

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

Dated: 30.10.2022

**MINUTES OF THE 40th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING
HELD ON OCTOBER 18-19, 2022**

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

Time: 10:00 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 appraised the Committee about the details of Agenda items to be discussed during this meeting.

(iii) Confirmation of Minutes of the 34th & 39th Meetings of the EAC (Industry-3 Sector) held during July 12-13, 2022 and September 29- 30, 2022 respectively through VC.

The EAC noted that the final minutes of above meetings were issued after incorporating the comments offered by the members and approved by the Chairman. Subsequently, the PPs requested for a correction in the MoM. The EAC confirmed the MoM with the following modifications:

Agenda No. 34.7

Proposed Expansion of Formaldehyde Manufacturing Unit from 80 TPD to 250 TPD in Existing Facility located at Sampla-Beri Road, Ismaila, 11-B, District Rohtak, Haryana by M/s Banke Bihari Overseas Pvt. Ltd. - Consideration of Environmental Clearance [Under violation category]

[Proposal No. IA/HR/IND3/268419/2021; File No. IA-J-11011/100/2021IA.II(I)]

1. The proposal was recommended by the EAC in its 34th EAC meeting held on July 12-13, 2022. The PP vide email dated 17.10.2022 requested for a correction in the MoM (as per their revised submission before the issue of MoM) w.r.t the cost of damage assessment, which is also equivalent to the budget for Remediation Plan and Natural & Community Resource Augmentation Plan. As per the advice of EAC, the penalty amount and cost of damage assessment were revised. The revised penalty amount was reflected in the said MoM, but the revised cost of damage assessment/budget for Remediation Plan and Natural & Community Resource Augmentation Plan/Bank Guarantee (BG) amount, which is Rs. 19,87,031 was not reflected.
2. The EAC noted that the said correction is factual in nature and recommended the same. Regarding the submission of BG, as per Para 11, Step:3 (Viii) of the SOP dated 07.07.2021, the BG needs to be submitted to CPCB for the proposals appraised by the EAC.

Agenda No. 39.15

Expansion of Pentaerythritol from 730 MTM to 1500 MTM, Sodium Formate from 480 MTM to 1050 MTM and Formaldehyde from 675 MTM to 1800 MTM and Captive Power Plant from 1.5 MW to 3.5 MW in Manufacturing Units located at Penta Division at Plot No. B5–B10, SIPCOT Industrial Complex, Kudikadu Village, Cuddalore Taluk, Cuddalore District, Tamil Nadu by M/s Asian Paints Limited

[Proposal No. IA/TN/IND3/288480/2017; File No. IA-J-11011/283/2021-IA II(I)]

1. The proposal was recommended by the EAC in its 39th meeting held on September 29-30, 2022. Subsequently, the PP vide email dated 19.10.2022 submitted that they have inadvertently provided a wrong table of production quantities in the brief summary (although the correct figures were given in the EIA/EMP etc.) and the same was reflected in the MoM.
2. The actual details of products and their production capacities are as follows:

S. No.	Product Details (complete name)	CAS NO.	Existing Quantity (Metric Tonnes per month)	Proposed Quantity (Metric Tonnes per month)	Total Quantity (Metric Tonnes per month)
1	Pentaerythritol (Powder & Solution)	115-77-5	730	770	1500
2	Sodium Formate (Powder & solution)	141-53-7	480	570	1050
3	Formaldehyde (100% concentration)	50-00-0	675	1125	1800

3. The EAC noted that the said correction is factual in nature and recommended the same.

Agenda No. 40.1

Proposed expansion of API manufacturing unit by increase in production capacity from 123 TPM to 193 TPM located at Plot No. N-92, MIDC Tarapur, Tehsil & District: Palghar, Maharashtra by M/s. Bajaj Healthcare Ltd. - Reconsideration of Environmental Clearance

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

1. The proposal is for environmental clearance to the project for the proposed expansion of API manufacturing unit by increase in production capacity from 123 TPM to 193 TPM located at Plot No. N-92, MIDC Tarapur, Tehsil & District: Palghar, Maharashtra by M/s. Bajaj Healthcare Ltd.
2. The project/activity is covered under Category 'B' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006. 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 Environment Clearance vide proposal number IA/MH/IND3/248619/2021 on 31.12.2021 in Form-2 and submitted PFR /EMP Report and other documents. The PP in the Form-1

reported that it is an **Expansion EC**. The PP submitted that the project is exempted from Public Hearing. Due to some shortcomings, the Project was referred back to the PP on 3.1.2022 and reply to the same was submitted on 24.3.2022. The proposal was placed in 29th EAC meeting, wherein the EAC deferred the proposal for the want of requisite information, and the proposal is now placed in the 40th EAC Meeting held on 18-19 October, 2022, wherein the Project Proponent and an accredited Consultant, M/s. Sadekar Enviro Engineers Pvt. Ltd. with Accreditation Number NABET/EIA/2124/SA 0146 valid till 18.4.2023 made a detailed presentation on the salient features of the project and informed the following:

4. The PP reported that the proposed land area is 1800 m² and no R& R is involved in the Project. The details of products and by-products are as follows:

Sr. No.	Name of Product & Therapeutic Uses	CAS Nos.	Existing Quantity	Proposed Quantity	Total quantity	UOM
A.	<u>Anti-inflammatory</u>					
1	Nimesulide	51803-78-2	52	-2	50	MT/M
B.	<u>Anti-diabetics</u>					
2	Vildagliptin,	274901-16-5	0	97	97	MT/M
3	Alogliptin,	850649-62-6	0			MT/M
4	Tenagliptin,	1572583-29-9	0			MT/M
5	Sitagliptin,	486460-32-6	0			MT/M
6	Linagliptin) and similar API	668270-12-0	0			MT/M
C.	<u>ARBs (Hypertension)</u>					
7	Losartan,	114798-26-4	0	25	25	MT/M
8	Temisartan,	144701-48-4	0			MT/M
9	Valsartan and similar API	137862-53-4	0			MT/M
D.	<u>Anthelmintic</u>					
10	Satranidazole and similar API	56302-13-7	0	5	5	MT/M
E.	<u>Antipsychotics</u>					
11	Quetiapine Fumarate and similar API	111974-72-2	0	15	15	MT/M
12	Meta Bromo Anisole	--	51	-51	0	MT/M
13	Meta Chloro Anisole	--	20	-20	0	MT/M
F.	R&D Products (API)	--	--	1	1	MT/M
Total			123	70	193	MT/M

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and court notice direction (Case no. 02/22) is issued under E(P) Act/Air Act/Water Act.
6. The PP reported that the MIDC Plot Transfer Order No. MIDC/ROT/TRP/N-92/3323/2020 was received on 18/11/2020 from M/s. Nutraplus India Limited to M/s. Bajaj Healthcare Ltd. The plot was bought by M/s. Bajaj Healthcare Ltd. through Public Auction Sale by Saraswat Co-Op. Bank Ltd. The sale deed was registered with the Sub-Registrar, Palghar under Sr. No. PLR 2-3245-2020 dated 19/10/2020. At the time of purchase of the plot from Saraswat Co-Op. Bank Ltd. it had a valid MPCB Consent Order No. Format 1.0/BO/AS(T)/TN-6209-16/R/GEN-02094 dated 12/02/2016 valid upto 31/12/2020 in the name of M/s. Nutraplus India Ltd. M/s. Bajaj Healthcare Ltd. has now transferred the same MP Consent No:- Format 1.0/AS(T)/UAN No. 0000105727/CO-2110000945 dated 20/10/2021 valid upto 31/12/2025.

7. The PP reported that the certified compliance report to the conditions of CTO has been obtained by the Maharashtra Pollution Control Board vide No. MPCB/ROT/1174 dated 04/03/2022.
8. The PP reported that there are no National Parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. **Lower Banganga River** is flowing at a distance of **1.94 km** in **southeast** direction. Only one Schedule-I Species (Peafowl) was evidenced in the 10km study area from the project site. Accordingly, a species conservation plan is prepared wherein allocation of Rs. 6 Lakh has been done. The conservation plan has been submitted to the Office of Chief Wildlife Warden, Maharashtra and also to the DCF, Dahanu.
9. The PP reported that the total water requirement is 237.2 KLD of which fresh water requirement of 187.2 KLD will be met from Tarapur MIDC. The effluent stream will be segregated as HCOD/HTDS and LCOD/LTDS effluent. Out of the 70 CMD HCOD/HTDS effluent, around 50 CMD effluent will be treated in In-house Stripper followed by MEE and ATFD having treatment capacity of 60 CMD and the remaining 20 CMD HCOD/HTDS effluent will be sent to combined effluent treatment facility of M/s. Bajaj Healthcare Ltd. located at Plot No. L-11 having treatment capacity of 300 CMD. The R.O permeate from Plot L-11 (15.55 CMD) will be sent back to Plot No. N-92. Around 21.2 CMD LCOD/TDS effluent will be treatment within In-house ETP. The LCOD/TDS effluent along with MEE condensate and sewage from the same plot will be treated in a full-fledged ETP with Primary, Secondary and Tertiary treatment. Exiting ETP will be upgraded to the tune of 120 CMD. The treated effluent from ETP will be passed through RO system. RO permeate (58.16 CMD) will be used for cooling tower make-up and the RO reject will be sent to In-house ETP for further treatment. The total effluent sent to Plot No. L-11 is 20 CMD of HCOD/TDS effluent. The treated effluent from Plot No. L-11 will be sent back to the said premises and will be reused in cooling tower make-up.
10. The PP reported the total power demand after expansion will be around 500 KVA. Additional electrical power will be supplied by MSEDCL. D.G Set of Capacity 400 KVA x 1 No. will be installed and it will be operational during power failure only. Fuel requirement for the DG operation will be made available through Local HSD supplier.

