propoxylate	110-97-4				Construction and Agro Industries
149	Tri Iso Propanol Amine Ethoxylate And/Or Propoxylate	122-20-3				Construction and Agro Industries

Sr. No.	Product Details (Complete Name)	CAS No.	Quantity (MT/Month)			Uses
			Existing	Proposed	Total	
150	Diethanol amines Ethoxylate And/Or Propoxylate	111-42-2				Paper, paint and Metal Industries
151	Triethanol amines Ethoxylate And/Or Propoxylate	68213-26-3				Paper, Oil Refinery, paint and Metal Industries
152	Di Methyl Amino ethanol Ethoxylate And/Or Or Propoxylate	108-01-0				Metal Industries
153	Methyl diethanol amine Ethoxylate And/Or Propoxylate	105-59-9				Metal and Construction Industries
154	Methyl Mono ethanol amine Ethoxylate And/Or Propoxylate	141-43-5				Metal and Construction Industries
	Group 2: Anionic Surfactants					
155	CABS	26264-06-2				As specially chemicals
156	Phosphate Esters	68909-65-9	0	3000	3000	Metal work industries
157	Sulphate Esters	--				Use as additive in manufacturing of textile and Agro Ind.
	Group 3: Cationic Surfactants					
158	Cationic Surfactants	8001-54-5	0	83	83	Use as additive in manufacturing of textile and Agro Ind.
	Group 4: Blended Surfactants (Using Intermediates)					
	4.1: Emulsifier for General Application (Formulation/Blending Process Only)					
159	Emulsifier for emulsifiable concentrate	108-98-5				
160	Adjuvants, wetting & dispersing agents	--	0	800	800	Agriculture industries
161	Wetting & Binding agents	--				
162	Miscellaneous Emulsifiers	--				
	4.2: Oil Field Chemicals (through Formulation/Blending Process Only)					
163	Demulsifier	--				
164	Corrosion Inhibitors	--				
165	Surfactants	--				
166	Deoiler	7784-13-6	0	800	800	Oil Field/Petrolium Industries
167	Non-Emulsifiers	--				
168	Acid Emulsifiers	--				

Sr. No.	Product Details (Complete Name)	CAS No.	Quantity (MT/Month)			Uses
			Existing	Proposed	Total	
169	Wax Dispersants	8002-74-2				
170	Other Misc. Application	--				
171	Water Soluble Demulsifier	64742-88-7				
	4.3: Surfactants for Other Industries					
172	Surfactants For Other Industries	--	0	800	800	Textile, Paint, Cosmetic, Rubber, Fibber, Pigments, Plastic & etc. Industries
	Group 5: Powder Surfactants					
173	Powder Surfactants	--	0	158	158	Agriculture Industries
	Group 6: Miscellaneous Surfactants					
174	Cocoamido Propyl Betaine	61789-40-0	0	1000	1000	Cosmetic & Agro Industries
175	Fatty Amine oxide	1643-20-5				Cosmetic Industries
176	Epoxidised Soybean oil	8013-07-8				Agriculture Industries
177	Coco Mono Ethanol Amide (CMEA)	68140-00-1				
178	Coco Di Ethanol Amide (CDEA)	68603-42-9				
	Group 7: Esters					
179	Sorbitan Mono Stearate Esters	1338-41-6	0	1800	1800	Intermediate for Ethylene Oxide and Propylene Oxide Condensate
180	Sorbitan Mono Oleate Esters	1338-43-8				
181	Sorbitan Mono Palmitate Esters	26266-57-9				
182	Sorbitan Mono laureate Esters	1338-41-6				
183	Sorbitan Tri-oleate	26266-58-0				
184	Fatty Acid Esters of Butanol	71-36-3				
185	Fatty Acid Esters of Octanol	284-863-0				
186	Fatty Acid Esters of Glycol / Glycerol	84988-75-0/ 68990-53-4				
187	Fatty Acid Esters of Methanol	61788-61-2				

Sr. No.	Product Details (Complete Name)	CAS No.	Quantity (MT/Month)			Uses
			Existing	Proposed	Total	
188	DPGDB (Di Propylene Glycol Di Benzoate)	27138-31-4				
189	Glycerol Mono Stearate (GMS)	31566-31-1				
190	Ethylene Glycol Mono Stearate (EGMS)	111-60-4				
191	Ethylene Glycol Di Stearate (EGDS)	627-83-8				
	Group 8: Styerenated Phenol					
192	Styerenated Phenol	61788-44-1	0	200	200	Intermediate for Ethylene Oxide and Propylene Oxide Condensate
	Group 9: Condensation Reaction					
193	Triazine	290-87-9	0	667	667	Oil Field / Petroleum Industries
194	N Methyl-Morpholine N oxide (NMMO)	7529-22-8				Textile and Cosmetic Industries
195	Alkyl phenol formaldehyde	9003-35-4				Intermediate for Resin Ethoxylate / Propoxylate
Sub Total (B)			**0**	**10,808**	**10,808**	
Total (A+B)			**130.01**	**10,808**	**10,938.01**	

5. The PP reported that there is no violation as per the EIA notification, 2006, no court case is pending against the proposal and no direction issued under E(P) Act/Air Act/Water Act.

6. The PP reported that the EC was granted by SEIAA, Gujarat vide letter no. SEIAA/GUJ/EC/5(f)/1999/2021 dated 20th December, 2021 to the existing project.

7. The PP reported that existing land area is 8,574.22 m^2, out of which 1,064 m^2 open space will be utilized for the proposed plant facility and no R&R is involved in the Project.

8. The PP reported that the proposal does not involve Approval/Clearance under Forest (Conservation) Act,1980, Wildlife (Protection) Act,1972 and C.R.Z notification, 2011 as amended. There is no forest, Eco sensitive areas/National Park/Wildlife Sanctuary in 10 km radius of the site. The project doesn't fall within the CRZ boundaries.

9. The PP reported that the total water requirement is 300.8 KLD (Existing 181 KLD + Proposed 119.8 KLD) out of which fresh water requirement of 296.3 KLD (Existing 179 KLD + Proposed 117.3 KLD will be met from GIDC water supply. Water Supply Assurance Letter has been obtained from Chief Officer, Notified Area Authority, GIDC, Panoli vide letter no. NAO/PNK/1360, dated 14/09/2022. Effluent of 288.38 KL/day quantity will be treated through ETP consisting of primary treatment and treated effluent sent to common MEE. The plant will be based on Zero Liquid discharge system.

10. The PP reported that the Power requirement after expansion will be 400 kVA (Existing 150 kVA + Proposed 250 kVA) including existing 150 kVA and will be met from Dakshin Gujarat Vij Company Ltd. Existing unit has DG sets of 525 kVA (Existing 125 kVA + Proposed 400 kVA) capacity, additionally DG sets of 400 kVA are required. DG sets are used as standby during power failure. Stack (height) will be provided as per CPCB norms to the proposed DG sets.

11. The PP reported that the project, being in notified industrial area, is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

12. Industry will develop greenbelt in an area of 33% i.e. 2,829.5 m^2 out of total area of the project, as project is under construction phase. Additional 600.2 m^2 area outside project premises within the GIDC will be developed as greenbelt to comply CEPI mechanism.

13. The estimated project cost is ₹ 29.2 crores (Existing -₹. 18 crores + Proposed - 11.2 crores) including existing investment of ₹.18 crores. The PP reported that the total Employment will be 120 persons (40 Existing + 80 Proposed) persons as direct & 165 persons indirect after expansion. Industry proposes to allocate Rs. 22 lakhs @ of 4 % of proposed project cost towards CER. (As per CEPI mechanism).

14. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the various environmental aspects such as emissions, Greenbelt development plan, action plan proposed by the PP being in a critically polluted area.

The EAC also deliberated on the fuel and also advised for the usage of Agro- Briquettes as a fuel in the proposed Boiler (3 TPH) and TFH (1 no. of 10 lac kcal/hr) instead of coal. The PP submitted an undertaking for the same.

15. After detailed deliberations, the EAC **recommended** the project for grant of ToR (**Standard ToR [Annexure-II]** and **additional ToR as mentioned below)**, **without public hearing** as per the provisions of the EIA Notification, 2006 and as per O.M. No. 22-23/2018-IA.III dated 05.07.2022.

(i) The status of the action plan, if any, prepared by the State Government/SPCB for the CPA needs to be provided.

(ii) The PP needs to submit the action plan with respect to mitigation measures for CPA mentioned in the Ministry's O.M dated 31.10.2019.

(iii) Being in a Critically Polluted Area (CPA), the PP need to submit alternative site analysis and Environmental Cost Benefit analysis in the EIA report.

(iv) The PP shall submit the details of carbon foot prints and carbon sequestration study w.r.t. the proposed project. The Action Plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources shall also be prepared and submitted.

(v) The PP should submit the photographs of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling

location. In addition to this, the PP should submit the original test reports and certificates of the labs which have analyzed the samples.

(vi) Details of Onsite and Offsite emergency plans as per the provisions of the MSIHC Rules need to be submitted.

(vii) Industry shall use Agro-Briquette as the Primary Fuel for Boiler in the proposed boiler (3 TPH) and TFH (1 no. of 10 lac Kcal/hr).

(viii) Activity-wise, a time bound action plan along with budgetary provisions for occupational health & surveillance, environment management plan, and green belt development plans shall be prepared and submitted.

(ix) Undertaking from the PP and the consultant in pursuant to the O.M. No. J-11013/41/2006-IA. II(I) dated 04.08.2009 and J-11013/41/2006-IA. II(I) dated 5.10.2011.

(x) The PP shall submit an undertaking to the effect that the project is not a violation proposal in pursuant to the S.O. 804(E) dated 14.03.2017 and SoP dated 07.07.2021.

(xi) Action Plan for the management of hazardous waste and provision for its utilization in co-processing if applicable shall be prepared and submitted.

(xii) Provision for Reuse/recycle of treated wastewater, wherever feasible shall be made. The PP shall explore the possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. A detailed water harvesting plan also needs to be prepared and submitted. Provision for Zero Liquid Discharge whenever techno-economically feasible shall be included. The PP shall make necessary provisions for continuous monitoring of the effluent quality/quantity.

(xiii) The PP shall clarify whether project involves ground water utilization. In case of ground water abstraction, a copy of application made to concerned authorities for the same need to be submitted.

(xiv) The PP should develop Greenbelt over an area of 2,829.5 m^2 of the total land area, Additional 600.2 m^2 area shall be developed outside project premises within the GIDC. The plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution.

(xv) Plan for development of the green belt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. shall be prepared and submitted.

(xvi) Assessment of the carrying capacity of transportation load on roads inside the notified industrial premises shall be carried out and submitted.

(xvii) In addition to the above, the EIA/EMP report shall also address issues such as i) Effective fugitive emission control measures for process, transportation, packing etc. ii) use of cleaner fuels and iii) best available technology for the plant.

Agenda No. 43.5

Expansion of "Active Pharmaceutical Ingredients & Intermediates" manufacturing unit with production capacity from 733.8 TPA to 378.6 TPA located at Plot No. C-216 & 217, MIDC-Chincholi, Tal.: Mohol, Dist: Solapur, Maharashtra, (INDIA) by M/s, Vaasavaa Pharmaceuticals Pvt. Ltd - Consideration of ToR

[Proposal No IA/MH/IND3/402801/2022; File No. IA-J-11011/479/2022-IA-II(I)]

The PP vide email dated 26.11.2022 informed that due to non–availability of technical team & directors, they would be unable to attend the meeting and requested to consider in the next meeting. The proposal was accordingly, **deferred.**

Agenda No. 43.6

Proposed project for the Manufacture of Synthetic Organic Chemicals with production capacity 6000 TPM located at Plot No. 204-C/1, 204-C/2/1, 204-C/2/2 , 204-C/2/3, G.I.D.C Panoli Industrial Estate, Moje Sanjali, Panoli GIDC, Taluka Ankleshwar, Bharuch, Gujarat by M/s. Rechem Orbits LLP - Consideration of ToR

[Proposal No. IA/GJ/IND3/405225/2022, File No. IA-J-11011/468/2022-IA-II(I)]

1. The proposal is for the ToR for preparation of EIA/EMP for the manufacturing of Synthetic Organic Chemicals with production capacity 6000 TPM located at Plot No 204 -C/1, 204 -C/2/1, 204-C /2/2 , 204 - C/2/3, G.I.D.C Panoli Industrial Estate, Moje Sanjali, Panoli GIDC, Taluka Ankleshwar, Bharuch, Gujarat by M/s. Rechem Orbits LLP. **The PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the CPCB.**

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry. However, since the project site is located in a critically polluted area, the project attracts the general condition and considered as Category 'A' at Centre.

3. The PP applied for the ToR vide proposal number No. **IA/GJ/IND3/405225/2022** dated 4.11.2022. The proposal is now placed in 43rd EAC Meeting held on 30th November, 1st & 2nd December 2022, wherein the PP made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported the product details are as follows:

Sr. No.	Name of Products	CAS Number	Quantity (MT/Month)	End use

1.	Polyester/Co-Polyester Resin/Chips/Post-consumer recycle (PCR) content Polyester/Co-Polyester Chips	25038-59-9	6000	It is used to manufacture sheets/films for plastic packaging/ textile industry.
	Total		**6000**	

5. The PP reported that there is no violation as per the EIA notification, 2006, no court case is pending against the proposal and no direction issued under E(P) Act/Air Act/Water Act.

6. The PP reported that the proposed land area is 10609.42 m^2 and no R&R is involved in the Project.

7. The PP reported that the proposal does not involve Approval/Clearance under Forest (Conservation) Act,1980, Wildlife (Protection) Act,1972 and CRZ Notification, 2011 as amended. There is no forest, Eco sensitive areas/National Park/Wildlife Sanctuary in 10 km radius of the site. The project doesn't fall within the CRZ boundaries. River/ waterbody Narmada is flowing at a distance a distance of 12.7 KM in North direction

8. The PP reported that the total water requirement is 136.0 KLD [Fresh water: 72.5 KLD + Recycle water: 63.5 KLD]. Total wastewater generation will be 66.80 KLD (Industrial: 62.30 KLD + Domestic: 4.5 KLD. The effluent generated from the process section will be collected and mixed with washing and APCM scrubber effluent and sent to ETP [Primary + Secondary + Tertiary] treatment plant. After adequate treatment 3.3 KLD effluent send to Common PETL- Spray Dryer and 42.5 KLD remaining treated water will be recycled within plant premises. (Revised as per the EAC recommendation).

9. The PP reported that the power requirement for proposed project will be 500 KVA and will be met from DGVCL. 3 Nos. DG set of 500 KVA capacity shall be used as standby during power failure. Stack (height 15 m) will be provided as per CPCB norms to the proposed 3 Nos. DG sets of 500 KVA which will be used as standby during power failure.

10. The PP reported that the project, being in notified industrial area, is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

11. Industry will develop Greenbelt in an area of 40% i.e., 4243.76 (40%) m^2 out of 10609.42 m^2 of area of the project.

12. The estimated project cost is Rs. 42.5 Crores. The PP reported that the total employment will be 75 persons as direct & indirect for proposed project. Industry proposes to allocate Rs. 170 Lakhs (approx.) in next 5 years towards Corporate Environment Responsibility.

13. **Deliberations by the EAC:**

The EAC inter-alia, deliberated on the various environmental aspects such as water balance, greenbelt development plan, budget for EMP and the action plan proposed by the PP being in a critically polluted area and EAC advised to submit the following information:

- Revised details of domestic wastewater disposal mode.
- Revised green belt development plan and accordingly revised budget allocation in Environment Management Plan.

The PP submitted the above information/documents and the EAC found it to be satisfactory.

14. After detailed deliberations, the EAC **recommended** the project for grant of ToR (**Standard ToR [Annexure-II]** and **additional ToR as mentioned below)**, **without public hearing** as per the provisions of the EIA Notification, 2006 and as per O.M. No. 22-23/2018-IA.III dated 05.07.2022.

(i) The status of the action plan, if any, prepared by the State Government/SPCB for the CPA needs to be provided.

(ii) The PP needs to submit the action plan with respect to mitigation measures for CPA mentioned in the Ministry's O.M dated 31.10.2019.

(iii) Being in a Critically Polluted Area (CPA), the PP need to submit alternative site analysis and Environmental Cost Benefit analysis in the EIA report.

(iv) The PP shall submit the details of carbon foot prints and carbon sequestration study w.r.t. the proposed project. The Action Plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources shall also be prepared and submitted.

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

(vi) Details of Onsite and Offsite emergency plans as per the provisions of the MSIHC Rules need to be submitted.

(vii) Industry shall use Natural Gas: 13000 Nm^3/day and/or Briquettes/Agro waste: 35 TPD.

(viii) Activity-wise, a time bound action plan along with budgetary provisions for occupational health & surveillance, environment management plan, and green belt development plans shall be prepared and submitted.

(ix) Undertaking from the PP and the consultant in pursuant to the O.M. No. J-11013/41/2006-IA. II(I) dated 04.08.2009 and J-11013/41/2006-IA. II(I) dated 5.10.2011.

(x) The PP shall submit an undertaking to the effect that the project is not a violation proposal in pursuant to the S.O. 804(E) dated 14.03.2017 and SoP dated 07.07.2021.

(xi) Action Plan for the management of hazardous waste and provision for its utilization in co-processing, if applicable shall be prepared and submitted.

(xii) Provision for Reuse/recycle of treated wastewater, wherever feasible shall be made. The PP shall explore the possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. A detailed water harvesting plan also needs to be prepared and submitted. Provision for Zero Liquid Discharge whenever techno-economically feasible shall be included. The PP shall make necessary provisions for continuous monitoring of the effluent quality/quantity.

(xiii) The PP shall clarify whether project involves ground water utilization. In case of ground water abstraction, a copy of application made to concerned authorities for the same need to be submitted.

(xiv) The PP should develop Greenbelt over an area of 40.00% (i.e. 4243.76 m^2) of the total land area, accordingly the plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Approx. 1070 number of plantations have to be planted considering 80% survival rate and with a spacing of 2 m x 2 m.

(xv) Plan for development of the green belt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. shall be prepared and submitted.

(xvi) Assessment of the carrying capacity of transportation load on roads inside the notified industrial premises shall be carried out and submitted.

(xvii) In addition to the above, the EIA/EMP report shall also address issues such as i) Effective fugitive emission control measures for process, transportation, packing etc. ii) use of cleaner fuels and iii) best available technology for the plant.

Agenda No. 43.7

Expansion for Manufacture of Rubber Chemicals (Calcol 300 MTPA to 500 MTPA; TMTD 500 MTPA to 800 MTPA; ZDBC 75 MTPA to 150 MTPA; ZDEC 200 MTPA to 300 MTPA and ZDMC-840 MTPA) at G-998,999,1000, Phase-III, RIICO Industrial Area Bhiwadi, Tehsil Tijara, Dist. Alwar, Rajasthan by M/s Thakar Dass & Co. Private Limited - Consideration of EC.

[Proposal No. IA/RJ/IND3/400535/2022; File No. IA- IA-J-11011/132/2021-IA-II(I)]

1. The proposal is for the environmental clearance for the Expansion in Manufacturing of Rubber Chemicals (Calcol 300 MTPA to 500 MTPA; TMTD 500 MTPA to 800 MTPA; ZDBC 75 MTPA to 150 MTPA; ZDEC 200 MTPA to 300 MTPA and ZDMC-840 MTPA) at G-998,999,1000, Phase-III, RIICO Industrial Area Bhiwadi, Tehsil-Tijara, Dist.-Alwar, Rajasthan by M/s Thakar Dass & Co. Private Limited. **The PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the CPCB.**

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry. However, since the project site is located in a critically polluted area, the project attracts the general condition and considered as Category 'A' at Centre.

3. The standard ToR was issued by the Ministry No. IA-J-11011/132/2021-IA-II(I) dated 25.09.2021. The PP submitted that Public Hearing is exempted because as project is proposed in a notified industrial area, Phase-III, RIICO Industrial Area Bhiwadi. The PP applied for Environment Clearance on 18.5.2022 in Common Application Form and submitted PFR/EMP Report and other documents. The PP in the Form-2 reported that it is an **Expansion EC case.** Due to some shortcomings, the Project was referred back to PP on 27.10.2022 and reply to the same was submitted on 10.11.2022. The proposal is now placed in 43rd EAC Meeting held on 30th November-1st- 2nd December 2022, wherein the Project Proponent and an accredited Consultant, M/s Parivesh Environmental Engineering Services Lucknow [Accreditation number NABET/EIA/2023/IA0092 valid up to 11.12.2024], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the Existing land area is 2985 m^2. An additional land of 1485 m^2 has been acquired for proposed expansion**.** and no R& R is involved in the Project. The details of products and by–products are as follows:

S. No.	**Product**	**CAS No**	**Existing Capacity (MTPA)**	**Proposed Capacity (MTPA)**	**Total capacity After Expansion (MTPA)**	**Uses**
1.	Calcol (calcium oxide)	1305-78-8	300	200	500	Rubber accelerator
2.	TMTD (Tetra methyl thiuram Disulfide)	137-26-8	500	300	800	Rubber accelerator
3.	ZDBC (Zinc dibutyl di thio carbamate)	136-23-2	75	75	150	Rubber accelerator
4.	ZDEC (Zinc Diethyl Dithio carbamate)	14324-55-1	200	100	300	Rubber accelerator

5.	ZDMC (Zinc dimethyl dithio carbamate)	137-30-4	-	840	840	Rubber accelerator
	Total		**1075**	**1515**	**2590**	

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E (P) Act/Air Act/Water Act.

6. The PP reported that the plant was established prior to EIA Notification, 2006. After that, no expansion of existing projects or activities were done. Before to 14.09.2006 EIA Notification, expansion was done and the investment was less than 50 Crore. The details of the CTO obtained since inception is given below. RSPCB had issued CTO vide letter no. No. F(Tech)/Alwar (Tijara)/5199(1)/2017-2018/9453-9455 dated 09.02.2018 to the existing project for manufacturing of CALCOL-300 MTPA; TMTD-500 MTPA; ZDBC-75 MTPA & ZDEC-200 MTPA in favour of M/s. Thakar Dass & Co. Private Limited.

7. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body Sahibi River is flowing at a distance of 10.7 (West).

8. **Ambient Air:** The PP reported that ambient air quality monitoring was carried out at 8 locations during December 2021 to February 2022 and the baseline data indicates the ranges of concentrations as: PM_{10} (59.6-106.4 µg/m^3), $PM_{2.5}$ (31-59.1 µg/m^3), SO_2 (7.2-15.3 µg/m^3) and NO_2 (10.3-28.6 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.88 µg/m^3, 1.80 µg/m^3, 3.33 µg/m^3 with respect to PM_{10}, NOx and CO. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). The **maximum noise level** measured in the study area was 71.1 dB (A) in day time and 56.5 dB in night time, which were below the stipulated standards. **Ground water** pH is 7.20 -7.82 it is well within the acceptable limit. The total hardness of the samples ranged from 485.8 mg/l -597.8 mg/l. Calcium and magnesium concentrations ranged from 150.0 mg/l -167.0 mg/l and 41.2 mg/l – 86.5 mg/l respectively. The total dissolved solids of the samples ranged from 1382 mg/l - 1635 mg/l. Fluoride concentration ranged from 0.29 mg/l – 1.37 mg/l. No **surface water** samples were collected as the source of the surface water not available and water bodies are seasonal in nature. Soil pH has ranged from 7.23 -8.10 and indicates that soils are moderately alkaline in nature. EC values of soil samples ranges from 315 to 355 (µmhos/ cm). The total nitrogen values range between 148.3 to 182.7 mg/kg. The phosphorus values range between 31.4 to 46.5 mg/kg, indicating that the phosphorus content in the study area falls in sufficient to more than sufficient category. The potassium values range between 186.7 – 251.6 mg/kg. The potassium content in the study area falls in more than sufficient category.

9. The PP reported that total water requirement is 41.5 KLD of which fresh water requirement of 24.5 KLD will be met from existing bore wells. Recycled water will be 17 KLD. Effluent of 23 KLD

quantity will be treated through ETP followed by RO & MEE. The plant will be based on Zero Liquid Discharge system. Domestic waste water is being disposed off into septic tank and soak pit.

10. The power requirement after expansion will be 360 KW and is being /will be met from JVVNL. Existing unit has 1 DG sets of 160 KVA capacity, additionally 1x320 kVA DG sets are used as standby during power failure. Stack (height-9m) will be provided as per CPCB norms to the proposed DG sets.

11. At present, the unit is having one numbers of LPG fired 5 lacs kcal/hr of Hot Air Generator, one number of HSD fired DG Set of 160 KVA capacity. Adequate height of chimney provided to the Hot Air Generator and DG set. After proposed expansion, there will be addition of one number gas fired Hot Air Generator with capacity of 5 lacs kcal/hr having 5 meters height of chimney. one number of HSD fired DG Set of 320 KVA capacity having 9 meters of chimney.

12. **Details of Process Emissions Generation and their Management:**

Sr No	Stack attached to	Stack Height (m)	APC measures	Probable Emission
Existing				
1	Reaction vessels	12	Two stage Alkali Scrubber system	Cl_2<09 mg/Nm3
2	Hot Air Generator (LPG Fired)	5	Adequate stack height	PM<150 mg/Nm3 SO_2<100 ppm NOx<150 ppm
3	Dryer 2 T/hr	5	Cyclone separator and bag filter	-
Proposed				
1	Reaction vessels	12	Two stage Alkali Scrubber system	Cl2<09 mg/Nm3
2	Hot Air Generator (LPG Fired)	5	-	PM<150 mg/Nm3 SO_2<100 ppm NOx<150 ppm
3	Dryer 2 T/hr	5	cyclone separator and bag filter	-

13. **Details of Solid/ Hazardous Waste Generation and its Management**:

S No.	Hazardous waste description	Category as H/W rules 2016	Existing Quantity	Proposed Quantity	Total	Method of Disposal
1.	ETP Sludge (Kg/Annum)	35.3	365	-	365	Dispose of into TSDF Udaipur
2.	Salt from MEE (Kg/Annum)	35.3	-	730	730	Dispose of into TSDF Udaipur

3.	Discarded Containers (Kg/Annum)	33.1	500	500	1000	Utilized for packing of hazardous waste or sell to authorized recycler
4	Used Oil (L/A)	5.1	30	70	100	Sell to authorized recycler
5	Spent solvent (TPA)	28.6	17	17.2	34.2	Recovered solvent is used within the plant
6	Distillation residues (TPA)	-	6	6	12	Sent to TSDF site

14. The budget earmarked towards Environmental Management Plan (EMP) is ₹ 45 Lakhs (capital) and the Recurring cost (operation and maintenance) will be about ₹ **24** Lakhs per annum. The PP proposes to allocate ₹ 4.0 Lakhs towards Corporate Environment Responsibility (CER).

15. The PP reported that as per para 7 (i) III stage-3 (i)b of EIA notification,2006 public hearing may be exempted as project is proposed in a notified industrial area, Phase-III, RIICO Industrial Area Bhiwadi, Tehsil-Tijara, Dist.-Alwar, Rajasthan

16. The PP reported that Industry has already developed greenbelt in an area of 10 % i.e., 299 m^2 out of total existing area of the project 2985 SQM. After expansion additional greenbelt of 1489 m^2 will be done to comply 40 % out of total area of the project. Total area after expansion will be 4470 m^2.

17. The PP reported that:

Sources of CO_2	**Quantity (Tons/ Annum)**
Vehicular Movement	9.18
DG sets	121.176
Power Utilization	82.08
Manufacturing process	156.3
Total Emissions	368.736
CO_2 Sequestration	
Greenbelt & Afforestation	10.65
Net Contribution	358.86 (Carbon Negative)

18. The PP submitted the disaster and Onsite and Offsite Emergency Plans in the EIA report. Total Employment will be 30 persons as direct & 10-20 persons indirect after expansion.

19. **Deliberations by the EAC**:

The EAC inter-alia, deliberated on the existing CTO condition, action plan with respect to mitigation measures for CPA, Carbon footprint, Zero Liquid Discharge, energy conservation measures and sought the following information/documents:

(i) The PP shall comply with the existing CTO conditions such as 33% green belt and ZLD and submit the certification of the same from SPCB.

(ii) Accordingly, the PP needs to submit the revised action plan with respect to mitigation measures for CPA mentioned in the Ministry's O.M dated 31.10.2019.

(iii) The PP shall submit the details of carbon foot print and carbon sequestration study w.r.t. proposed project. Proposed mitigation measures also needs to be submitted.

(iv) The PP shall submit the revised water balance based on ZLD.

In view of above, the EAC **deferred** the proposal.

Agenda No. 43.8

Expansion in manufacturing unit of Phthalocyanine Blue (0 TPD to 4 TPD), Di-Nitroso Tetramine Pentamethylene (1 TPD to 2 TPD) and Hexamine (0TPD to 8 TPD) located at Hadbast No. 29, Sampla Kharkhoda Road, Village Hasangarh, Tehsil Sampla, District Rohtak, Haryana by M/s Haryana Polymers Limited - Consideration of ToR (under violation category)

[Proposal No. IA/HR/IND3/403607/2022; File No. No. IA-J-11011/266/2022-IA-II(I)]

1. The proposal is for the ToR for preparation of EIA/EMP for the Expansion in manufacturing unit of Phthalocyanine Blue (0 TPD to 4 TPD), Di-Nitroso Tetramine Pentamethylene (1 TPD to 2 TPD) and Hexamine (0TPD to 8 TPD) located at Hadbast No. 29, Sampla Kharkhoda Road, Village Hasangarh, Tehsil Sampla, District Rohtak, Haryana.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) as the project is located outside the notified industrial area. Therefore, the project requires appraisal at Central Level.

3. The PP applied for the ToR vide proposal number No. IA/HR/IND3/403607/2022 dated 21.10.2022. The proposal was referred back to the PP on 28.10.2022 and its reply was submitted on 10.11.2022. The proposal is now placed in 43rd EAC Meeting held on 30th November, 1st & 2nd December 2022, wherein the PP made an accredited Consultant, M/s. Vardan EnviroNet, Gurugram Haryana. [Accreditation number –NABET/EIA/2023/RA0212 (Rev. 01), Valid up to 7.12.2023] a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported the product details as follows:

Organic Chemicals- EC Required							
DNPT (Di-Nitroso Pentamethylene Tetramine)	101-25-7	1 TPD	1 TPD	2 TPD	3 TPD	DNPT is widely used in rubber processing as a chemical blowing agent providing economic means of producing sponges and expanded rubber.	The product was manufactured before the 2006, EIA Notification.
Phthalocyanine Blue (CPC Blue)	147-14-8	0	4 TPD (Violation)	6 TPD	10 TPD	Used in Paint industry, Ink industry, Plastic industry, textile industry etc.	Manufacturing was done without obtaining prior Environmental Clearance hence, attracts Violation of EIA Notification
Hexamine	100 - 97-0	0	0	08	08 TPD	Hexamine is a cyclic organic compound useful in the manufacturing of DNPT.	Organic chemical, EC is required.
Inorganic Chemicals- EC not required							
Zinc Carbonate	5263-02-5	0	2 TPD	4 TPD	6 TPD	Zinc carbonate is commonly used in water-based drilling fluids because the compound is water-insoluble.	Being inorganic chemical, EC is not required. CTO is obtained
Zinc Oxide	1314-13-2	0	0 TPD	8 TPD	8 TPD	Zinc oxide is used in a wide range of cosmetics and	Being inorganic chemical, EC is not

						personal care, skin care ETC.	required. CTO is obtained
Zinc Ammonium, Carbonate	40861-29-8	0	2 TPD	-		Closed down the manufacturing as the market demand is very low.	