11. Details of Process Emissions Generation and their Management:

S. No.	Name of the Gas	Quantity in Kg/Day	Treatment Method
1	Ammonia	28	Scrubbed with dilute sulphuric acid solution
2	Bromine	18.3	Scrubbed in caustic scrubber
3	POCl ₃	10	Scrubbed in caustic scrubber
4	HCl	67	Scrubbed in caustic scrubber
5	Acetic acid	4.666	Scrubbed in caustic scrubber

12. Details of Solid Waste Generation and its Management:

Hazardous waste details							
S. No.	Description	Cat. of waste	UOM	Existing	Proposed	Total	Method of Disposal
1	Used / Spent Oil	5.1	MT/M	0	0.3	0.3	Sale to Authorized Reprocessing or co-processing /

							or CHWTSDF
2	Spent Organic Solvent	28.6	MT/M	0.3	132.3	132.6	CHWTSDF / Sent to authorized recyclers / co- processing
3	Distillation Residue	20.3	MT/M	0	71	71	CHWTSDF / Sale to Authorized party [@] / co- processing.
4	ETP Sludge*	35.3	MT/M	1	73	74	CHWTSDF/ Co-processing
5	Process dust	28.4	MT/M	0	0.1	0.1	CHWTSDF / Sale to Authorized party [@] / co- processing
6	Filter & Filter Material which have organic liquid	36.2	MT/M	0	0.5	0.5	CHWTSDF / Sale to Authorized party [@] / co- processing
7	Evaporation Residue (ATFD Salt) [#]	37.3	MT/M	0	225	225	CHWTSDF / Sale to Authorized party [@] / co- processing
8	Residue from used Ion Exchanged material in water	35.2	MT/A	0	0.5	0.5	CHWTSDF / Sale to Authorized party [@] / co- processing
9	Residue from industrial effluent (Oil & Skimming)	35.4	MT/A	0	1	1	CHWTSDF / Sale to Authorized party [@] / co- processing
10	Off Specification Product	28.4	MT/A	0	5	5	CHWTSDF / Sale to Authorized party [@] / co- processing
11	Spent Catalyst	28.2	MT/A	--	1	1	Sent to authorized vendors [@] / CHWTSDF/ co-processing
12	Spent carbon & hyflow	28.3	MT/M	0	13	13	CHWTSDF / Sale to Authorized party/Co-

							processing
13	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes	33.1	Nos./M	-	200	200	Sent to authorized vendors/ CHWTSDF
14	Centrifuge bags	33.1	MT/M	-	0.3	0.3	Sent to authorized vendors/ CHWTSDF/ Co-processing
15	Recovered Acetic Acid (By-product)	--	MT/M	0	15.5	15.5	CHWTSDF / Sale to Authorized party [@]
16	Recovered Potassium carbonate (By-product)	--	MT/M	0	68.4	68.4	CHWTSDF / Sale to Authorized party [@]
17	Sodium sulphate (By-product)	-	MT/M	0	1.2	1.2	CHWTSDF / Sale to Authorized party [@]

Non-hazardous Waste Details

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

E-waste Details

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

Battery Waste Details

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

Biomedical Waste Details						
S. No.	Description	Category of waste	Existing Quantity	Proposed Quantity	Total Quantity	Method of Disposal
1	Biomedical waste	Yellow	0	0.1 MT/A	0.1 MT/A	CHWTSDF

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 404.6 Lakh (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 462.6 Lakh per annum, Industry proposes to allocate ₹ 12 Lakh towards CER .
14. Around 248.86 sq. m. (13.82%) of greenbelt will be developed inside the plot premises and about 86.50 sq. m. (4.81%) of greenbelt is developed along the south boundary of the plot outside the plot premises. Remaining greenbelt development of 625 sq. m. (34.72%) has been developed in the Open Space received from the MIDC on Plot No. OS-57 which is at an aerial distance of approximate 431 meters. Thus the total green belt area would be 53.35% of the total plot area i.e. 960.36 sq. m.
15. The PP reported that The total annual carbon footprint for the project is 2661520.24 kg CO₂ eq/year after implementation of mitigation measures. Total carbon sequestration for the project is 378042.1 kg CO₂ eq/year. Thus, considering the total percentage of carbon sequestration is 14.20%.
16. The PP submitted the Disaster and Onsite and Offsite Emergency Plans in the EIA report.
17. The estimated project cost is ₹ 21.44 Crore (Existing- Rs.15.44 Crore + proposed – Rs. 6.0 Crore). company is having 80 nos. of Employee (Direct: 45 and Indirect: 35) strength. After expansion company proposes to employ additional 140 man power (Direct: 125 and Indirect: 15) accounting to a total manpower of 220 nos. of employees (Direct: 170 and Indirect: 50).
18. The proposal was placed in 29th EAC Meeting held on April 11-12 2022, wherein the EAC deferred the proposal for want of requisite information. Reply to the same is submitted by PP on 29.9.2022, which is as follows:

S. No.	Queries Raised by EAC	Reply by PP	Observation of EAC
1.	The EAC is of the view that since the proposed Unit is to be located in Critically Polluted Area having CEPI Score of 93.69, the PP need to explore the alternative site for this expansion project.	<ul style="list-style-type: none"> Tarapur Industrial Area was classified under Critically Polluted Area (CPA) with the CEPI score of 93.69 as per NGT order vide Original Application No. 1038/2018 dated 10/07/2019. Since then multiple efforts have been taken by the MPCB by effective monitoring of the industries and imposing stringent norms like use of cleaner fuel, zero liquid discharge wherever feasible etc. to the polluting industries. As per data received from Gujarat Gas Limited, total 170 numbers of industries have approached for connection of PNG out of which 130 numbers have registered with 	The EAC found the reply submitted by the PP to be satisfactory.

		<p>Gujarat Gas Limited and from that 100 are in operation and 30 connections are yet to be provided, applications of 40 connections are under process.</p> <ul style="list-style-type: none"> • Efforts have also been taken by Tarapur Industrial Associations to improve the functioning of the existing CETP of capacity 25 MLD and have proposed a new CETP of capacity 50 MLD. • Presently total number of industries having membership with Tarapur Environment Protection Society (TEPS) is 227 out of which 104 members of industries have achieved ZLD and 20 members have reduced the load on CETP by achieving partial discharge. • Tarapur MIDC has replaced all the old and broken drainage lines carrying effluent to the CETP. • The current disposal point for treated effluent is at a distance of 500 meters from the High Tide Line (HTL). Laying of new pipeline for treated effluent disposal at a distance of 7 kilometers from the High Tide Line (HTL) is in full swing and it is expected to be completed within 3 months. • These efforts have reduced the pollution in Tarapur Industrial Area which is reflected in the status report published by MPCB "Monitoring, Sampling and Analysis for Ambient Air Quality, Surface Water Quality and Ground Water Quality in 100 Polluted Industrial Areas During December 2019 - February 2020" dated March 2020, the CEPI score of March 2020 has been reduced to 71.3 from 93.69 as per the CEPI score for Tarapur Industrial Area of February 2018 and MPCB has targeted to get the CEPI score further down in the coming years. However, study for alternative sites has been carried out 	
--	--	--	--

		<ul style="list-style-type: none"> • The detailed list of raw material and their source availability along with the distance of transportation has been submitted. <p>Conclusions:</p> <ul style="list-style-type: none"> • Tarapur MIDC seems to be better choice than all the other alternatives due the reasons such as proximity to • ancillary unit, availability of cleaner fuel, Socio economic benefits to tribal population, financial viability, utilization • of existing resources and common facilities with ancillary unit etc. • In spite of being located in Critically Polluted area (CPA), site in Tarapur MIDC is suggested because all the other alternatives involve additional transportation and subsequent emissions. Due to project being a ZLD project and Cleaner fuel Briquette is to be utilized, hence least environmental impacts are to be envisaged if the Tarapur MIDC is chosen over others under any circumstances. • It is an evident fact that, social and environmental mitigation measure implementations go hand in hand with financial viability. Hence, most viable option financially is Site in Tarapur MIDC will be better than others in terms of social and environmental angle. • Project site in Tarapur MIDC comes in Palghar district, which holds highest tribal population in Maharashtra state • (37.4 %). Developmental activities in the said area will be crucially most important than in other alternatives. • Hence, Project site in Tarapur MIDC is selected over other four alternatives 	
--	--	---	--

2.	The MIDC Tarapur having the CEPI score 93.69 and comes under critically polluted area. In this regard the PP shall submit the additional mitigation measures to safeguard to the environment and also to explain how carbon foot print to be minimized?	Compliance of Conditions as additional mitigation measures to safeguard to the environment as per MoEF&CC OM dated 31 st October, 2019 and details of carbon footprint have been submitted. Thus, considering the total percentage of carbon sequestration is 14.20% . Total reduction in Carbon footprint by mitigation measures 1,2, and 3 is 2661520.24 (42.15%)	The EAC found the reply submitted by the PP to be non-satisfactory. However, recommended to submit revised compliance/action plan with details of stringent stack emission standards, CER etc.
3.	The revised greenbelt plan (spacing of 2m x 2m and number of trees have to be increased accordingly) along with timelines and budgetary allocations. In this context, revised green belt development plan @33 % with high carbon sequestration trees needs to be submitted.	<p>The company proposes to develop 960.36 Sq. m, which accounts to 53.35% of total project plot area i.e. 1800 Sq. m. Greenbelt area accounting to an area of 248.86 Sq. m. (13.82%) will be developed inside the plot premises and greenbelt of area 86.5 Sq. m. (4.81%) is developed between the MIDC internal road and plot boundary near the gate. Remaining greenbelt area accounting to 625 Sq. m. (34.72%) has been developed on the MIDC allotted land viz. Plot No. O.S.57 having total plot area of 5350 Sq. m. located within the MIDC Tarapur which will be exclusively used for greenbelt development purpose.</p> <p>The company proposes to develop 960.36 Sq. m, which accounts to 53.35% of total project plot area i.e. 1800 Sq. m. Greenbelt area accounting to an area of 248.86 Sq. m. (13.82%) will be developed inside the plot premises and greenbelt of area 86.5 Sq. m. (4.81%) is developed between the MIDC internal road and plot boundary near the gate. Remaining greenbelt area accounting to 625 Sq. m. (34.72%) has been developed on the MIDC allotted land viz. Plot No. O.S.57 having total plot area of 5350 Sq. m. located within the MIDC Tarapur which will be exclusively used for greenbelt development purpose. The distance between Plot No. N-92 and Plot No.</p>	The EAC found the reply submitted by the PP to be non-satisfactory, as the PP could not provide any proof for the green belt development undertaken.

		OS-57 is 431 meter. The greenbelt will be developed within 1 year post EC	
4.	Details of Onsite emergency plan as per provisions of the MSIHC Rules need to be submitted.	Onsite Emergency Plan has been prepared as per the provisions of the MSIHC rules. The plan has been submitted to DISH and District Collector. The details have been submitted. Quantitative risk assessment and DMP has been submitted.	The EAC found the reply submitted by the PP to be satisfactory.
5.	Schedule I Species as per WL (P) Act, 1972 Schedule were recorded in the study area. Conservation plan with sufficient budget allocated for conservation along with approval letter for same shall be provided.	Only one Schedule I Species (Peafowl) was evidenced in the 10km study area from the project site. Accordingly, a species conservation plan is prepared wherein allocation of Rs. 6 Lakh has been done. The conservation plan has been submitted to the Office of Chief Wildlife Warden, Maharashtra and also to the DCF, Dahanu	The EAC found the reply submitted by the PP to be satisfactory.
6.	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.	The total annual carbon footprint for the project is 2661520.24 kg CO ₂ eq/year after implementation of mitigation measures. Total carbon sequestration for the project is 378042.1 kg CO ₂ eq/year. Thus, considering the total percentage of carbon sequestration is 14.20%.	The EAC found the reply submitted by the PP to be satisfactory.
7.	The PP need to submit the details of the chemical accidents in the vicinity of Palghar district.	The details of the chemical accidents reported in the vicinity of Tarapur MIDC since 2018 to till date including causes, casualties, impacts and action taken etc. has been submitted.	The EAC found the reply submitted by the PP to be satisfactory. However, recommended to submit a Specific Action Plan to prevent the occurrence of accidents in the Unit.

19. **Deliberations by the EAC:**

After detailed deliberations, the EAC sought the following information/documents and accordingly, **deferred** the proposal:

- (i) The PP needs to first comply the greenbelt condition 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.
- (ii) Undertaking for the use of agro-briquettes as a primary fuel.
- (iii) Specific Action Plan to prevent the occurrence of accidents in the Unit considering the earlier accidents occurred in the area.
- (iv) Revised compliance/action plan for MoEF&CC OM dated 31.10.2019 w.r.t CPAs/SPAs by providing details of stringent stack emission standards, CER etc.

(v) Revised structure of Environment Management Cell with Environment Professionals.

Agenda No. 40.2

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

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

1. The proposal is for the proposed expansion of API manufacturing unit by increase in production capacity from 15 TPM to 93 TPM located at Plot No. N-128, MIDC Tarapur, Tehsil & District: Palghar, Maharashtra by M/s. Bajaj Healthcare Ltd.
2. The project/activity is covered under Category 'B' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006. 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 Environment Clearance vide proposal number IA/MH/IND3/248472/2021 on 31.12.2021 in Form-2 and submitted PFR /EMP Report and other documents. The PP in the Form-1 reported that it is an **Expansion EC**. The PP submitted that the project is exempted from Public Hearing. Due to some shortcomings, the Project was referred back to the PP on 3.1.2022 and reply to the same was submitted on 24.3.2022. The proposal was placed in 29th EAC meeting, wherein the EAC deferred the proposal for asking requisite information, and the proposal is now placed in 40th EAC Meeting held on 18-19 October, 2022, wherein the Project Proponent and an accredited Consultant, M/s. Sadekar Enviro Engineers Pvt. Ltd with Accreditation Number NABET/EIA/2124/SA 0146 valid till 18.4.2023 made a detailed presentation on the salient features of the project and informed the following:
4. The PP reported that the proposed land area is 2100 m² and no R& R is involved in the Project. The details of products and by-products are as follows:

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

G	Solvent Distillation for Recovery	--	0	14	14	KL/Day
----------	--	----	----------	-----------	-----------	---------------

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and court notice direction (Case no. 02/22) is issued under E(P) Act/Air Act/Water Act.
6. The PP reported that the company was initially established in 1992, vide CTE no. RCB/SAT/E-22 of 1990/GDS/A-951 dated 3.5.1992 under the name of Vinod Organics. The entire company name transfer has taken place in 2006 to M/s Bajaj Healthcare Ltd. with the plot transfer document vide letter ROT/TRP/case no. 1014/3881 dated 19th June,2006. Since the instant Unit is prior EIA Notification, 2006, hence EC is not applicable to this Unit. The PP reported that the Certified Compliance report to the conditions of CTO has been obtained from Maharashtra Pollution Control Board vide no. - MPCB/ROT/1175 dated 04/03/2022.
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. Lower Banganga River is flowing at a distance of 2.09 km in southeast direction. One Schedule I Species (Peafowl) was evidenced in the 10 km study area from the project site. Accordingly, a species conservation plan is prepared wherein allocation of Rs. 6 Lakh has been done. The conservation plan has been submitted to the Office of Chief Wildlife Warden, Maharashtra and also to the DCF, Dahanu.
8. The PP reported the total water requirement of the proposed expansion project for its domestic and industrial activity during its operational phase will be 129.83 CMD. The water requirement will be fulfilled from Tarapur MIDC. The effluent stream will be segregated as HCOD/HTDS and LCOD/LTDS effluent. Around 30 CMD HCOD/HTDS process effluent will be treated in Stripper followed by MEE and AFD located at Plot No. L-11 having treatment capacity of 300 CMD. Around 10.94 CMD LTDS / COD effluent including Sewage along with the MEE condensate, excluding Boiler blowdown, will be treated in a full-fledged ETP having primary, secondary and tertiary treatment having treatment capacity 350 CMD located at Plot No. L-11. Around 1.4 CMD LTDS / COD effluent will be treated in a full-fledged ETP having primary, secondary and tertiary treatment having treatment capacity 5 CMD located at Plot No. N-219. Treated effluent will be reused for Boiler operation at Plot No. N-219. The treated effluent from ETP located at Plot No. L-11 will be passed through RO system located at same plot. RO permeate from Plot No. L-11 will be used for cooling tower make-up at Plot No. N-128 and the RO reject will be re-sent to MEE at same plot for further treatment. Thus the total effluent sent to Plot No. L-11 will be 30 CMD HCOD/HTDS process effluent. 10.94 CMD LTDS / COD effluent comprising of 1.6 CMD Sewage, 2 CMD LTDS / COD process effluent & 7.34 CMD Cooling Tower Blowdown along with 3.70 CMD RO system reject and the total effluent sent to Plot No. N-219 will be 1.4 CMD Boiler Blow down only. Around 33.26 CMD treated effluent (RO permeate) from Plot No. L-11 will be sent back to the said premises (Plot No. N-128) and will be reused in cooling tower make-up. Around 1.33 CMD treated effluent from ETP located at Plot No. N-219 will be recycled and reused in the same plot for Boiler operation. All the treated effluent (34.59 CMD) will be recycled and reused for cooling tower make up and boiler feed making the unit a ZLD unit.
9. The PP reported the power requirement for project is made available through State Electricity Board (MSEDCL) Connected Load (Operation phase): 456 KW. Total Demand Load (Operation phase): 550 KVA D.G Set of Capacity 500 KVA No. x 1 No. will be installed and will be operational during power failure only. Fuel requirement for the DG operation will be made available through local HSD supplier.

10. Details of Process Emissions Generation and their Management:

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

11. Details of Solid Waste Generation and its Management:

Hazardous waste details							
S. No.	Description	Cat. of waste	UOM	Existing	Proposed	Total	Method of Disposal
1	Used / Spent Oil	5.1	MT/M	0	0.12	0.12	Sale to Authorized Reprocessing or co-processing / or CHWTSDF
2	Spent Organic Solvent	28.6	MT/M	0	221	221	CHWTSDF / Sent to authorized recyclers / co-processing
3	Distillation Residue	20.3	MT/M	0	8.8	8.8	CHWTSDF / Sale to Authorized party [@] / co-processing
4	ETP Sludge*	35.3	MT/M	0	30	30	CHWTSDF/ Co-processing
5	Process dust	28.4	MT/M	0	0.05	0.05	CHWTSDF / Sale to Authorized party [@] / co-processing
6	Filter & Filter Material which have organic liquid	36.2	MT/M	0	0.05	0.05	CHWTSDF / Sale to Authorized party [@] / co-processing
7	Evaporation Residue (ATFD Salt) [#]	37.3	.0 MT/M	0	96	96	CHWTSDF / Sale to Authorized party [@] / co-processing
8	Spent carbon	28.3	MT/M	0.3	2.22	2.52	CHWTSDF / Sale to Authorized party/Co-processing
9	Spent resin [§]	35.2	MT/M	--	0.01	0.01	CHWTSDF / Sale to Authorized party [@] / co-processing
10	Empty barrels/containers/liners	33.1	Nos./M	--	60	60	Sent to authorized

	contaminated with hazardous chemicals /wastes						vendors/ CHWTSDF
11	Off specification product	28.4	MT/M	--	1.0	1.0	CHWTSDF / Sale to Authorized party@/ co-processing
12	Calcium Sulfate (By-product)	--	MT/M	--	51	51	CHWTSDF / Sale to Authorized party@

-Schedule I of The Hazardous and Other Wastes (Management and Trans boundary Movement) Rule, 2016. @ Industry shall ensure disposal to the Actual user having permissions under Rule 9 of Hazardous and Other Waste (M & TM) Rules, 2016.

Evaporation Residue (ATFD Salt) will be generated and disposed from Plot No L-11.

* ETP Sludge will be generated and disposed from Plot No. L-11 and Plot No. N-219.

\$ Spent resin will be generated and disposed from Plot No. N-219

Non-hazardous Waste Details					
S. No.	Description	Existing Quantity	Proposed Quantity	Total Quantity	Method of Disposal
1	Boiler Ash*	2.42 MT/M	15.8MT/M	18.22 MT/M	Sale to Brick manufacturers
2	General scrap (Polythene bags, Empty containers, Glass waste, Wood waste and Metal waste)	0 MT/A	10 MT/A	10 MT/A	Sale to Authorized party
3	Contaminated glassware	0 MT/A	0.2 MT/A	0.2 MT/A	Sale to Authorized party
4	Plastic waste	0 MT/A	1 MT/A	1 MT/A	Sale to Authorized party

Note: * Boiler ash will be generated and disposed from Plot No. N-219.

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

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

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

12. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 194.7 Lakh (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 191.1 Lakh per annum. Industry proposes to allocate ₹ 5 Lakh towards CER.
13. The company proposes to develop **1417.65 m²**, which accounts to **67.5%** of total project plot area. Greenbelt area accounting to an area of **577.65 m². (27.50%)** will be developed inside the plot premises and greenbelt of area **100 m². (4.76%)** is developed within the area available between the MIDC internal road and plot boundary near the gate. Remaining greenbelt area accounting to **740 m² (35.24%)** has been developed on the MIDC allotted land viz. Plot No. O.S.-57 having total plot area of **5350 m²** located within the MIDC Tarapur which will be exclusively used for greenbelt development purpose. The distance between Plot No. N-128 and OS-57 is 144 meter.
14. The PP reported that the total annual carbon footprint for the project is 443050.00 kg CO₂ eq/year. Total carbon sequestration for the project is 145718.5 kg CO₂ eq/year which is 32.89% of the total generated.
15. The PP submitted the Disaster and Onsite and Offsite Emergency Plans in the EIA report.
16. The estimated project cost is ₹ 3.47 Crore(Existing- Rs.0.97 Crore + proposed – Rs. 2.50 Crore). Total manpower = 40 Nos. (Indirect: 10 Nos. and Direct: 30 Nos.)
17. The proposal was placed in 29th EAC Meeting held on April 11-12 2022, wherein the Committee deferred the proposal for want of requisite information. Reply to the same is submitted by PP on 29.9.2022, which is as follows:

S. No.	Queries Raised by EAC	Reply by PP	Observation of EAC
1.	The EAC is of the view that since the proposed Unit is to be located in Critically Polluted Area having CEPI Score of 93.69, the PP need to explore the alternative site for this expansion project.	<ul style="list-style-type: none"> Tarapur MIDC seems to be better choice than all the other alternatives due the reasons such as proximity to ancillary unit, availability of cleaner fuel PNG, Socio economic benefits to tribal population, financial viability, utilization of existing resources and common facilities with ancillary unit etc. In spite of being located in Critically Polluted area (CPA), site in Tarapur MIDC is suggested because all the other alternatives involve additional transportation and subsequent emissions. Due to project being a ZLD project and Cleaner fuel Briquette is to be utilized, hence least environmental impacts are to be envisaged if the Tarapur MIDC is chosen over others under any circumstances. 	The EAC found the reply submitted by the PP to be satisfactory.