5. The PP reported that the unit was established in 1999 after obtaining NOC from HSPCB for manufacturing of 1.0 TPD of DNPT vide. File No. HSPCB/NOC/360 dated 18.06.1999 i.e. before the enforcement of EIA Notification, 2006.
   - The company expanded product line in 2016 after obtaining another CTE dated 05.11.2015 and CTO dated 29.01.2016 under expansion for manufacturing of CPC Blue, Zinc Carbonate, Ammonium Carbonate and Zinc Sulphate.
   - The current CTO obtained from HSPCB/Consent/: 313096620ROHCTO8260014 dated 09.11.2020 is valid till 30.09.2025.
   - As CPC Blue attracts Environmental Clearance under EIA notification 14.09.2006 (Schedule 5(f)), as it is synthetic organic chemical. Hence, considering this, we had submitted our proposal under Violation before EAC, Industry-III, MoEF&CC as per MoEF&CC Office Memorandum F. No. 22-21/2020-IA.III (E 138949) dated 07.07.2021.

   Chronological legal history of the project:

S. No.	Description	Date/Year
1	Show cause notice (SCN) vide letter no. I/127470/2022 issued by Haryana State Pollution Control Board (HSPCB) to M/s Haryana Polymers Ltd., Sampla-Kharkhoda Road, Village Hasangarh, District Rohtak (Haryana) for closure under section 5 of Environment Protection Act,1986 and prosecution under section 15 of Environment Protection Act, 1986.	02.08.2022
2	SCN vide letter no. I/127466/2022 issued by your office to M/s Haryana Polymers Ltd., Sampla-Kharkhoda Road, Village Hasangarh, District Rohtak (Haryana) for withdrawal/cancellation of CTO of Air (Prevention & Control of Pollution) Act, 1981/27 of Water (Prevention & Control of Pollution) Act, 1974.	02.08.2022
3	Reply against above two show cause notices submitted by Haryana Polymers to HSPCB. On receipt of the show cause notice, Haryana Polymers has stopped the manufacturing of CPC blue. The manufacturing of this product will be resumed only after the grant of environmental clearance.	18.08.2022

6. The PP reported that the total land required for the proposed project is 13,531.68 m^2 and no R&R is involved in the Project.

7. The PP reported that the proposal does not involve Approval/Clearance under Forest (Conservation) Act,1980, Wildlife (Protection) Act,1972 and CRZ notification, 2011 as amended. There is no forest, Eco sensitive areas/National Park/Wildlife Sanctuary in 10 km radius of the site. The project doesn't

fall within the CRZ boundaries. Khanda Drain/West Juan Drain is flowing at a distance of 0.25 km in East direction.

8. The PP reported that total fresh water requirement is 50 m^3/day which will be met from in-house bore well. Application to withdraw ground water has been submitted to HWRA. Effluent of 37 KLD quantity will be treated through ETP and MEE. The plant will be based on Zero Liquid discharge system. Domestic waste water will be treated in STP and treated water will be send to Greenbelt.

9. The PP reported that the Power requirement after expansion will be 1000 kW including existing 750 kW and will be met from Uttar Haryana Bijli Vitran Nigam (UHBVN). Existing unit has DG sets of **320 kVA (1 no.) 380 kVA (1 no.)** capacity, additionally DG sets of **500 kVA (1 no.)** are used as standby during power failure. Stack (height) will be provided as per CPCB norms to the proposed DG sets.

10. The PP reported that the project, being in notified industrial area, is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

11. Industry will develop greenbelt in an area of 33%, i.e. 4465.45 m^2 out of total area of the project, out of which 24.58%, i.e. 3327 m^2 will be developed within the project premises and the remaining 8.42 %, i.e. 1138.45 m^2 will be developed outside the plant premises. Along the periphery of the road exists between the plant site and NH 334B.

12. The estimated project cost is Rs. 8.65 Crores including existing investment of Rs. 5.15 Crores, out of which investment made for manufacturing of CPC Blue is Rs. 1.5 crore (violation part). The PP reported that the Total employment will be 200 persons after expansion. Industry proposes to allocate Rs. 8.65 lakhs towards CER.

13. **Deliberations by the EAC:**

The Member Secretary informed that the Ministry has issued a Standard Operating Procedure dated 7th July 2021 bearing the file no. 22-21/2020-IA.II, for identification and handling of violation cases under EIA Notification, 2006 in compliance to order of the Hon'ble National Green Tribunal in Appeal No. 34/2020 (WZ) titled Tanaji B. Gambhire Vs Chief Secretary, Government of Maharashtra. This SOP was challenged in the Madurai Bench of the Hon'ble High Court of Madras in the matter W.P.(MD) No. 11757 of 2021 titled Fatima Vs Union of India and was interim stayed vide order dated 15th July 2021. Recently, in the Order dated 09th December 2021 in the matter of Civil Appeal Nos. 7576-7577 of 2021 in Electrosteel Steels Limited Vs. Union of India and Ors., the Hon'ble Supreme Court of India has inter-alia observed the following:

"*The interim order passed by the Madras High Court appears to be misconceived. However, this Court is not hearing an appeal from that interim order. The interim stay passed by the Madras High Court can have no application to operation of the Standard Operating Procedure to projects in territories beyond the territorial jurisdiction of Madras High Court. Moreover, final decision may have been taken in accordance with the Orders/ Rules prevailing prior to 7th July, 2021*."

The EAC observed that the Ministry issued OM No. 22-21/2020- IA.III dated 28.1.2022 in this regard. Further, the instant proposal is of State of Haryana and should be dealt as per the provision

of SOP dated 7.7.2021 for handling violation cases. PP submitted the unit was established in 1999 after obtaining NOC from HSPCB for manufacturing of 1.0 TPD of DNPT vide. File No. HSPCB/NOC/360 dated 18.06.1999 i.e. before the enforcement of EIA Notification. The company expanded product line after obtaining another CTE dated 05.11.2015 and CTO dated 29.01.2016 under expansion for manufacturing of **CPC Blue**, Zinc Carbonate, Ammonium Carbonate and Zinc Sulphate Now, the company has applied to obtain Environmental Clearance for the capacity expansion for manufacturing of CPC Blue (Phthalocyanine Blue) from 4TPD to 10TPD, DNPT (Di-Nitroso Pentamethylene Tetramine) from 1 TPD to 3TPD, and Hexamine of capacity 8.0 TPD

The EAC is of the view that as per para 11, Step-3 (B) of the said SOP, the project falls under permissible category. Therefore, the PP needs to carry out Damage Assessment, and prepare Natural Resource Augmentation/Remedial and Community Augmentation Plans (to restore environmental damage caused including its social aspects).

The EAC is of the view that in pursuant to the said SOP, the Ministry may take appropriate action under E(P) Act, 1986 for the violation committed by the PP.

The EAC noted that the PP reported that Industry is located in the notified industrial area i.e. RIICO. Further, as per Para 7 (i) stage III (i)(b) of EIA notification 2006 (as amended) and in pursuant to OM dated 27.4.2018, the Public consultation is exempted for this category i.e. 5(f). The committee deliberated on the carbon footprints and soil microbiology of the project area, that impacts flora and fauna

The Committee deliberated on the Greenbelt/plantation and EAC suggested to revise the green belt development plan.

14. The Committee, after detailed deliberations, **recommended** for issuing **Standard ToR [Annexure-II] with Public Hearing** as the project site is not located in the notified industrial area RIICO and following **additional ToR**, as per the provisions of the EIA Notification, 2006 (as amended) and SOP dated 07.07.2021:

(i) The PP shall follow the Standard Operating Procedure (SoP) issued by the Ministry on 07.07.2021 for handling of violation cases under EIA Notification, 2006.
(ii) To complete the impact assessment studies & submit Environmental Impact Assessment (EIA) report & Environmental Management Plan (EMP) (Damage Assessment, Remedial Plan and Community Augmentation Plan) in a time bound manner.
(iii) Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR).
(iv) Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.
(v) The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter (13) in the EIA report by the accredited consultants.

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

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

(viii) Calculation of the penalty amount as per provision of SOP dated 07.07.2021 (i.e. 1% of the total project cost incurred up to the date of filing of application along with EIA/EMP report PLUS 0.25% of the total turnover during the period of violation) with supporting documents. In addition to this, actual production vis-a-vis CTO capacity financial year wise in a tabular format with supporting documents.

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

(x) The action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.

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

(xii) Provision for Reuse/recycle of treated wastewater, wherever feasible. Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. A detailed water harvesting plan needs to be submitted. Provision for Zero liquid discharge whenever techno-economically feasible. Provision for Continuous monitoring of effluent quality/quantity.

(xiii) The PP should develop Greenbelt 2500 saplings/ha, accordingly the plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Number of Trees have to be planted with spacing of 2m x 2m and has to be calculated accordingly.

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

(xv) Activity-wise, a time bound action plan along with budgetary provision for occupational health & surveillance, environment management plan, and green belt development plan.

(xvi) The PP shall clarify whether project involved ground water utilization. In case of ground water abstraction, a copy of application made to concerned authorities for the same need to be submitted

(xvii) The PP shall prepare a detailed rain water harvesting plan so as to ensure that unit will become water positive i.e. able to recharge the quantity equivalent to fresh water requirement of the plant or use only re-charged/restored water as a fresh water requirement.

Agenda No. 43.9

Proposed Expansion of Bulk Drug Intermediate Facility by Increasing the Products/Production Capacity of API (Active Pharmaceutical Ingredients) from 60 TPA to 760 TPA, Reduction in Mineral Salts from 6871 TPA to 5871 TPA & Addition of 1 TPA R & D Facility located at Plot No. 124, 125, 126, CP173 & F-4, N-14 SIDCO Industrial Complex Hosur, Krishnagiri District, Tamil Nadu by M/s Global Calcium Private Limited - Consideration of EC

[Proposal No. IA/TN/IND3/405106/2022; File No. IA-J-11011/411/2006-IA II (I)]

1. The proposal is for environmental clearance for the Proposed Expansion of Bulk Drug Intermediate Facility by Increasing the Products/Production Capacity of API (Active Pharmaceutical Ingredients) from 60 TPA to 760 TPA, Reduction in Mineral Salts from 6871 TPA to 5871 TPA & Addition of 1 TPA R & D Facility located at Plot No. 124, 125, 126, CP173 & F-4, N-14 SIDCO Industrial Complex Hosur, Krishnagiri District, Tamil Nadu by M/s Global Calcium Private Limited.

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic Organic Chemicals industry of the Schedule of Environment Impact Assessment (EIA) Notification, 2006 and subsequent amendments. However, since the inter-state boundary of Tamil Nadu & Karnataka is located within 5 km, the project attracts General Condition and is considered as a Category 'A' project and appraised at Centre by the EAC.

3. The details of EC granted to the existing project are as follows:

S. No.	Environmental Clearance No.	Issued Date	Issued For
1.	J-11011/411/2006-IA-II(I)	01.08.2007	For Increase in Production Capacity of Mineral Salts
2.	J-11011/411/2006-IA-II(I)	16.08.2016	Installation of New APIUnit of 60 TPA within the Plant making Mineral Salts.
3.	J-11011/411/2006-IA-II(I)	04.04.2018	Corrigendum in EC dated 16.08.2016 issued - Para 2 of the EC, product details to beread as those mentioned in theTOR for the project issued on 10.02.2015. - Para 3 of the EC,coal fired boiler to be read as biomass fired boiler.

4. The standard ToR has been issued by the Ministry, vide letter No. IA-J-11011/411/2006-1A-II(I) dated 25.10.2021 for increase in API Production from 60 TPA to 560 TPA, whereas the production of mineral salts was to remain the same. Further, the PP had sought an amendment in TOR (increase in API production capacity from 60 TPA to 760 TPA, whereas the capacity of Mineral salts is to be reduced from 6781 TPA to 5871 TPA and also addition of 1 TPA R & D Facility), which was issued by the Ministry vide letter no. IA-J-11011/411/2006-IA-II(I) dated 17.06.2022.

The project is exempt from Public Hearing as it is located in a notified industrial area. The PP applied for Environment Clearance on 10.11.2022 through CAF and Form-1, and submitted the EIA/EMP Report and other documents. The PP in the Form-1 reported that it is an **Expansion case.** The proposal is now placed in 43rd EAC Meeting held on 30th November, 1st & 2nd December 2022, wherein the PP and an accredited Consultant, Chennai Testing Laboratory Pvt. Ltd. [Accreditation number NABET/EIA/2023/SA0152, dated 14/02/2022 and valid up to 15/08/2023], made a detailed presentation on the salient features of the project and informed the following:

5. The PP reported that the existing land area is 2.32 Ha, and had additionally acquired 1.149 Ha land contiguous to the existing land for this proposed expansion and the total land area upon this expansion will be 3.469 Ha and no R&R is involved in the Project. The details of products and by–products are as follows:

Products	**Process**	**Quantity in TPA**		
		Existing	**Proposed**	**Total**
Pharmaceutical Bulk Drug & Chemicals MINERAL SALTS Gluconates, Citrates, Lactates, Lactobionates, Fumarates, Orotates, Ascorbates, Aspartates, Pidolates, Glycinate, Calcium D Saccharates, Phosphates, Phosphites, Selenates, Stearates, Succinates, Per Oxides, etc	Conventional	1641	--	1641
	Conversion/ / Repacking/ Outsourced	2615	--	2615
Calcium Glubionate, Calcium Borogluconate, Calcium lacto Gluconate, Gluconates, Acetates Pidolates and other Mineral Salts	Spray drier Process	2615	(-) 1000	**1615**
Bepotastine Besilate, Benfotiamine, Calcium Dobesilate, Clozapine, Citicoline, Cinitapride Hydrogen Tartrate, Carbimazole, Deferasirox, Diatrizoic Acid, Dorzolamide Hydrochloride, Desvenlafaxine Succinate, Fenpiverinium Bromide, Flupentixol Hydrochloride, Calcium Folinate, Ferric Isomaltoside, Ferric Maltol, Fomepizole, Fluphenazine Dihydrochloride, Fluphenazine Decanoate, Fosphenytoin Sodium, Calcium Glycerophosphate, Iron Sucrose, Iron Sorbitol Complex, Iron Poly Maltose Complex, Ivabradine Hydrochloride, Iohexol, Calcium L-Methyl Folate, Mebeverine Hydrochloride, Melitracen Hydrochloride, Minoxidil Sulphate, Methotrexate, Metopimazine, Nifuroxazide, Naftifine Hydrochloride, Nefopam Hydrochloride, Nebivolol	API	60	700	**760**

Hydrochloride, Oxetacaine, Oxcarbazepine, Pitofenone Hydrochloride, Phenytoin Sodium, Phenozopyridine Hcl, Phenyramidol Hydrochloride, Pyridostigmine Bromide, Strontium Ranelate, Sucroferric Oxyhydroxide, Terbinafine Hydrochloride, Tribenoside, Tiemonium Methylsulphate, Tolperisone Hydrochloride, Topiramate, Trimetazidine Hydrochloride, Ubiquinol (Acetate), Venlafaxine Hydrochloride, Esmolol Hydrochloride, Phenprocoumon, Sodium Phenyl Butrate.				
R & D Facility	R & D	--	1	**1**

S. No.	PRODUCT	CAS NO.	APPLICATION (OR) END USE
1.	Bepotastine Besilate	190786-44-8	Anti-allergic activity in animal models
2.	Benfotiamine	22457-89-2	Vitamin B1
3.	Calcium Dobesilate	117552-78-0	Indicated as prostatic hypertrophy
4.	Clozapine	5786-21-0	Antipsychotic
5.	Citicoline	33818-15-4	Help memory loss due to aging
6.	Cinitrapride Hydrogen Tartarate	1207859-16-2	Gastroprokinetic
7.	Carbimazole	22232-54-8	Anti thyroid
8.	Deferasirox	201530-41-8	Chelating agent (iron)
9.	Diatrizoic Acid	117-96-4	Used in Diagnostic radiography
10.	Dorzolamide Hydrochliride	130693-82-2	Antiglaucoma agent
11.	Desvenlafaxine Succinate	386750-22-7	Treat Depression
12.	Fenpiverinium Bromide	125-60-0	Antispasmodic
13.	Flupentixol Hydrochloride	2709-56-0	Antipsychotic
14.	Calcium Folinate	1492-18-8	Antidote to folate antagonists
15.	Ferric Iso Maltoside	1370654-58-2	Iron supplement
16.	Ferric Maltol	33725-54-1	Iron supplement
17.	Fomepizole	7554-65-6	Treat methanol and ethylene glycol poisoning
18.	Fluphenazine Di Hydrochloride	146-56-5	Antipsychotic
19.	Fluphenazine Deconoate	5002-47-1	Antipsychotic
20.	Fosphenytoin Sodium	92134-98-0	Anti-convulsant
21.	Calcium Glycerophosphate	27214-00-2	Electrolyte replenisher
22.	Iron Sucrose	8047-67-4	Hematinic
23.	Iron Sorbitol Complex	1338-16-5	Iron supplement
24.	Iron Poly Maltose Complex	17099-81-9	Iron supplement
25.	Ivabradine Hydrochloride	148849-67-6	Antianginal
26.	Iohexol	66108-95-0	Contrast agent
27.	Calcium L Methyl Folate	151533-22-1	Dietary supplement
28.	Mebeverine Hydrochloride	2753-45-9	Antispasmodic

29.	Melitracen Htdrochloride	10563-70-9	Antidepressant
30.	Minoxidil Sulphate	38304-91-5	Ant alopecia agent and anti-hypertensive
31.	Methotrexate	15475-56-6	Anticancer, Antineoplastic, Antirheumatic
32.	Metopimazine	14008-44-7	Treat nausea or vomiting
33.	Nifuroxazide	965-52-6	Antibacterial agent
34.	Naftifine Hydrochloride	65473-14-5	Antifungal agent
35.	Nefopam Hydrochloride	23327-57-3	Analgesic, antidepressant
36.	Nebivolol Hydrochloride	152520-56-4	Antihypertensive
37.	Oxetacaine	126-27-2	Local anesthetic
38.	Oxcarbazepine	28721-07-5	Treat seizures and pain
39.	Pitofenone Hydrochloride	1248-42-6	Antispasmodic
40.	Phenytoin Sodium	93390-81-9	Anticonsulvant, Antiepileptic
41.	Phenozopyridine HCL	136-40-3	Analgesic (urinary tract)
42.	Phenyramidol HCL	326-43-2	Muscle relaxant, Analgesic
43.	Pyridostigmine Bromide	101-26-8	Myasthenia gravis
44.	Strontium Ranelate	135459-90-4	Increase bone formation
45.	SucroFerric Oxyhydroxide	20344-49-4	Phosphate binder
46.	Terbinafine Hydrochloride	78628-80-5	Anti-fungal
47.	Tribenoside	10310-32-4	Anti-inflammatory
48.	Tiemonium Methyl Sulphate	6504-57-0	Antispasmodic
49.	Tolperisone Hydrochloride	3644-61-9	Muscle relaxant (Skeletal)
50.	Topiramate	97240-79-4	Anticonvulsant, antimigraine
51.	Trimetazidine Hydrochloride	13171-25-0	Prevent Angina
52.	Ubiquinol Acetate	992-78-9	Antioxidant
53.	Venlafaxine Hydrochloride	93413-69-5	Treat Depression
54.	Esmolol Hydrochloride	81161-17-3	Tachycardia and hypertension
55.	Phenprocoumon	435-97-2	Treatment of thromboembolic disease
56.	Sodium Phenyl Butrate	1716-12-7	Treatment of urea cycle disorder

6. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

7. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site.

8. The PP reported that **Ambient Air Quality** monitoring was carried out at 8 locations during 01 January to 31 March 2022 and the baseline data indicates the ranges of concentrations as: PM_{10} in ambient air during the present study varied between 40 and 87 μg/m³. $PM_{2.5}$ in ambient air during the present study varied between 10 and 39 μg/m³. SO_2 in ambient air during the present study was found to vary between 11.5 and 26.4 μg/m³. NOx in ambient air during the present study varied between 20.8 and 40.6 μg/m³. O_3 in ambient air during the present study varied between 10.7 and 54.8 μg/m³. NH_3 in ambient air during the present study varied between 6.7 and 36.4 μg/m³. Whereas all other parameters such as Carbon Mono Oxide, Nickel, Arsenic, Lead, Benzene &

Benzo Pyrene including other additional parameters were Below Deductible Limit.

9. The PP reported that the **Ground Water** samples analysed had pH with the standard range, while Hardness of all ground water samples were above acceptable limits, which could be because of higher levels of Calcium present in the ground surface. Chloride, Sulphates & Fluoride in all ground water samples were within limits. However, Nitrates were marginally higher than the permissible limits. Total Dissolved Solids (TDS) samples were within permissible limits, and the Heavy Metals were also within limits or absent. The ground water was also free of any Bacteriological, Pesticidal and Organic Toxics.

10. The PP reported that the **Surface Water** samples tested were found to be unpolluted, and the parameters such as TDS, Hardness, were within acceptable levels, whereas Metal, Pesticides & Microbial Contamination was Below Deductible Levels, however had exhibited marginally higher level of Nitrates, Turbidity, which could be because of the run-off carrying sediments.

11. The PP reported that the pH of all **soil samples** was neutral, while the range of Electrical Conductivity of all soil samples indicate soil is non-saline. Nitrogen, Phosphorus and Potassium the Macro Nutrients in all soil samples were high thus restraining the ability of soil to absorb nutrients. However, all soil samples tested were free of any toxicity due to Arsenic, Mercury, Lead etc.

12. The PP reported that the area falls to a large extent in the Industrial Zone, the average **noise level** during day time varies between 47.5 – 68.2 dB(A) & during night time varies between 41.6 – 59.6 dB(A) and with respect to it the Ambient Noise Levels were within the permissible levels at present.

13. The PP reported that the total water requirement is 408 KLD (about 28.30% of the total Rain Water Available for Harvesting within project site) and the fresh water requirement after treatment and reuse of entire treated wastewater will be 193.3 KLD, which will be met from SIPCOT. Effluent of 224.1 KLD [ETP I – 54.4 KLD & ETP II – 169.7 KLD] will be treated through Effluent Treatment Plants including RO/MEE/ATFD and the Plant will be based on Zero Liquid Discharge system

14. The power requirement after expansion will be 3.5 MW including existing 1.2 MW and will be met entirely from its own windmill. Existing unit has D.G. Sets of 250 KVA, 320 KVA x 2 Nos., 380 KVA, 500 KVA x 2 Nos., additionally 3 DG Sets of 1010 kVA each proposed in the expansion plan will be used only during emergency or grid failure. Stacks for the existing and proposed DG sets are/will be as per CPCB norms.

15. Existing unit has 3×4 T boiler to meet its steam requirement, and fuel used is entirely briquetted biomass, and total requirement of this Biomass at present is 45 TPD. Additionally, 2×6 T boiler will be installed, which will also be using briquetted biomass as fuel, and the quantity required will be 45 TPD. Each of these are/will be provided with Dust Collector with adequate stack height as per G.S.R 477 (E) dated 27.06.2022 and as given below.

16. **Details of Process Emissions Generation and its Management:**

S. No	Source	Parameters	Control Measure	Stack Height in mts	Top Diameter in mts	Remarks
	EXISTING					
1	2 x 4 Ton Boiler	Particulate	Dust Collector with Stack	30.0	0.900	Existing 2 T Boiler will be Replaced by a 4 T Boiler
2	4 Ton Boiler	Particulate	Dust Collector with Stack	30.0	0.700	Existing 2T Boiler will be Replaced by a 4 T Boiler
3	Spray Drier –A	Particulate (Product)	Multi cyclone dust Collector with stack	22.0	0.500	
4	Spray Drier –B	Particulate (Product)	Multi cyclone dust Collector with stack	22.0	0.500	
*5	Electrolytic Cells – Plant - 2	--	Wet scrubber with stack	12.0	0.450	
*6	Electrolytic Cells – Plant - 4	--	Wet scrubber with stack	12.0	0.400	
**7	IB I Reactor (I,II,III)	--	Wet scrubber with stack	20.0	0.400	
8	500 KVA Gen set Plant 1	SO_2, NO_X	Acoustic enclosures with stack	7.0	0.250	
9	500 KVA Gen set Plant 1	SO_2, NO_X	Acoustic enclosures with stack	7.0	0.250	
10	380 KVA Gen set Plant 2	SO_2, NO_X	Acoustic enclosures with stack	7.0	0.200	
11	320 KVA Gen set - IB X	SO_2, NO_X	Acoustic enclosures with stack	7.0	0.200	
12	320 KVA Gen set IB X	SO_2, NO_X	Acoustic enclosures with stack	7.0	0.200	
13	250 KVA Gen set Plant 2	SO_2, NO_X	Acoustic enclosures with stack	7.0	0.200	
	PROPOSED					

1	6 Ton Boiler	Particulate	Dust Collector with Stack	30.0	0.800	
2	6 Ton Boiler	Particulate	Dust Collector with Stack	30.0	0.800	
**3	IB I &IB III (7 Reactors & 5 Centrifuges)	--	Wet scrubber with stack	12 .0	0.400	
**4	I B II (8 Reactors& 3 Centrifuges)	--	Wet scrubber with stack	12.0	0.400	
**5	I B IV (4Reactors& 3 Centrifuges)	--	Wet scrubber with stack	12.0	0.400	
**6	I B V &VII (9 Reactors& 7 Centrifuges)	--	Wet scrubber with stack	12.0	0.400	
**7	I B VIII (6 Reactors& 4 Centrifuges)	--	Wet scrubber with stack	12.0	0.400	
**8	I B IX (6 Reactors& 4 Centrifuges)	--	Wet scrubber with stack	12.0	0.400	
**9	I B X (16 Reactors & 7 Centrifuges)	--	Wet scrubber with stack	12.0	0.400	
**10	I B XI (7 Reactors & 2 Centrifuges)	--	Wet scrubber with stack	12.0	0.400	
11	1010 KVA – DG Set – Plant- 1	SO_2, NO_X	Acoustic enclosures with stack	15.0	0.350	
12	1010 KVA – DG Set – Plant- 2	SO_2, NO_X	Acoustic enclosures with stack	15.0	0.350	
13	1010 KVA – DG Set – IB X	SO_2, NO_X	Acoustic enclosures with stack	15.0	0.350	
14	HVD Thermic Fluid System	--	Stack	20	0.300	
15	Fume Extraction - R&D	--	Wet scrubber with stack	20	0.600	
16	Fume Extraction - R&D	--	Wet scrubber with stack	20	0.600	
* - Only during Production of Lactobionate there will be remnants of Bromine Emission ** - Gas Vapour Consisting remnants of Volatiles Organics, Acids etc.						

17. **Details of Solid Waste/ Hazardous Waste Generation and its Management:**

S. No	Name of Process	Name of Process Waste (Category No)	Quantity (Tonnes / year)		Waste Type	Mode of Storage	Mode of disposal
			Existing	Upon Expansion			
1	5. Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1-Used or spent oil	1.5	3.0	Recyclable	MS Drums	Recover and Reuse-CPCB Authorized recyclers
2	5. Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.2-Waste or residues containing oil	-	1.0	Pre-Processing/ Incineration	MS Drums	Authorized Pre-Processor or Incineration Facility at TSDF Unit
3	20. Production and/ or Industrial use of Solvents	20.4-Process Sludge	-	25.0	Pre-Processing/ Landfillable	HDPE Bags	Authorized Pre-Processor or Common Landfill-TSDF
4	28. Production/ formulation of drugs/ pharmaceutical and health care product	28.1-Process Residue and wastes	33.0	200.0	Pre-Processing/ Landfillable	HDPE Bags	Authorized Pre-Processor or Common Landfill-TSDF
5	28. Production/ formulation of drugs/ pharmaceutical and health care product	28.2 Spent catalyst	-	2.0	Reusable	HDPE Bags	Authorized Processors
6	28. Production/ formulation of drugs/ pharmaceutical and health care product	28.3-Spent carbon	12.0	35.0	Pre-Processing/ Incineration	HDPE Bags	Authorized Pre-Processor or Incineration Facility at TSDF Unit

7	28. Production/ formulation of drugs/ pharmaceutical and health care product	28.4 Off specification products	-	2.0	Pre-Processing	HDPE Bags	Authorized Pre-Processor
8	28. Production/ formulation of drugs/ pharmaceutical and health care product	28.5 Date expired products	-	2.0	Pre-Processing	HDPE Bags	Authorized Pre-Processor
9	28. Production/ formulation of drugs/pharmaceu-tical and health care product	28.6-Spent solvents	250.0	2000.0	Recyclable	MS Drums	Recover and Reuse-CPCB Authorized recyclers
10	33. Handling of hazardous chemicals and wastes	33.1-Empty barrels/ containers /liners contaminated with hazardous chemicals /wastes	10.0	25.0	Recyclable	Empty Barrels/ Containers	Recover and Reuse-CPCB Authorized recyclers/ Landfill at TSDF
11	35. Purification and treatment of exhaust air/gases, water and waste water from the processes in this schedule and common industrial effluent treatment plants (CETP's)	35.3-Chemical sludge from waste water treatment	6.0	60.0	Pre-Processing or Land fill	HDPE Bags	Authorized Pre-Processor or Authorized TSDF
12	35. Purification and treatment of exhaust air/gases, water and waste water from the processes in this schedule and	35.3 MEE/ATFD Mixed salt	114.0	1400.0	Pre-Processing or Land fill	HDPE Bags	Authorized Pre-Processor or Authorized TSDF

	common industrial effluent treatment plants (CETP's)						

18. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 9.5 Crores (capital) and the Recurring cost (operation and maintenance) for EMP will be about ₹4.0 Crores. Industry proposes to allocate ₹ 1.22 Crores towards CER.

19. Greenbelt will be developed in 33% i.e. 1.14 ha. of total plot area 3.469 ha. and total 1034 trees need to be additionally planted. Existing 2443 trees are already planted at site.

20. The PP reported that the unit has established set up of Environment Management Cell (EMC) which holding the positions of General Manager- EHS, Senior Vice President – EMS, Manager –EHS, DGM –EHS Maintenance, Senior. Engineer –EHS –Instrumentation, Sr. Manager- – Environmental Monitoring, Asst. Manager-Environmental Monitoring, Associate-EHS and Officer-EHS for the functioning of EMC.

21. The PP reported that

Carbon Sequestration capacity per tree	13.2 kg/day	4.62 TCO_2/year
3477 number of trees will have capacity to sequester carbon di-oxide to extent of	24.82 tonne per day	>100%
While the CO_2 generation by the plant operation taking into the account all sources will only be 7.2 T/day		

22. The PP submitted the Onsite and Offsite disaster management plan in their EIA report.

23. The estimated project cost is ₹ 40 Crores apart from the existing investment of ₹ 104.6498 Crores. Total employment will be ~103 numbers during construction phase (i.e. ~10 direct and ~93 indirect) and ~800 numbers during operation phase (i.e. ~700 on direct and ~100 indirect).

24. **Deliberations by the EAC**

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

The EAC noted that the PP 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 PP.