		<ul style="list-style-type: none"> • It is an evident fact that, social and environmental mitigation measure implementations go hand in hand with financial viability. Hence, most viable option financially is Site in Tarapur MIDC will be better than others in terms of social and environmental angle. • Project site in Tarapur MIDC comes in Palghar district, which holds highest tribal population in Maharashtra state (37.4 %). Developmental activities in the said area will be crucially most important than in other alternatives. • Hence, Project site in Tarapur MIDC is selected over other four alternatives. 	
2.	The revised greenbelt plan (spacing of 2m x 2m and number of trees have to be increased accordingly) along with timelines and budgetary allocations. In this context, revised green belt development plan @ 33% with high carbon sequestration trees needs to be submitted.	The company proposes to develop 1417.65 Sq. m , which accounts to 67.5% of total project plot area. Greenbelt area accounting to an area of 577.65 Sq. m. (27.50%) will be developed inside the plot premises and greenbelt of area 100 Sq. m. (4.76%) is developed within the area available between the MIDC internal road and plot boundary near the gate. Remaining greenbelt area accounting to 740 Sq. m. (35.24%) has been developed on the MIDC allotted land viz. Plot No. O.S.-57 having total plot area of 5350 Sq. m. located within the MIDC Tarapur which will be exclusively used for greenbelt development purpose. The distance between Plot No. N-128 and OS-57 is 144 meter.	The EAC found the reply submitted by the PP to be non-satisfactory, as the PP could not provide any proof for the green belt development undertaken
3.	Details of Onsite emergency plan as per provisions of the MSIHC Rules need to be submitted	<ul style="list-style-type: none"> ➤ Quantitative Risk Assessment studies in wake of proposed activity are carried out by following methods. ➤ Risk Assessment of materials in tank storage has been done using ALOHA software. ➤ HAZOP Study has been carried out. 	The EAC found the reply submitted by the PP to be satisfactory

		<ul style="list-style-type: none"> ➤ DowFire & Explosive Index has been calculated for flammable and explosive materials in storage and suitable recommendations are suggested. ➤ Mond's Toxicity Index has been estimated for toxic materials in storage. ➤ Based on the findings of risk assessment studies the on site & off site emergency preparedness plan has been prepared. ➤ Based on the unsafe distances identified by the software output, the MCLS (Maximum Credible Loss Scenario) for the factory works out to about 275 m for Toluene. The scenario considered for assessing the impact by quantitative risk assessment was taken from CPR18E. The probability of occurrence of the scenario is $5 \times 10^{-6} \text{ y}^{-1}$ which is very less. 	
4.	The PP shall revise the conservation activities of conservation of Schedule-I species	Only one Schedule I Species (Peafowl) was evidenced in the 10km study area from the project site. Accordingly, a species conservation plan is prepared wherein allocation of Rs. 6 Lakh has been done. The conservation plan has been submitted to the Office of Chief Wildlife Warden, Maharashtra and also to the DCF, Dahanu.	The EAC found the reply submitted by the PP to be satisfactory
5.	This is existing unit. PP has not submitted the certified compliance status of latest CTO conditions for the existing unit. The PP needs to submit the certified compliance status of CTO.	The Certified Compliance Report has been obtained from Maharashtra Pollution Control Board vide No. MPCB/ROT/1175 dated 04/03/2022	The EAC found the reply submitted by the PP to be satisfactory
6.	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.	The total annual carbon footprint for the project is 443050.00 kg CO ₂ eq/year. Total carbon sequestration for the project is 145718.5 kg CO ₂ eq/year which is 32.89% of the total generated.	The EAC found the reply submitted by the PP to be satisfactory.

7.	The PP need to submit the details of the chemical accidents in the vicinity of Palghar district	The details of the chemical accidents reported in the vicinity of Tarapur MIDC since 2018 to till date including causes, casualties, impacts and action taken etc.	The EAC found the reply submitted by the PP to be satisfactory. However, recommended to submit a Specific Action Plan to prevent the occurrence of accidents in the Unit.
8.	The MIDC Tarapur having the CEPI score 93.69 and comes under critically polluted area. In this regard the PP shall submit the additional mitigation measures to safeguard to the environment and also to explain how carbon foot print to be minimized?	Compliance of Conditions as additional mitigation measures to safeguard to the environment as per MoEF&CC OM dated 31 st October, 2019 and details of carbon footprint have been submitted.	The EAC found the reply submitted by the PP to be satisfactory. However, recommended to submit revised compliance/action plan with details of stringent stack emission standards, CER etc.

18. Deliberations by the EAC:

After detailed deliberations, the EAC sought the following information/documents and accordingly, **deferred** the proposal:

- (i) Since the PP could not provide any proof for the green belt development undertaken, the PP needs to first comply the greenbelt condition 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.
- (ii) Undertaking for the use of agro-briquettes as a primary fuel.
- (iii) Specific Action Plan to prevent the occurrence of accidents in the Unit considering the earlier accidents occurred in the area.
- (iv) Revised compliance/action plan for MoEF&CC OM dated 31.10.2019 w.r.t CPAs/SPAs by providing details of stringent stack emission standards, CER etc.
- (v) Revised structure of Environment Management Cell with Environment Professionals.

Agenda No. 40.3

Proposed Pesticide Manufacturing Project of production capacity 250 TPM located at C-367, Saykha GIDC Industrial Estate, Saykha, Taluka Vagra, District- Bharuch, Gujarat by M/s. MGA Crop Care Co. - Reconsideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/201085/2021; File No. IA-J-11011/75/2021-IA-II(I)]

1. The proposal is for environmental clearance to the Proposed Pesticide Manufacturing Project of production capacity 250 TPM located at C - 367, Saykha GIDC Industrial Estate, Saykha, Taluka-Vagra, District- Bharuch, Gujarat by MGA Crop Care CO.
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/GJ/IND3/201085/2021 dated 2.3.2021 and the ToR has been issued by the Ministry, vide letter No IA-J-11011/75/2021-IA-II(I) dated 5.3.2021. The PP submitted that as Unit is located in Notified Industrial Area of GIDC, Saykha, which falls in PCPIR and PCPIR was granted EC vide letter no. 21-49/2010-IA-III dated 14th September, 2017, Public Hearing was exempted. The PP applied for Environment Clearance on 21.5.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP reported in Form-2 that it is a **Fresh EC**. Due to some shortcomings, the Project was referred back to PP on 24.5.2022 and reply to the same was submitted on 3.6.2022. The proposal was placed in 33rd EAC Meeting held on 20-22 June, 2022, wherein EAC deferred the proposal and now again proposal is considered in 40th EAC meeting held on October 18-19, 2022 wherein the Project Proponent and the accredited Consultant M/s. Aqua-Air Environmental Engineers Pvt. Ltd. (NABET Accreditation No.: NABET/EIA/2023/IA0062 (Rev.03) Valid upto October 7, 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 0.5 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	LD ₅₀
1	Aluminium Phosphide	20859-73-8	150	25 mg/kg
2	Zinc Phosphide	1314-84-7	100	42.6 mg/kg
Total:			250	

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 existing Unit has not obtained EC for existing operations as it is a formulation unit which is not covered under EIA Notification, 2006. Unit has obtained valid CTE for Formulation of Pesticides vide CTE no. 103894 dated 13/08/2019 valid upto 12/08/2026.
7. The PP reported that there are no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from site. Narmada Canal is flowing at distance of 1.24 km in south-east direction. PP reported that no forest land is involved for the proposed project. PP reported that one Schedule I species i.e. Indian peafowl, exist within 10 km study area of the project conservation plan has been approved by CWW on 22.3.2022 with budgetary provision of ₹ 2,05,000. The PP committed to implement the plan in one year.
8. The PP reported that Ambient air quality monitoring was carried out at 10 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentrations as: PM₁₀ (71.58 – 76.73 µg/m³), PM_{2.5} (42.21 – 45.69 µg/m³), SO₂ (9.13 – 14.21 µg/m³) and NO₂ (10.25 – 15.68 µg/m³) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.02 µg/m³, 0.05 µg/m³ and 0.01 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Based on noise level data obtained during the survey for residential area and industrial area, it is interpreted that noise levels are within the standard norms prescribed by MoEF&CC. Based on comparison study with drinking water standards, it is interpreted that water samples collected from the villages should not be directly used in drinking but can be used in other domestic purposes like washing, bathing and irrigation. Results of chromium, Zinc, Cadmium, Fluoride, copper & lead in the water sample of all the villages are BDL. The water quality is good and it was observed that all the criteria parameters are as per IS: 1050:2012, The porosity of soils can be

considered as moderate too good for air and water movement in the soil and the pH of soils are slightly alkaline. The concentration of available Nitrogen, Phosphorous and Potassium in the soil samples signifies that the soil of the area is fertile.

9. The PP reported that total water requirement is 14.03 KLD of which fresh water requirement of 12.23 KLD and will be met from GIDC Water Supply letter no. GIDC/DEE(WS)/BRH/954 vide dated 08/10/2021. Effluent of 5.8 KLD quantity will be treated through ETP followed by R.O. Total Wastewater generation will be 5.8 KL/Day (Domestic: 1.8 KL/Day + Industrial: 4.0 KL/Day) Scrubbing Media: 1.7 KL/Day H₃PO₄ (50-60%) will be sold to end users having permission under Rule-9.1.8 KL/Day Domestic wastewater will be disposed through soak pit or septic tank system. 2.3 KL/Day wastewater (cooling bleed off (2.0 KL/Day) + Boiler blow down (0.3 KL/Day) will be treat in Primary ETP followed by R.O plant. R.O Permeate 1.8 KL/Day will be reused for Cooling purpose and R.O reject 0.5 KL/Day will be evaporated in Single stage evaporator and salt will be sent TSDF Site. The plant will be based on Zero Liquid discharge system.
10. The PP reported that Power requirement will be 250 KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Unit will have 1 Nos. DG sets of 25 KVA capacity, additionally DG sets are used as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed DG sets. Unit will have 1 No. of Boiler (Capacity: 1 TPH). Cyclone Separator with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm³ for the proposed boilers.