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

The EAC inter-alia, deliberated on the solar energy, CO_2 savings, Greenbelt development plan and budget, carbon sequestration, and advised the PP to submit the following:

- Details of existing and proposed roof top solar power generation.
- CO_2 savings from the solar power.
- Details of existing and proposed green belt including the no. of rows and no. of trees.
- CO_2 sequestration capacity

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

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

The EAC is of the view that its recommendation and grant of environmental clearance by regulatory authority 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 PP 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.

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

(i) The PP shall develop Greenbelt over an area of at least 1.14 ha. by planting 1034 number of trees additionally, within a period of one year grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2m). In addition to this, The budget earmarked for the green belt shall be ₹ 0.5 Crores and shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of the expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(ii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage General Manager- EHS, Senior Vice President – EMS, Manager – EHS, DGM –EHS Maintenance, Senior. Engineer –EHS –Instrumentation, Sr. Manager- – Environmental Monitoring, Asst. Manager-Environmental Monitoring, Associate-EHS and Officer-EHS. The Production Head manages the Department of Occupational Health & Safety (OHS) and Operations department. The OHS Department is headed by Safety Officer who is assisted by Manager, Executive Officer. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹9.5 Crores (Capital cost) and ₹4.1 Crores Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(iv) The PP reported that Total Water requirement is 408 KLD, of which fresh water requirement of 193.3 KLD will be met from SIPCOT. The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(v) The PP shall install roof top solar panel of capacity 33 KW, in addition to the existing 15 KW and the total capacity shall be 48 KW.

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

(vii) The PP 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.

(viii) The PP shall comply with the environment norms for synthetic organic Chemical as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608(E), dated 21.7.2010 under the provisions of the Environment (Protection) Rules, 1986.

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

(x) 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.

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

(xii) As Committed by the PP zero liquid Discharge shall be ensured, Effluent of 224.1 KLD quantity will be treated through Effluent Treatment Plants. STP already installed to treat the entire domestic sewage generated upon expansion shall be operated effectively and efficiently.

(xiii) A 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 servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(xiv) 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.

(xv) The occupational health centre for surveillance of the worker's health already set up shall be maintained effectively. 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.

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

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

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

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

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

Agenda No. 43.10

Existing unit Manufacturing of Unsaturated Polyester Resin with production capacity 9600 MTPA Located at Plot No-G-730, RIICO Industrial Area, Phase-II, Bhiwadi, Tehsil -Tijara, District- Alwar, Rajasthan by M/s Innovative Resins Private Limited - Consideration of ToR (under violation category)

[Proposal No. IA/RJ/IND3/402247/2022; File No. IA-J-11011/491/2022-IA-II(I)]

1. The proposal is for the ToR for preparation of EIA/EMP for the environmental clearance to the project for Existing Unit Manufacturing of Unsaturated Polyester Resin with production capacity 9600 MTPA Located at Plot No-G-730, RIICO Industrial Area, Phase-II, Bhiwadi, Tehsil -Tijara, District- Alwar, Rajasthan by Innovative Resins Private Limited. **The PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the CPCB.**

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry. However, since the project site is located in a critically polluted area, the project attracts the general condition and considered as Category 'A' at Centre. Further, the inter-state boundary of Rajasthan & Haryana lies at a distance of 0.71 km, east direction.

3. The PP applied for ToR vide proposal number No. IA/RJ/IND3/402247/2022 dated 11.112022. The proposal is now placed in 43rd EAC Meeting held on 30th November- 1st- 2nd December 2022, wherein the PP made an accredited Consultant, Enkay Enviro Services Pvt. Ltd. [Accreditation number –NABET/EIA/2023/RA 0183, Valid up to 12.12.2023] a detailed presentation on the salient features of the project. The information submitted by the PP is as follows. The information submitted by the PP is as follows:

4. The PP proposed to manufacture the following products:

S. No	Product Details (complete name)	CAS NO.	Existing Quantity (MTPA)	Total Quantity (MTPA)	Uses
1.	Unsaturated Polyester	--	9600	9600	Unsaturated polyester resins used in the

	Resin				production of fiber reinforced plastics & Filled Products

5. The PP reported that Existing land area is 1484 m^2, no additional land is required for the project and no R&R is involved in the Project.

6. The PP reported the chronology of the implementation of project as follows:

PARAMETERS	**Document no.**	**Date**	**Validity**	**Implementation status**
Details of Earlier EC	Innovative Resins Pvt. Ltd. is an existing project operative since 2014 with Valid CTE and CTO and without prior EC, Thus it is a Violation Case as per EIA notification 2			
Details of Consent to Establish (CTE)	F(Tech)/Alwar(Tijara)/1553(1)/2012-2013/2301-2303	07.02.2013	14.12.2013 to 30.11.2015	(CTE for Unsaturated Polyester Resin:2400MTPA, dg Set-125kVA & Thermic Fluid Heater-4 Lac kCal/Hr)
	F (Tech)/Alwar (Tijara) / 5324(1) / 2018-2019/255-256	31.05.2018	03.01.2018 to 31.12.2022	(CTE for DG Set-125kVA & Thermic Fluid Heater-4 Lac kCal/Hr)
	F (Tech)/Alwar (Tijara) / 5325(1) / 2018-2019/1189-1190	31.05.2018	13.09.2018 to 31.01.2023	(CTE for Production of Chemicals-Unsaturated Polyester Resin:9600 MTPA)

7. The PP reported that the proposal does not involve Approval/Clearance under Forest (Conservation) Act,1980, Wildlife (Protection) Act,1972 and C.R.Z notification, 2011 as amended. The PP reported that there is no forest area, National Park and Biosphere Reserve, Tiger/Elephant Reserve, Wildlife Corridor etc. within 10 km distance from the project site. River/ water body-Indori Nala is flowing at a distance of 4.44km in NE direction.

8. The PP reported that the Total water requirement is 7 m^3/day of which fresh water requirement of 7 m^3/day will be met from RIICO Water Supply. Domestic Effluent of 2.5KLD quantity will be treated through Modular STP. The plant will be based on Zero Liquid discharge system.

9. The PP reported that Power requirement is 220KW including existing KVA and has met from JVVNL. Existing unit has DG sets of 62.5Kva & 125kVA capacity and stopped before 30.09.2022. Stack (height of 27m.) is provided as per CPCB norms to the existing DG sets

10. The proposed project site is located in a Notified Industrial Area i.e., RIICO Industrial Area, Rajasthan.

11. The PP reported that Industry has already developed within the Premises is only 2.06% (30.6Sq.m.) and about 70 m^2 (4.71%) has been Planted in and around the plant premises and the rest of 493 m^2 (33.23%) plantation will be done by taking permission with RIICO and developed in the park of RIICO.

12. The estimated project cost is Rs. 2.014 Crores including existing investment of Rs 2.014 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.10.81Lakhs/annum and the Recurring cost (operation and maintenance) will be about Rs. 0.78Lakhs/ annum (which include the CER Cost @ of 1.5 % -3 .06 Lakhs.) Total Employment is 85 persons as direct employment.

13. **Deliberations by the EAC:**

The Member Secretary informed that Ministry has issued a Standard Operating Procedure dated 7th July 2021 bearing the file no. 22-21/2020-IA.II, for identification and handling of violation cases under EIA Notification, 2006 in compliance to order of the Hon'ble National Green Tribunal in Appeal No. 34/2020 (WZ) titled Tanaji B. Gambhire Vs Chief Secretary, Government of Maharashtra. This SOP was challenged in the Madurai Bench of the Hon'ble High Court of Madras in the matter W.P.(MD) No. 11757 of 2021 titled Fatima Vs Union of India and was interim stayed vide order dated 15th July 2021. Recently, in the Order dated 09th December 2021 in the matter of Civil Appeal Nos. 7576-7577 of 2021 in Electrosteel Steels Limited Vs. Union of India and Ors., the Hon'ble Supreme Court of India has inter-alia observed the following:

"*The interim order passed by the Madras High Court appears to be misconceived. However, this Court is not hearing an appeal from that interim order. The interim stay passed by the Madras High Court can have no application to operation of the Standard Operating Procedure to projects in territories beyond the territorial jurisdiction of Madras High Court. Moreover, final decision may have been taken in accordance with the Orders/ Rules prevailing prior to 7th July, 2021*."

The EAC observed that Ministry issued OM No. 22-21/2020- IA.III dated 28.1.2022 in this regard. Further, the instant proposal is of State of Rajasthan and should be dealt as per the provision of SOP dated 7.7.2021 for handling violation cases. PP submitted the compliance of SOP dated 7.7.2021 and that the unit was operating prior to EIA Notification 2006 and enhanced the production capacity in the year 2012. Further, PP requested that unit may be permitted to operate at the capacity of 30 TPD for which CTE was issued in the year 2005. The Committee is of the view that as per para 11, Step-1, the project which do not require EC for earlier production level but now required, in such cases, the activity needs to be restricted for which prior EC was not required.

The EAC is of the view that as per Para 11, Step-3 (B) of the said SOP, the project falls under permissible category. Therefore, the PP needs to carry out Damage Assessment, and prepare Natural

Resource Augmentation/Remedial and Community Augmentation Plans (to restore environmental damage caused including its social aspects).

The EAC is of the view in pursuant to the said SOP, Ministry may take action under E(P)A 1986 for the violation committed by the PP.

The EAC noted that the PP reported that Industry is located in the notified industrial area i.e. RIICO. Further, as per Para 7 (i) stage III (i)(b) of EIA notification 2006 (as amended) and in pursuant to OM dated 27.4.2018, the Public consultation is exempted for this category i.e. 5(f). The committee deliberated on the greenbelt development plan, carbon sequestration of the project area.

14. The EAC, after detailed deliberations, **recommended** for issuing **Standard ToR [Annexure-II] without Public Hearing** as the project site is located in the notified RIICO industrial area and following **additional ToR**, as per the provisions of the EIA Notification, 2006 (as amended) and SOP dated 07.07.2021:

(i) The status of the action plan, if any, prepared by the State Government/SPCB for the CPA needs to be provided.

(ii) The PP needs to submit the action plan with respect to mitigation measures for CPA mentioned in the Ministry's OMs dated 31.10.2019.

(iii) Being in a Critically Polluted Area (CPA), the PP need to submit alternative site analysis and Environmental Cost Benefit analysis in the EIA report.

(iv) The PP shall submit the details of carbon foot prints and carbon sequestration study w.r.t. the proposed project. The Action Plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources shall also be prepared and submitted.

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

(vi) Details of Onsite and Offsite emergency plans as per the provisions of the MSIHC Rules need to be submitted.

(viii) Activity-wise, a time bound action plan along with budgetary provisions for occupational health & surveillance, environment management plan, and green belt development plans shall be prepared and submitted.

(ix) Undertaking from the PP and the consultant in pursuant to the O.M. No. J-11013/41/2006-IA. II(I) dated 04.08.2009 and J-11013/41/2006-IA. II(I) dated 5.10.2011.

(x) Action Plan for the management of hazardous waste and provision for its utilization in co-processing if applicable shall be prepared and submitted.

(xi) Provision for Reuse/recycle of treated wastewater, wherever feasible shall be made. The PP shall explore the possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. A detailed water harvesting plan also needs to be prepared and submitted. Provision for Zero Liquid Discharge whenever techno-economically feasible shall be included. The PP shall make necessary provisions for continuous monitoring of the effluent quality/quantity.

(xii) The PP shall clarify whether project involves ground water utilization. In case of ground water abstraction, a copy of application made to concerned authorities for the same need to be submitted.

(xiii) The PP should develop Greenbelt over an area of 40.00% (i.e. 4243.76 m^2) of the total land area, accordingly the plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Approx. 1070 number of plantations have to be planted considering 80% survival rate and with a spacing of 2 m x 2 m.

(xiv) Plan for development of the green belt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. shall be prepared and submitted.

(xv) Assessment of the carrying capacity of transportation load on roads inside the notified industrial premises shall be carried out and submitted.

(xvi) In addition to the above, the EIA/EMP report shall also address issues such as i) Effective fugitive emission control measures for process, transportation, packing etc. ii) use of cleaner fuels and iii) best available technology for the plant.

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

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

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

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

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

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

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

(xxiv) Calculation of the penalty amount as per provision of SOP dated 07.07.2021 (i.e. 1% of the total project cost incurred up to the date of filing of application along with EIA/EMP report PLUS 0.25% of the total turnover during the period of violation) with supporting documents. In addition to this, actual production vis-a-vis CTO capacity financial year wise in a tabular format with supporting documents.

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

(xxvi) The action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.

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

(xxviii) The PP shall prepare a detailed rain water harvesting plan so as to ensure that unit will become water positive i.e. able to recharge the quantity equivalent to fresh water requirement of the plant or use only re-charged/restored water as a fresh water requirement.

Agenda No. 43.11

Setting up of Bulk Drugs & Drug Intermediates manufacturing unit in existing premises with production capacity of 100 TPM located at Plot No. 4308, G.I.D.C. Estate, Ankleshwar, Dist. Bharuch, Gujarat by M/s. Rutain Pharma Chem - Consideration of ToR

[Proposal No. IA/GJ/IND3/402115/2022; File No. IA-J-11011/431/2022-IA-II(I)]

1. The proposal is for the ToR for preparation of EIA/EMP for the Setting up of Bulk Drugs & Drug Intermediates manufacturing unit in existing premises with production capacity of 100 TPM located at Plot No. 4308, G.I.D.C. Estate, Ankleshwar, Dist: Bharuch, Gujarat by M/s. Rutain Pharma Chem. **The PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the CPCB.**

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry. However, since the project site is located in a critically polluted area, the project attracts the general condition and considered as Category 'A' at Centre.

3. The PP applied for the ToR vide proposal no. **IA/GJ/IND3/402115/2022** dated 7.10.2022. Due to shortcomings, the proposal was referred back to the PP on 25.10.2022 and its reply was submitted on 12.11.2022. The proposal is now placed in 43rd EAC Meeting held on 30th November, 1st & 2nd December 2022, wherein the PP and an accredited Consultant, M/s. Jyoti Om Chemical Research Centre Pvt. Ltd. [Accreditation number – NABET/EIA/2023/IA0071 Valid up to 18.12.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that the product details are as follows:

Sr. No.	Name of Product	CAS No.	Quantity (MT/Month)			End Use
			Existing	Proposed	Total	
	PRODUCTS AS PER EARLIER EC					
1.	Diclofenac Sodium	15307-79-6	35	-35	00	Relieve pain, swelling
2.	Diclofenac Potassium	15307-81-0				For treatment of primary dysmenorrhea. For relief of mild to moderate pain. For relief of the signs and symptoms of osteoarthritis.
3.	Acelofenac	89796-99-6				For the relief of pain and inflammation in osteoarthritis, rheumatoid arthritis and ankylosing spondylitis
4.	Albendazole	54965-21-8				Hydatib Disease
5.	2, 6 – Dichloro Diphenylamine (Dcdpa)	15307-93-4				As an intermediate of N – CHLOROACETYL-N-PHENYL2, 6-DICHLORO DIPHENYL ANILINE
6.	N – Chloroace Tyl-Nphenyl-2, 6- Dichloro Diphenyl Aniline	15308-01-7				As an intermediate of 1 – (2, 6 – DICHLOROPHE NYL) – 2 – INDOLINONE

7.	1 – (2, 6 – Dichloroph Enyl) – 2 – Indolinone	15362-40-0				Diclofenac Sodium/ Potassium
8.	Amisulpride	53583-79-2				Used for reduction of patient distress. It is often associated with management of agitation and sometimes aggressive behavior.
9.	2- Aminobiphenyl	90-41-5				Valsartan / Sacubitril
10.	4-Amino-5- Ethylsulfo Nyl-2- Methoxybe Nzoic Acid	71675-87-1				An impurity found in Amisulpride (A633250). Amisulpride EP Impurity E
11.	Etoricoxib	202409-33- 4				In Treatment of Arthritis
12.	Flurbiprofen	5104-49-4				Used for the symptomatic treatment of rheumatoid arthritis, osteoarthritis and anklylosing spondylitis
13.	Glimepiride	93479-97-1				In treatment of High blood sugar, diabetes
14.	Itraconazole	84625-61-6				Used to treat fungal infections of the toenails. Also used to treat yeast infections of the mouth and throat or of the esophagus (tube that connects the throat to the stomach)
15.	Ketoconazole	65277-42-1				Used to treat skin infections
16.	Levosulpiride	23672-07-3				Gastroesophageal reflux disease
17.	Omeprazole	73590-58-6				Used to treat frequent heartburn (heartburn that occurs at least 2 or more days a week) in adults

18.	Phenylboronic Acid	98-80-6				In treatment of High blood sugar, diabetes
19.	Rabeprazole	117976-89- 3				Used to treat peptic ulcer disease, gastroesophage al reflux disease, and excess stomach acid production such as in Zollinger– Ellison syndrome
20.	Sobosfuvir	1190307-88-0				Used to reduce the amount of hepatitis C virus in human body, which may help liver recover.
	TOTAL		**35.0**	**-35.0**	**0.0**	
	Note: All EC products will be discontinued.					

Sr. No.	**Name of Product**	**CAS No.**	**Proposed Quantity (MT/Month)**	**End Use**
	Group-1 OR:			
1.	Darifenacin	133099-07-7	100	Antimuscarinic
2.	Amlodipine Besylate	111470-99-6		To prevent strokes, heart attacks, and kidney problems
3.	Clonidine HCl	4205-91-8		Antihypertensive
4.	Hydrochlorothiazide	58-93-5		Diuretic
5.	Benazapril HCl	86541-74-4		Antihypertensive
6.	Lacidipine Hydrochloride	103890-78-4		To treat hypertension
7.	Tiagabine HCl	145821-59-6		Anticonvulsant
8.	Pseudoepherine HCl	345-78-8		Nasal decongestant
9.	Buprenorphine HCl	53152-21-9		To treat severe pain
10.	Meloxicam	71125-38-7		Anti-inflammatory
11.	Larnoxicam	70374-39-9		Anti-inflammatory
12.	Alendronate Sodium	121268-17-5		To prevent and treat osteoporosis
13.	Ivabradine	148849-67-6		To treat adults who have chronic heart failure
14.	Dipyridamole	58-32-2		Antiplatelet
15.	Tranexamic Acid	1197-18-8		To treat heavy bleeding
16.	Zolpidem Tartrate	99294-93-6		To treat insomnia
17.	Phthaloyl Amlodipine	88150-62-3		Treatment of hypertension and cardiovascular disease

18.	Sucralfate	54182-58-0		To treat and prevent duodenal ulcers
19.	1-(3-Chlorophenyle)-4- (3-Chloro propyle)piperazine Hydrochloride	39577-43-0		Preparation of Trazodone
20.	Azythromycin	83905-01-5		Antibiotic
21.	Amisulpride	53583-79-2		Antipsychotic
22.	Hydroxy Chloroquine Sulphate	118-42-3		Antimalarial
23.	Tiropramide	53567-47-8		Antispasmodic
24.	Atorvastatin Calcium Trihydrate	134523-03-8		Beta Blockers & Cholesterol Reduction
25.	Didanosine	69655-05-6		Treatment of HIV/AIDS
26.	Ezogabine	150812-12-7		To control partial onset seizures
27.	Tapentadol Hydrochloride	175591-09-0		Acute pain
28.	Tenofovir Disporoxil Fumarate	202138-50-9		Anti-HIV
29.	Tioconazole	65899-73-2		Antifungal
30.	Asenapine Maleate	85650-56-2		To treat Mental/mood disorders
31.	Balofloxacin Dihydrate	151060-21-8		Antibiotic
32.	Clinidipine	132203-70-4		To treat Hypertension
33.	Nicardipine Hydrochloride	54527-84-3		To treat High blood pressure
34.	Risedronate Sodium	115436-72-1		Strengthen bone, treat or Prevent osteoporosis and treat Paget's disease of bone
35.	Trospium Chloride	10405-02-4		To treat overactive bladder
36.	Vildagliptin	274901-16-5		To treat type 2 diabetes
37.	2-chloroN,N-Diphenyl Acetamide	23088-28-0		Intermediate of Indoline
38.	2-Benzyl Amino-1-6-Fluoro-3-4-Dihydro-2-H-Chromen-2-yl-Ethanol	12900050-27-7		Intermediate of Nebivolol HCl
39.	[2R-3R-1-DiMethyl Amino-3-Hydroxy Phenyl-2-Methyl Pentan-3-ol-Tartarate salt]	1300037-87-9		Intermediate of Tapentadol Hydrochloride
40.	1-(4-bromo-3-methyl phenyl) ethanone	37074-40-1		Intermediate of Velpatasvir
41.	4-(2-methoxy ethyl) phenol	56718-71-9		Intermediate of metoprolol
42.	Chlorpheniramine Maleate	113-92-8		Antihistamine

43.	N-N-Dimethyl Amino Ethyl Chloride	4584-46-7		Intermediate of Chlor pheniramine Maleate
44.	Levetiracetam	102767-28-2		To treat seizures (epilepsy)
45.	(S)-+2-Amino butyramide Hydrochloride (SABAM)	7682-20-4		Intermediate of Levetiracetam
46.	Lumefantrine	82186-77-4		Antimalarial
47.	Rupatadine	182349-12-8		Antihistamine
	Group-2 OR:			
48.	Alfuzosin Hydrochloride	81403-68-1		To treat benign prostatic hyperplasia
49.	Bendroflumethiazide	73-48-3		Diuretic
50.	Losartan Potassium	124750-99-8		To treat Hypertension
51.	Irbesartan	138402-11-6		To treat Hypertension
52.	Eprosartan Mesylate	144143-96-4		To treat Hypertension
53.	Telmisartan	144702-48-4		To treat Hypertension
54.	Valsartan	137862-53-4		To treat Hypertension
55.	Olmesartan Medoxomil	144689-63-4		To treat Hypertension
56.	Donepezil HCl	120014-06-4		To treat dementia
57.	Nateglinide	105816-04-4	50	To treat type 2 diabetes
58.	Sertraline HCl	79559-97-0		Antidepressant
59.	Trazodone HCl	25332-39-2		Antidepressant
60.	Aripiprazole	129722-12-9		Antidepressant
61.	Pallperidone	144598-75-4		Antipsychotic
62.	Pramipexole Dichloride	104632-25-9		To treat Parkinson's disease
63.	Rivastigmine	129101-54-8		To treat dementia
64.	Eszopicione	138729-47-2		To treat insomnia
65.	Nebivolol Hydrochloride	169293-50-9		To treat Hypertension
66.	Esomeprazole Magnesium Trihydrate	217087-09-7		To treat stomach and esophagus problems

67.	Dapoxetine Hydrochloride	129938-20-1		Treatment of premature ejaculation
68.	Prasugrel Hydrochloride	389574-19-0		Antiplatelet
69.	Venlafaxine Hydrochloride	99300-78-4		Antidepressant
70.	Dabigatran Etexilate Mesylate	872728-81-9		Treatment to prevent blood clots in chronic atrial fibrillation
71.	Lacosamide	175481-36-4		To control partial onset seizures
72.	Pitavastatin Calcium	147526-32-7		Antilipemic
73.	Saxagliptin Hydrochloride	709031-78-7		To treat type 2 diabetes
74.	Sildosin	160970-54-7		To treat men with symptoms of an enlarged prostate
75.	1-Cyclopropyl-6-Fluoro-1,4-Dihydro-7-OctahydroPyrrolo-3-4-Pyridin-6-yl-8-Methoxy- 4-Oxo Quinoline-3-Carboxylic acid	1029364-75-7		Intermediate of Moxifloxacin
76.	(S)-(+)-3 -aminomethyl- 5-methyl hexanoic acid (I)	128013-69-4		Intermediate of Pregabalin
77.	[3-(Trifluoro methyl)5,6,7,8-tetra hydro (4,3a) pyrazine hydrochloride]	762240-92-6		Intermediate of Sitagliptin
78.	Rivaroxaban	366789-02-8		To treat and prevent blood clots
79.	Perindropril Arginine	612548-45-5		To treat Hypertension
80.	Azilsartan Kamedoxomil	863031-24-7		To treat Hypertension
81.	Metropolol Succinate	98418-47-4		To treat Hypertension
	Group-3 OR:			
82.	Doxazosin Mesylate	77883-43-3	25	To treat Hypertension
83.	Amisulpride	71675-85-9		Antipsychotic
84.	Bisopropol Hemofumarate	104344-23-2		To treat Hypertension
85.	Lisnopril	83915-83-7		To treat high blood pressure
86.	Flupiritine Maleate	75507-68-5		Analgesic
87.	Pregabalin	148553-50-8		Antiepileptic
88.	Gabapentin	60142-96-3		To prevent and control seizures

89.	Celecoxcib	169590-42-5		Anti-inflammatory
90.	Loratidine	79794-75-5		Antihistamine
91.	Duloxetine HCl	136434-34-9		To treat depression
92.	Ranolazine	95635-55-5		To treat chronic angina
93.	Simvastatin	79902-63-9		To lower the risk of cardiovascular disease
94.	Fenofibrate	49562-28-9		To treat high cholesterol level
95.	Clopidogrel Bisulfate	67-56-1		Antiplatelet
96.	Desloratidine	100643-71-8		Antihistamine
97.	Tenatoprazole	113712-98-4		To treat gastro esophageal reflux disease
98.	Linezolid	165800-03-3		Antibiotic
99.	Sitagliptin Phosphate	654671-78-0		To treat type 2 diabetes
100.	Dronedarone Hydrochloride	141625-93-6		Antiarrhythmic
101.	Etoricoxib	202409-33-4		Anti-inflammatory
102.	Ilaprazole	172152-36-2		To treat gastro esophageal reflux disease
103.	Olanzapine	132539-06-1		Antipsychotic
104.	Raltegravir	518048-05-0		Antiretroviral
105.	Rosuvastatin Calcium	147098-20-2		To treat high cholesterol
106.	Fesoterodine Fumarate	286930-03-8		Antimuscarinic
107.	Linagliptin	668270-12-0		To treat type 2 diabetes
108.	Lurasidone Hydrochloride	367514-88-3		Antipsychotic
109.	Varenicline Tartrate	375815-87-5		To help stop smoking
110.	R-1-2-7-ChloroBenzo-Thiophene-3-yl- Methoxy-2-2-4- DiChloroPhenyl-1H-Imidazole	99592-39-9		Intermediate of Sertaconazole Nitrate
111.	3,4-dihydroxy 5-nitrobenzaldehyde	116313-85-0		Intermediate of Entacapone

112.	[1- (1,3_ Ni carbonyl - Ni-ene and hexahydrocyclopenta [c] pyrrole _2 (IH) - yl) -3-p-tolyl sulfonylurea] (Compound II)]	1808087-53-7		Intermediate of Gliclazide
113.	Trityl OLMESARTAN MEDOXIMIL	144690-92-6		Intermediate of Olmesartan
114.	7-4-4-Fluoro-Phenyl-6-Isopropyl-2-Methane Sulphonyl Methyl Amino-Pyrimidin-5-yl-3-5 Dihydro Hept-6-enoic acid Methyl Ester	147118-40-9		Intermediate of Rosuvastatin Calcium
115.	Sertraline Mandelate Salt	254731-40-3		Intermediate Of Sertraline
116.	Sildenafil Citrate	171599-83-0		To treat pulmonary arterial hypertension
117.	Diphenyl Acetonitrile	86-29-3		Intermediate of Loperamide
118.	Tramadol Hydrochloride	36282-47-0		Opioid analgesics
119.	Ibrutinib	936563-96-1		To treat certain cancers
120.	Acalabrutinib	1420477-60-6		To treat certain cancers
121.	Plerixafor	110078-46-1		To treat certain cancers
122.	Venetoclax	1257044-40-8		To treat certain cancers
123.	Imetinib mesylate	220127-57-1		To treat certain cancers
124.	Brivaracetam	357336-20-0		Anticonvulsant
	Group-4 OR:			
125.	Memantine HCl	41100-52-1	10	To treat Alzheimer's disease
126.	Phenylepherine HCl	61-76-7		Decongestant
127.	Emtricitabine	143491-57-0		To treat HIV infection
128.	Voriconazole	137234-62-9		Antifungal
129.	Aliskiren Hemifumarate	173334-58-2		To treat Hypertension
130.	Ibandronate Sodium monohydrate	138844-81-2		To treat certain types of bone loss (osteoporosis)
131.	Levocetrizine DiHydrochloride	130018-87-0		Antihistamine

132.	Vardenafil	224785-90-4		To treat erectile dysfunction
133.	1-[[2'-(4,5-dihydro-5- oxo-4H-1,2,4-oxadiazo 1-3-yl)biphenyl-4- yl]methyl]-2-ethoxy-1Hbenzimidazole-7-carboxylic acid	147403-52-9		Intermediate of Azilsartan Solvate
134.	2-cyclohexylidene-hydrazino-2-(3,4-dihydroxy benzyl)-propionic acid methyl ester / carbidopa methyl ester	934371-48-9		Intermediate of Carbidopa
135.	8-((R) -3-Azidopiperidin-l-yl)-7-(but-2-ynyl)-1,6-dihydro-3-methyl-6-methylene-l-((4-methylquinazolin-2-yl)methyl)-3H-purin-2(7H)-one	1446263-38-2		Intermediate of Linagliptin
136.	Isopropyl -2S-2-S-Penta Fluoro Phenoxy Phosphoryl Amino propanoate]	1334513-02-8		Intermediate of Sofosbuvir
137.	[l-(3-methyl-l-phenyl-l//-pyrazol-5-y-) piperazine acetate]	906093-30-9		Intermediate of Teneligliptin
138.	[5-{4-[(4-(5-Cyano-1H-indol- 3-yl)-butyl]-piperazin-1-yl}- benzo furan-2- carboxylate methyl]	1451194-35-6		Intermediate of Vilazodone hydrochloride
139.	(2R,3S)-2-(2,4-difluorophenyl)-3-(5-fluoropyrimidin-4-yl)-1-(1H-1,2,4-triazol-1-yl) butan-2-ol (R)- camsylate)	188416-34-4		Intermediate of Voriconazole
140.	Fluvoxamine Maleate	61718-82-9		Antidepressant
141.	Lopinavir	192725-17-0		To treat HIV infection
142.	Apixaban	503612-47-3		To prevent blood clots
	Group-5 OR:			
143.	Rifapentine	61379-65-5	5	To treat active tuberculosis
144.	Candesartan	139481-59-7		To treat Hypertension
145.	Azilsartan Medoxomil	863031-21-4		To treat Hypertension

	Group-6 OR:			
146.	Remdesivir	1809249-37-3	1.2	Antiviral
147.	Escitalopram Oxalate	219861-08-2		Antidepressant
	TOTAL (Group 1: 100 MT/Month or Group2: 50 MT/Month or Group3: 25 MT/Month or Group4: 10 MT/Month or Group5: 5 MT/Month or Group6:1.2 MT/Month)		**100**	
	R&D Plant Pilot Product		**2**	

5. The PP reported that there is no violation as per the EIA notification, 2006, no court case is pending against the proposal and no direction issued under E(P) Act/Air Act/Water Act.

6. The PP reported that Ministry had issued EC earlier vide letter no. SEIAA/GUJ/EC/5(f)/266/2021 dated 18/03/2021 to the existing project for 'Synthetic Organic Chemicals' [API & its Intermediates] in favour of M/s. Rutain Pharma Chem.

7. The PP reported that the proposed land area is 2181.0 m^2.and no R&R is involved in the Project.

8. The PP reported that the proposal does not involve Approval/Clearance under Forest (Conservation) Act,1980, Wildlife (Protection) Act,1972 and CRZ Notification, 2011 as amended. There is no Forest, Eco sensitive areas/National Park/Wildlife Sanctuary in 10 km radius of the site. The project doesn't fall within the CRZ boundaries. Amravati River, Dadhal is flowing at a distance of 3.9 km in NE direction.

9. The PP reported that the Total water requirement is 46.33 KLD of which fresh water requirement of 43.83 KLD will be met from GIDC Supply. Industrial Effluent @ 28.2 KLD will be generated from process, boiler/cooling tower and washing activities and will be primary treated to in –house ETP and then after it will be sent to Common MEE Plant of M/s. BEIL, Ankleshwar for further treatment. Sewage effluent @ 2.5 KLD will be generated from domestic activities and treated in STP and STP treated effluent will be re-used for Gardening purpose

10. The PP reported that the Power requirement after expansion will be 1000 KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Unit will have 1 Nos.of DG sets (500 KVA) capacity, as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG sets.

11. The PP reported that the project, being in notified industrial area, is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA. II(I) dated 27.04.2018.

12. Industry will develop greenbelt in an area of 40.03 % i.e.873.00 m^2 out of 2181.0 m^2, total area of the project within premises.

13. The estimated project cost is Rs. 6.0 Crores. The PP reported that the Total Employment will be 11 persons as direct & 19 persons indirect. Industry proposes to allocate Rs.0.197 Crores towards CER.

14. **Deliberations by the EAC:**

The EAC deliberated on the various environmental aspects such as water balance, wastewater generation, Greenbelt development plan, and the action plan proposed by the PP being in a critically polluted area OM dated 31.10.2019 and the EAC advised to submit the following information:

- Revised water balance with use of STP plant for the usage of domestic wastewater.
- Compliance of Critically Polluted Area.

The PP submitted the above information/documents and the EAC found it to be satisfactory.

15. After detailed deliberations, the EAC **recommended** the project for grant of ToR (**Standard ToR [Annexure-II]** and **additional ToR as mentioned below)**, **without public hearing** as per the provisions of the EIA Notification, 2006 and as per O.M. No. 22-23/2018-IA.III dated 05.07.2022.

(i) The status of the action plan, if any, prepared by the State Government/SPCB for the CPA needs to be provided.

(ii) The PP needs to submit the action plan with respect to mitigation measures for CPA mentioned in the Ministry's OMs dated 31.10.2019.

(iii) Being in a Critically Polluted Area (CPA), the PP need to submit alternative site analysis and Environmental Cost Benefit analysis in the EIA report.

(iv) The PP shall submit the details of carbon foot prints and carbon sequestration study w.r.t. the proposed project. The Action Plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources shall also be prepared and submitted.

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

(vi) Details of Onsite and Offsite emergency plans as per the provisions of the MSIHC Rules need to be submitted.

(vii) The PP need to conduct the Life Cycle Assessment including the impact on flora and fauna.

(viii) Industry shall use Natural gas Agro Waste/ Briquettes of Bio-Coal as fuel in flue gas stacks

(ix) Activity-wise, a time bound action plan along with budgetary provisions for occupational health & surveillance, environment management plan, and green belt development plans shall be prepared and submitted.

(x) Undertaking from the PP and the consultant in pursuant to the O.M. No. J-11013/41/2006-IA. II(I) dated 04.08.2009 and J-11013/41/2006-IA. II(I) dated 5.10.2011.

(xi) The PP shall submit an undertaking to the effect that the project is not a violation proposal in pursuant to the S.O. 804(E) dated 14.03.2017 and SoP dated 07.07.2021.

(xii) Action Plan for the management of hazardous waste and provision for its utilization in co-processing if applicable shall be prepared and submitted.

(xiii) Provision for Reuse/recycle of treated wastewater, wherever feasible shall be made. The PP shall explore the possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. A detailed water harvesting plan also needs to be prepared and submitted. Provision for Zero Liquid Discharge whenever techno-economically feasible shall be included. The PP shall make necessary provisions for continuous monitoring of the effluent quality/quantity.

(xiv) The PP shall clarify whether project involves ground water utilization. In case of ground water abstraction, a copy of application made to concerned authorities for the same need to be submitted.

(xv) The PP should develop Greenbelt over an area of 40.03% (i.e. 873.0 m^2) of the total land area, accordingly the plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Number of plantations have to be planted considering 80% survival rate and with a spacing of 2 m x 2 m. Industry shall also develop additional greenbelt of 800 m^2 at Kosamdi Village which will be additional 37 % of total plot area

(xvi) Plan for development of the green belt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. shall be prepared and submitted.

(xvii) Assessment of the carrying capacity of transportation load on roads inside the notified industrial premises shall be carried out and submitted.

(xviii) In addition to the above, the EIA/EMP report shall also address issues such as i) Effective fugitive emission control measures for process, transportation, packing etc. ii) use of cleaner fuels and iii) best available technology for the plant.

Agenda No. 43.12

Proposed Expansion Project for the Manufacture of Formaldehyde from 80 TPD to 250 TPD located at V.P.O. Rohad, Distt. Jhajjar, Haryana by M/s G.B. Overseas Pvt. Ltd. - Consideration of EC (under violation category)

[Proposal No. IA/HR/IND3/406366/2022; File No. IA-J-11011/102/2021-IA-II(I)]

1. The proposal is for environmental clearance for the proposed Expansion Project for the manufacture of Formaldehyde from 80 TPD to 250 TPD located at V.P.O. Rohad, Distt. Jhajjar, Haryana by M/s G.B. Overseas Pvt. Ltd.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) as the project is located outside the notified industrial area. Therefore, the project requires appraisal at Central Level.

3. The PP applied for ToR vide proposal number **IA/HR/IND3/204458/2022** dated 14.6.2021 and the ToR has been issued by the Ministry, vide letter No. A-J-11011/102/2021-IA-II(I) dated 20.7.2021. The PP submitted that the Public Hearing was conducted on 21.11.2021 which was presided by the Additional Deputy Commissioner, District Jhajjar, Haryana. The PP applied for Environment Clearance on 16.11.2022 in Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is an **Expansion case.** The proposal is now placed in 43rd EAC Meeting held on 30th November, 1st & 2nd December 2022, wherein the PP and an accredited Consultant, M/s. Vardan EnviroNet, Gurugram, Haryana [Accreditation number –NABET/EIA/2023/RA0212 (Rev. 01), Valid up to 7.12.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that the existing land area is **6290 m^2,** no additional land will be required for the propose project and no R& R is involved in the Project. The details of products and by–products are as follows:

Capacity	Existing	Proposed	Total
Formaldehyde CAS No. 50-00-0	80 TPD	170 TPD	250 TPD

5. The PP reported that the plant was setup with the consent to establish dated 03.09.2009 obtained from the Haryana State Pollution Control Board (HSPCB). Subsequently, the unit is reported to be in operation with consent to operate dated 20.05.2022 valid up to 31.03.2023 for existing capacity (80 TPD). HSPCB instructed the project proponent to obtain prior environment clearance from the competent authority vide SCN No. HSPCB/BDR/2020/4720 dated 20.03.2020. The unit had started construction in December 2008 (construction lasted over 4 months i.e. from December, 2008 to March 2009) and came in operation in April 2009 without securing Environmental Clearance, **hence it is considered as a violation as per the EIA Notification, 2006.**

6. The PP reported that Certified compliance report of CTO from HSPCB has been obtained dated 31.05.2022.

7. The PP reported that there are No National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. falling within 10 km distance from the project site. Feeder Canal is flowing at a distance of 0.015 km in South direction, Main Canal is flowing at a distance of 0.3 Km in South direction and Dhulera Distributary is flowing at a distance of 2 km in

West direction. The PP reported that no forest area is involved in the proposed project and two Schedule-I species i.e. *Pavo cristatus (Mor),* and *Melanoperdix niger* is listed in the Schedule I, found in the study area. Wildlife conservation Plan has been prepared and is submitted to Divisional Wild Life Officer (DWLO) Rohtak, Haryana with budgetary provision of ₹ 10 Lakh.

8. The PP reported that the ambient air quality monitoring was carried out at 8 locations from 1st December 2020 to 28th February 2021 and the baseline data indicates the ranges of concentrations as: PM_{10} (60.3 µg/m^3 to 96.3 µg/m^3), $PM_{2.5}$ (40.0 µg/m^3 to 56.4 µg/m^3) SO_2 (9.1 µg/m^3 to 15.2 µg/m^3) and NO_2 (18.6 µg/$m^3$and 27.2 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 96.308 µg/m^3, 56.404 µg/m^3, 15.205 µg/m^3 and 27.204 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_x and NO_x respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). The ground water pH varies from 7.38 to 7.86, Total Hardness varies from 210.42 to 276.0 mg/l and Total Dissolved Solids varies from 421 to 496 mg/l. The water samples are within permissible limits as per IS 10500:2012. The surface water pH varies from 7.61 to 7.76, Total Hardness varies from 251.64 to 289.64 mg/l, Total Dissolved Solids varies 365 to 424 mg/l, COD from 22.0 to 40.0 (mg/l) and BOD varies from 9.36 to 14.0 (mg/l). The soil pH value ranges from 7.71 to 7.89 with organic matter 0.42% to 0.68%.The concentration of Nitrogen (116.0 Kg/ha. to 241.2 Kg/ha.). Phosphorus(18.1 Kg/ha. to 36.31 Kg/ha.) and Potassium (113 Kg/ha. to 158 Kg/ha.) Minimum and maximum noise levels recorded during the day time were from 49.8 Leq dB and 71.3 Leq dB. respectively and minimum and maximum levelof noise during night time were 39.5 Leq dB and 68.2 Leq dB respectively.

9. The PP reported that the total fresh water requirement of the project is 300 KLD which will be met from **Ground Water.** Application for Ground Water permission has been submitted to HWRA vide application no. HWRA/IND/N/2021/82 dated 14.06.2021. Domestic effluent of 1.2 KLD quantity will be treated through septic tank followed by soak pit. The plant will be based on Zero Liquid Discharge system.

10. The PP reported that Power requirement after expansion will be 600 KW including existing 489 KW and will be met from Uttar Haryana Bijli Vitran Nigam (UHBVN). Existing unit has DG sets of 220 (Existing) & 500 KVA capacity. Additionally, DG sets are used as standby during power failure. Stack (height) will be provided as per CPCB norms to the proposed DG sets.

11. The PP reported that Existing unit has 600 Kg/Hr HSD fired boiler. Scrubber with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers.

12. **Details of Process Emissions Generation and their Management**:Air emissions from utility and management

S. No.	Source	Capacity	Fuel	Pollutants	Control measures
1	Boiler	600 kg/hr. (1 no.)	HSD	SPM, SO2, NO2	Scrubber and 30 m. Stack height

2	DG Set	220 kVA and 500 kVA (2 nos.)	HSD	SPM, CO, HC	Adequate Stack height of 6 m.

13. **Details of Solid/ Hazardous Waste Generation and its Management**: Hazardous wastes, process residue will be generated from the process & utilitiesmainly like Used Oil, Salts from evaporator and discarded containers or emptybarrels. The hazardous waste generated from different process shall be disposedto the TSDF, while the waste oil shall be sent to HSPCB authorize recyclers. All hazardous waste shall be strictly disposed of as per Hazardous and Other Waste(Management & Trans-boundary Movement) Rule, 2016.

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 22 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 2.8 Lakh per annum, Industry proposes to allocate ₹ 5.0 Lakh as CER towards Plantation of trees at road side near project site

15. The PP reported that the advertisement for the Public Hearing was published on 18.10.2021 and Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 22.11.2021. The main issues raised during the public hearing are related to hazardous waste management, air emissions, waste water management, tree plantation and employment opportunities.

16. Green belt will be developed over 34.74% area out of the 0.629 ha. of the total plant area i.e., 0.2185 ha. of the total land. This greenbelt will serve as a buffer between the peripheries and the industry, there by controlling the air emissions and noise levels. Considering 2500 trees per hectare, 176 Nos of plantation has already been done at the plant premises and 468 nos (Considering 80% survival rate) of more trees need to be planted in the plant premises

17. The PP proposed to set up an Environment Management Cell (EMC) by engaging Top management- General Manager- Manager (EHS)- Supervisor- worker- Chemist- Worker for the functioning of EMC.

18. The PP reported that as per carbon sequestration analysis, the total CO_2 emissions will be 8,068.13 Tonnes/Annum from the process, fuel and transportation of raw materials and finished products. To sequestrate the carbon emissions green belt plantation, scrubber will be provided. Total 1352 trees will be planted at the project site and village area from which total 23886.98 Tonnes/Annum of CO_2 (after the maturity of trees), will be sequestrated.

19. The PP submitted the Disaster and Onsite and Offsite Emergency Plans in the EIA report.

20. The estimated project cost is Rs. 4.0 Crores including existing investment of Rs. 1.32 Crores. Total employment will be 25 persons after expansion.

21. **<u>Deliberations by the EAC:</u>**

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

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

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

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

The EAC inter alia, deliberated the chapter 13 of the EIA report comprising of damage assessment i.e. damage cost to the air environment, water environment, noise environment, biological environment and land environment due to the construction and operation of the unit without securing prior environmental clearance.

The EAC deliberated on the budget allocated towards environmental remediation plan, natural resource augmentation plan and community resource augmentation plan and found it satisfactory. The EAC also deliberated on the greenbelt development & plantation programme and water balance and found it to be satisfactory.

The Member Secretary informed that Ministry has issued a Standard Operating Procedure dated 7th July 2021 bearing the file no. 22-21/2020-IA.II, for identification and handling of violation cases under EIA Notification 2006 in compliance to order of the Hon'ble National Green Tribunal in Appeal No. 34/2020 (WZ) titled Tanaji B. Gambhire Vs Chief Secretary, Government of Maharashtra. This SOP was challenged in the Madurai Bench of the Hon'ble High Court of Madras in the matter W.P.(MD) No. 11757 of 2021 titled Fatima Vs Union of India and was interim stayed vide order dated 15th July 2021. Recently, in the Order dated 9th December 2021 in the matter of Civil Appeal Nos. 7576-7577 of 2021 in Electrosteel Steels Limited Vs Union of India and Ors., the Hon'ble Supreme Court of India has inter-alia observed the following:

"*The interim order passed by the Madras High Court appears to be misconceived. However, this Court is not hearing an appeal from that interim order. The interim stay passed by the Madras High Court can have no application to operation of the Standard Operating Procedure to projects in territories beyond the territorial jurisdiction of Madras High Court. Moreover, final decision may have been taken in accordance with the Orders/ Rules prevailing prior to 7th July, 2021.*"

The EAC observed that in this regard, the Ministry issued O.M. no. 22-21/2020- IA.III dated 28.1.2022. Further, the instant proposal should be dealt as per the provisions of SOP dated 7.7.2021 for handling of violation cases. The PP submitted the a) Damage Assessment and b) Remediation Plan and Natural & Community Resource Augmentation Plan, prepared in view of the environmental damage assessment. The details of the same are as follows:

A: Summarized Damage Assessment:

Environment Damage Cost	(in Rs.)
Air Environment	8,93,697
Water Environment	30,75,954
Noise Environment	2,10,000
Land Environment	9,56,100
Biological Environment	2,00,000
Total Damage Cost Evaluated	**53,35,751 or say 53.36 Lakhs**

B1: Remediation Plan:

S. No.	Environment Component	Activity Description	Total Budgetary Provision (in Rs.)			
			1st Year	2nd Year	3rd year	Total
1	Land Environment	1. Assistance to farmers by providing seedlings, manure and Bio-fertilizers to villagers of Dehkora and Rohad = Rs. 1,86,000/- 2. Providing Bund maker, Ridger, plough for agriculture purpose to villagers of Asoda and Rohad = Rs. 6,00,000/-	6,00,000 (Providing Bund maker, Ridger, Plough in Nagar panchayat of Asaudha and Rohad)	**1,86,000** (Providing Seedlings, manure in Nagar panchayat of - Asaudha and Rohad)	--	**7,86,000**

S. No.	Environment Component	Activity Description	Total Budgetary Provision (in Rs.)			
			1st Year	2nd Year	3rd year	Total
2	Air Environment	Solar street lights in karhar, Mandothi, Rohad & Dehkora village = Rs. 1,40,000/-	--	--	**1,50,000**	**1,50,000**
3	Water Environment	Rain water harvesting pit (@ Rs. 2.25 lakhs/location) at Panchayat office of Asaudha and Rohad village = Rs. 4,50,000/-	**4,50,000**	--	**--**	**4,50,000**
4	Noise Environment	Distribution of Hearing aids to the needy Sr. Citizens of the Asaudha,Rohad & Dehkora villages @ 1000 x 200 person = Rs. 2,00,000/-	--	2,00,000	--	2,00,000
5	Biological Environment	Trees plantation along the road side and at common places after consultation with local governing authorities = Rs 2,00,000/-	2,00,000	--	--	2,00,000
Total			**12,50,000**	**3,86,000**	**1,50,000**	**17,86,000**

B2: Natural Resource Augmentation Plan along with Budget:

S. No.	Proposed Activities	Budget (Rs.)			
		1st Year	2nd Year	3rd Year	Total

1.	Creation of Cow shed and development of Grazing Land in consultation with local Gram Panchayat authorities in villages Rohad, Asaudha & sampla	--	2,40,000	2,30,000	4,70,000
2.	Plantation in common areas of nearby villages Jasaur Kheri, Loharkheri,Kharhar & Barahi	1,50,000	1,50,000	1,00,000	4,00,000
3.	Solar lights installation at village (Mattan,Kharman,Tandaheri,Dabo da Khurd, Bharpoda & Bhainsru Khurd) common areas	50,000	50,000	1,50,000	2,50,000
4.	Awareness programs on Environmental protection	20,000	10,000	--	30,000
	Total	**2,20,000**	**4,50,000**	**4,80,000**	**11,50,000**

B3: Community Resource Augmentation Plan along with budget

S. No.	Proposed Activities	Budget (Rs.)			
		1st Year	2nd Year	3rd Year	Total
1.	Renovation of Drainage system in Jakhoda and Rohad village	--	6,00,000	-	6,00,000
2.	Providing Medical Equipment's at villages Dehkora, Loharkheri & Silothi.	--	3,00,000	9,00,000	12,00,000
3.	Providing Computers & sports equipments in Govt. Schools of Villages Rohad, Asaudha, Mandothi & Kharhar.	1,50,000	1,50,000	2,00,000	5,00,000
4.	Skill Development Program for Women emplowerment in villages Rohad & Asaudha	---	50,000	50,000	1,00,000
	Total	**1,50,000**	**11,00,000**	**11,50,000**	**24,00,000**

B. Summarized Remediation Plan and Natural & Community Resource Augmentation Plan (B1+B2+B3)

S. No.	Aspects	Budget (Rs. in Lakhs)
1	Remediation Plan	17,86,000

2	Natural Resource Augmentation Plan	11,50,000
3	Community Resource Augmentation Plan	24,00,000
Total		**53,36,000 (53.36 lakhs)**

The EAC observed that as per Step-3 B (viii), *the project proponent will be required to submit a bank guarantee equivalent to the amount of Remediation Plan and Natural & Community Resource Augmentation Plan with Central / the State Pollution Control Board (depending on whether it is appraised at Ministry or by SEIAA). The quantification of such liability will be recommended by Expert Appraisal Committee and finalized by Regulatory Authority. The bank guarantee shall be deposited prior to the grant of environmental clearance and will be released after successful implementation of the Remediation plan and Natural & Community Resource Augmentation Plan.*

The EAC observed that as per Para 12 of the SOP dated 7.7.2021, there is a provision of Penalty. The instant proposal falls under Category 12(a) (II) and for the compliance of the same, the PP submitted the following penalty amount. The EAC agreed with the same, which shall be remitted by the PP to the fund maintained by the SPCB as per Ministry's O.M. dated 28.07.2022.

Particulars	**Value (in Rupees)**	**Penalty (in Rupees)**
Turn over	5049031946.390	12622580
Total Project cost	1,32,00,000	1,32,000
Total Penalty	**1,27,54,580**	

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

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

The EAC is of the view that its recommendation and grant of environmental clearance by regulatory authority 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.

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

(i) The Budget earmarked towards Remediation plan and Natural and Community Resource Augmentation plan is **₹ 53.36 lakhs**. The PP is required to submit the bank guarantee for an amount as approved by regulatory Authority to the CPCB.

(ii) The PP shall spend amount proposed for Remediation plan and Natural and Community Resource Augmentation plan within a span of three years. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of activities carried out etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iii) Remediation plan shall be completed in 3 years whereas bank guarantee shall be for 5 years. The bank guarantee will be released after successful implementation of the remediation plan and the Natural and Community Resource Augmentation Plan, and after the recommendation by regional office of the Ministry, Expert Appraisal Committee and approval of the Regulatory Authority.

(iv) A penalty amount of **₹ 1,27,54,580** shall be remitted by the PP to the fund maintained by the SPCB as per the Ministry's O.M. dated 28.07.2022.

(v) Approval/permission of the CGWA/SGWA shall be obtained before drawing ground water for the project activities, if applicable. The State Pollution Control Board (SPCB) concerned shall not issue Consent to Operate (CTO) till the project proponent obtains such permission.

(vi) Preventive measures to be taken to control ignition sources in bulk storage area and fire protection system to be established above ground storage tanks. Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done.

(vii) The PP shall develop Greenbelt over an area of at least 33%, i.e. 2075.7 m^2 by planting 468 trees within a year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be ₹ 2.9 Lakh and shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(viii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage Top management- General Manager- Manager (EHS)- Supervisor- worker- Chemist- Worker. In addition to this one safety & health officer with suitable qualification and experience shall be engaged within six months of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of

qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(ix) 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. The budget propose under EMP is ₹ 22 Lakh (Capital cost) and ₹ 2.8 Lakh (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(x) The total Fresh Water requirement of the project is 300 KLD which will be met from Ground water. The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year

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

(xii) 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.

(xiii) The project proponent shall comply with the environment norms for Pharmaceuticals/Bulk Drugs Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 608(E), dated 21.7.2010 under the provisions of the Environment (Protection) Rules, 1986.

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

(xv) 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.

(xvi) 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.

(xvii) As already committed by the PP, Zero Liquid Discharge shall be ensured. Domestic effluent of 1.2 KLD quantity will be treated through Septic Tank followed by soak pit.

(xviii) 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 servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(xix) 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.

(xx) 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.

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

(xxii) 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.

(xxiii) 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.

(xxiv) 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.

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

(xxvi) The activities and the action plan proposed by the project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be

completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

Agenda No. 43.13

Proposal for the Manufacture of Ethylene Oxide / Propylene Oxide based Surface Active Agents & Speciality Products (108000 TPA), Sulphonated Products (48000 TPA), Esters (12000 TPA), Polycarboxylates/Polymerization Products (36000 TPA) and Speciality formulations (12,000 TPA) located at Village - Wangani, Post – Patansai, Taluka – Roha, District – Raigad, Maharashtra by M/s. Viswaat Organics Pvt. Ltd. - Consideration of ToR

[Proposal No.IA/MH/IND3/401437/2022; File No. IA-J-11011/474/2022-IA-II(I)]

1. The proposal is for the ToR for preparation of EIA/EMP for the Manufacture of Ethylene Oxide / Propylene Oxide based Surface Active Agents & Speciality Products (108000 TPA), Sulphonated Products (48000 TPA), Esters (12000 TPA), Polycarboxylates/Polymerization Products (36000 TPA) and Speciality formulations (12,000 TPA) located at Village - Wangani, Post – Patansai, Taluka – Roha, District – Raigad, Maharashtra by M/s. Viswaat Organics Pvt. Ltd.

2. The project/activity is covered under Category 'A' of item 5(f) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). Since the proposed project is located in proximity to ESA, the Standard ToR was not issued and the proposal was placed before the EAC.

3. The PP applied for ToR vide proposal number No. **IA/MH/IND3/401437/2022** dated 29.10.2022 and submitted Form-1 & PFR. In the Form-1, PP has mentioned that it's a Fresh project. The proposal is now placed in 43rd EAC Meeting held on 30th November- 1st- 2nd December 2022, wherein the Project Proponent and an accredited Consultant, Anacon Laboratories Pvt. Ltd. [Accreditation number NABET/EIA/2023/SA 0160 0248 valid up to13.4.2022], made a detailed presentation on the salient features of the project and informed the following:

4. The details of the existing and proposed products and their production capacities are as follows:

Sr. No.	Product Details (Complete Name)	CAS No.	Total Quantity (MT/Month)	End Uses
1.1	Alkyl Aryl EO Condensates	9016-45-9	9000	Cleaners & detergents, paper & textile processing, paints & coatings, Agro chemicals and metal working fluids
1.2	Fatty Alcohol -EO Condensates	68439-50-9	9000	Emulsifiers, solubilizers, thickeners, foaming agents, detergents, dispersants and humectants. Textile auxiliaries, pigment dispersants, also ensuring good moisturizing in the preparation of dye solutions
1.3	Fatty Amine - EO Condensate	26635-93-8	9000	Acid thickening, detergent boosting and textile processing aids

Sr. No.	Product Details (Complete Name)	CAS No.	Total Quantity (MT/Month)	End Uses
1.4	Allyl/meth allyl/ Isoprenol/Vinyl PEG (unsaturated alcohols) EO Condensate	31497-33-3	9000	Used in poly carboxylate manufacturing which in turn is used as water reducing agent in construction and infrastructure projects like high rise buildings, roads, high speed railways etc.
1.5	Castor Oil -EO Condensates	61791-12-6	9000	Emulsifier, co-emulsifier, dispersant, solubilizer, lubricant, antistatic, emollient wetting agent, scouring agent, defoamer, softener, lubricant, viscosity controlling agent, dying aid, dye dispersant, levelling agent
1.6	Hydrogenated Castor Oil - EO Condensates	61788-85-0	9000	Emulsifier, co-emulsifier, dispersant, solubilizer, lubricant, antistatic, emollient wetting agent, scouring agent, defoamer, softener, lubricant, viscosity controlling agent, dying aid, dye dispersant, levelling agent, stabilizer, penetrator
1.7	Styrenated Phenol - EO Condensates	104376-75-2 99734-09-5	9000	As an emulsifier in the pesticide industry, as a stabilizer in polymers in combination with other phosphite or phenolic antioxidants
1.8	Synthetic Alcohol - EO Condensates	9043-30-5	9000	Used as emulsifiers, detergents, solubilizers, wetting agents and degreasers in different areas of application
1.9	Fatty Acid - EO Condensates	9004-96-0	9000	Emulsifiers
1.10	Polyethylene Glycols (PEGS)	25322-68-3	9000	Used in adhesives as plasticizers to increase lubricity and to impart a humectant quality to the adhesive to maintain wet-tack strength
1.11	Poly Sorbates	9005-64-5 9005-66-7 9005-67-8 9005-65-6	9000	Emulsifiers used in pharmaceuticals, food preparation and beauty and personal care products
1.12	Fatty Alcohol EO-PO Block Polymer	68439-51-0	9000	Used in a wide variety of applications, including cleaning, paints and coatings, fermentation, pulp and paper, and other industrial applications

Sr. No.	Product Details (Complete Name)	CAS No.	Total Quantity (MT/Month)	End Uses
1.13	Synthetic alcohol EO-PO Block Polymer	166736-08-9	9000	Wetting agent for admixtures in construction, emulsifier, wetting and dispersing agent
1.14	EO- PO Co Polymers	9003-11-6	9000	Wetting agent for admixture in construction, emulsifier, wetting and dispersing agent
1.15	Poly-Alkylene Glycol	9003-11-6	9000	Lubricants, textile auxiliaries
1.16	ISO Propanol Amines	122-20-3	9000	Used in many applications to achieve basicity, buffering and alkalinity objectives. Because they are good solubilizers of oil and fat, they are frequently used to neutralize fatty acids and as a sulphonic acid-based surfactant
1.17	Tri ISO Propanol Amines	122-20-3	9000	The cement and concrete industries use TIPA as a grinding aid, and it is used in concrete admixtures. TIPA is used as a neutralizing agent in agricultural products and water borne coatings.
1.18	Poly Propanol Amines	122-20-3	9000	Used in manufacturing of flexible foams. It is a unique mixture that is also used in an array of Speciality applications, including hand cleaning formulations
1.19	Tri Ethanol Amines	102-71-6	9000	Used in herbicide formulations and as chemical intermediates for molluscides, fungicides and algaecide products.
1.20	Phenoxy Ethanol	122-99-6	9000	It is used as a fixative for perfumes, an insect repellent, a tropical antiseptic, a solvent for cellulose acetate, some dyes, inks, and resins, in preservatives, pharmaceuticals and in organic synthesis. It is moderately soluble in water. It is used as an aesthetic in the aquaculture of some fish
1.21	Di Ethyl Amino Ethanol	100-37-8	9000	Used as a neutralizing agent and CO_2 scavenger in boiler water
1.22	Di Methyl Amino Ethanol	108-01-0	9000	Used in the preparation of Water-Reducible Coating Formulations

Sr. No.	Product Details (Complete Name)	CAS No.	Total Quantity (MT/Month)	End Uses
1.23	Hydroxy Ethyl Piperdine	103-76-4	9000	Used as an Intermediate in the manufacture of poly urethane catalysts, corrosion inhibitors, surfactants, synthetic fibers, pharmaceuticals, etc.
1.24	Hydroxy Ethyl Morpholine	622-40-2	9000	Pharmaceuticals, Textile Auxiliaries
1.25	Hydroxy Ethyl Pyrrolidine	2955-88-6	9000	Pharmaceuticals, Textile Auxiliaries
2.1	Sulphonated Products	68411-30-3 68439-57-6	4000	Used as Detergents/ Home & Personal Care applications
2.2	Sulphonated Products- Ether Sulphonates	9004-82-4	4000	Used as an anionic emulsifier in emulsion polymerisation/ oil field chemicals
3.1	Sorbitan Mono Stearate Esters	1338-41-6	1000	Used as an emulsifier for cosmetics and pharmaceuticals, dispersant for insecticides, herbicides, cattle dyes, penetrants, levelling agent, lubricant, antistatic
3.2	Sorbitan Mono Oleate Esters	1338-43-8	1000	Creams, Salves, Ointments, Protective Creams, Balms, Pomades, Lipsticks, Mascaras, Glosses
3.3	Sorbitan Mono Palmitate Esters	26266-57-9	1000	Used in a variety of products including skin fresheners, skin care products, skin cleansing products, makeup bases and foundations, shampoos, permanent waves and fragrance powders
3.4	Sorbitan Mono Laurate Esters	1338-39-2	1000	Used as emulsifying agents for the preparation of stable oil-in water emulsions
3.5	Butyl Stearates	123-95-5	1000	Acts as an emollient and skin conditioning agent in personal care formulations. Functions as an effective plasticizer in nail varnishes. As a masking agent in fragrances
3.6	Octyl Stearates	109-36-4	1000	Used most frequently in the formulation of eye makeup, skin makeup, lipstick and skin care products.
3.7	Styrenated Phenol	61788-44-1	1000	Non-staining and non-discolouring anti-oxidant for dry rubber and latex compounds. It acts as a stabilizer in polymers in

Sr. No.	Product Details (Complete Name)	CAS No.	Total Quantity (MT/Month)	End Uses
				combination with other phosphite or phenolic anti-oxidants
4.1	Polycarboxylate / Vinyl PEG / Speciality Polymers / Industrial Binders	70789-60-6 31497-33-3	3000	Water reducing and slump retention agents/ additives Pigment Printing in textile applications/ binders for paints etc.
4.2	Paint Emulsions	25212-88-8	3000	Interior And Exterior Paints, Automotive Coatings
4.3	Fibre Glass Emulsions	9004-96-0	3000	Glass Fibre, Chopped Strand Matrix, Roving etc.
5.1	Speciality formulations/ mixtures	Proprietary blend	3000	Agrochemicals/ intermediates for various industries

5. The PP reported that proposed lands area is 74590 m^2 and no R&R is involved in the Project.

6. The PP reported that there are RF Near Wangani - 0.27 km SE, RF near Amdoshi - 0.83 Km SW, RF near Godasai- 1.90 Km E, RF near Patansai - 1.65 Km NE, RF near Bhise - 2.14 Km SW, RF near Sukeli - 3.54 Km SE etc. within 10 km distance from the project site. River/ water body Amba River is flowing at a distance of 0.82 Km in North direction.