11. Details of Process Emissions Generation and their Management:

Flue Gas Stack

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Name of the fuel	Quantity of Fuel	Type of emissions i.e. Air Pollutants	APCM
1.	Boiler (Only Water heating) (Capacity: 1 TPH)	30	Agro waste	400 kg/day	SPM < 150 mg/Nm ³	Cyclone Separator
2.	D G Set (Stand by) (25 kVA)	11	HSD	10 Lit/Hr	SO ₂ < 100 ppm NO _x < 50 ppm	Adequate Stack Height

Process Stack

Sr. No.	Vent Attached To	Vent Height	Pollutants	Air Pollution Control System	Permissible Limit
1	Reaction Vessel (Aluminium Phosphide)	Height-11 Meters	P ₂ O ₅	Two stage Water Scrubber	10 mg/Nm ³
2	Reaction Vessel (Zinc Phosphide)	Height-11 Meters	P ₂ O ₅	Two Stage Water Scrubber	10 mg/Nm ³

12. **Details of Solid Waste Generation and its Management:** 5 Categories of Hazardous/Solid Wastes & 1 Category of Non - hazardous waste shall be generated from this Unit.

Hazardous/Solid Wastes

S. no.	Name of Hazardous waste	Source of generation	Category and Schedule	Total Quantity MT/ Annum	Disposal Method

1	Used Oil	Machineries & Utilities	SCH-I/5.1	0.5	Collection, Storage, Transportation and sell to GPCB registered reprocessor/ Refiner.
2	Discarded Bags	Raw Materials & Products handling	SCH-I/33.1	900.0 Nos.	Collection, Storage, Decontamination, Transportation & given to GPCB authorized Vendor.
3	H ₃ PO ₄ (50-60 %)	Scrubber	SCH-I/28.1	531	Collection, Storage, Transportation and sell to end user Having Rule-9 Permission.
4	Evaporate Salt	Single Stage Evaporator	SCH-I/35.3	45	Collection, Storage, Transportation and sent to Co-processing or TSDF for disposal site.
5	ETP Sludge	ETP	SCH-I/35.3	5	Collection, Storage, Transportation and sent to Co-processing or TSDF for disposal site.

Non-hazardous Waste

Sr. no.	Name of Non-Hazardous waste	Source of generation	Category and Schedule	Total Quantity MT/ Annum	Disposal Method
1	Fly ash	Fuel	--	5.0	Collection, Storage, Transport & sent to brick manufacturer.

13. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 0.49 Crore (capital) and the Recurring Cost (operation and maintenance) will be about ₹ 0.12Crore , Industry proposes to allocate ₹ 3.56 Lakh towards CER for Installation of RO Plant in Primary School of Vahalu Village. (5.47 Kms away from the project site).
14. Total 5000 m² land area is available at site; out of this area about 1650 m²(33 %) area will be covered as greenbelt. Detailed greenbelt plan along with budgetary allocation of 450 nos. of trees will be planted within premises and cost will be Rs. 2,25,000 and 1350 nos. of trees will be planted within premises and cost will be Rs. 6,75,000 for completion of greenbelt in one year and 165 Nos. Amaltas, 145 Nos. Peepal, 155 Nos. Neem, 170 Nos. Teak, 40 Nos. Nilgiri & 160 Nos. Bamboo is high carbon sequestration species trees and other trees like 145 Nos. Banyan, 30 Nos. Kadam, 135 Nos. Gulmohar, 138 Nos. Badam, 103 Nos. Saptaparni, 140 Nos. Arjuna, 120 Nos. Mango & 154 Nos. Jamun will be planted within premises & outside the premises. Total **1800 nos. of trees** will be planted within & outside the premises.
15. The PP proposed to set up an Environment Management Cell (EMC) by engaging Environment Chemist, RO operator for the functioning of EMC.
16. The PP reported that Company will be planted 450 nos. of trees within premises & remaining 1350 nos. of trees will be planted outside the premises, within 1 year, which will be sequestered 37.12 tCO₂/annum in 1st year, further 54.57 tCO₂/annum in 2nd year, 98.99 tCO₂/annum in 3rd year & 190.06

tCO₂/annum in 5th year. Total Carbon load from energy will be 2523.6 tCO₂/annum Equivalent and by using an alternative energy sources; 25% of Total Power will be use from Solar Power and that will be sequestrated to 630.9 tCO₂/annum equivalent and 85 Nos. of Solar LED lights will be install instead of conventional light in all premises i.e. 6.6 KW Power of 85 Nos. of Solar LED lights and that will be sequestrated to 83.27 tCO₂/annum equivalent. so, Total 714.17 tCO₂/annum equivalent will be sequestrated from solar energy. Total Tonnes of CO₂ emission will 3319.03 tCO₂/annum and company will be sequestrated 751.29 tCO₂/annum in 1st year, further 768.74 tCO₂/annum in 2nd year & 813.16 tCO₂/annum in 3rd year and 904.23 tCO₂/annum in 5th year.

17. The PP submitted the Disaster and Onsite and Offsite Emergency Plans in the EIA report.
18. The estimated project cost is ₹ 1.78 Crore. Total Employment will be 25 persons as direct.
19. The proposal was placed in 33rd EAC Meeting held on June 20-22 2022, wherein the Committee deferred the proposal for want of requisite information. Reply to the same is submitted by PP on 28.9.2022, which is as follows:

S. No.	Queries Raised by EAC	Reply by PP	Observation of EAC
1.	The detailed greenbelt plan along with budgetary allocation for completion of greenbelt in one year. Action plan for high carbon sequestration species trees in the greenbelt needs to be submitted.	Detailed greenbelt plan along with budgetary allocation of 450 nos. of trees will be planted within premises and cost will be Rs. 2,25,000 and 1350 nos. of trees will be planted within premises and cost will be Rs. 6,75,000 for completion of greenbelt in one year and 165 Nos. Amaltas, 145 Nos. Peepal, 155 Nos. Neem, 170 Nos. Teak, 40 Nos. Nilgiri & 160 Nos. Bamboo is high carbon sequestration species trees and other trees like 145 Nos. Banyan, 30 Nos. Kadam, 135 Nos. Gulmohar, 138 Nos. Badam, 103 Nos. Saptaparni, 140 Nos. Arjuna, 120 Nos. Mango & 154 Nos. Jamun will be planted within premises & outside the premises. Total 1800 nos. of trees will be planted within premises & outside the premises. Total 5000 sq. meter land area is available at site; out of this area about 1650 sq. meter (33 %) area will be covered as greenbelt. Trees will be planted with spacing of 2m x 2m and Approx. 450 number of trees have to be developed accordingly, which will be planted in 1 year and later will be maintained. Good greenery shall be maintained in and around the site by planting various types of tress. A green belt shall be developed within the site	The EAC found the reply submitted by the PP to be satisfactory.

		boundary and across the premises inside roads. Trees like Amaltas, Neem, Banyan, Kadam, Peepal, Teak, Nilgiri, Bamboo, Gulmohar, Mango, Arjuna, Badam, Jamun, Saptaparni will be planted within premises & outside the premises.	
2.	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.	<p>Company will be planted 450 nos. of trees within premises & remaining 1350 nos. of trees will be planted outside the premises, within 1 year, which will be sequestered 37.12 tCO₂/annum in 1st year, further 54.57 tCO₂/annum in 2nd year, 98.99 tCO₂/annum in 3rd year & 190.06 tCO₂/annum in 5th year.</p> <p>Total Carbon load from energy will be 2523.6 tCO₂/annum Equivalent and by using an alternative energy sources; 25% of Total Power will be use from Solar Power and that will be sequestered to 630.9 tCO₂/annum equivalent and 85 Nos. of Solar LED lights will be install instead of conventional light in all premises i.e. 6.6 KW Power of 85 Nos. of Solar LED lights and that will be sequestered to 83.27 tCO₂/annum equivalent. so, Total 714.17 tCO₂/annum equivalent will be sequestered from solar energy. Total Tonnes of CO₂ emission will 3319.03 tCO₂/annum and company will be sequestered 751.29 tCO₂/annum in 1st year, further 768.74 tCO₂/annum in 2nd year & 813.16 tCO₂/annum in 3rd year and 904.23 tCO₂/annum in 5th year.</p>	The EAC found the reply submitted by the PP to be satisfactory.
3.	The PP needs to submit the details of Onsite/Offsite emergency plan and mitigation measures to be proposed during implementation of the project.	The emergency is an undesirable occurrence of events of such magnitude and nature that adversely affect business, cause loss of human lives and property as well as damage to the environment. Industrial units are vulnerable to various kinds of natural and man-made emergencies. Examples of Natural disasters are flood, cyclone, earthquake, lightening etc. and manmade disasters are major fire, explosion, sudden heavy leakage of toxic/flammable gases, building collapse, human errors, vehicle	The EAC found the reply submitted by the PP to be satisfactory.

		<p>crash, sabotage, etc. It is impossible to forecast the time and nature of emergency, which might strike the unit. In spite of the fact that every industry is expected to take steps to assess, minimize and, wherever feasible, eliminate risks, accidents may still occur. Risks can only be minimized; it can never be totally eliminated. However, an effective emergency plan helps to minimize the losses in terms of human lives, plant assets and environmental damage and to resume the working condition as soon as possible. In all these steps speed is the essence. Controlling the emergency will require prompt action by the operating staff, the staff of various agencies, emergency teams and the outsiders when called for. Minimizing the effect on people may be achieved by prompt communication, rescue, evacuation etc., if the situation so warrant.</p>	
4.	<p>The PP needs to submit details of water and energy conservation measures proposed in the Unit.</p>	<p>Water Conservation Measures: There is no waste water generation from process. Waste water generated from boiler & cooling system will be treated in primary ETP followed by RO. R.O Permeate 1.8 KL/Day will be reused for Cooling Purpose; this is Zero Liquid Discharge (ZLD) Unit. M/s. MGA Crop Care Co. shall adopt various measures for energy conservation:</p> <ul style="list-style-type: none"> • 25% Power of Total Power will be use from Solar Power. • Company will install Solar LED Lights instead of conventional light in Plant Area i.e. 6.6 KW. • Power Factor maintaining by installation of APFC panel. • Energy efficient machineries will be used during operation phase. • Company shall try to utilize renewable sources of energy for conservation of non-renewable sources of energy. • Enough care will be taken to prevent/minimize energy losses at each stage. 	<p>The EAC found the reply submitted by the PP to be satisfactory.</p>

		<ul style="list-style-type: none"> • Energy audit will be used as a tool for monitoring purpose. • External lights will be controlled through timers for auto on/off function based on timings. • The cable size will be selected so as to minimize the power losses. • The power factor improvement capacitors will be provided individually for AC loads. • Use of VFDs for various utilities in variable load application to optimize pump and air handling unit performance, wherever required. • Efficient lamps and ballasts • Automated control for external lighting (Astronomical/Sensor) • Use of FRP blade on Cooling Tower • Also use of Energy Efficient Lighting, Transformers, HVAC system, Use of Energy Efficient Motors, electrical appliances to minimize the energy consumption in addition to process planning. 	
5.	The PP needs to submit the impact of the court case on the project and clarification regarding the direction issued by the GPCB.	Undertaking that this is proposed unit, so, there is no court case pending against the project and no Direction/SCN/closure notice issued by GPCB is submitted.	The EAC found the reply submitted by the PP to be satisfactory.
6.	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.	Detailed life cycle analysis study is done by SimaPro Software , SimaPro was designed to help you perform high-quality LCAs. Test how sensitive your model is to input data and assumptions by creating scenarios with different parameters. Use Monte Carlo uncertainty analyses to measure data uncertainty. and look inside SimaPro's underlying databases and methodologies to discover everything about how your LCA is calculated. The approach taken to complete LCA was as per ISO 14042. SimaPro Software Measure the environmental impact of your p	The EAC found the reply submitted by the PP to be satisfactory.

		<p>roducts and Identify the hotspots in every link of your supply chain, from extraction of raw materials to manufacturing, distribution, use, and disposal.</p> <p>The Scope is defined as taking into account the: Processing of Raw Material, Waste and Effluent from Process, Transport of Product to Consumer and Transport to the TSDF.</p>	
--	--	---	--

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 also deliberated on the details of water consumption, sewage treatment, greenbelt development plan, life cycle assessment etc. and found the reply of PP 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 1650 m² 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 ₹ 1,35,000(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. PP shall engage Environment Chemist, RO 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 ₹ 0.49 Crore (Capital cost) and ₹ 0.12 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) The total water requirement is 14.03 KLD of which fresh water requirement of 12.23 KLD and will be met from GIDC 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.
- (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 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.
- (vii) 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.

- (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 project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
- (xi) As committed by the PP, zero liquid discharge shall be ensured, Domestic wastewater shall be disposed through soak pit or septic tank system. 2.3 KLD wastewater (cooling bleed off (2.0 KL/Day) + Boiler blow down (0.3 KL/Day)) will be treat in Primary ETP followed by R.O plant. R.O Permeate 1.8 KL/Day will be reused for Cooling purpose and R.O reject 0.5 KL/Day will be evaporated in Single stage evaporator and salt will be sent TSDF Site
- (xii) 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.
- (xiii) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (xiv) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xv) Training shall be imparted to all employees on safety and health aspects 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.
- (xvi) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xvii) 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.
- (xviii) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.

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

Agenda No. 40.4

Proposed Expansion of Chemical and Agro-Chemical Intermediates by increase in production capacity from 5,825 TPA to 33,966 TPA located at Plot No. 21/2 Roha MIDC, Taluka Roha, District Raigad, Maharashtra by M/s. Anshul Innovative Chemistry Private Limited - Consideration of Environmental Clearance

[Proposal No. IA/MH/IND3/253119/2017; File No. J-11011/353/2016-IA.II (I)]

1. The proposal is for the environmental clearance to the project for Proposed Expansion of Chemical and Agro-Chemical Intermediates of production capacity from 5,825 TPA to 33,966 TPA located at Plot No. 21/2 Roha MIDC, Taluka Roha, District Raigad, Maharashtra by M/s Anshul Innovative Chemistry Private Limited - Consideration of Environmental Clearance.
2. The project/activity is covered under Category 'A' of item 5(b) Pesticides industry and pesticide specific intermediates (excluding formulations) and 5(f) (Synthetic organic chemicals industry) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended).
3. The PP applied for ToR vide proposal number IA/MH/IND3/226147/2021 1 dated 14.1.2022 and the standard ToR has been issued by the Ministry, vide letter No J-11011/353/2016-IA II (I) dated **20.1.2022**. The PP reported that PH is exempted as it is located inside the notified industrial area i.e., MIDC Dhatav, Roha. The PP applied for Environment Clearance on 30.4.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP reported in Form-2 that it is an **Expansion EC**. Due to some shortcomings, the Project was referred back to the PP on 20.5.2022 and 5.6.2022 and reply to the same was submitted on 16.5.2022 and 5.7.2022. The proposal was placed in 35th EAC Meeting held on 28-29 June, 2022, wherein, the EAC deferred the proposal for requisite information and reply for the same has been submitted 27.9.2022 and now the proposal is placed in 40th EAC meeting held on 18-19 October, 2022 wherein the PP and an accredited Consultant M/s. Perfect Enviro Solutions Pvt. Ltd [Accreditation number NABET/EIA/1922/SA0143 Valid up to 22.11.2022 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 1.5703 Ha and no additional land will be used for proposed expansion and no R & R is involved in the Project. The details of products and by-products are as follows:

S. No.	Name of the products	CAS No.	Quantity as per EC (TPA)	Proposed Quantity (TPA)	Total Quantity (TPA)	End use of Product
Category 5(b) product						
1	2- Cyanoaniline	1885-29-6	-	60	60	Agrochemical
Category 5(f) product						
2	Isatoic Anhydride	118-48-9	3,005	0	3,005	Flavours, Fragrance,

						Pharmaceutical Intermediates, Chemical intermediates, Bird Repellent
3	Anthranilic Acid	118-92-3	400	0	400	Mainly in Fragrance
4	Methyl Anthranilate	134-20-3	2,000	0	2,000	Flavour & Fragrances
5	Dimethyl Anthranilate	85-91-6	200	0	200	Flavour & Fragrances
6	Butyl Anthranilate	7756-96-9	100	0	100	Paints and dyes
7	Anthranilamide	88-68-6	80	160	240	Dyes, Chemical intermediates
8	Dibromoester	105-36-2	40	40	80	Fragrances
9	Oxalyl chloride	79-37-8	-	2,400	2,400	Pharma Intermediates
10	Chloromethyl isopropyl carbonate	35180-01-09	-	1,200	1,200	Pharma Intermediates
11	Methyl Oxalyl Chloride (MOC)	5781-53-3	-	300	300	Pharma Intermediates
12	2- Chloroacetamide (2CAA)	79-07-2	-	300	300	Pharma Intermediates
13	2-[N-(2-Aminobenzoyl)]-amino benzoic acid	1147-43-9	-	72	72	Pharma Intermediates
14	Trichloroacetamide (TCA)	594-65-0	-	72	72	Pharma Intermediates
15	Hexabromobenzene	87-82-1	-	120	120	Pharma Intermediates
16	2[2-(Hydroxy benzoyl) amino] benzoic acid (HBAB)	58574-03-01	-	60	60	Pharma Intermediates
17	Naphthalene 2-sulfonyl chloride	93-11-8	-	72	72	Pharma Intermediates
18	3,5- Xylenol	108-68-9	-	1,200	1,200	Pharma Intermediates
19	p- Chloro Meta Xylenol	88-04-0	-	600	600	Pharma Intermediates
20	Tetramethyl bisphenol-F (TMBP-F)	5384-21-4	-	600	600	Pharma Intermediates
21	HCl (min 30%)	7647-01-0	-	20486	20486	Industrial chemicals
22	Dimethyl Oxalate	553-90-2	-	45	45	Industrial chemicals
23	Hypochlorite	7681 -	-	354	354	Industrial

	52-9				chemicals
Total Production Capacity	5,825	28141	33,966		

5. The PP reported that the Ministry had issued the EC earlier vide letter no. J-11011/353/2016-IA II(I); dated 1st September 2017 to project Synthetic Organic Chemical Manufacturing Unit in favour of M/s Ambernath Organics Pvt. Ltd under 5(f) and the case was appraised in MoEF&CC in absence of SEIAA Maharashtra. The transfer of EC in the name of M/s Anshul Innovative Chemistry Pvt. Limited from M/s Ambernath Organics Pvt. Ltd. was granted by SEIAA, Maharashtra vide letter no. SIA/MH/IND2/174853/2020 on 09.12.2021
6. The PP reported that Certified Compliance was obtained letter vide no. EC- 572/RON/2017-NGP/8858 dated 11 November 2021. A Closure report has been submitted to Member Secretary, SEIAA, Maharashtra by IRO, Nagpur vide letter no. F.No. EC-572/RON/2017-NGP/9837 dated 14.06.2022 in lieu of an action taken report submitted by PP for the non-complied point of the certified compliance report.
7. 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.
8. 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. PP reported that no forest land is involved for the proposed project. River Kundalika is flowing at a distance of 0.98 km in NE direction. The project is at a distance of 2.23 km SW from Western Ghats Village Dhatav CT (As per draft ESA notification of western ghats dated 06th July 2022. PP reported that two Schedule I species i.e. Pavo cristatus, Buceros bicornis, exist within 10 km study area of the project conservation plan has been submitted to Divisional Forest officer on 24.2.2022 with budgetary provision of ₹ 12 Lakh The PP committed to implement the plan in 5 year.
9. The PP reported that Ambient air quality monitoring was carried out at 8 locations between October 2021 to December 2021 and the baseline data indicates the ranges of concentrations as: PM₁₀ (59.48-106.91 µg/m³), PM_{2.5} (27.59- 51.63 µg/m³), SO₂ (5.33- 11.72 µg/m³) and NO₂ (18.29- 37.12 µg/m³). AAQ modelling study for point source emissions indicates that the maximum GLCs after the proposed project would be 88.78 µg/m³, 42.34 µg/m³, 9.19 µg/m³, 29.36 µg/m³ and 1.522 mg/m³ with respect to PM₁₀, PM_{2.5}, SO_x, NO_x and CO, hence the resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). The ambient noise level during day time at the proposed project site varies from 58.5 dB (A) to 58.9 dB (A), during the night the noise level at the project site ranges from 54.0 dB (A) to 54.2 dB (A) which are within the standard limit of Industrial area ~75 dB(A) & 70 dB (A). In the Buffer Zone, noise levels at the day time ranges from 53.7 dB(A)- 76.8 dB(A) and at night time it ranges from 47.1 dB (A) to 65.9 dB (A). The increased noise level is due to vehicular activity at Roha Kolad Road. The surface water quality of the collected sampling locations at Dhatav Village Pond, Nandawali canal & Kund river were in compliance with the Class "D" i.e. Propagation of Wildlife and Fisheries as per CPCB surface water quality- Designated Best Use Water Quality Criteria. While the water quality of Kundalika River (upstream) was in compliance with the Class "B" i.e. Outdoor Bathing (Organised) as per CPCB surface water quality- Designated Best Use Water Quality Criteria & Kundalika River (downstream) was in compliance with Class "A" i.e. Drinking water source without conventional treatment- Designated Best Use Water Quality Criteria respectively. The Ground water quality of the buffer zone is well within the drinking water standard (IS:10500). Thus, the water quality of the study area is fit for the consumption. The texture of soil in the core zone is clayey. Colour is reddish brown, pH is 7.24. Amount of primary nutrients like organic matter is 0.63%, the available nitrogen 68.6 mg/kg is low and available potassium 33.6 mg/kg is low while the available phosphorus 20.8 mg/kg is in higher range. Thus it can be concluded that soil is average fertile in the core zone.