7. The PP reported that total water requirement is 500 KLD of which fresh water requirement of 425 KLD will be met from MIDC Nagothane, Taluka Roha, District Raigad. Effluent of 85 m3/day quantity will be treated through Primary, Secondary and Tertiary treatment schemes and Zero Liquid Discharge (100 KLD capacity) will be maintained. 14 m3/day domestic effluent will be treated in STP of 20 m3/day and treated water reused within the plant premises for gardening. The plant will be based on Zero Liquid discharge system.

8. Power requirement for proposed project will be 5000 KVA and will be met from Maharashtra State power distribution corporation limited (MSEDCL). 3x 1000 kVA DG sets will be used as standby during power failure. Stack (5 m height) will be provided as per CPCB norms to the proposed DG sets.

9. Industry will develop greenbelt in an area of **33.34 % i.e., 24868 m^2** , out of total area of the project.

10. The estimated project cost for proposed project is **Rs. 300 Crores**. Total Employment will be 300 persons as direct & 200 persons indirect for proposed project.

11. **Deliberations by the EAC:**

The EAC deliberated on the various environmental aspects such as air emission and its mitigation measures, gaseous & fugitive emission control measures, land conversion status,

acquisition status, and advised the PP to submit the undertaking. PP submitted the same and EAC found it to be satisfactory.

The EAC, after detailed deliberations, **recommended** the project for grant of ToR (**Standard ToR [Annexure-II]** and **additional ToR as mentioned below)**, **with Public Hearing** as per the provision of the EIA Notification, 2006 and as per O.M. No. 22-23/2018-IA.III dated 05.07.2022.

(i) Action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.
(ii) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.
(iii) Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
(iv) Compliance of greenbelt development. Trees have to be planted with spacing of 2m x 2m and 2500 number of trees per hectare have to be calculated accordingly.
(v) Adequate Solvent recovery/solvent management plan
(vi) Adequate Volatile Organic Compounds (VOCs)/Fugitive emissions control plan.

Agenda No. 43.14

Setting up of Active Pharmaceutical Ingredients (APIs) manufacturing unit of capacity 4470 TPA located at village Vil. Hingni, Tal. Seloo, Dist. Wardha Maharashtra - Amendment in EC. [Proposal No. IA/MH/IND2/206120/2021; File No. IA-J-11011/141/2021-IA-II(I)]

1. The proposal is for amendment in the **Environmental Clearance** granted by the Ministry vide letter dated 27th August 2021 (F. No-IA-J-11011/141/2021-IA-II(I)) for the proposed new project for manufacturing of Active Pharmaceutical Ingredients located at Vil. Dongargaon & Dhamangaon Hingni, Tal. Seloo, District: Wardha, Maharashtra. in favour of M/s IPCA Laboratories Ltd.

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

Sr. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/reasons
1	18 A (i)	Project Proponent submitted the National Board of Wildlife (NBWL) application on Parivesh Portal vide proposal no. FP/MH/IND/5848/2021 on April 10, 2021. The Environment Clearance would become operational only after National Board of Wildlife Clearance	The Central Govt. has published final notification of environmental sensitive area of Bor Tiger Project on 17.01.2022. The proposed project is falling outside the Eco Sensitive Zone of Bor Tiger	**The Chief Wildlife Warden (CWLW) issued a letter dated: 30/09/2022 explaining the non-applicability of NBWL to the proposed project on the following grounds:** The Central Govt. has published final notification of environmentally sensitive area of Bor Tiger Project

		from the Standing Committee for National Board of Wildlife is obtained. The notified Bor Wildlife Sanctuary is within 10 km distance from the project site and requirement of National Board of Wildlife clearance is mandatory for the project. The condition regarding applicability of National Board of Wildlife clearance shall remain irrespective of the project falling within or outside the Eco-Sensitive Zone area even after the notification of Eco-Sensitive Zone on a later date.	Reserve. Hence, as per the revised guideline of Central Govt. dated 21/07/2022, the condition regarding the clearance from National Board of Wildlife will not be applicable to the proposed project.	on 17.01.2022. As per the notification, the limit of environmentally sensitive area has been prescribed from 0.5 kms. to 26.50 kms. The location of the proposed project is not covered in environmentally sensitive area. Similarly, as per the "Tiger Corridors of Eastern Vidarbha Landscape" and also as per culture of Bor Tiger Conservation project the project does not fall within tiger migration corridors. The proposed project is outside the area of final environmental sensitive area, hence as per the revised guideline of Central Govt. dated 21/07/2022, it is not necessary to take wild life clearance.

3. **Deliberations by the EAC:**

The EAC constituted under the provisions 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.

The EAC inter-alia, deliberated on the layout including the Greenbelt and advised the PP to submit the revised layout mentioning the green belt along the boundary of the compound wall near the State Highway 255 towards east side of the project. The PP submitted the above information/documents and the EAC found it to be satisfactory.

4. After detailed deliberations, the EAC **recommended** amendment in EC, as detailed in above mentioned table subject to the following additional conditions:

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

(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.

Agenda No. 43.15

Establishment of Bulk Drugs & Drug Intermediates manufacturing unit of production capacity 34.50 TPM located at Plot No. 539, Kadechur Industrial Area, Kadechur Village, Yadgir Taluk & District, Karnataka by M/s Hubert Healthcare Pvt. Ltd. - Consideration of EC

[Proposal No. IA/KA/IND3/405524/2022; File No. IA-J-11011/171/2022-IA-II (I)]

1. The proposal is for Environmental Clearance for the Establishment of Bulk Drugs & Drug Intermediates manufacturing unit of production capacity 34.50 TPM located at Plot No. 539, Kadechur Industrial Area, Kadechur Village, Yadgir Taluk & District, Karnataka by M/s Hubert Healthcare Pvt. Ltd.

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). However, since the inter-state boundary of Karnataka and Telangana is at 1.91 Km towards SSE direction, the project attracts the general condition and considered as Category 'A' at Centre.

3. The PP applied for the ToR vide the proposal number IA/KA/IND3/273108/2022 dated 16.5.2021 and the standard ToR was issued by the Ministry, vide letter No. J-11011/171/2022-IA-II(I) dated 21.05.2022. The PP submitted that the Public Hearing is not required for the proposed project as it is located at KIADB, Industrial area – Kadechur Industrial Area. EC was granted by MOEFCC dated 14.10.2016. The PP applied for the Environment Clearance on 5.11.2022 in Common Application Form and submitted EIA/EMP Report and other documents. The PP in the Form reported that it is a Fresh EC. The proposal is now placed in 43rd EAC Meeting held on 30th November, 1st & 2nd December 2022, wherein the Project Proponent and an accredited Consultant, Rightsource Industrial Solutions Pvt. Ltd. [Accreditation number NABET/EIA/2124/RA 0248 valid up to 29.10.2024], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area is 1.17 Ha and no R&R is involved in the Project. The details of products and by–products are as follows:

S. No.	Product Name	Quantity in TPM	CAS No	Therapeutic Use
1	Bempedoic acid	3.00	738606-46-7	Used for the treatment of hypercholesterolemia
2	Bilastine	1.00	202189-78-4	Antihistamine
3	Brivaracetum	0.50	357336-20-0	Anti convulsant
4	Canagliflozin	1.00	842133-18-0	Used to treat type 2 diabetes

S. No.	Product Name	Quantity in TPM	CAS No	Therapeutic Use
5	Dapagliflozin Propendiol Monohydrate	4.00	461432-26-8	Used to treat type 2 diabetes
6	Dexlansoprazole	1.00	138530-94-6	Antiulcer
7	Empagliflozin	1.00	864070-44-0	Used to treat type 2 diabetes
8	Rifaximin	3.00	80621-81-4	Antibiotic
9	Rivaroxaban	1.00	366789-02-8	Anti- coagulant
10	Tadalafil	1.00	171596-29-5	Used to treat erectile dysfunction
11	Tapentadol Hydrochloride	1.00	175591-09-0	Used to treat severe neuropathic pain
12	Vildagliptin	3.00	274901-16-5	Used in treatment of type 2 diabetes
13	(5-Bromo-2-chlorophenyl)(4-ethoxyphenyl)methanone	2.00	461432-22-4	Dapagliflozin Intermediate
14	1H-Isoindole-1,3(2H)Dione, 2-[[(5S)-2-oxo-3-[4-(3-oxo-4-morpholinyl)phenyl]-5-oxazolidinyl] methyl	2.00	446292-08-6	Rivaroxaban intermediate
15	3-Chloro-5,6-dihydro-1-(4-nitrophenyl)-2(1H)pyridinone	2.00	536760-29-9	Apixaban intermediate
16	4-(4-Aminophenyl)Morpholin-3-one	2.00	438056-69-0	Apixaban intermediate
17	4-(4-isoproppoxybenzyl)-1-isopropyl-5-methyl-1H-pyrazol-3(2H)-one	1.00	329044-14-6	Remogliflozin Intermediate
18	5-Bromo-2-chloro-4'-ethoxydipheylmethane	2.00	461432-23-5	Dapagliflozin Intermediate
19	Ethyl 7 Bromo-2,2-dimethylheptanoate	3.00	123469-92-1	Bempedoic acid Intermediate
	Total	**34.50**		

LIST OF BY- PRODUCTS & THEIR QUANTITIES

S. No.	Name of the product	Name of the By-Product	Quantity in Kg/Day
1	Bilastine	Sodium p-toluene Sulfonate	19.70
		Potassium p-toluene Sulfonate	19.00
2	Canagliflozin	Trimethyl Silanol	38.30
3	Rivaroxaban	Triethyl amine Hydrochloride	27.50
		Potassium chloride	12.30
4	1H-Isoindole-1,3(2H)Dione,2-[[(5S)-2-oxo-3-[4-(3-oxo-4-	Triethyl amine Hydrochloride	30.10

S. No.	Name of the product	Name of the By-Product	Quantity in Kg/Day
	morpholinyl)phenyl]-5-oxazolidinyl] methyl (Rivaroxaban Intermediate)		
5	3-Chloro-5,6-dihydro-1-(4-nitrophenyl)-2(1H)pyridinone (Apixaban intermediate)	Potassium chloride	31.00
		Potassium bromide	49.40
		Phosphorous trichloride	49.00

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. lies within 10 km distance. The PP reported that no Schedule-I species exist within 10 km study area of the project.

7. **Ambient Air Quality** – The PP reported that Ambient air quality monitoring was carried out at 8 locations during Summer Season (March, 2022 to May, 2022) and submitted baseline data indicates that ranges of concentrations of PM_{10} (43.9 to 68.2 µg/ m^3), $PM_{2.5}$ (15.8 to 28.1 µg/ m^3), SO_2 (6.7 to 18.4 µg/ m^3), NOx (9.1 to 23.4 µg/ m^3), CO (0.16 to 0.42 mg/m^3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be PM_{10}, $PM_{2.5}$, SO_2 & NOx would be 0.049 µg/ m^3, 0.011 µg/ m^3, 0.617 µg/ m^3 & 0.867 µg/ m^3 respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NQQS). **Noise- Industrial Zone:** The day time noise level at the Project site was 45.2 dB (A), which is well below the permissible limit of 75 dB (A). **Residential Zone:** The day time noise levels in all the residential locations were observed to be in the range of 50.9 dB (A) to 54.1 dB (A). **Night time:** Industrial Zone: The night time noise level in the Project site was observed be 35.5 dB (A), which is well below the permissible limits of 70 dB (A). Residential Zone: The night time noise levels in all the residential locations were observed to be in the range of 40.3 dB (A) to 43.9 dB (A). **Ground water -** The pH of the ground water samples collected was in the range between 6.97 – 7.93. Total dissolved solids in the ground water samples were in the range between 722 – 1942 mg/l. In the ground water samples collected from the study area, the total hardness was found to vary between 176 – 1030 mg/l. The Chlorides concentration was found to vary between 84.75 – 689.86 mg/l in the collected ground water samples. Fluoride concentration in all ground water samples was found to be <0.1 – 1.04 mg/l. Sulphates concentration was found to be vary between 31.8 – 161.2 mg/l. **Surface water -** pH of the water samples collected was in the range between 7.62 – 8.21. Total dissolved solids in the samples were in the range between 186 – 602 mg/l. Total hardness was found to be in the range of 70 – 196 mg/l. Chlorides concentration was found to in the range of 16.79 – 130.09 mg/l Fluoride concentration was found to be in the range of 0.38 - 0.78 mg/l. Sulphates concentration was found to be in the range of 3.98 – 71.4 mg/l. **Soil-** It has been observed that the pH of the soil quality ranged from 7.28 to 8.12. Percentage of Organic Carbon is observed in between 0.45 to 0.73 indicating that Medium to on an avg. sufficient in nature.

8. The PP reported that the total water requirement is 122.73 KLD and will be met from KIADB water supply. Generated effluent of 36.90 KLD will be sent to CETP- Mother Earth, Kadechur.

9. The PP reported that Power requirement will be 1000 kVA and will be met from Karnataka Power Corporation Limited (KPCL). The unit is proposed to install 1 x 250 kVA & 1 x 120 kVA DG Sets, Stacks (heights of 7.0 m & 6.0 m) will be provided as per CPCB norms to the proposed DG set respectively.

10. 2 x 3.0 TPH boilers are proposed with stack height of 30 m separately for each boiler. Cyclone separators followed by bag filters will be installed for the proposed boilers separately for controlling the particulate emissions (within statutory limit of 115 mg/Nm^3). 1 x 2 Lakh K. Cal/ Hr Thermic fluid heater is proposed with stack height of 11 m and Cyclone separator will be installed for controlling the particulate emissions (within statutory limit of 115 mg/Nm^3).

11. **Details of Process Emissions Generation and their Management:**

S. No.	Name of the Gas	Quantity in Kg/Day	Treatment Method
1	Hydrogen	1.00	Diffused by using Nitrogen through Flame arrestor to avoid the formation of explosive mixture.
2	Ammonia	9.00	Scrubbed by using chilled water media
3	Nitrogen	4.00	Dispersed into the atmosphere
4	Oxygen	45.00	Dispersed into the atmosphere
5	Carbon dioxide	47.00	Dispersed into the atmosphere
6	Hydrogen Bromide	273.00	Scrubbed by using C. S. Lye solution
7	Hydrogen chloride	296.00	Scrubbed by using chilled water media
8	Boron trifluoride	59.00	Scrubbed by using chilled water media
9	Propane	19.00	Diffused by using Nitrogen through Flame arrestor to avoid the formation of explosive mixture.
10	Hydrogen Fluoride	15.00	Scrubbed by using C. S. Lye solution
11	Sulphur dioxide	137.00	Scrubbed by using C. S. Lye solution

12. **Details of Solid/ Hazardous Waste Generation and its Management**:

S. No.	Name of the Waste	Quantity	Category (As per schedule)	Disposal Method
Hazardous Waste Details				
1	Organic solid waste (Process Residue)	1318 Kg/Day	28.1 of schedule-I	Will be sent to Cement Industries
2	Spent Carbon	18 Kg/Day	28.3 of Schedule-I	
3	Solvent Distillation Residue	307 Kg/Day	36.1 of Schedule-I	
4	Organic distillate from MEE Stripper	590 Kg/Day	36.1 of Schedule-I	
5	Inorganic Solid Waste	70 Kg/Day	28.1 of schedule-I	Will be sent to TSDF

S. No.	Name of the Waste	Quantity	Category (As per schedule)	Disposal Method
6	MEE Salts	1432 Kg/Day	28.1 of schedule-I	
7	ETP Sludge	65 Kg/Day	35.3 of schedule-I	
8	Used Oils	75 Ltrs/ Annum	5.1 of schedule-I	Will be sent to SPCB Authorized Agencies for Reprocessing/ Recycling
9	Detoxified Containers/ Container liners	600 No's / Month	33.1 of Schedule-I	After Detoxification will be sent to SPCB authorized agencies.
10	Used Lead Acid Batteries	4 No's/ Annum	9.1 of Schedule-I	Send back to suppliers for buyback of New Batteries
Solid waste details				
11	Ash from boilers (During usage of Biomass Briquette)	900 Kg/Day	----	Will be sent to Brick Manufacturers
12**	Ash from boilers (During usage of Coal)	9.1 TPD	---	

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

EFFLUENT WATER								
Water input in liter/day	**Effluent Water**	**In-organics in Effluent**	**Organics in Effluent**	**TDS**	**COD**	**HTDS**	**LTDS**	**Total Effluent**
12233.33	12224.32	523.76	657.63	523.76	1124.41	12250.86	1154.86	13405.72

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 198.0 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹33.5 Lakh per annum. The industry proposes to allocate ₹ 42.0 lakhs towards CER

15. Industry will develop greenbelt in an area of **3948.71m^2** which is **33.65 %** out of **11736.00 m^2** of the total project area.

16. The PP proposed to set up an Environment Management Cell (EMC) consisting of Plant General Manager- Manager EHS- Assistant manager- Env- Executive supervisor- workmen helpers for the functioning of EMC.

17. The PP reported that the Industry will sequester atmospheric carbon dioxide at an average of 50 pounds (22.67 kg) of carbon dioxide per tree per year.

18. The PP submitted the onsite and offsite disaster management plans in the EIA report.

19. The proposed project cost is about **Rs. 21.0 Crores.** Total proposed employment will be 150 persons.

20. **Deliberations by the EAC**:

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

The EAC noted that the PP 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 PP.

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

The EAC deliberated on the environmental parameters, windrose i.e predominant wind direction, Greenbelt development plan, Environment parameters, and EAC found it to be satisfactory.

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

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

The EAC is of the view that its recommendation and grant of environmental clearance by regulatory authority 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 PP 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.

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

(i) The PP shall develop Greenbelt over an area of at least 3948.71m^2 by planting 1184 number of trees within a period of one year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2m). The budget earmarked for the plantation shall be ₹ 10 Lakh and shall be kept in a separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of the expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(ii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. The PP shall engage Plant General Manager- Manager EHS- Assistant manager- Env- Executive supervisor- workmen helpers. In addition, one safety & health officer as per the qualification given in Factories Act, 1948 shall be engaged within a month of grant of EC. The PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP is ₹ 198.0 Lakh (Capital cost) and ₹ 33.5 Lakh (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office

of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

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

(v) The total water requirement is 122.73 KLD and will be met from KIADB water supply. The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year

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

(vii) The PP 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.

(viii) The project proponent shall comply with the environment norms for Pharmaceutical as notified by the Ministry of Environment, Forest and Climate Change, *vide* GSR 541(E), dated 6.8.2021 under the provisions of the Environment (Protection) Rules, 1986.

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

(x) 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.

(xi) Generated effluent of 36.90 KLD shall be sent to CETP- Mother Earth, Kadechur.

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

(xiii) 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 servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(xiv) 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.

(xv) 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.

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

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

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

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

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

Agenda No. 43.16

Proposed expansion project for the Manufacture of Optical brightening agents/Fluorescent brightening agents classified as textile auxiliaries Existing capacity of Products 520 TPM as 100% active substance Additional proposed capacity of Products 260 TPM as 100% active substance Total Capacity of Products 780 TPM as 100% active substance located at Plot No.: H-25, MIDC Taloja, Tal. Panvel, Dist. Raigad, Maharashtra by M/s. Eskay Dyestuffs & Organic Chemicals Private Limited - Consideration of ToR

[Proposal No. IA/MH/IND3/402391/2022; File No IA-J-11011/444/2022-IA-II(I)]

1. The proposal is for the ToR for preparation of EIA/EMP for the proposed expansion project for manufacturing of Optical brightening agents/Fluorescent brightening agents classified as textile auxiliaries Existing capacity of Products 520 TPM as 100% active substance Additional proposed capacity of Products 260 TPM as 100% active substance Total Capacity of Products 780 TPM as 100% active substance located at Plot No.: H-25, MIDC Taloja, Tal. Panvel, Dist. Raigad, Maharashtra by M/s. Eskay Dyestuffs & Organic Chemicals Private Limited. **The PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the CPCB.**

2. The project/activity is covered under Category 'B' of item 5(f), Synthetic organic chemicals industry. However, since the project site is located in a critically polluted area, the project attracts the general condition and considered as Category 'A' at Centre.

3. The PP applied for the ToR vide proposal number No **IA/MH/IND3/402391/2022** dated 11.10.2022. The proposal was referred back to the PP on 26.10.2022 and its reply was submitted on 18.11.2022. The proposal is now placed in 43rd EAC Meeting held on 30th November- 1st- 2nd December 2022, wherein the PP and an accredited Consultant, Goldfinch Engineering Systems Private Limited. [Accreditation number – NABET/EIA/2023/SA0191, Valid up to 8.6.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported the product details are as follows:

Sr. No	List of Products	CAS No.	Existing capacity TPM	Additional Proposed capacity TPM	Total capacity TPM	Uses
1	Optical Brightening agents/Fluorescent Brightening agents (As 100% active substance)	16470-24-9	520	260	780	Textile brighteners
	Total		**520**	**260**	**780**	--

5. The PP reported that there is no violation as per the EIA notification, 2006, no court case is pending against the proposal and no direction issued under E(P) Act/Air Act/Water Act.

6. The PP reported that as the unit is established before 2006 & applied first time for Environmental Clearance. Unit has not violated EIA Notification 2006 & its amendment.

7. The PP reported that Existing land area is 4500 m^2, and no R&R is involved in the Project.

8. The PP reported that the proposal does not involve Approval/Clearance under Forest (Conservation) Act,1980, Wildlife (Protection) Act,1972 and C.R.Z notification, 2011 as amended. There is no forest, Eco sensitive areas/National Park/Wildlife Sanctuary in 10 km radius of the site. The project doesn't fall within the CRZ boundaries. Water bodies like Kasardi River is located at distance of 0.15 Km.

9. The PP reported that the total water requirement is 437 KLD. After recycling 213 KLD water, the total fresh water requirement will be reduced to 224 KLD. Fresh water requirement of 437 KLD will be met from MIDC Taloja. Effluent from process plant (313 KLD) & vessel-reactor washing, floor

washing (2 KLD) & utility blow downs (23 KLD) totaling to (338 CMD) will be fed to Nano filtration after pH adjustment. The reject of Nano filtration (7 KLD) will be recycled in process and permeate (331 KLD) will be passed through the RO, 50% permeate i.e. 166 KLD will be the RO permeate. 65% RO permeate (108 KLD) will be sent to CETP as per existing consent and remaining 35% i.e. 58 KLD will be fed to polish RO for further treatment. RO reject (165 KLD) along with the reject of polish RO (11 KLD), totalling to (176 KLD) will be fed to WHE. The condensate from WHE (159 CMD) along with the RO permeate (58 KLD), totalling to (217 KLD) will be fed to polish RO. Reject of polish RO (11 CMD) fed to WHE and permeate of polish RO (206 KLD) will be reused in process. The concentrated ML from WHE will be fed to spray dryer and salts from spray dryer will be reused in dilution of crude product.

10. The PP reported that the Power requirement after expansion of the project will be 1980 KW (Connected load) & 1683 KW (Operating load) and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). 1 no. of DG sets having capacity 250 KVA will be used as standby during power failure. Stack (height 3.5 m above enclosure to each DG Sets) will be provided as per CPCB norms to the proposed DG sets.

11. The PP reported that the project, being in notified industrial area, is exempted from the public hearing as per the Ministry's O.M. J-11011/321/2016-IA.II(I) dated 27.04.2018.

12. Industry will be developed **538.76 m^2** (11.97%) green belt inside the plot premises. Additionally, **1400 m^2** (31.11 %) green belt will be provided outside the plot premises at Plot No. OS 52 in Taloja MIDC which is at distance of 1 km from project site. Total **1938.76 m^2** i.e. 43.08 % of total plot area of **4500.00 m^2** will be developed as a green belt area.

13. The estimated project cost is Rs. 78.07 Crores including existing investment of Rs. 28.07 crores. The PP reported that the total employment will be 150 persons during operational phase and 50 persons during construction phase. Industry proposes to allocate **Rs. 75 Lakhs** towards Corporate Environmental Responsibility.

14. **Deliberations by the EAC:**

The EAC deliberated on the various environmental aspects such as emission, Greenbelt development plan, action plan proposed by the PP being in a critically polluted area.

After detailed deliberations, the EAC **recommended** the project for grant of ToR (**Standard ToR [Annexure-II]** and **additional ToR as mentioned below)**, **without public hearing** as per the provisions of the EIA Notification, 2006 and as per O.M. No. 22-23/2018-IA.III dated 05.07.2022.

(i) The status of the action plan, if any, prepared by the State Government/SPCB for the CPA needs to be provided.

(ii) The PP needs to submit the action plan with respect to mitigation measures for CPA mentioned in the Ministry's OMs dated 31.10.2019.

(iii) Being in a Critically Polluted Area (CPA), the PP need to submit alternative site analysis and Environmental Cost Benefit analysis in the EIA report.

(iv) The PP shall submit the details of carbon foot prints and carbon sequestration study w.r.t. the proposed project. The Action Plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources shall also be prepared and submitted.

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

(vi) Details of Onsite and Offsite emergency plans as per the provisions of the MSIHC Rules need to be submitted.

(vii) Activity-wise, a time bound action plan along with budgetary provisions for occupational health & surveillance, environment management plan, and green belt development plans shall be prepared and submitted.

(viii) Undertaking from the PP and the consultant in pursuant to the O.M. No. J-11013/41/2006-IA. II(I) dated 04.08.2009 and J-11013/41/2006-IA. II(I) dated 5.10.2011.

(ix) The PP shall submit an undertaking to the effect that the project is not a violation proposal in pursuant to the S.O. 804(E) dated 14.03.2017 and SoP dated 07.07.2021.

(x) Action Plan for the management of hazardous waste and provision for its utilization in co-processing if applicable shall be prepared and submitted.

(xi) Provision for Reuse/recycle of treated wastewater, wherever feasible shall be made. The PP shall explore the possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. A detailed water harvesting plan also needs to be prepared and submitted. Provision for Zero Liquid Discharge whenever techno-economically feasible shall be included. The PP shall make necessary provisions for continuous monitoring of the effluent quality/quantity.

(xii) The PP shall clarify whether project involves ground water utilization. In case of ground water abstraction, a copy of application made to concerned authorities for the same need to be submitted.

(xiii) The PP should develop Greenbelt over an area of 538.76 m^2 of the total land area, Additionally, 1400 m^2 greenbelt shall be provided outside the plot premises. The plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution.

(xiv) Plan for development of the green belt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc. shall be prepared and submitted.

(xv) Assessment of the carrying capacity of transportation load on roads inside the notified industrial premises shall be carried out and submitted.

(xvi) In addition to the above, the EIA/EMP report shall also address issues such as i) Effective fugitive emission control measures for process, transportation, packing etc. ii) use of cleaner fuels and iii) best available technology for the plant.

Agenda No. 43.17

Setting up of pesticides and pesticide specific intermediates & Synthetic Organic Chemicals manufacturing unit of capacity 201480 TPA located at Plot no. 41/1, GIDC Notified Industrial Estate, Jhagadia, District Bharuch, Gujarat by M/s Aarti Industries Limited - Amendment in EC.
[Proposal No. IA/GJ/IND3/291239/2022; File No. IA-J-11011/458/2021-IA-II(I)]

1. The proposal is for amalgamation of Environmental Clearances granted by the Ministry vide EC identification No. EC22A017GJ128773 dated 08th June 2022 and SEIAA Gujarat vide letter No. SEIAA/GUJ/EC/5(f)/1204/2022 dated 17th May 2022 for amalgamation of EC's of Aarti Industries Limited (Unit-IV) (Plot no. 41/2) and Aarti Industries Limited (Plot no. 41/1) by Aarti Industries Limited at Plot No. 41/1 & 41/2, GIDC Notified Industrial Estate, Jhagadia, Dist. Bharuch, Gujarat.

2. The project proponent has requested for amendment in the EC with the details are as under:

Para of EC issued by MoEF&CC	Details as per the EC	To be revised/read as	Justification/ reasons
--	--	The Proposal is for amalgamation of EC's of Aarti Industries Limited (Unit-IV) (Plot no. 41/2) and Aarti Industries Limited (Plot no. 41/1) by Aarti Industries Limited.	--

3. **Deliberations by the EAC**:

The EAC deliberated on the fuel type, water balance, details of amalgamation, carbon sequestration study, energy conservation measures, Onsite/Offsite emergency plan and mitigation measures, etc.

(i) The PP shall submit the undertaking committing that PP shall use Biomass as primary fuel.

(ii) The PP shall also submit the details of amalgamation. i.e physical changes, fuel. Water, additional interventions etc.

(iii) The PP shall submit the reduction in the environmental parameters (emission, fuel, water, carbon footprint) due to the amalgamation.

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

(v) The PP shall submit revised and detailed water balance

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

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

In view of above, the EAC **deferred** the proposal.

Agenda No. 43.18

Proposed Expansion of Pesticides Technical, Pesticide Intermediate and Specialty Chemicals of production capacity from 528.35 MTPM to 759.24 MTPM along with addition of Captive Co-Gen Power Plant with production capacity located at Plot No. 3301, GIDC Industrial Estate, Ankleshwar, Dist. Bharuch, Gujarat by Rallis India Limited- Consideration of EC

[Proposal No. IA/GJ/IND3/400615/2022; File No. IA-J-11011/60/2022-IA-II(I)]

1. The proposal is for environmental clearance to the Proposed Expansion of Pesticides Technical, Pesticide Intermediate and Specialty Chemicals of production capacity from 528.35 MTPM to 759.24 MTPM along with addition of Captive Co-Gen Power Plant with production capacity located at Plot No. 3301, GIDC Industrial Estate, Ankleshwar, Dist. Bharuch, Gujarat.

2. The project/activity is covered under Category 'A' of item 5(b) Pesticide Industry and pesticide specific intermediates (excluding formulations) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by Expert Appraisal Committee (EAC). The PP also reported that the project is located in the critically polluted area.