10. The PP reported that the total water requirement after expansion will be 700 KLD out of which fresh water requirement will be 404 KLD (during lean season) which will be sourced from the MIDC supply, however during rainy season fresh water required will be only 210 KLD while 194 KLD requirement will be met from collected rain water & rest 296 KLD will be in-house treated water. After expansion total wastewater generation will be 334 KLD out of which low concentration stream will be 260 KLD comprising of domestic wastewater cooling tower wastewater, boiler blowdown, scrubbing wastewater, washing wastewater and Low COD-TDS process wastewater which will be treated in ETP of Capacity 310 KLD followed by RO Plant of capacity 290 KLD. The high concentration stream of 184 KLD consisting of High COD-TDS process wastewater, waste water from ejector (utility) along with RO reject will be treated in MEE of capacity 250 KLD. Total treated water of 296 KLD (condensate 160 KLD & RO permeate 136 KLD) will be reused in cooling, boiler, scrubbing, washing and ejector (utility). It will be a ZLD unit.
11. The PP reported that Power requirement after expansion will be 1607 KW including existing 520 KW and will be met from Maharashtra State Electricity distribution corporation limited (MSEDCL). Existing unit has no DG sets, additionally, 2 DG sets of 500 kVA will be used as standby during power failure. Stack height (7 m) will be provided as per CPCB norms to the proposed DG sets.
12. The PP reported that as per Earlier EC 3 x 0.8 TPH & 1 x 2 TPH boilers were proposed. However, the same will not be installed. Instead 1 x 5 TPH & 2 x 3 TPH boilers will be installed. Multi cyclone dust collector with a stack of height of 26 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers. A Thermal fluid heater of 2 Lac Kcal/hr, and a Multi cyclone dust collector with stack of height 19 m will also be installed in the unit after expansion.

13. Details of Process Emissions Generation and their Management:

Name of Stack/Location	S-01 IA Plant Sigma	S --02 OC Plant	S-03 MPP-1 /MOC PLANT (Caustic Scrubber)	S-04 Emergency Scrubber	S-05 Chlorine EME System
Pollution Control Measure	Packed column, Venturi scrubber with blower Scrubbing media- Caustic water	Falling film Scrubber Scrubbing media- caustic water	Falling film Scrubber Scrubbing media- Caustic water	Venturi scrubber with blower	Venturi scrubber with blower
Height (m)	13	9	3	25	20
Stack dia (m)	300mm	80mm	80mm	600mm	600mm
Parameter	CO ₂ , HCl, Cl ₂ , NH ₃ , NO ₂	HCl, Cl ₂ , NH ₃ , NO ₂	HCl, Cl ₂ , NH ₃ , NO ₂	CO ₂ , HCl, Cl ₂ , NH ₃ , NO ₂	CO ₂ , HCl, Cl ₂ , NH ₃ , NO ₂

14. Details of Solid Waste Generation and its Management:

Category	Type of Waste	After Expansion (kg/day)	Treatment Method
Biodegradable	Organic Waste	66	Existing: Given to vendor Proposed: OWC (converted to compost)
Non-Biodegradable	Recyclable Waste (Plastic, paper, wood,	99	Sold to Authorised Recycler

	glass, etc)		
Total		165 kg/day	
NON-HAZARDOUS WASTE MANAGEMENT (PROCESS)			
Process Waste	Unit	Total after expansion	Treatment/Disposal
Boiler Ash	TPA	766.5	Sold to the approved vendor (M/s Boiler Service) and agreement has been done for lifting of the ash and end use of ash for making ash based products like cement, ash bricks, blocks, tiles etc.and to provide end use certificate for the use of ash after every consignment.
Plastic waste	TPA	1.2	Sale to authorised party for recycle
Wooden pallets	Nos/Annum	50.0	Sale to authorised party for recycle
Scrap M/S	TPA	500	Sale to authorised party for recycle

15. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 9.79 crore (capital) and the Recurring cost (operation and maintenance) will be about ₹ 5.82crore , Industry proposes to allocate Rs 120 lakhs towards CER for Educational aids such as computers, E-learning materials, Solar street Lamps etc. for the Zilla Parishad schools the study area of the project site, Drinking water facilities, Sanitation and Health facilities within the study area of the project site.
16. Industry will develop greenbelt in an area of 11,866.23 m² with provision of 5555 number of trees.
17. The PP proposed to set up an Environment Management Cell (EMC), it is proposed to engage Executive director- Site incharge- HOD-EDS, executive EHS, EHS supervisor- ETP operator for the functioning of EMC.
18. The Sequestration by the trees was calculated on a per species basis and the Others is calculated on the basis of Literature and found to be a total of 1641.7 tonnes of CO₂ Per annum. During the peak operations, the total CO₂ emissions will be 16750 MT/annum which is equivalent to 0.49 tonne CO₂ eq./tonne Production. Through development of a green belt having total area of 5189.5 sq.m having 1176 trees, there will be natural sequestration of CO₂ emissions. Due to which, company will sequester 1641.7 MT/annum eq. CO₂ (10%) through new 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 15109 Tonne eq. CO₂/annum which is about 0.44 tonne CO₂ eq. / tonne production
19. The PP submitted that Public Hearing is exempted as it is located inside the notified industrial area i.e., MIDC Dhatav, Roha as per clause 7 (i) (iii) of EIA notification 2006 (as per OM J-11011/321/2016-IA. II(I) dated 27th April 2018)
20. The PP submitted the disaster and Onsite and Offsite Emergency Plans in the EIA report.
21. The estimated project cost is Rs 47 crores including existing investment of Rs 11 crores. Total Employment will be 155 persons (direct & indirect) after expansion.

22. The proposal was placed in 35th EAC Meeting held on July 28-29 2022, wherein the Committee deferred the proposal for want of requisite information. Reply to the same is submitted by PP on 27.9.2022, which is as follows:

S. No.	Queries Raised by EAC	Reply by PP	Observation of EAC
1.	The Committee is of the view that this issue needs more clarity in pursuant to directions issued by MoEF&CC in 2013 and Hon'ble NGT Order dated 24.08.2018 in the matter of Goa Foundation Vs. Union of India. The Member Secretary may first confirm from the ESZ Division whether EC can be granted to this proposal or not in pursuant to the said Hon'ble NGT Order and then place the proposal before EAC.	The EAC has got the clarification from the ESZ division regarding whether EC can be granted to this proposal or not in the pursuant to the directions issued by MOEFCC in 2013 and Hon'ble NGT order 24.8.2018 in the matter of Goa Foundation Vs. Union of India.	The EAC found the reply submitted by the ESZ division of MoEF&CC to be satisfactory.

23. **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 noted that the ESZ Division of MoEF&CC in its reply stated that Dhatav village, Raigad District of Maharashtra wherein project site is shown to be located, falls in the list of villages of Maharashtra which were referred as part of Western Ghats Eco Sensitive Area (WGESA) Notification. However, considering that it is not clarified if the complete or partial village in Maharashtra is part of WGESA, the analysis on the basis of shape file, wherein project location is observed to be 528.29 meters away from the WGESA boundary, shall be considered applicable in the extant matter.

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.

24. 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, 11,866.23 m² by planting 5555 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 ₹ 2 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 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 Executive director- Site in-charge- HOD-EHS, executive EHS, EHS supervisor- ETP 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. 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 [₹ 9.79 Crore (Capital cost) and ₹ 5.82 Crore (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) The water requirement after expansion will be 700 KLD out of which fresh water requirement will be 404 KLD (during lean season) which will be sourced from the 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 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.

- (v) 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.
- (vi) 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.
- (vii) 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.
- (viii) The project proponent shall comply with the environment norms for Pesticide as notified by the Ministry of Environment, Forest and Climate Change, *vide* GSR 446(E), dated 13.6.2011 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) 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.
- (xi) 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.
- (xii) As committed by the PP, Zero Liquid Discharge shall be ensured. Total treated water of 296 KLD (condensate 160 KLD & RO permeate 136 KLD) will be reused in cooling, boiler, scrubbing, washing and ejector (utility).
- (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 vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

Agenda No. 40.5

Expansion of Chlor Alkali Plant from 99000 TPA to 264000 TPA and Establishment of Flaker Plant, Stable Bleaching Powder Plant, Hydrogen Peroxide Plant & Captive Power Plant at Naya Nangal, Dist. Rupnagar, Punjab by M/s. Punjab Alkalies and Chemicals Ltd - Consideration of Amendment in EC

[Proposal No. IA/PB/IND3/291892/2022; File No. IA-J-11011/332/2018-IA-II(I)]

1. The proposal is for amendment in the EC granted by the Ministry vide letter no. No.IA-J-11011/332/2018-IA-II(I)) dated 7.1.2020 for Expansion of Chlor Alkali Plant from 99000 TPA to 264000 TPA and establishment of Flaker Plant, Stable Bleaching Powder Plant, Hydrogen Peroxide Plant & Captive Power Plant at Naya Nangal, District Rupnagar (Punjab) by M/s Punjab Alkalies and Chemicals Ltd.
2. The project proponent has requested for amendment in the EC with the details as under:

S. No.	Details as per the EC	Justification/ reasons
1.	Reduction in Plot Area at tune of 20,234 m ² from total plot area 3,46,408 m ²	<ul style="list-style-type: none"> •M/s. APMIJA Pharmaceuticals Pvt. Ltd. (APIMJA) has taken the land measuring 5 acres on lease for 50 years from M/s Punjab Alkalies and Chemicals Limited (PACL). •M/s. PACL has signed MoU for 20,234 m² (i.e. 5 Acres) of land with APIMJA. MoU is signed on dated 27th December, 2021 •APIMJA has taken Environmental Clearance for the same from SEIAA, Punjab on vide EC Identification No. EC22B058PB117320, File No. SEIAA/PB/IND/2022/EC/04 for API products under

		B2 category on dated 28 th March 2022.
2.	Changes in Site Layout Map: There are changes in Site Layout map	Protected greenbelt already developed and/or to utilize the open area in a best possible manner. Remark: There is no change in Hazardous Chemicals Storage area and flue gas stacks and process vents location due to proposed change in site layout map.
3.	Addition of new product Aluminium Chloride (AlCl ₃) of 16,500 MT/Annum, although this product doesn't attract EIA Notification, 2006.	Letter of MoEF&CC dated 11 th July 2022 Stating Production of Aluminum Chloride requires EC Amendment

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 domestic wastewater treatment, green belt development, usage of cleaner fuel, compliance of the EC conditions of the existing Unit and advised the PP to submit the following:

- Confirmation for installation of STP (28 KLD) for the treatment of domestic wastewater of Industrial Area to reduce fresh water consumption and revised water balance.
- Revised greenbelt development plan considering a density of 2500 trees per ha. and 80% survival rate.
- Upgrade the technology to include bio fuel as a mix with coal.
- Action taken report on the non-complied EC conditions.

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

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

- (i). STP (28 KLD) shall be installed for the treatment of domestic wastewater of Industrial Area to reduce fresh water consumption.
- (ii). About 9,936 saplings shall be planted within one year and before the next monsoon considering a density of 2500 trees per ha. and 80% survival rate.
- (iii). Biofuel shall be used as a primary fuel in the proposed CPP of 40 MW, to the extent feasible Upgrade the technology to include bio fuel as a mix with coal.
- (iv). 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.
- (v). 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. 40.6.