3. The PP applied for ToR vide proposal number. IA/GJ/IND3/256051/2022dated 5.3.2022 and the ToR has been issued by the Ministry, vide letter No **IA/GJ/IND3/400615/2022** dated 9.3.2022. The PP submitted as the project site is in a Notified Industrial Area i.e., GIDC Industrial Area, Vapi. Thus, in accordance with Clause 7(i) (III) of EIA notification 2006 & OM J-11011/321/2016-IA. II(I) dated 27.04.2018. The PP applied for Environment Clearance on 6.10.2022 in Common application form and submitted EIA/EMP Report and other documents. The PP reported in Form- that it is a **Expansion EC.** The proposal is now placed in 43rd EAC Meeting held on 30th November- 1st- 2nd December 2022, wherein the Project Proponent and an accredited Consultant, San Envirotech Pvt. Ltd. [Accreditation number NABET/EIA/2023/RA 0216 valid up to 23.12.2023], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area is **69100 m²** and no R& R is involved in the Project. The details of products are as follows:

Sr. No.	Name of Products	CAS No.	Quantity in MTPM			Category as per EIA Notification
			Existing	Proposed addition	Total	
Technical Product						
1	Captafol	2425-06-1	14.17	0	14.17	5(b)
2	Metribuzin	21087-64-9	5.00	0	5.00	5(b)
3	Thiophanate-M	23564-05-8	5.00	36.67	41.67	5(b)
4	Bromuconazole	116255-48-2	10.00	0	10.00	5(b)
5	Propiconazole	60207-90-1	8.33	0	8.33	5(b)
6	Bromadiolone	28772-56-7	0.01	0	0.01	5(b)
7	Metconazole/KRM and its intermediates	125116-23-6	41.67	0	41.67	5(b)
8	Tebuconazole	107534-96-3	16.67	0	16.67	5(b)
9	Hexacoanzole and its intermediates	79983-71-4	125.00	25	150.00	5(b)
10	Metalaxyl	57837-19-1	25.00	0	25.00	5(b)
11	Acetamiprid	135410-20-7	12.50	0	12.50	5(b)
12	Lamdacyhalothrin	91465-08-6	12.50	0	12.50	5(b)
13	Kersoxim Methyl	143390-89-0	25.00	0	25.00	5(b)
14	Ipconazole	125225-28-7	16.67	0	16.67	5(b)
15	Azoxystrobin	131860-33-8	16.67	0	16.67	5(b)
16	Imidacloprid	138261-41-3	8.33	0	8.33	5(b)
17	**PEKK**	**29658-26-2**	**25.00**	**0**	**25.00**	**5(f)**
18	Tetra Chloro Vinaylphos (TCVP)	22248-79-9	20.83	0	20.83	5(b)
19	Amitrol (3-Amino- 1,2,4-triazole	61-82-5	16.67	0	16.67	5(b)
20	Difenoconazole	119446-68-3	16.67	0	16.67	5(b)
21	Meta Phenoxy Benzaldehyde (MPBA)	39515-51-0	12.50	0	12.50	5(b)
22	Thiomethoxazam	153719-23-4	8.33	0	8.33	5(b)
23	Tricyclazole	41814-78-2	8.33	0	8.33	5(b)
24	Oxirane	106-89-8	35.83	0	35.83	5(b)
25	4-Fluoro-meta-Phenoxy Benzaldehyde (FPBD)	68359-57-9	29.17	0	29.17	5(b)
26	Flumethrin	69770-45-2	4.17	0	4.17	5(b)

27	Trifloxystrobin	141517-21-7	8.33	0	8.33	5(b)
28	1,2,4 Triazole	288-88-0	0.00	33.33	33.33	5(b)
29	Metalaxyl-M	70630-17-0	0.00	8.33	8.33	5(b)
30	Prothioconazole	178928-70-6	0.00	6.67	6.67	5(b)
31	Bixafen	581809-46-3	0.00	4.17	4.17	5(b)
32	Flupyradifurone	951659-40-8	0.00	4.17	4.17	5(b)
33	Benzovindiflupyr	1072957-71-1	0.00	4.17	4.17	5(b)
34	Mandipropamid	374726-62-2	0.00	4.17	4.17	5(b)
35	Penflufen	494793-67-8	0.00	4.17	4.17	5(b)
36	Penthiopyrad	183675-82-3	0.00	4.17	4.17	5(b)
37	Spirotetramat	203313-25-1	0.00	4.17	4.17	5(b)
38	Cyantraniliprole	736994-63-1	0.00	4.17	4.17	5(b)
39	Spirodiclofen	148477-71-8	0.00	4.17	4.17	5(b)
40	Pyriproxyfen	95737-68-1	0.00	4.17	4.17	5(b)
41	Picoxystrobin	117428-22-5	0.00	4.17	4.17	5(b)
42	Fluxapyroxad	907204-31-3	0.00	4.17	4.17	5(b)
43	Pyraclostrobin	175013-18-0	0.00	4.17	4.17	5(b)
44	Boscalid	188425-85-6	0.00	4.17	4.17	5(b)
45	Fenamistrobin	366815-39-6	0.00	4.17	4.17	5(b)
46	Pencycuron	66063-05-6	0.00	4.17	4.17	5(b)
47	O-Methyl Hydroxylamine Hydrochloride (OMAH)	593-56-6	0.00	12.50	12.50	5(b)
48	Chlorpyrifos	2921-88-2	0.00	16.67	16.67	5(b)
49	Pendimethylene	40487-42-1	0.00	25.00	25.00	5(b)
		Total	**528.35**	**230.89**	**759.24**	
Co-Product Generation						
1	Poly Aluminium Chloride (PAC) Liquid/Solid	1327-41-9	0.00	820.00	820.00	--
2	Potassium Sulphate	7778-80-5	0.00	120.00	120.00	--
3	Bromine	7726-95-6	0.00	83.33	83.33	--
		Total	**0.0**	**1023.33**	**1023.33**	
Formulation Products						
1	Pesticide formulation (Solid)	--	4000	0.0	4000	--
2	Pesticide formulation (Liquid)	--	5000	0.0	5000	--
		Total	**9000**	**00**	**9000**	
CPP (Captive Power Plant)						
1	Captive Power Plant 1	--	1.064 MW	0	1.064 MW	--

2	Captive Power Plant 2	--	1.064 MW	0	1.064 MW	--
3	Captive Power Plant 3	--	0	1.064 MW	1.064 MW	--

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that the Rallis India Limited has set up this unit in 1983 for manufacturing of Pesticides Technical, Pesticide Intermediate and Specialty Chemicals in GIDC, Ankleshwar.

7. The PP reported that Certified Compliance Report of existing CTO is obtained from GPCB-Head Office, Gandhinagar vide on 07.10.2022. All the conditions of CTO are compiled by unit as per the CCR.

8. The PP reported that there are no National Parks, Wildlife Sanctuaries, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. Narmada River flowing at a distance of 7.85 km in N direction from project site.

9. The PP reported that Ambient air quality monitoring was carried out at 8 locations during December, 2021 to February, 2022 and the baseline data indicates the ranges of concentration as: PM_{10} (70.2 - 74.6 µg/m^3), $PM_{2.5}$ (35.2 – 39.6 µg/m^3), SO_2 (15.0 – 19.1 µg/m^3), NOx (20.4 – 22.6 µg/m^3). AAQ modelling study for point source emission indicated that the maximum incremental GLCs after the proposed project would be 5.957 µg/m^3, 3.148 µg/m^3, 4.097 µg/m^3, 1.341 µg/m^3, 0.391 µg/m^3, 0.040 µg/m^3 , 1.016 µg/$m^3$and 0.004 µg/m^3 with respect to PM_{10}, SO_2, NOx, HCl, Cl_2, H_2S, Ammonia and Bromine. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise-** The monitored noise level in the day time Leq (Ld) varies from 47.2 to 55.6 dB(A) and the night time Leq (Ln) varies from 37.6 to 48.4 dB(A) within the study area. Higher noise value of 55.6 dB(A) was recorded during day time at 100 m West from the site & lower noise value of 37.6 dB(A) was recorded during night time at Village Motali.

10. **Ground water-** The results have been compared with the drinking water quality standards specified in IS: 10500-2012. It is found that, all the samples meet the permissible limit authority (BIS). **Surface water-** The results have been compared with the drinking water quality standards specified in IS: 10500-2012. It was observed that all the physico-chemical parameters and heavy metals from surface water samples are within stipulated drinking water standards and are suitable for domestic purposes. **Soil** - In the study area, variations in the pH value ranging from 7.35 to 7.82. which shows that the soil is slightly alkaline in nature. Organic Matter ranges from 1.78 to 3.56 mg/kg in the soil samples. Soil of the study area is known to be moderate for cultivation because high salinity. Generally, soils with low bulk density have favourable physical conditions (porosity and permeability) whereas those with high bulk density exhibit poor physical conditions for agriculture crops.

11. The PP reported that total water requirement is 711.66 KLD of which fresh water requirement of 505.66 KLD will be met from GIDC water supply. 206 KLD will be recycled/treated water. Total effluent generation will be 456.17 KLD including domestic. High COD process effluent (12

KLD) and MEE Slurry (18.17 KLD) will be Incinerated In-house/ CHWIF/ External preprocessing/Co processing. Low COD process effluent, effluent from scrubber, washing, utilities, MEE condensate and domestic sewage 522.17 KLD will be treated in ETP; out of which 220 KLD treated effluent, after achieving desired norms, will be discharged to FETP of M/s. Narmada Clean Tech (NCT), Ankleshwar. 302.17 KLD will be treated in RO followed by MEE. RO Permeate 206 KLD will be reused/recycled within premises.

12. The PP reported that Power requirement after expansion will be 4050 KVA including existing 2550 KVA will be partially met from DGVCL (Dhaksin Gujarat Vij Company Limited) including open access solar/hybrid power and partially by captive Co-gen Power Plant. Existing unit has DG sets of 125 kVA x 2 capacity, 1000 kVA x 2 and 500 kVA x 1 capacity. After expansion, unit proposed to add DG Sets of 1500 kVA x 2 nos. DG sets are used as standby during power failure. Stack (height 15 m) will be provided as per CPCB norms to the proposed DG sets.

13. Existing unit has one common stack of NG and HSD/LSHSD fired Boilers (3 TPH x 2 nos.), one stack of NG fired Boiler (5 TPH x 1 no.), one stack of NG fired Thermic Fluid Heater (4.0 Lakhs Kcal/hr. x 1 no.), 2 stacks of NG fired CPP 1 & 2 (1.064 MW/hr. x 2 nos.). After expansion, one stack of NG and HSD/LDO/LSHSD fired Boiler (12 TPH x 1 no.), one stack of Briquette fired stand by Boiler (12 TPH x 1 no.), one stack of NG and HSD/LDO/LSHSD/Briquette fired Boiler (5 TPH x 1 no.), 1 common stack of NG and HSD/LSHSD fired Thermic Fluid Heaters (4.0 Lakhs Kcal/hr. x 2 nos.), 1 common stack of NG and HSD/LSHSD fired Thermic Fluid Heaters (1.0 Lakhs Kcal/hr. x 4 nos.), one stack of CPP (1.064 MW/hr. x 1 no.) will be added. No APCM will be required as NG and HSD/LDO/LSHSD will be is used as fuel. Total flue gas stacks after expansion will be 18 nos. (Existing: 10 nos. + Additional: 8 nos.) Stack with stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 for the proposed utilities. Details of flue gas stacks are given below.

Flue Gas stacks

Sr. No.	Stack attached to	Stack Height (m)	Fuel Used	Fuel consumption Rate	APC measure	Pollutants
Flue gas Stack-Existing						
1	Boiler-1(3 TPH) &Boiler-2 (3 TPH)	30 (Common Stack)	NG and HSD/LSHSD	29792 Nm^3/day and 3000 lit/Day	Adequate Stack Height	PM<150 mg/NM^3 SO_2<100 ppm NO_x<50 ppm
2	Boiler-3 (5 TPH)(Stand by)	30	NG	29792 Nm^3/day	Adequate Stack Height	
3	Thermic Fluid Heater (4.0 Lakhs Kcal/hr.)	30	NG	29792 Nm^3/day	Adequate Stack Height	

4	CPP Plant-1 (Cap. 1.064 MWHr)	30	NG	29792 Nm^3/day	Adequate Stack Height	
5	CPP Plant-2 (Cap. 1.064 MWHr)	30	NG	29792 Nm^3/day	Adequate Stack Height	
6	D.G. Sets (Cap. 125 KVA x 1 No.)	15	Diesel	30 lit/hr.	Adequate Stack Height	
7	D.G. Sets (Cap. 125 KVA x 1 No.)	15	Diesel	30 lit/hr.	Adequate Stack Height	
8	D.G. Sets (Cap.1000 KVA x 1 No.)	15	Diesel	150 lit/hr.	Adequate Stack Height	
9	D.G. Sets (Cap. 1000 KVA x 1 No.)	15	Diesel	150 lit/hr.	Adequate Stack Height	
10	D.G. Set (Cap. 500 KVA)	15	Diesel	80 lit/hr.	Adequate Stack Height	
Flue gas Stack- Proposed addition						
1	Boiler-12 TPH	30	NG and HSD/LDO//LSHSD	22000 Nm^3/day	Adequate Stack Height	PM<150 mg/NM^3 SO_2<100 ppm NO_x<50 ppm
2	Boiler-12 TPH (Standby)	30	Briquette	72000 Kg/day	Water scrubber, ESP	
3	Boiler-5 TPH	30	NG and HSD/LDO/LSHSD/ Briquette	8000 Nm^3/day/ 8000 lit/day/ 13000 Kg/day	Adequate Stack Height	
4	Thermic Fluid Heater (4.0 Lakh Kcal/hr.)	30 (Common Stack)	NG and HSD/ LSHSD	1000 Nm^3/day and 1000 lit/hr.	Adequate Stack Height	
	Thermic Fluid Heater (4.0 Lakh Kcal/hr.)		NG and HSD/ LSHSD	1000 Nm^3/day and 1000 lit/hr.	Adequate Stack Height	
5	Thermic Fluid Heater (1.0 Lakh Kcal/hr.)	30 (Common Stack)	NG and HSD/ LSHSD	400 Nm^3/day and 500 lit/hr.	Adequate Stack Height	
	Thermic Fluid Heater (1.0 Lakh Kcal/hr.)		NG and HSD/ LSHSD	400 Nm^3/day and 500 lit/hr.		

	Thermic Fluid Heater (1.0 Lakh Kcal/hr.)		NG and HSD/ LSHSD	400 Nm^3/day and 500 lit/day		
	Thermic Fluid Heater (1.0 Lakh Kcal/hr.)		NG and HSD/LSHSD	400 Nm^3/day and 500 lit/day		
6	CPP Plant-3 (Cap. 1.064 MWHr)	30	NG	5000 Nm^3/day	Adequate Stack Height	
7	D.G. Set (1500 KVA)	15	Diesel	225 lit/hr.	Adequate Stack Height	
8	D.G. Set (1500 KVA)	15	Diesel	225 lit/hr.	Adequate Stack Height	

14. **Details of process emissions generation and its management**:

At present, process gas emission is from 5 separate process vents attached with MPP1-1 (Hexaconazole Plant), MPP1-2 (Tetra Chloro Venyl Phos & Krisoxim plant), MPP2-1 (Captan & Metconazole Plant), MPP2-2 (Phosalone Plant), MPP2-3 (Triazoleconazole Plant), 2 separate vents of Incinerator - 1 & 2. Process Stack of MPP1-1 and MPP1-2 is equipped with Water + Caustic scrubber followed by Central (Water + Caustic) Scrubber, Caustic scrubber is installed on stack of MPP2-1, MPP2-2, MPP2-3, Cyclone/Multi Cyclone + Caustic Scrubber are installed as APCM on stack of Incinerator-1 & 2. After expansion, 9 process vents will be added. Vent attached to MPP3, MPP4-1, MPP4-2, MPP5-1, MPP5-2, MPP6-1, MPP6-2, MPP6-3 and Pilot Plant. Water + Acid Scrubber will be installed as APCM on stack of MPP3, MPP4-2 Plant. Vent of MPP4-1 Plant will be equipped with Water+ Acid Scrubber & Water + Caustic scrubber. Water + Caustic Scrubber will be installed as APCM on stack of MPP5-1, MPP5-2, MPP6-1, MPP6-2, MPP6-3 plant and stack of Pilot Plant. **Total process stacks after expansion will be 16 nos. (Existing: 7 nos. + Additional: 9 nos.).**

Process Gas stacks

Sr. No.	Stack attached to	Stack Height (m)	Fuel Used	Fuel consumption Rate	APC measure	Pollutants
Process gas stacks – Existing						
1	Attached to **MPP1-1** (Hexaconazole plant)	11	--	--	Water + Caustic scrubber followed by Central (Water + Caustic) Scrubber	HCl<20 mg/Nm^3 SO_2<40 mg/Nm^3 Cl_2<5 mg/Nm^3
2	Attached to **MPP1-2** (Tetra	11	--	--	Water + Caustic	HCl<20 mg/Nm^3

	Chloro Venyl Phos & Krisoxim plant)				scrubber followed by Central (Water + Caustic) Scrubber	
3	Attached to **MPP2-1** (Captan & Metconazole Plant)	11	--	--	Caustic scrubber	HCl<20 mg/Nm^3 Cl_2<5 mg/Nm^3 Br_2<2 mg/Nm^3
4	Attached to **MPP2-2** (Phosalone Plant)	11	--	--	Caustic scrubber	H_2S<5 mg/Nm^3
5	Attached to **MPP2-3** (Triazole Conazole Plant)	11	--	--	Caustic scrubber	NH_3<30 mg/Nm^3
6	Incinerator-1	45	--	--	Cyclone/ Multi Cyclone + Caustic Scrubber	PM<50 mg/Nm^3 SO_2<200 mg/Nm^3 CO<100 mg/Nm^3 NOx<400 mg/Nm^3
7	Incinerator-2	45	--	--	Cyclone/ Multi Cyclone + Caustic Scrubber	
Process gas Stack-Proposed addition						
1	Attached to **MPP3** Plant	11	--	--	Water+ Acid scrubber	HCl<20 mg/Nm^3
2	Attached to **MPP4-1** Plant	11	--	--	Water+ Acid Scrubber & Water + Caustic scrubber	NH_3<30 mg/Nm^3 HCl<20 mg/Nm^3
3	Attached to **MPP4-2** Plant	11	--	--	Water+ Acid Scrubber	NH_3<30 mg/Nm^3
4	Attached to **MPP5-1** Plant	11	--	--	Water + caustic scrubber	HCl<20 mg/Nm^3
5	Attached to **MPP5-2** Plant	11	--	--	Water + caustic scrubber	HCl<20 mg/Nm^3
6	Attached to **MPP6-1** Plant	11	--	--	Water + caustic scrubber	HCl<20 mg/Nm^3 Cl_2<5 mg/Nm^3 SO_2<40 mg/Nm^3

						Br_2<2 mg/Nm^3
7	Attached to **MPP6-2** Plant	11	--	--	Water + caustic scrubber	HCl<20 mg/Nm^3 Cl_2<5 mg/Nm^3 SO_2<40 mg/Nm^3
8	Attached to **MPP6-3** Plant	11	--	--	Water + caustic scrubber	HCl<20 mg/Nm^3 Cl_2<5 mg/Nm^3 SO_2<40 mg/Nm^3 Br_2<2 mg/Nm^3
9	Attached to Pilot Plant	11	--	--	Water + caustic scrubber	HCl<20 mg/Nm^3 SO_2<40 mg/Nm^3

15. **Details of solid waste/ hazardous waste generation and its management**:

Sr. No.	**Name of waste**	**Category as per HWM Rule, 2016**	**Quantity (MT/Annum)**			**Mode of Disposal**
			Existing	**Proposed**	**Total**	
1	Process waste or Residue	I-29.1	1575	1158.66	2733.66	Collection, Storage, Transportation and Disposal Incineration at CHWIF of BEIL/SEPPL or Incineration within unit or external pre-processing/co-processing unit
2	High COD/HTDS Aqueous waste	I-29.1	0	4380	4380	Collection, Storage, Transportation and Disposal Incineration at CHWIF of BEIL/SEPPL or Incineration within unit or external pre-processing/co-processing unit
3	Date expired & off specification pesticide	I-29.3	10.2	20	30.2	Collection, Storage, Transportation and Disposal Incineration at CHWIF of BEIL/SEPPL

						or Incineration within unit or external pre-processing/co-processing unit
4	Spent Solvent	I-29.4	120	89.62	209.62	Collection, Storage, Transportation and Disposal Incineration at CHWIF of BEIL/SEPPL or Incineration within unit or external pre-processing/co-Processing unit
5	Spent Acids (Sulphuric Acid 50%)	I-29.6	500	0	500	Collection, Storage, Transportation Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 Permission to receive this waste after making MoU.
6	Spent Acids (Sulphuric Acid 70%)	I-29.6	223	0	223	Collection, Storage, Transportation Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MoU.
7	Empty barrels/ containers/Liners contaminate with Haz. Wastes	I-33.1	96.6	495	591.6	Collection, storage, Decontamination, Transportation and Disposal by reuse after in-house decontamination or send it to authorized decontamination facility/ recycler or send back to supplier.
8	Sludge from treatment of waste water arising out of cleaning/disposal of barrels/ containers	I-34.2	0.6	15	15.6	Collection, Storage, Transportation and Disposal at CHWIF of BEIL/SEPPL or co-processing unit or Incineration within unit.
9	Chemical sludge from waste water treatment	I-35.3	4200	4200	8400	Collection, Storage, Transportation and Disposal at approved

						TSDF of BEIL/ Detox/SEPL/Authorized Common TSDF
10	Ash from incinerator or flue gas cleaning residues	I-37.2	120	240	360	Collection, Storage, Transportation and Disposal at TSDF of BEIL/Detox/ SEPL/Authorized Common TSDF
11	Lube or Spent Oil	I-5.1	1.2	5	6.2	Collection, storage, transportation and disposal by Reuse in plant & machinery as lubricant or sell it to authorized re-refiners/recycler or incineration within unit
12	Liq. Ammonia	II-A10	682	522.84	1204.84	Collection, Storage, Transportation and Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MoU
13	Halogen containing compounds which produce acidic vapors on contact with humid air or water e.g. silicon tetrachloride, aluminum chloride, titanium tetrachloride	II-B10	6667	1843	8510	Collection, Storage, Transportation Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MoU
14	Inorganic Acids (Spent Acids)	II-B15	1189	0	1189	Collection, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MoU
15	Oxides & Hydroxides	II-B32	107	0	107	Collection, Storage, Transportation, Disposal

	except those of Hydrogen, carbon, silicone, iron, aluminum titanium, manganese, magnesium, calcium					by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MoU
16	Salt of per Acids	II-B36	1918	269	2187	Collection, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MoU
17	Sulphur	II-B37	27	0	27	Collection, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MoU
18	Aq. NaBr-20%	II-B6	5201	0	5201	Collection, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MoU
19	KBr Powder	II-B6	428	0	428	Collection, Storage, Transportation Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MoU
20	N-succinimide	II-B6	36	0	36	Collection, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after

						making MoU
21	Acetic Acid	II-B10	0	345.6	345.6	Collection, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MoU
22	5% Palladium /Carbon	29.5	0	11.0	11.0	Collection, Storage, Transportation Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MoU
23	Sodium Carbonate	II-B36	0	32.50	32.5	Collection, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MoU
24	Potassium Chloride	II-B36	0	11.16	11.16	Collection, Storage, Transportation Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MoU
25	Hydrogen Chloride	II-B36	0	5.00	5.00	Collection, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste after making MoU
27	Spent Acid (Nitric Acid + Sulphuric Acid mixture	I-29.6	0	519.30	519.30	Collection, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission

						to receive this waste after making MoU
Solid Waste						
1	Ash from Briquette Boiler	--	0	3600	3600	Collection, Storage, Transportation and Disposal to selling Brick manufacturer working within 25 km radius.

16. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 1000 Lakhs (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 1200 Lakhs. Industry proposes to allocate ₹ 3.0 Crore towards CER for Education, Skill development, Health, Infrastructure development of villages, Environment & sustainability.

17. The PP reported that the Industry has developed greenbelt in an area of 44.0% i.e. 27735.7 m^2 based and not proposal to add greenbelt after expansion as adequate greenbelt.

18. The PP proposed to set up an Environment Management Cell (EMC) by engaging Head EHS- AGM-EHS - further officials or the functioning of EMC.

19. The PP submitted the Disaster and Onsite and Offsite Emergency Plans in the EIA report.

20. The estimated project cost is Rs. 467.79 Crore including existing investment of Rs. 67.79 Crore. Total Employment will be 969 Persons after expansion.

21. **Deliberations by the EAC:**

The EAC deliberated on the wind rose, Greenbelt development plan, alternate site analysis, water balance, Life cycle assessment, carbon sequestration study, energy conservation measures, onsite and offsite emergency plan, and the action plan and mitigation measures proposed being a project located in CPA, etc.

(i). The PP shall submit the revised wind rose dominating the wind direction.

(ii). The PP needs to first comply the greenbelt condition (@2500 per hectare) and submit the details of green belt developed/number of trees along with aerial photographs and video and with time bound action plan for proposed greenbelt in consultation with forest department.

(iii). Being a project is located in the Critically Polluted Area, PP shall explore the alternate site analysis for the proposed project.

(iv). The PP shall submit revised and detailed water balance.

(v). The PP could not explain the life cycle analysis study though it was a part of instructions issued by the EAC in agenda. PP needs to submit details reflecting specific adverse and harmful impacts of Pesticide on flora and fauna of microbiota. PP needs to submit all the details on the subject.

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

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

(viii). The PP shall submit the quantified and specified compliance/action plan w.r.t each of the mitigation measure for CPA mentioned in the Ministry's O.M. dated 31.10.2019.

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

In view of above, the EAC **deferred** the proposal.

Agenda No. 43.19

Setting up of Synthetic Organic Chemicals (Dye Intermediates) manufacturing unit of production capacity 458.2 MT/Month at Plot No.: 356, Road No: 3, GIDC Sachin, Surat, Gujarat by Shree Ganesh Chem Tech - Consideration of EC.

[Proposal No. IA/GJ/IND3/291307/2022; File No. SIA/GJ/50203/2022]

1. The proposal is for environmental clearance to the Setting up of Synthetic Organic Chemicals (Dye Intermediates) manufacturing unit of production capacity 458.2 MT/Month at Plot No.: 356, Road No: 3, GIDC Sachin, Surat, Gujarat by Shree Ganesh Chem Tech.

2. The project/activity is covered under Category 'A' of item 5(f) Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by Expert Appraisal Committee (EAC). **The PP also reported that the project is located in the critically polluted area.**

3. The PP applied for ToR vide proposal number. SIA/GJ/IND3/73790/2022 dated 17.3.2022 and the ToR has been issued by the Ministry, vide letter No SIA/GJ/50203/2022 dated 19.3.2022. The PP submitted as the project site is in a Notified Industrial Area i.e., GIDC Industrial Area, Vapi. Thus, in accordance with Clause 7(i) (III) of EIA notification 2006 & OM J-11011/321/2016-IA. II(I) dated 27.04.2018. The PP applied for Environment Clearance on 11.9.2022 in Common application form and submitted EIA/EMP Report and other documents. The PP reported in Form- that it is a **Fresh** EC. Due to the shortcoming the proposal was referred on 22.9.2022, 27.10.2022 and the reply for the same 14.10.2022, 24.11.2022. The proposal is now placed in 43rd EAC Meeting held on 30th November, 1st & 2nd December 2022, wherein the Project Proponent and an accredited Consultant, Eco green Enviro Services. [Accreditation number **NABET/EIA/2023/IA0070** valid up to 22.11.2023], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area is 0.2 ha and no R& R is involved in the Project. The details of products are as follows:

Sr. No.	Name of the Products	CAS No.	Quantity MT/Month	End-use of products
1	Metanilic Acid (Liquid)	121-47-1	100	Dye Intermediates
2	Metanilic Acid (Powder)	121-47-1	25	
3	Diethyl Meta Amino Phenol (DMAP)	91-68-9	25	
4	Meta Amino Phenol	591-27-5	15	
5	Aniline 2- 5 di sulphonic acid	24605-36-5	15	
6	Ethyl Chloride	75-00-3	103.2	
7	Chloral	302-17-0	150	
8	Rodamine B	81-88-9	10	
9	Rodamine B (Liquid)	81-88-9	15	
Total			**458.2 MT/Month**	

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Reserve Forest etc. within 10 km distance from the project site. Mindhola river is flowing at a distance of 5.21 km in South direction, Khadi (Creek)- is at a distance of 2.24 km in NW direction, Gabheni lake is at a distance of 2.29 km in SE direction, Sachin INA Water Storage is at 0.43 km in North direction. There is no forest land involved in the proposed project. Schedule-I species i.e., Indian peafowl (*Pavo cristatus*) exist within the study area of project site. Wildlife Conservation Plan for this Schedule-I species i.e., Indian peafowl (*Pavo cristatus*) is submitted to PCCF & Chief Wildlife Warden.

7. The PP reported that **Ambient Air Quality**: Ambient air quality monitoring was carried out at 8 locations during 1st March 2022 to 31st May 2022 and the baseline data indicates the ranges of concentrations as: PM_{10} (49.20-110.98 µg/m^3), $PM_{2.5}$ (24.96-72.98 µg/m^3), SO_2 (18.22-36.92 µg/m^3), NO_x (20.64-44.13 µg/m^3), CO (403-1899 µg/m^3), VOC & HCl-BDL. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.10573 µg/m^3, 0.05294 µg/m^3, 0.27729 µg/m^3, 0.09729 µg/m^3 and 0.00301 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_2, NO_x and HCl. The resultant concentrations values of PM_{10} & $PM_{2.5}$ are exceeded at project site during baseline study period which is may be due to project is located in Sachin GIDC. Also, average values of PM_{10} & $PM_{2.5}$ are nearer to NAAQS standards which is due to Sachin GIDC. Other values are within the National Ambient Air Quality Standards (NAAQS). **Noise:** Noise monitoring was carried out at 8 locations during 1st March 2022 to 31st May 2022. The monitored noise level during the day time Leq(day) varied from 51.8 to 72.1 dB(A) and during night time Leq (night) varies from 40.5 to 61.6 dB(A) within the study area. Highest noise value of 72.1 dB(A) during day time was recorded at Shan Textiles Pvt. Ltd. & lowest noise value of 51.8 dB(A) during day time was recorded at MVPS English Academy. Highest noise value of 61.6 dB(A) during night time was recorded at CETP, Sachin & lowest noise value of 40.5 dB(A) during night time was recorded at MVPS English Academy. The monitored noise levels were compared with the standards prescribed by MoEF&CC which indicates that the noise levels were found within the limit for day & night time.

8. **Ground Water:** Ground water monitoring was carried out at 8 locations during 1st March 2022 to 31st May 2022 and the baseline data indicates the ranges of concentrations as: pH of ground water samples varied from 7.71 to 8.92. Chloride is found within the acceptable (Desirable) limit of Drinking water standards IS: 10500 – 2012 at Eklera Village (124.4 mg/l) & Saniya kande village (150.5 mg/l) and in other locations it is higher than the acceptable (Desirable) but it is found below permissible limit at all monitoring locations. Calcium hardness is higher than the Permissible limit at Nr. Sadguru Vidyalaya (251.25 mg/l), Gabheni Village (265.59 mg/l), Kansad village (268.27 mg/l) & Dipli village (549.53 mg/l). Sulphate is found higher than the permissible limit at Gabheni Village (516.4 mg/l), Kansad village (426.4 mg/l) & Dipli village (730 mg/l). TDS is found higher than the acceptable (Desirable) limit at all locations and higher than the permissible limit at Gabheni Village (2044.5 mg/l), Kansad village (2081.7 mg/l) & Dipli village (2912.7 mg/l). Ground water is suitable for domestic and agricultural purpose after adequate treatment such as Tertiary treatment and disinfection. **Surface Water:** Surface water monitoring was carried out at 8 locations during 1st March 2022 to 31st May 2022 and the baseline data indicates the ranges of concentrations as: pH of surface water samples varied from 7.75 to 8.76. Chloride is found higher than the acceptable (Desirable) limit of Drinking water standards IS: 10500 – 2012 at Mithi Khadi (321.5 mg/l) & Gabheni Talav (404.87 mg/l) but it is found below permissible limit at all locations. Sulphate is found higher than the acceptable (Desirable) limit at Gabheni Talav (253.4 mg/l) but well within the acceptable (Desirable) limit at all other locations. Calcium Hardness is found higher than the permissible limit at Mithi Khadi (218.17 mg/l) & Gabheni Talav (264.2 mg/l) but it is found below permissible limit at all other locations. TDS is within the acceptable (Desirable) limit at GIDC lake (260 mg/l), Saniya Kande (371.5 mg/l) and Jiav Lake (258.1 mg/l) and higher at other monitoring locations. It is higher than the permissible limit at Gabheni Talav (2538 mg/l) and well within the permissible limit at other monitoring locations. Thus, surface water can be used after conventional treatment followed by disinfection in only domestic activities. **Soil:** Soil monitoring was carried out at 8 locations during 1st March 2022 to 31st May 2022 and the baseline data indicates the ranges of concentrations as: The soils of the proposed project area are neutral to moderately alkaline in nature. EC of soils at all the sampling locations is good at all locations. Organic carbon content of soils of all locations are high as per ICAR standards. The soils of proposed project area are Fine sand in nature and water holding capacity of soils is found to be good. Nutrient availability of soil samples found better in Nitrogen (N), low in Phosphorus (P) and high in Potassium (K). Sodium value ranges from 37.38 to 207.3 mg/kg. SAR value is high of soil of Project site, Near GIDC lake, Opp. MVPS English School and near Rotary Hospital and at other locations the SAR value is low. Bulk density varied from 1.05 to 1.51 gm/cm^3. In short, the soils of proposed project area are Fine sand, moderately fertile, good water holding capacity and average to moderately alkaline in nature.

9. The PP reported that the total water requirement is 117.9 KLD sourced from GIDC, Sachin water supply (2.3 + 2.0 + 17.8 + 72.0 + 2 + 9.4 + 12.4) KLD in Domestic, Gardening, Process, Boiler, washing, Cooling and Scrubbing respectively. Boiler condensate 57.60 KLD will be recycled back to boiler. 25.7 KLD MEE condensate will be reused for Industrial purpose. Hence, total Fresh water requirement will be reduced to 34.6 KLD (Industrial + Domestic + Gardening). Hence, the Unit will achieve ZLD.

10. The PP reported that Power requirement will be 500 KVA and will be met from Dakshin Gujarat Vij Co. Ltd. (DGVCL). Unit has proposed 1 no. DG set of capacity 125 KVA, additionally DG set will

be used as standby during power failure. Stack height of 11.0 m will be provided as per CPCB norms to the proposed DG set.

11. Unit has proposed two Natural gas-based Steam Boiler of capacity 1 TPH and 2 TPH respectively and adequate stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 120 mg/Nm^3 as per CEPI notification for the proposed boilers.

Flue Gas Stack details

S. No.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Steam Boiler (2 TPH) (1 Nos.)	30	Natural Gas	3072 SCM/DAY	SPM: 120 mg/Nm^3 SO_2: 80 ppm NO_X: 40 ppm	Adequate Stack height
2	Steam Boiler (1 TPH) (1 Nos.)	30	Natural Gas	1536 SCM/DAY		Adequate Stack height
3	DG Set (125 KVA) (1 Nos.)	11	Diesel	40 Lit/Hr.		Adequate Stack height and acoustic enclosure

12. **Details of Process Emissions Generation and their Management:**

Unit has proposed one process gas stack for reaction vessel of chlorination and Two Stage Water + Alkali Scrubber with adequate stack height of 18 m will be installed for controlling the HCl emissions within the statutory limit of 16 mg/Nm^3 as per CEPI notification for the proposed process gas stack for reaction vessel of chlorination.

S. No.	Stack Attached To	Type of emission	Permissible limit	Stack/Vent Height (meter)	Air Pollution Control Measure (APCM)
1	Reaction Vessel (From Mfg. of Chloral and Ethyl Chloride) **(Chlorination)**	HCl	<16 mg/Nm^3	18	Two Stage Water + Alkali Scrubber

13. **Details of Solid Waste/Hazardous Waste Generation and its Management:**

Municipal Solid Waste

Particulars	No.	@kg/day/Person	Quantity of waste (in kg/day)
Workers	50	0.1 kg/day/person	5.0
		Total	**5.0 kg/day**

Hazardous Waste

Sr. No.	Type/Name of Hazardous waste	Specific Source of generation (Name of the Activity, Product etc.)	Category and Schedule as per HW Rules.	Quantity (MT/Year)	Management of HW
1.	Used Oil	Maintenance	5.1/ SCH-I	0.8	Collection, Storage, Reuse & sell to authorized vendor through GPS mounted vehicles.
2.	Discarded containers/ Bags/Linears	Packing Materials, Storage of Raw material	33.1/ SCH-I	470	Collection, Storage, Reuse & sell to authorized vendor through GPS mounted vehicles.
3.	ETP Sludge	ETP	35.3/ SCH-I	314	Collection, Storage, Transportation, disposal at nearest TSDF site through GPS mounted vehicles.
4.	MEE Salt	MEE	35.3/ SCH-I	15	
5.	Inorganic Waste	Mfg.: Metalinic Acid (Liquid)	21.1 / SCH-I	499	
6.	Organic Waste	Mfg.: Meta Amino Phenol	26.1 / SCH-I	810	Collection, Storage, Transportation & send to pre/co-processing units (cement industries) OR disposal at nearest CHWIF site through GPS mounted vehicles.
7.	Spent Carbon	Mfg.: Aniline 2- 5 di sulphonic acid	28.3 / SCH-I	4.0	
8.	Distillation Residue	Mfg.: Chloral and Ethyl Chloride	36.1/ SCH-I	73.0	
9.	Spent Sulphuric Acid (30-35%)	Mfg.: Chloral and Ethyl Chloride & Aniline 2- 5 di sulphonic acid	28.1/SCH-l	10360	It Will Be Reused or Collection, storage, transportation, Disposal by selling to end users under rule-9 through GPS mounted vehicles.
10.	Spent HCl Sol. (30 %)	Mfg.: (scrubbing Sol.)Chloral and Ethyl Chloride	21.1 / SCH-I	7191	Collection, Storage and Reuse or Sell to end users having permission Rule-9 through GPS mounted vehicles.
11.	Hypo (sodium thiosulfate) solution	Mfg.: Chloral and Ethyl Chloride	21.1 / SCH-I	183	Collection, Storage and sent to ETP.
12.	Iron sludge	Mfg.: Metalinic Acid (Liquid)	26.1/SCH.I	184	Collection, Storage, Transportation, disposal at nearest TSDF site. Through GPS Mounted Vehicles.

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 2.48 Crores (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 1.04 Crores per annum. Industry proposes to allocate Rs. 0.36 Crores towards CER.

15. The PP reported that the Industry will develop greenbelt in an area of **40 % i.e., 800.0 m^2** out of total area of the project.

16. The PP proposed to set up an Environment Management Cell (EMC) by engaging Director- General Manager- officials or the functioning of EMC.

17. The PP reported that total carbon footprint from direct source is 6194 Tonne/year and indirect is 3594 Tonne/year and total carbon sequestration is 5854 Tonne/year. In Nutshell, we will save / capture / reduce approx. 5854 tons per year or 59.80% of total carbon dioxide generated during year (considering direct as well as indirect source of CO_2 emission) through above mitigation measures. suggested

18. The PP submitted the Disaster and Onsite and Offsite Emergency Plans in the EIA report.

19. The estimated project cost is Rs. 8.60 Crores. Total Employment will be 50 persons as direct & 25 persons as indirect.

20. **Deliberations by the EAC:**

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

The EAC noted that the PP 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 PP.

The EAC noted that the EIA reports are in compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The EAC deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The EAC advised 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 inter-alia, deliberated on the water balance, budget of greenbelt development plan, CEPI compliance, alternative site analysis and advised the PP to submit the following:

- Revised water balance diagram considering reuse of Domestic Wastewater in gardening after treatment in filtration system.
- Revised Greenbelt Development Plan w.r.t Removal of Scrubs, Mentioning Details of Trees in each direction plan, with its area breakup and timeline of completion of greenbelt.
- Revised Compliance to OM dated 31.10.2019 for projects falling within CPA.
- Justification for proposed site selection along with alternative site Analysis.

The PP submitted the above information/documents and the EAC found it to be satisfactory.

The EAC deliberated on the Onsite and Offsite Emergency plans and various mitigation measures to be proposed during implementation also of the project and advised the PP to implement

the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.

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

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority 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 PP 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.

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

(i) The Unit shall adhere to stringent air pollutants standards i.e. 80 % of existing flue gas and process emission standards in the CPA with APCM like Adequate Stack Height (30 meters) for flue gas emissions & Water + Alkali Scrubber for process gas emissions.

(ii) The Unit shall install and commission Continuous Emission Monitoring System-CEMS (as per CPCB guidelines for relevant parameters) which shall be connected with GPCB/CPCB server.

(iii) Effective fugitive emission control measures shall be adopted in the process, transportation, packing etc.

(iv) The PP shall explore transportation of materials by rail/belt conveyor.

(v) Natural gas shall be used as the primary fuel for the boiler and Pet-coke, furnace oil, LSHS shall not be used.

(vi) The PP shall develop Greenbelt over an area of at least 40% (800 m^2) of the proposed project area, by planting approx. 240 numbers of saplings within a year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be kept in separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(vii) The PP shall also develop greenbelt outside the project premises such as avenue plantation, plantation in vacant areas, social forestry, etc.

(viii) The transportation load on roads shall be within their carrying capacity and adequate width of roads shall be maintained inside the industrial premises. The PP shall also develop RCC road in the project premises and in periphery of the plot area (of 6.0 m) and frequently sprinkle the water on roads to avoid the dusting due to vehicular movement.

(ix) The PP shall reuse the treated effluent from in-house MEE in washing activity, boiler, lime slurry preparation, cooling tower make up water and for preparation of lime and other slurry in ETP.

(x) The PP shall install Flow meter & PTZ camera at reuse line and it's connectivity shall be provided to CPCB and GPCB server

(xi) Rainwater harvesting shall be undertaken (6.0 KL capacity UG tank) for harvesting 5.5 KL of rain water.

(xii) The process effluent shall be treated in in-house ETP followed by in-house MEE and reused in washing, cooling and scrubbing. The domestic wastewater (2.0 KLD) shall be treated in in-house Septic Tank with Filtration System and reused within the plant premises. **Zero Liquid Discharge (ZLD) shall be maintained.**

(xiii) The PP shall strictly follow Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 for disposal of hazardous wastes. The PP shall also explore possibility to dispose its hazardous wastes through co-processing, pre-processing to the extent possible prior its disposal to incineration/ landfill and carry out transportation of hazardous wastes through GPS mounted vehicles only.

(xiv) The PP shall strictly comply with all the measures specified in guidelines for spent solvent management, spent acid management and other guidelines/directions published from time to time by GPCB and/or CPCB etc.

(xv) As Committed, the PP shall allocate Rs. 36.0 lakhs for CER i.e. Solar Energy Utilization, Green belt Development, Rain water recharging system, Pond Reclamation / Revitalization of Water Bodies.

(xvi) Monitoring of the compliance of EC conditions shall be submitted with third party audit every year.

(xvii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage engaging Director- General Manager- officials. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xviii) 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. The budget proposed under EMP is ₹ 2.48 Crores (Capital cost) and ₹ 1.04 Crore per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(xix) The total water requirement shall be 117.9 KLD, out of which fresh water requirement shall be reduced to 34.6 KLD sourced from GIDC, Sachin water supply. The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawn only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.

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

(xxi) 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.

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

(xxiii) 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.

(xxiv) 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.

(xxv) 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.

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

(xxvii) 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.

(xxviii) 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.

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

Agenda No. 43.20

Setting up of Specialty chemicals, Pesticides intermediates & Pesticides Technical manufacturing plant of capacity 1005 TPM at plot no. T/75 Saykha Industrial estate, Taluka Vagra District – Bharuch, Gujarat by M/s Krishna Solvechem Ltd. - Amendment in EC.

[Proposal No. IA/GJ/IND3/196841/2021; File No. IA-J-11011/48/2021-IA-II(I)

1. The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter dated 27.09.2021 for the Setting up of Specialty chemicals, Pesticides intermediates & Pesticides Technical manufacturing plant of capacity 1005 TPM at plot no. T/75, Saykha Industrial estate, Taluka Vagra District – Bharuch, Gujarat by M/s Krishna Solvechem Ltd.

2. The project proponent has requested for amendment in the EC with the details as under:

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons
1	Condition No. 3 Page No. 2 of 14	• Details of product and capacity in table format with 6 Group of products with 140 products and capacity of 1005 TPM	• Details of product and capacity in table format with 6 Group of products with 141 products and capacity of 1005 TPM	• Considering the Good demand in market we want to amend the product table with addition of 1 new product viz. '**Profenofos'** in Group-5: pesticides technical products, sub-group: insecticide with no increase in total production capacity of 1005 TPM. • After the proposed amendment total production capacity will remain same @1005 TPM. • There will not be any change in Pollution load (for Water, Air, & Hazardous Waste) & any other conditions granted in our EC due to this product amendment.
2	Condition No. 4 Page No. 6 of 14	• It is reported that the land area available for the project is 5462 sq. m. Industry will develop Greenbelt in an area of 1800 sq m covering 33 % of total project area. The estimated project cost is Rs. 20 Crores. Total capital cost earmarked towardsenvironmental pollution control measures is Rs. 5 Crores and the recurring cost (operation and maintenance) will be about Rs. 15 Crores per annum. The project will provide	• It is reported that the land area available for the project is 5462 sq. m. Industry will develop Greenbelt in an area of 1800 sq. m covering 33 % of total project area. The estimated project cost is Rs. 20.3 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 5.3 Crores and	• For the proposed amendment for Fuel change, MDC + Bag filter & Alkali scrubber will be installed as APCM. Hence, total capital cost and cost of EMP will increase @ 0.3 Cr.

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons
		employment for 15 persons directly and 15 persons indirectly. Industry proposes to allocate of Rs. 40 Lakhs (approx.) in next 1 years towards Corporate Environment Responsibility.	the recurring cost (operation and maintenance) will be about Rs. 15.2 Crores per annum. The project will provide employment for 15 persons directly and 15 persons indirectly. Industry proposes to allocate of Rs. 40 Lakhs (approx.) in next 1 years towards Corporate Environment Responsibility.	
3	Condition No. 6, Para-1 Page No. 6 of 14	• It is noted that the Total water requirement is estimated to be 267 KLD, which includes freshwater requirement of 227 KLD, proposed to be met from GIDC Water Supply.	• It is noted that the Total water requirement is estimated to be 270 KLD, which includes freshwater requirement of 227 KLD, proposed to be met from GIDC Water Supply.	• For the proposed amendment for Fuel change, alkali scrubber will be installed to solid fuel fired installations. Hence, the Total water requirement will be increased by 3 KLD
4	Condition No. 6, Para-2 Page No. 6 & 7 of 14	• Effluent of 188 KLD quantity will be treated through Primary treatment, MEE, RO and SBT facilities and then effluent will be sent to CETP for further treatment. The wastewater	• Effluent of 191 KLD quantity will be treated through Primary treatment, MEE, RO and SBT facilities and then effluent will be sent to CETP for further	• For the proposed amendment for Fuel change, alkali scrubber will be installed to solid fuel fired installations. Hence, wastewater generation will be increased up to 3 KLD from utility Scrubber. • Which will be sent to MEE and condensate form MEE

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons
		generations will 188.0 KL/Day (183.0 KL/Day Industrial + 5.0 KL/Day Domestic). 5.0 KL/Day from Domestic will be treated in STP & treated wastewater shall be reused for Gardening, Cooling & Washing purposes. 7.0 KL/Day Wastewater from Scrubbing System, which is mainly Hazardous Waste / By Products from respective gases such as HCl, HBr, SO2 etc. are sold out to actual End users under Rule-9. Concentrated Stream: 161.0 KL/Day wastewater (159.0 KL/Day Process + 2.0 KL/Day from Floor/ Equipment Washings) shall be separate in to two stream. Stream – I (30 KL/Day) from specialty Chemicals will be treated in Primary ETP and then sent to RO system and RO permeate will be reuse within plant premises. Stream – II (131 KL/Day) from other Products & RO reject (10 KL/Day) will be treated in primary + Fenton	treatment. The wastewater generations will 191.0 KL/Day (186.0 KL/Day Industrial + 5.0 KL/Day Domestic). 5.0 KL/Day from Domestic will be treated in STP & treated wastewater shall be reused for Gardening, Cooling & Washing purposes. 7.0 KL/Day Wastewater from Scrubbing System, which is mainly Hazardous Waste / By Products from respective gases such as HCl, HBr, SO2 etc. are sold out to actual End users under Rule-9. Concentrated Stream: 164.0 KL/Day wastewater (159.0 KL/Day Process + 2.0 KL/Day from Floor/ Equipment Washings + 3 KLD from utility Scrubber) shall	@ 3 KLD will be recycled within plant premises. Hence, there will be no additional discharge after the proposed amendment.

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons
		treatment then subjected to MEE system and MEE condensate will be sent to SBT after treatment it's finally disposed of to CETP of Saykha Industrial Estate. Utility Stream-15.0 KL/Day effluent (3.0 KL/Day from Boiler + 12.0 KL/Day from Cooling Tower) will be treated in RO, & RO permeate (11.0 KL/Day) will be reused in industrial purpose whereas RO reject (4.0 KL/Day) will be send to the primary lamella	be separate in to two streams. Stream – I (30 KL/Day) from specialty Chemicals will be treated in Primary ETP and then sent to RO system and RO permeate will be reuse within plant premises. Stream – II (131 KL/Day) from other Products & RO reject (10 KL/Day) will be treated in primary + Fenton treatment then subjected to MEE system along with 3 KLD from utility Scrubber and MEE condensate @3 KL/Day will be recycled for industrial purpose and remaining MEE condensate will be sent to SBT after treatment it's finally disposed of to CETP of Saykha Industrial Estate. Utility Stream-15.0 KL/Day effluent (3.0 KL/Day from Boiler + 12.0	

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons
			KL/Day from Cooling Tower) will be treated in RO, & RO permeate (11.0 KL/Day) will be reused in industrial purpose whereas RO reject (4.0 KL/Day) will be sent to the primary lamella	
5	Condition No. 6, Para-4 Page No. 7 of 14	• Unit will have 1 Nos. TPH (Capacity: 1.0 Lac Kcal/Hr) and 1 Nos. of Steam Boiler (Capacity: 2.0 MT/Hr) will be installed. And 2.0 TPH Boiler, Thermic Fluid Heater (1 Lac Kcal/Hr) & D.G. Set with a stack of height of 18 m, 18 m & 11 m will be installed for controlling the particulate emissions (within the statutory limit of 150 mg/Nm3) respectively. Details of process emission & management and solid waste/hazardous waste disposal are as per the plan provided in the EIA/EMP report and as deliberated in the EAC.	• Unit will have 1 Nos. TPH (Capacity: 1.0 Lac Kcal/Hr) and 1 Nos. of Steam Boiler (Capacity: 2.0 MT/Hr). Common stack of 30 m height will be provided to 2.0 TPH Boiler, & Thermic Fluid Heater (1 Lac Kcal/Hr). MDC + Bag filter will be installed as APCM for controlling the particulate emissions from use of Coal (within the statutory limit of 150 mg/Nm^3). Stack height of 11 m will be provided to D.G. Set. • Details of process emission	• Considering the inconsistencies in assured NG supply & economic feasibility, we request to amend in EC for change in **fuel** from **Natural Gas** to **Coal** for Steam Boiler (1 no. of 2 MT/hr) & TFH (1 no. of 1 Lac.KCal/hr). • Fly ash to be generated from burning of will be sold to brick manufacturer. • The emission of PM will be maintained within the statutory limit of 150 mg/Nm^3 after the amendment in fuel from Natural gas to Coal with installation of Multicyclone + Bag filter as APCD. • The emission of SO2 will be maintained within the statutory limit of 100 ppm after the amendment in fuel from Natural gas to Coal with installation of Alkali scrubber as APCD.

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons
			& management and solid waste/hazardous waste disposal are as per the plan provided in the EIA/EMP report and as deliberated in the EAC.	

3. **Deliberations by the EAC**:

The EAC deliberated on the emission load, dispersion modelling fuel type, water balance Greenbelt development plan, wastewater generation, Cost of EMP, carbon sequestration, energy conservation measures, etc.

(i). The PP shall submit the emission load/ dispersion modelling of PM_{10}, $PM_{2.5}$, SO_x, NO_x.

(ii). The PP shall submit the undertaking committing that PP shall use Biomass as a primary fuel.

(iii). The PP shall submit revised and detailed water balance.

(iv). The PP shall submit revised and detailed Greenbelt development plan.

(v). PP shall submit the revised the capital cost and recurring cost for EMP

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

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

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

In view of above, the EAC **deferred** the proposal.

Agenda No. 43.21

Expansion of Technical Grade Pesticides & Pesticide Intermediates Manufacturing Plant of production capacity from 14360 TPA to 21451 TPA located at Plot No. B 1/1, MIDC, Lote Parshuram, Tal. Khed, Dist. Ratnagiri, Maharashtra by M/s AIMCO Pesticides Limited -

Consideration of EC

[Proposal No. IA/MH/IND3/406650/2022; File No. IA-J-11011/263/2021-IA-II(I)]

1. The proposal is for environmental clearance to the Expansion of Technical Grade Pesticides & Pesticide Intermediates Manufacturing Plant of production capacity from 14360 TPA to 21451 TPA located at Plot No. B 1/1, MIDC, Lote Parshuram, Tal. Khed, Dist. Ratnagiri, Maharashtra.

2. The project/activity is covered under Category 'A' of item 5(b), Pesticide Industry and pesticide specific intermediates excluding formulations of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by Expert Appraisal Committee (EAC)

3. The PP applied for ToR vide proposal number IA/MH/IND3/215817/2021 dated 23.6.2021 and the ToR has been issued by the Ministry, vide letter No IA-J- J-11011/263/2021-IA-II(I) dated 29.6.2021. The PP submitted that Public Hearing for the proposed project is exempted under 7(i) III of EIA notification 2006 amended to date as the project lies inside the Notified Industrial Area, Maharashtra Industrial Development Corporation (MIDC), Lote Parshuram, Ratnagiri, Maharashtra. The PP applied for Environment Clearance on 17. 11.2022 in CAF and submitted EIA/EMP Report and other documents. The PP reported in Form that it is a **Expansion EC**. Due to some shortcomings, the Project. The proposal is now placed in 43rd EAC Meeting held on 30th November- 1st- 2nd December 2022, wherein the Project Proponent and an accredited Consultant, Perfact Enviro Solutions Pvt. Ltd. [Accreditation number NABET/EIA/1922/SA 0143 valid up to 26.11.2022], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area is 2.2310 Ha and no R& R is involved in the Project. The details of products are as follows:

S. No.	Group	Product Name	CAS No.	Classification	Production capacity (TPA)		
					Existing	Proposed	Total after Expansion
A	**Technical Pesticides**						
1	**Group -1**	1A Chlorpyrifos Technical and its derivatives OR	2921-88-2	Insecticide	1,200	1,800	3,000
2		1B Ethiprole and its Derivatives OR	181587-01-9	Insecticide	0		
3		1C Imidacloprid OR	138261-41-3	Insecticide	0		
4		1D Thiamethoxam OR	153719-23-4	Insecticide	0		
5		1E Acetamiprid OR	135410-20-7	Insecticide	0		

6		1F Bifenthrin OR	82657-04-03	Insecticide	0		
7		1G Ethephon OR	16672-87-0	Plant Growth Regulator	0		
8		1H Thiophanate Methyl OR	23564-05-08	Fungicide	0		
9		1I Neem Oil Extraction from Neem Seeds (Bio Pesticides) OR	84696-25-3	Bio Pesticide	0		
10		1J Profenofos AND	41198-08-07	Insecticide	0		
11	**Group -2**	2A Chlorantraniliprole OR	500008-45-7	Insecticide	0	500	500
12		2B Paclobutrazol AND	76738-62-0	Fungicide	0		
13	**Group -3**	3A Zinc Phosphide OR	1314-84-7	Rodenticide	0	300	300
14		3B Aluminum Phosphide AND	20859-73-8	Rodenticide	0		
15	**Group -4**	4A Picloram Technical AND	1918-02-01	Herbicide	100	0	100
16	**Group -5**	5A Temephos Technical AND	3383-96-8	Insecticide	250	0	250
17	**Group -6**	6A Triclopyr Technical and its derivative OR	064700-56-7	Herbicide	250	2,650	3,000
18		6B Fluroxypyr Technical and its derivative OR	81406-37-3	Herbicide	100		
19		6C Saflufenacil AND	372137-35-4	Herbicide	0		
20	**Group -7**	7A Propisochlor & its Derivative OR	86763-47-5	Herbicide	0	400	400
21		7B Paraquat AND	4685-14-7	Herbicide	0		
		Sub total Technical Pesticide Production			**1,900**	**5,650**	**7,550**
B	**Group -8**	**8 A Hydrochloric Acid (30-32%) AND**	**7647-01-0**	**-**	**0**	**1,441**	**1,441**
C		**Formulation Products**					
1	**Group -9**	9A Liquid Pesticide Formulation Products AND			2,000	0	2,000

2	**Group -10**	10A Solid Pesticides formulation products AND	5,000	0	5,000
		Subtotal Formulation Plant Production	**7,000**	**-**	**7,000**
D	**Group - 11**	**Non EC Production (Inorganic products)**	**5,460**	**-**	**5,460**
Total production capacity (A+B+C+D)(TPA)			**14,360**	**7,091**	**21,451**

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E(P) Act/Air Act/Water Act.

6. The PP reported that this plant was set up in 1992 vide CTE NO. BO/KON-COA/189/R/C-1310, dated: 20/10/1992 and is being operated with CTO renewed / issued (Latest CTO has been granted vide letter No. MPCB-CONSENT-0000130269 dated 27.02.2022 granted by Maharashtra Pollution Control Board). Certified compliance report vide F. No. MPCB/SROCH/662622/21 dated 18.10.2022 is obtained from the Sub Regional Office, Chiplun. There are no non-conformities or non-compliances

7. The PP reported that there are no national parks and Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site.River/ water body Lavel Dam 2.74 Km NNE, Vashishti River 4.40 Km.SSW, Keine Nadi 7.10KM SE, Dubi Nadi 7.65 Km NNE, Jagundi Talav 9.14 Km WWN, Kondivali Dam 10.89Km NNW, Tiware Dam 22.83 Km E. There are five schedule I species *Crocodylus palustri*s (Gharial), *Varanus bengalensis* (Indian Monitor Lizard), *Buceros bicornis*(Great Hornbill), *Indian Peafowl* (Pavo cristatus),*Python molurus* (Indian Rock Python) in the buffer area. Wildlife conservation plan has been submitted to DFO on 20.7.2022.
8. The PP reported that ambient air quality monitoring was carried out at 8 locations during winter season from December 2020 to February 2021 and the baseline data indicates the ranges of concentrations as: PM_{10} (50.78 $\mu g/m^3$ to 96.38 $\mu g/m^3$), $PM_{2.5}$ (19.58 $\mu g/m^3$ to 38.7 $\mu g/m^3$), SO_2 (8.74 $\mu g/m^3$ to 17.28 $\mu g/m^3$) and NO_2 (15.58 $\mu g/m^3$ to 33.39 $\mu g/m^3$). AAQ modelling study for point source emissions indicates that the maximum GLCs after the proposed project would be 0.70 $\mu g/m^3$, 0.03 $\mu g/m^3$,0.704 $\mu g/m^3$, 2.59 $\mu g/m^3$ and 0.015 mg/m^3 with respect to PM_{10}, $PM_{2.5}$, SO_2 and NO_2 and CO. The resultant concentrations are within the National Ambient Air Quality Standards(NAAQS). **Core Zone (Industrial Area): N1 & N2**: The ambient noise level during day time at the proposed project site is 57.7 to 58.5 dB (A) which is within the day time standard limit of Industrial area ~ 75 dB (A). During night the noise level at the project site is 49.5 to 49.6 dB (A) which is within the night time standard limit of Industrial area 70.0 dB (A). Buffer Zone: Residential Area: N3: The ambient noise level at Patwardhan Lote is 48.2 dB (A) which is within the daytime noise standard limit of the Residential area of ~ 55.0 dB (A). During the night the noise level was recorded at 34.5 dB (A) which is within the night-time noise standard limit of ~ 45.0 dB (A). N4: The noise level at Avashi is 51.6 dB (A) which is within the day time noise standard limit of ~ 55 dB (A). During the night the noise level was recorded at 42.4 dB (A) which is within the night-time noise standard limit of ~ 45 dB (A). N5: The ambient noise level at Ghanetkunt village is 44.9 dB (A) which is within the daytime noise standard limit of the Residential area of ~ 55.0 dB (A). During the night the noise level was recorded at 43.2 dB (A) which is within the night-time noise standard limit of ~ 45.0 dB (A). N6: The ambient noise level at Asgani is 48.9 dB (A) which is within the daytime noise standard limit of Residential area ~ 55.0 dB (A). During the night the noise level was recorded at 42.4 dB (A) which is within the

night-time noise standard limit of ~ 45.0 dB (A). N7: The noise level at Lavel is 47.5 dB (A) which is within the daytime noise within the standard limit of Residential area ~ 55 dB (A). During the night the noise level was recorded at 41.9 dB (A) which is within the night-time noise standard limit of ~ 45 dB (A). N8: The noise level at Satvin Gaon is 46.2 dB (A) which is within the daytime noise within the standard limit of Residential area ~ 55.0 dB (A). During the night the noise level was recorded at 42.5 dB (A) which is within the night-time noise standard limit of ~ 45 dB (A). N9: The noise level at Approach road is 59.4 dB (A) which is within the daytime noise within the standard limit of Residential area ~ 55.0 dB (A). During the night the noise level was recorded at 54.3 dB (A) which is within the night-time noise standard limit of ~ 45 dB (A). N10: The noise level NH-17 is 66.4 dB (A) which is slightly higher within the standard limit of Residential area ~ 65.0 dB (A). During the night the noise level was recorded at 58.5 dB (A) which is higher than the night-time noise standard limit of ~ 55 dB (A). **Ground water-** The groundwater quality parameters (buffer zone) are well within the IS 10500:2012 (Drinking water standard). **Surface water-** As per the samples collected and analysed from locations SW1 ,SW2, SW3 & SW4 surface water quality is meeting the criteria defined by class "D" as per the CPCB criteria.It is suitable for propagation of Wildlife and Fisheries. **Soil- Core Zone**: After analyzing the samples collected from the site, it shows that the soil texture is silt loam, Colour is orange, pH is 7.2. Amount of primary nutrients like Organic matter is 0.53 %, the available nitrogen 88.2 mg/kg is low and available Potassium 14.9 mg/kg is low while the available Phosphorus 9.3 mg/kg is in a medium range. Thus it can be concluded that soil is average fertile in the core Zone. **Buffer Zone**: Color orange, pH ranges from 6.77 to 7.23. Amount of primary nutrients like Organic matter 0.73 % to 2.06 %, the Available Nitrogen 72.8 mg/kg to 92.4 mg/kg is lower in range, the Available Phosphorus 12.5 mg/kg to 17.5 mg/kg is medium to high in range, Available Potassium 11.7 mg/kg to 26.6 mg/kg is low in range, Primary nutrient profile shows that soil is average fertile.

9. The PP reported that after expansion, the total water requirement is 442 KLD out of which freshwater requirement shall be 346 KLD and will be met from MIDC supply. After expansion, Domestic water consumption shall be 40 KLD, wastewater generated 32 KLD shall be sent to the proposed in-house STP of 50 KLD. treated domestic wastewater will be reused in gardening. From the manufacturing process, wastewater 174 KLD will be generated out of which, 30 KLD high TDS process wastewater will be sent directly to MEE and 27 KLD MEE Condensate shall be reused in scrubber and boiler. Whereas, 144 KLD Low TDS effluent, 10 KLD from Cooling tower, 6 KLD from Boilers and 8 KLD from scrubbers shall be sent to ETP. 168 KLD of Low TDS effluent and other wastewater will be neutralized followed by treatment using coagulation-flocculation and treated in the biological treatment system followed by tertiary treatment consisting of carbon filter and dual media filter. Out of 165 KLD treated effluent, 101 KLD shall be discharged to the common effluent treatment plant (CETP) for its sustained operation by MIDC (this is within the stipulated norms of current consent to operate), while 64 KLD treated water shall be reused in the cooling tower makeup water requirement.

10. Power requirement after expansion will be 2000 kVA and will be sourced from Maharashtra State Electricity Distribution Co. Ltd. (MSEDCL). Existing unit has DG sets with a total capacity of 320 kVA and the proposed unit has DG sets with a capacity of 500 kVA. Stack (6 m) will be provided as per CPCB norms to the proposed DG sets.

11. Existing unit has 1 No. of 2 TPH and 1 No. of 3 TPH Boiler based on wood, coal as fuel. As part of expansion, 1 No. of 3 TPH is proposed for installation fitted with Multi Cyclone with dust collector followed by single stage water based scrubbing system with a stack of height 30 m.

12. **Details of emissions generation and its management:**

Stack No.	Name of Stack	Pollution Control Measure	Fuel used	Fuel Quantity	Existing/ Proposed
1	Boiler 2 TPH	Multi Cyclone with dust collector followed by single stage water based scrubbing system	Agro-Briquettes / Natural Gas Natural Gas	Primary Fuel- Agro-Briquettes-25.64 TPD / Bio-fuel-20 TPD	Existing
	Boiler 3 TPH			Primary Fuel- Agro-Briquettes-25.64 TPD / Bio-fuel-20 TPD Natural Gas -3.8 $m^{3/}$hr	Existing
	Boiler 3TPH				Proposed
2	DG sets-320 kVA	Adequate Stack Height	HSD	HSD-60 Lit/hr	Existing
	DG sets-500 kVA	Adequate Stack Height	HSD	HSD-90 Lit/hr	Proposed

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

Category	Type of Waste	Total after Expansion (TPA)	Treatment Method
Biodegradable	Organic Waste	53.46	Will be sent for the manure preparation.
Non-Biodegradable	Recyclable Waste (Plastic, paper, wood, glass, etc)	67.32	Will be sold to Authorized Recyclers.
Total		**120.78**	

NON-HAZARDOUS WASTE MANAGEMENT (PROCESS)			
Process Waste	**Unit**	**Total after expansion**	**Treatment/Disposal**
Boiler Ash	TPA	575	Sold to the brick manufacturer.

HAZARDOUS WASTE MANAGEMENT (PROCESS)				
Waste/ Category	**Unit**	**Category**	**Total after expansion**	**Disposal**
Process Residue	TPA	28.1	2155	Common Hazardous Waste Treatment Storage and Disposal Facility (CHWTSDF)

Used Oil (Hazardous Waste)	Kilolitre per Annum	5.1	1.25	CHWTSDF
Chemical sludge from ETP	TPA	35.3	380	CHWTSDF
MEE salts	TPA	35.3	821.6	CHWTSDF
Discarded chemical containers	Nos per annum	33.3	20120	Sale to MPCB authorized party after decontamination

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 2.88 Crore (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 0.76 Crore , Industry proposes to allocate ₹ 20 Lakh towards CER for Education, development of green belt and construction of community toilets in nearby villages

15. The unit has developed greenbelt in an area of 7410.55 m^2 i.e. 33.20 % of the plot area. Additional green belt shall be developed in the MIDC area adjacent to the project site of about 4568.0 m^2 (20.47 % of the plot area); yet to be leased from MIDC.

16. The PP proposed to set up an Environment Management Cell (EMC) for the functioning of EMC.

17. The PP reported that the Carbon footprint (Climate Change Potential) is the single biggest contributor to the Total Impact associated with the project, and hence it needs to be reduced to reach the optimised scenario. During the peak operations, the total CO2 emissions will be 12611 MT/annum which is equivalent to 1.67 tonne CO2 eq / tonne Production. Through development of a green belt having a total area of 7410 m2 having 3803 saplings planted, there will be natural sequestration of CO2 emissions. The Company will sequester 5675 MT/annum eq. CO2 (43%) through green belt development within plant premises within every operational year. Therefore, at peak production the Residual Gate to Gate CO2 emissions from the proposed plant will be 6912 Tonne eq. CO2 / annum which is about 0.92 tonne CO2 eq. /tonne production**.**

18. The PP submitted the Disaster and Onsite and Offsite Emergency Plans in the EIA report.

19. The estimated project cost is INR **24.66 Crores** including existing investment of INR **17.66 Crores.** Total Employment after expansion will be 510 people while the current phase, the employment is 210.

20. **Deliberations by the EAC:**

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

The EAC noted that the Project Proponent has given an undertaking that the data and information given in the application and enclosures are true to the best of his knowledge and belief and no information has been suppressed in the EIA/EMP reports. If any part of data/information

submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

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

The EAC inter-alia, deliberated on the fuels, water balance, Greenbelt development plan, fate of chemicals in the environment or its residual effects of use of manufactured pesticides and advised the PP to submit the following:

- To submit undertaking that no coal is used as a fuel.
- Revised water balance with details of STP.
- Revise the Greenbelt development plan along the periphery to indicate the number of rows tree plantation will be there in each pocket of proposed greenbelt area.
- To furnish information on the fate of chemicals in the environment or its residual effects of use of the manufactured pesticides on the environment especially highlighting impact on flora.

The PP submitted the above information/documents and the EAC found it to be satisfactory.

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

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

The EAC is of the view that recommendation of EAC and grant of environmental clearance by regulatory authority 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.

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

(i) The PP shall develop Greenbelt over an area at least 7410.55 m^2 by planting 1800 trees in within a year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be ₹ 20 Lakhs (every year) and shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(ii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. In addition to this one safety & health officer as per the qualification given in Factories Act 1948 shall be engaged within a month of grant of EC. PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget propose under EMP is ₹ 2.88 Crore (Capital cost) and ₹ 0.76 crore per annum (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iv) As committed by the PP, PP shall use not coal, and bio fuel shall be used after proposed expansion.

(v) The total water requirement is 442 KLD out of which freshwater requirement shall be 346 KLD and will be met from MIDC supply. The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.

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

(vii) 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.

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

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

(x) 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.

(xi) 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.

(xii) As committed by the PP, 101 KLD shall be discharged to the common effluent treatment plant (CETP)

(xiii) 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 servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(xiv) 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.

(xv) 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.

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

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

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

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

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

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

Agenda No. 43.22

Expansion for Proposed Synthetic Organic Chemicals (Resin) Manufacturing unit (Phenol Formaldehyde Resin, Urea Formaldehyde Resin, Cardanol phenol formaldehyde Resin, Alkyd Resin and Melamine Formaldehyde Resin-Total 2100 MT/month) at Survey No.485/1, Chhatral-pansar road, Village: Ambavpura, Taluka: Kadi, District: Mehsana, Gujarat by M/s. Apollo Industries – Consideration of EC

[Proposal No. IA/MH/IND3/402056/2022; File No. IA-J-11011/483/2021-IA-II(I)]

1. The proposal is for the environmental clearance for the Expansion for Proposed Synthetic Organic Chemicals (Resin) Manufacturing unit (Phenol Formaldehyde Resin, Urea Formaldehyde Resin, Cardanol phenol formaldehyde Resin, Alkyd Resin and Melamine Formaldehyde Resin-Total 2100 MT/month) at Survey No.485/1, Chhatral-pansar road, Village: Ambavpura, Taluka: Kadi, District: Mehsana, Gujarat by M/s. Apollo Industries.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) 43.8outside the notified industrial area. Therefore, the project requires appraisal at Central Level.

3. The PP applied for the ToR vide proposal number IA/GJ/IND3/239957/2021 dated 1.12.2021 and the standard ToR was issued by the Ministry, vide letter No. IA-J-11011/483/2021-IA-II(I) dated 4.12.2021. The PP submitted that Public Hearing is conducted on 5.8.2022 which was presided by the Additional District Magistrate, Representative of District Collector and District magistrate, Mehsana. The PP applied for Environment Clearance on 29.10.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP in the Form-2 reported that it is a **Fresh EC case.** Due to some shortcomings, the Project was referred back to PP on 5.11.2022, 24.112022 and reply to the same was submitted on 11.11.2022, 25.11.2022. The proposal is now placed in 43rd EAC Meeting held on 30th November, 1st & 2nd December 2022, wherein the Project Proponent and an accredited Consultant, T. R. Associates [Accreditation number NABET/EIA/1922/SA 0153 (Rev. 01) valid up to 8.4.2023], made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the total land area is 8241 m^2, no additional land will be used for the proposed expansion and no R& R is involved in the project. The details of products and by–products are as follows:

Sr. No.	Name of Product	Production Capacity	CAS No.
Group 1			
1	Melamine Formaldehyde Resin	1800 MT/Month	9003-08-1
2	Urea Formaldehyde Resin		9011-05-6
3	Phenol Formaldehyde Resin		9003-35-4
4	Cardanol Phenol Formaldehyde Resin		--
5	Alkyd Resin	300 MT/Month	63148-69-6
TOTAL		**2100MT/Month**	

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no direction is issued under E (P) Act/Air Act/Water Act.

6. The PP reported that Currently Unit is in the process of installation of laminate sheet's Plant & machineries, once installation is completed then unit will apply for CTO (Consent to Operate) for Laminated sheet production and for that Resin is the intermediate product which will be purchased from the open market. The industry had obtained CTE for laminated sheet production (3,33,000 Nos./Month or 1500 MT/Month) from Gujarat pollution control board with specific condition that unit will not manufacture Resin without Prior Environmental Clearance

7. The PP reported that there are no national parks, Biosphere Reserves, Tiger /Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Thol Bird Sanctuary is 19.70 km in SSW direction. Pansar Village Lake is 1.68 km in NE direction The PP reported that no forest area is involved in the proposed project and two Schedule-I species i.e. Indian Peafowl and Shikra exist within 10 km study area of the project, for which conservation plan is submitted to PCCF and chief wildlife warden on 9.5.2022.

8. **Ambient Air:** The PP reported that Ambient air quality monitoring was carried out at **8 locations** during **December 2021 to February 2022**. Baseline data indicates the ranges of PM_{10} (**58.02 µg/m^3 to 84.84 µg/m^3**), $PM_{2.5}$ (**27.26 µg/m^3 to 52.24 µg/m^3**), SO_2 (**4.21 µg/m^3 to 20.61 µg/m^3**) and NO_2 (**18.04 µg/m^3 to 43.19 µg/m^3**). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be **0.3** µg/m^3, **1** µg/m^3 and **0.002** µg/m^3 with respect to PM_{10}, SO_2 and NO_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **Noise Monitoring**: The maximum noise level measured in the study area was 69.8 dB (A) in day time and 60.2 dB (A) in night time near Project Site, which were below the stipulated standards. The noise levels (Leq) of the residential area within the impact zone varied from 49.5 – 51.1dB (A) in the day time and 39.7 – 41 dB (A) in the night time. **Ground Water Monitoring:** During groundwater baseline monitoring concentration of TDS, Chloride, total hardness is found higher than permissible limit, pH is found between within acceptable limit at all locations except Project Site of M/s. Apollo Industries (9.0), Dhanot (8.8), Ghumasan (9.2), pansar (9.3) and Vadaswami (8.7) this is mainly due to formation of cretaceous

sedimentary rock formation which is mainly composed of CaCO3 so pH is found higher due to alkaline content in water. Chloride is found higher than the acceptable limit but below the permissible limit. Total hardness is found higher than the permissible limit at Ambavpura (1275 mg/L) and pansar (1067 mg/L). Calcium and magnesium are found well within permissible limits at all the locations. Sulphate is found well within the permissible limit at all locations. TDS is found higher than acceptable limit at all the locations. TDS at Ambavpura and Pansar were found more than permissible limit because of total hardness in water is higher than the permissible limits. Faecal and total coliform was not observed. Ground water is suitable for domestic and agricultural purpose after adequate treatment such as primary treatment. Surface water Monitoring: During baseline visit, pH is found higher than the permissible limit at all the locations because of the domestic activities such as washing of cloths, utensils etc and also due to algae growth. Chloride is found within the permissible limit at all the locations. Magnesium is found well within permissible limit at all locations. Sulphate is also found within the permissible limit at all the locations. TDS is also found within the permissible limit at all the locations. TDS was found beyond permissible limits at ghumasan pond (2204 mg/L), Ambavpura pond (3224 mg/L) and is and pond (2172 mg/L). Fecal Coliform was not observed at any locations. Soil Monitoring: The results of soil analysis reveals that soil of project are is neutral in reaction, have normal EC. Thus, soil of project area is normal. All the soil samples have high organic carbon content except soil of indrad it has low organic carbon content. Possible explanation for high organic carbon content would be that the farmers would have buried crop residues after harvest of the crops and used organic manure. CEC values of soil of project site, Chhatral GIDC and Jhulasan are medium whereas CEC vale of soils of indrad, bileshwarpura and pansar are high. A possible explanation for high CEC value would be that high organic matter, fertilization and irrigation would have contributed to CEC. Soils of project area are either sandy loam to sandy clay loam, water holding capacity is found to be moderate to good. Ca content and salts found to be below critical level (<25 % of CEC) except the soil of project site, it has more than critical level (>25% of CEC). Mg content in soil is more than critical level i.e. > 4 % of CEC. The SAR values found low which reveals that soils are not salt affected. Nutrient availability of soil samples reveals that soils are medium in nitrate, low in P2O5 and high in K2O. Bulk density values ranged from 1.12 to 2.15 (g/cm3). Based on results soils are less compact and thereby easily cultivable. To sum up soil of project are normal, sandy loam to sandy clay loam with medium soil fertility as well as good water holding capacity.

9. The PP reported that total water requirement for Project will be **63 KLD (Fresh – 45.51 KLD + reuse – 17.49 KLD)** which will be met from **Bore Well.** Effluent of 17.67 m^3/day quantity will be treated through Effluent Treatment Plant. the plant will be based on Zero Liquid Discharge System

10. Power requirement after expansion will be **300 KVA** and has met from **UGVCL.** 300 KVA D. G. Set [Fuel: HSD (75 Lit./hr.)] has been provided and used only in case of power failure. Stack (14 meter) will be provided as per CPCB norms to the DG set.

11. Industry will provide one steam boiler of 6 TPH [Fuel: Briquettes (8.24 Ton/day) / Indonesian coal (5.99 Ton/day) for Proposed resin plant]. (Indonesian coal will only be used in case of unavailability of briquettes). Unit will increase working hours of steam boiler (6 TPH) for proposed resin manufacturing (working for 8 hours). Multi Cyclone Dust collector followed by bag filter followed by alkaline scrubber with stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit.

12. **Details of Process Emissions Generation and their Management:** Not Applicable for Resin plant

13. **Details of Solid Waste Generation and its Management**:

S. No.	Description	Category	Quantity for Laminate sheet plant (MT/Annum)	Quantity for Resin plant (MT/Annum)	Quantity for Resin plant and Laminate Plant (MT/Annum)	Mode of Disposal
1	ETP Sludge	35.3	24.78	28.23	53.01	Collection, storage and disposal at approved TSDF site
2	Evaporation Residue	35.3	24.78	28.23	53.01	Collection, storage and disposal at approved TSDF site
3	Used Oil	5.1	0.1	--	0.1	Collection, storage and used within premises as a lubricant
4	Discarded Plastic Bags /Barrels	33.1	--	19.13	19.13	Collection, storage & Return Back to supplier or sold to authorized vendor.
5	Spent Carbon*	35.1	1.2	--	1.2	Collection, storage and disposal at approved CHWIF site
6	Resin Residue	23.1	--	126	126	Collection, storage and reuse in next Batch or disposal at CHWIF
7	Edge Cutting waste*	23.1	679.32	--	679.32	Collection, storage and disposal at approved CHWIF site

14. The budget earmarked towards Environmental Management Plan (EMP) is ₹ 90.19 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 123.93 Lakh per annum. The PP proposes to allocate ₹ 2.30 Lakhs towards Corporate Environment Responsibility (CER).

15. The PP reported that the advertisement for Public Hearing was published in two newspapers i.e. ‘***’Business standard and Divya Bhaskar*** on 2.7.2022 and the Public Hearing for the project was conducted by the Gujarat Pollution Control Board on 5.8.2022, 2022 which was presided by the Additional District Magistrate, Representative of District Collector and District magistrate, Mehsana. The main issues raised during the public hearing are related to air pollution, employment generation due to the project

16. The PP reported that Industry will develop greenbelt in an area of **33.32 %** i.e., **2746 m^2** out of total area (8241 m^2) of the project.

17. The PP proposed to set up an Environment Management Cell (EMC) by engaging Director-Environment Engineer- Chemist- Safety and health officer for the functioning of EMC.

18. The PP reported that Net CO_2 emitted = 1360 MT/year, Production per year = 43200 MT/year, Net CO_2 emitted per a ton of product = 0.0315 ton or 31.5 kg. Total CO_2 to be sequestrate by plantation and reduce from Renewable source of energy approx. 743 MT CO_2 per year

19. The PP submitted the disaster and Onsite and Offsite Emergency Plans in the EIA report.

20. The estimated project cost is **Rs. 737.4 lakhs (Laminate unit – 620 lakhs + Resin unit – 117.4 lakhs)**. Total Employment will be 45 persons (For Laminate unit – 40 + for resin unit – 5) as direct.

21. **Deliberations by the EAC**:

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

The EAC noted that the PP 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 PP.

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

The EAC deliberated on the greenbelt development plan, EMP breakup, water balance, fuel, carbon sequestration and EAC found it to be satisfactory.

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

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

The EAC is of the view that its recommendation and grant of environmental clearance by the regulatory authority 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 PP 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.

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

(i) The PP shall develop Greenbelt over an area of at least, 2746 m^2 by planting 823 number of trees within a period of one year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2m). The budget earmarked for the plantation shall be ₹ 4,75, 000 and shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of the expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(ii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions by engaging Director- Environment Engineer- Chemist-. In addition to this, one safety & health officer as per the qualification given in Factories Act, 1948 shall be engaged within a month of grant of EC. The PP should annually submit the audited statement of amount spent towards the engagement of qualified persons in EMC along with details of person engaged to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(iii) The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented. The budget proposed under EMP [₹ 90.19 Lakh (Capital cost) and ₹ 123.93(Recurring cost)] shall be kept in a separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during the previous year.

(iv) Industry shall use Indonesian coal only in case of emergency and unavailability of Agro waste.

(v) Total water requirement for Project will be 63 KLD (Fresh – 45.51 KLD + reuse – 17.49 KLD) which will be met from Bore Well**.** The PP should ensure that water supply should not be above the permissible limit as mentioned in the letter and fresh water shall be withdrawal only after obtaining prior permission from Concerned Authority. The PP should submit the details of utilization to the Integrated Regional Office (IRO), MoEF&CC before 1st July of every year for the activities carried out during the previous year.

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

(vii) The PP 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.

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

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

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

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

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

(xiii) As committed by the PP, Zero Liquid Discharge shall be ensured. Effluent of 17.67 KLD quantity shall be treated through Effluent Treatment Plant.

(xiv) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

(xv) 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.

(xvi) 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.

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

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

(xix) 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.

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

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

(xxii) The activities and the action plan proposed by the project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be

completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

Agenda No. 43.23

Clarification on applicability of Environmental Clearance for the expansion of Bentonite Sulfur / Bentonite Sulfur with micronutrients, Sulfo Zinc and Sulfo Boron and installation of coal fired furnace for customized fertilizer plant.

1. APPCB vide e-mail dated 18.11.2022 sought clarification on applicability of Environmental Clearance for expansion of Bentonite Sulfur/Bentonite Sulfur with micronutrients, Sulfo Zinc and Sulfo Boron and installation of 3 nos. coal fired furnace for customized fertilizer plant of M/s Coromandel International Ltd. and inter-alia, apprised the following.

2. Coromandel International Ltd. submitted an application to the Board seeking Consent for Establishment (CFE) for Expansion with an additional investment of Rs. 275.5 Crores.

3. Now, the industry has applied for CFE (Expansion) of the Board for Capacity Enhancement of Sulfuric acid, Phosphoric acid, Specialty Nutrient Products, Restructuring of Fertilizer Technology Centre, New coal fired Gypsum drying units and gypsum-based building products, New Coal fired furnace for customized fertilizer plant and as per CFE (Expansion) application with the following changes:
    a. Enhancement of new sulfuric acid capacity SAP3 (1500 to 2000 MTPD).
    b. Enhancement of Phosphoric acid plant production capacity (1400 to 1600 MTPD P_2O_5)
    c. Capacity enhancement Bentonite Sulfur / Bentonite Sulfur with micronutrients (90 to 200 MTPD)
    d. Capacity enhancement of Sulfo Zinc and Sulfo Boron (10 to 50 MTPD)
    e. Fertilizer Technology center (Restructuring of plant operations)
    f. Coal fired furnace for customized fertilizer plant
    g. Gypsum drying unit and gypsum-based building products (Plaster Board).

4. As per the O.M. issued by MoEF&CC dated.08.06.2022, in case the Phosphoric acid plant and/Sulphuric acid plant which are set up within the existing premises of the project /activity for which prior EC has already been obtained, it shall be ensured that inclusion/expansion/modernization of the said plant shall not result in increase in the production level of the project beyond the sanctioned capacity stated in the prior EC. MoEF&CC vide letter dated.26.05.2015, addresses to M/s. National fertilizer Ltd., wherein stated that for setting up of Bentonite sulfur plant in the existing NFL unit does not attract the provisions of EIA Notification, 2006 as the manufacturing process of Bentonite sulfur not involve any chemical reaction of synthesis manufacturing process involved only blending of the materials.

5. The MoEF&CC vide letter dt. 21.04.2022 addressed to their sister concern M/s. Coromandel International, Beach Road, Kakinada, Andhra Pradesh clarified that establishment of new Phosphoric Acid Plant (PAP) in the existing plant at Kakinada, East Godavari district may not be considered to be covered under extant provision of the EIA Notification, 2006 with subsequent amendments, and thus not requiring prior EC.

6. For expansion of Bentonite Sulfur/Bentonite Sulfur with micronutrients, Sulfo Zinc and Sulfo Boron and installation of coal fired furnaces for customized fertilizer plant the APPCB is of the opinion that the industry requires to obtain clarification from MoEF&CC regarding applicability of Environmental Clearance.

7. The issue was placed before the CFE committee meeting held on 26.10.2022 and 09.11.2022. After detailed discussions, the Committee recommended to issue CFE (Expansion) to the industry with the required condition pertaining to obtaining EC.

8. The EAC deliberated on the above and observed that the final product has no organic content and can be classified as an inorganic composite. Hence, they don't require EC under the provisions of the EIA Notification, 2006 (as amended).

Agenda No. 43.24

Clarification regarding HCl as product of Monochlroacetic manufacturing by Anaven LLP

1. The PP submitted that Anaven LLP, a joint venture company of Atul and Nouryon, is the largest manufacturer of Monochloroacetic acid (MCA) in India. It manufactures MCA using Nouryon's state-of-the-art proprietary technology involving the reaction of acetic acid with chlorine. The plant is located at the Atul complex in Gujarat and was built by embedding circular economy principles into its design. It produces two products, MCA and Hydrogen chloride (HCl). Both are purified to meet the desired quality specifications. The HCl produced is of a quality suitable to manufacture value-added products like Chlorosulfonic acid and n-Butyl chloride. Environmental clearance from MoEF&CC is available for both products.

2. The GPCB, however, in its consent, categorized HCl as a hazardous waste product compelling to dispose it under Form-9. Therefore, it cannot be used to manufacture the value-added products mentioned above. The PP requested that GPCB may be clarified to not categorize HCl as hazardous waste.

3. The subject matter was earlier considered in the 37th meeting held on 30th August, 2022, wherein the EAC deliberated on the subject matter and suggested the PP to submit the complete details of the manufacturing process. The PP submitted the same.

4. The EAC deliberated on the above and recommended that the HCl produced is of commercial/saleable industrial quality, which can be used in any further processes, and hence, it is not a HW.

ANNEXURE-I

GENERAL EC CONDITIONS

- 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.
- The PP 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.
- The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.
- 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).
- 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.
- 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.
- A copy of the clearance letter shall be sent by the PP to concerned Panchayat, ZillaParishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.
- The PP 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.
- 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.
- The PP 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.

- 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.
- 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.

***

ANNEXURE-II

STANDARD TERMS OF REFERENCE

A. GENERIC TERMS OF REFERENCE

1) Executive Summary

2) Introduction

i. Details of the EIA Consultant including NABET accreditation
ii. Information about the PP
iii. Importance and benefits of the project

3) Project Description

i. Cost of project and time of completion.
ii. Products with capacities for the proposed project.
iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
iv. Details of existing products and production, if any, along with present product/production details in tabular format, to verify the compliance of the EIA Notifications.
v. Details of existing products and production, if any, along with present product/production details in tabular format, to verify the compliance of the EIA Notifications.
vi. List of raw materials required and their source along with mode of transportation.
vii. Other chemicals and materials required with quantities and storage capacities
viii. Details of Emission, effluents, hazardous waste generation and their management.
ix. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
x. Details of boiler/gensets (including stacks/exhausts) and fuels to be use
xi. Details of boiler/gensets (including stacks/exhausts) and fuels to be used
xii. Process description along with major equipment's and machineries, process flow sheet (quantitative) from raw materials to products to be provided
xiii. Hazard identification and details of proposed safety systems.
xiv. Expansion/modernization proposals:

a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, copy of the latest CTO and status of compliance of Consent to Operate for the ongoing/existing operation of the project from SPCB shall be attached with the EIA-EMP report.

b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4) Site Details

i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
ii. A topo-sheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
iii. Details w.r.t. option analysis for selection of site
iv. Co-ordinates (lat-long) of all four corners of the site.
v. Google map-Earth download of the project site.
vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
viii. Land-use break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
x. Geological features and Geo-hydrological status of the study area shall be included.
xi. Details of Drainage of the project up to 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land. Documents related to conversion of land for Industrial purpose.
xiii. R&R details in respect of land in line with state Government policy

5) <u>Forest, wildlife and CRZ related issues (if applicable):</u>

i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
ii. Land-use map based on High resolution satellite imagery of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha)*
iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the PP shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon
v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife
vii. Recommendations and NOC from the concerned State/UT Coastal Zone Management Authority on CRZ angle

6) Environmental Status

i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
   - AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Study should indicate minimum, maximum value of different parameters for the period (3 months) collected. Collected data should be supported by the reference data of either CPCB or SPCB. AAQ data & GLC of pollutants from stack emissions should suggest technology/ measures-Best Practiced Technology (BPT) indicating best achieved results.

ii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

iii. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.

iv. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.

v. Ground water monitoring at minimum at 8 locations shall be included.

vi. Noise levels monitoring at 8 locations within the study area.

vii. Soil Characteristic as per CPCB guidelines.

viii. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.

ix. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.

x. Socio-economic status of the study area.

7) Environment Impact and Environment Management Plan

i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.

ii. Water Quality Modelling – in case of discharge in water body

iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.

iv. A note on treatment of wastewater from different plant operations, extent recycled and

reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules 1986.

v. Details of stack emission and action plan for control of emissions to meet standards.
vi. Measures for fugitive emission control
vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
xii. Action plan for post-project environmental monitoring shall be submitted.
xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8) Occupational health

i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers
ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre-placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

9) Corporate Environment Policy

i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
ii. Does the Environment Policy prescribe for standard operating process / procedures to bring

into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.

iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.

iv. Does the company have system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

v. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

10) Corporate Environmental Responsibility (CER)

i. Adequate funds, as per the Ministry's OM/Guidelines, shall be earmarked towards the Corporate Environmental Responsibility based on Public Hearing issues/socio-economic issues and item-wise details along with time bound action plan shall be included (CER activities shall be related to environment). Socio-economic development activities need to be elaborated upon. For the projects where public hearing is not conducted, CER plan shall be provided based on socio-economic study of the area.

11) Additional studies/Measures to be considered

(i). Provide latest and ecofriendly technology for product manufacturing.
(ii). Emphasize on Green chemistry/Clean Manufacturing
(iii). Provide CAS No. of products along with product list.
(iv). Provide details of amount of carbon sequestered in their unit through greenbelt/other modes, in case of expansion project.
(v). Life structure and sustainability for carbon and water foot print.
(vi). Detailed pollution Load estimation.
(vii). Transportation of Hazardous substance, effluents etc shall be carriedout through authorized and GPS enable vehicles/Trucks only.
(viii). Category of Hazardous Wastes shall be mentioned in the EIA/EMP report and in presentation.
(ix). Details of greenhouse gases and emissions shall be provided.
(x). Greenbelt shall be developed in the first year of the project and wind breaks shall be erected.
(xi). Study area map shall be overlapped with all the associated features.
(xii). Emphasize on green fuels.
(xiii). The project from NCR shall not use Coal as fuel. Further, PP shall avoid use of Coal in the CPAs and elsewhere also if alternatives are available.
(xiv). Provide the Cost-Benefit analysis with respect to the environment due to the project.

12) 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.

13) A tabular chart with index for point wise compliance of above TORs and its details needs to be submitted in the EIA/EMP Report.

B. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR 5(f) CATEGORY SYNTHETIC ORGANIC CHEMICALS INDUSTRY (DYES & DYE INTERMEDIATES; BULK DRUGS AND INTERMEDIATES EXCLUDING DRUG FORMULATIONS; SYNTHETIC RUBBERS; BASIC ORGANIC CHEMICALS, OTHER SYNTHETIC ORGANIC CHEMICALS AND CHEMICAL INTERMEDIATES)

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like NH_3*,chlorine*,HCl*,HBr*,H_2S*,HF*,*etc*.,(*-as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9. Action plan for utilization of MEE/dryers salts.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

***

Annexure-III

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

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

	E-mail: dinabandhu.cpcb@nic.in	
9.	**Dr. M. Ramesh** Scientist 'E' Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Room No. V-203, Vayu Wing, Jor Bagh Road, New Delhi-110003 Tel. 011-20819338 E-mail: ramesh.motipalli@nic.in	Member Secretary

MOM approved by

(Prof. Aniruddha B. Pandit)
Chairman

***