Proposed API and intermediates manufacturing unit of production capacity 45 TPM located at plot no. 100, Kadechur industrial area, Yadagir Taluk & District, Karnataka by M/s. SUSHRUTHA CHEMPHARMA PVT. LTD. - Consideration of EC.

[Proposal No. IA/KA/IND3/287438/2021; File No. IA-J-11011/496/2021-IA-II(I)]

1. The proposal is for environmental clearance for the Proposed API and intermediates manufacturing unit of production capacity 45 TPM located at plot no. 100, Kadechur industrial area, Yadagir Taluk & District, Karnataka by M/s. SUSHRUTHA CHEMPHARMA 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 project site is located within 5 km of interstate boundary, 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/IND3/241413/2021 dated 6.12.2021 and the standard ToR was issued by the Ministry, vide letter No. IA-J-11011/496/2021-IA-II(I) dated 10.12.2021. 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 9.8.2022 in Form-2 and submitted EIA/EMP Report and other documents. Due to some shortcomings, the Project was referred back to PP and reply to the same was submitted by the PP on 26.9.2022. The PP in the Form-2 reported that it is a **Fresh EC**. The proposal was placed in 40th EAC Meeting held on 18-19 October, 2022, wherein the PP and an accredited Consultant, AM Enviro Engineers [Accreditation number NABET/EIA/2023/SA0167 Valid up to 30.6.2023], 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 0.80548 Ha and no R&R is involved in the Project. The details of products and by-products are as follows:

S. No	Name of Products	Qty. in TPM	CAS No.	Therapeutic use
Intermediates				
1.	3,5-Diiodosalicylic acid	10	133-91-5	API's Intermediate (Closantel)
2.	3,5,6-Trichlorosalicylic Acid	15	40932-60-3	API's Intermediate (Oxyclozanide)
3.	5-Chlorosalicylic acid	10	321-14-2	API's Intermediate (Niclosamide, Glibenclamide)
4.	Rafoxanide Amino Ether	5	24900-79-6	API's Intermediate (Rafoxanide)
API's				
5.	Lansoprazole	5	103577-45-3	To treat the symptoms of gastroesophageal reflux disease (GERD)
6.	Omeprazole	5	73590-58-6	To treat the symptoms of gastroesophageal reflux disease (GERD)

7.	Pantoprazole Sodium	5	102625-70-7	treat damage from gastroesophageal reflux disease
8.	Rabeprazole	5	117976-89-3	To treat the symptoms of gastroesophageal reflux disease (GERD)
9.	Triclabendazole	5	68786-66-3	To treat fascioliasis
Total		65 TPM		
Total (5 products) at a given point of time		45 TPM		

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 project site is not located within 10 km distance of national parks, sanctuaries, Biosphere Reserves, Migratory corridors of wild Animals. Kadechur lake is at 1.98 km in Northeast direction and Bhima River is at 8.39 km in West direction. The PP reported that no Schedule-I species exist within 10 km study area of the project.
7. 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: PM₁₀ (59.0–68.7 µg/m³), PM_{2.5} (27.5– 35.8 µg/m³), SO₂ (13.1 – 17.8 µg/m³) and NO₂ (23.5 – 31.4 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.1 µg/m³, 0.01 µg/m³ and 0.10 µg/m³ with respect to PM₁₀, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Ambient noise levels monitoring locations were selected by considering the sensitive receptors. Noise monitoring was conducted in 8 locations (1 in project site & other 7 in buffer area). A sound level meter was used for measuring the noise level at one-hour interval continuously for 24 hours at 1.5 m above ground level from wall, building or other sound reflecting sources. The daytime noise level at the Project site were observed to be in the range of 49.2 dB (A) to 53.5 dB(A), which is well below the permissible limits of 75 dB(A) for industrial zone. The night-time noise level in the Project site were observed to be in the range of 41dB (A) to 44.3 dB (A), which is well below the permissible limits of 55 dB (A) for industrial zone. Water Monitoring locations were selected by studying drainage pattern and hydrogeological condition of the study area. Total 11 number of water samples (8 - ground water & 3 - surface water) were collected as per CPCB guidelines of Water Quality Monitoring. And the samples were analyzed for their physicochemical parameters as per IS 10500-2012. The pH of the ground water samples collected was in the range between 6.67 – 7.55. Total dissolved solids in the ground water samples were in the range between 552 – 703 mg/l. The Chlorides concentration was found to vary between 110 - 170 mg/l. Total hardness was found to vary between 290 - 410 mg/l. The Sulphates concentration was found to vary between 34.8 – 53.7 mg/l. Fluoride concentration in all samples are found to be below acceptable limits. Most of the heavy metals were not detected. Overall, the ground water is potable and suitable for domestic use. The pH of surface water sample collected were in the range between 7.35 – 7.46. Total dissolved solids in the samples were in the range of 270 - 430 mg/l. Total hardness was found to be between 90 - 150 mg/l. Chloride's concentration was found to be between 60 - 70 mg/l. Fluoride concentration was found to be between 0.2 – 0.3. Sulphate's concentration was found to be between 9 – 13.6 mg/l. Each of the parameter analyze conforms to all the class criteria. Baseline data for land environment was collected at 8 locations to know the physicochemical characteristics of the soil. At the monitoring locations, 2 kg of soil samples at a depth of one and half feet (topsoil) were collected by means of augur, filled in polythene bags and sent to the laboratory for analysis. The analysis of soil characteristics was carried by adopting grain size sieve analysis and prominent chemical parameters like pH, Conductivity, chlorides, etc. The topsoil of the study area having higher

proportion of sand and silt. The pH of the soil is slightly Alkaline (7.15 - 7.57). Electrical conductivity of the sample varied from 168 to 319 $\mu\text{S}/\text{cm}$, which indicates, no salinity ingress in the study area. Percentage of Total Organic Carbon is observed in between 0.34% to 0.75% indicating average sufficiency in nature. The concentration of available Nitrogen, Phosphorous and Potassium in the samples signifies that the soil has sufficient nutrient content and the area is fertile.

8. The PP reported that Source of water is from KIADB. The industry will not be utilizing any sources of groundwater. The industry has applied to KIADB for water supply, The total water consumption is estimated around 87.8 KLD including domestic consumption of 2 KLD. Fresh water is consumed for manufacturing process, scrubbing, washing, domestic consumption, and gardening. The water requirement for manufacturing process is 26.9 KLD. This 26.9 KLD will be passed through Reverse osmosis (RO) which gives RO permeate of 21.5 KLD and RO reject of 5.4 KLD. The RO permeate will be used directly for reaction processes. Treated water from CETP is utilized for Cooling tower makeup, which comes around 34.6 KLD. Thus, freshwater consumption is reduced to 43.6 KLD. After passing 26.9 KLD of water through RO, 21.5 KLD of RO Permeate and 5.4 KLD of RO Reject is obtained. The 21.5 KLD of RO permeate is given to the manufacturing process and RO reject is taken to the effluent stream. For the industrial activities such as manufacturing process, washing, scrubbing, boiler and cooling tower make-up, 75.1 KLD of water is required. For domestic usage and gardening, 1.7 KLD and 10.7 KLD of water is required respectively. For cooling tower make-up and boiler, CETP treated water of quantity 44.2 KLD will be utilized, and thus freshwater consumption is 43.6 KLD. The proposed project generates total effluent of quantity 42.3 KLD. The industrial effluent will be segregated based on the concentration of total dissolved solids (TDS). High TDS effluent of 27.5 KLD will be collected and neutralized in Equalization and Neutralization tank of capacity 35 KLD each and later on, will be sent to CETP. Low TDS effluent of 13.1 KLD (excluding domestic sewage) will be collected and neutralized in Equalization and Neutralization tank of capacity 20 KLD each and later on, will be sent to CETP. The industry has obtained CETP Agreement for treatment and disposal of industrial effluent with M/s. Mother Earth Environ Tech Pvt Ltd. on 1st April 2022.
9. The PP reported that Source of power supply is from GESCOM. Power requirement for the project is 500 KVA. DG set of 1 X 250 KVA capacity is proposed as power backup in case of emergency. The unit has proposed for one 250 KVA set as an alternative source of power supply during power failure. To control the air and sound pollution from DG Set, stack of height 6 m AGL and acoustic enclosure will be provided.
10. The unit is proposing for 1X2 TPH Coal/Briquette fired Boiler. Multi cyclone separator with bag filter with common stack of height of 23 m AGL will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers

11. Details of Process Emissions Generation and their Management:

S. No	Name of the Gas	Quantity in Kg/Day	Treatment Method	Disposal Method
1.	Hydrogen chloride	95.8	Scrubbed by using water media	Generated Dil. HCl will be reused within the industry
2.	Ammonia	9.1		Generated NH ₄ OH will be reused within the industry
3.	Sulphur dioxide	115.1	Scrubbed by using C.S. Lye solution	The generated effluent will be sent to CETP along with high TDS effluent.

12. Details of Solid Waste Generation and its Management:

S. No	Category of the HW	Name of the Hazardous Waste	Quantity	Disposal Method
Hazardous Waste Generation from Plant				
1.	5.1	Waste oils & Grease/ Used Mineral oil	0.1 KL/Annum	Agencies authorized by KSPCB
2.	5.2	Oil-Soaked Cotton	2 Kgs/month	KSPCB authorized Vendor
3.	20.3	Distillation Residue	267.7 kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing
4.	28.1	Process Residues & Waste	695.2 kg/day	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
5.	28.2	Spent Catalyst	6.7 kg/day	Store in secured manner and hand over to authorized recycler
6.	28.3	Spent Carbon	40.3 Kgs/Day	Store in secured manner and hand over to authorized cement industry for Co-processing
7.	28.4	Off Specification Products	1 TPM	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
8.	28.5	Date expired products	500 Kgs/Month	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
9.	28.6	Spent Solvent	233 kg/day	Store in secured manner and hand over to authorized recyclers
10.	33.1	Detoxified- Container & Container Liners of Hazardous Chemicals and Wastes	300 No's/Month	After complete detoxification, shall be disposed to the outside agencies.
11.	33.2	Contaminated cotton rags or other cleaning materials	25 Kgs/month	Store in secured manner and hand over to KSPCB Authorized Vendor
12.	35.3	Chemical sludge	50 MT/A	Sent to TSDF
13.	A1160	Used Lead Acid batteries	2 No's/Annum	Returned back to dealer/ Supplier
Other & Miscellaneous Solid Wastes				
14.	--	Coal ash	560 kgs/day	Sent to Brick Manufacturers
15.	--	Briquette ash	1560 kgs/day	Sent to fertilizer industries
16.	--	Used PPE	5 Kgs/ Month	Sent to authorized vendor
17.	--	E- Waste	150 Kgs/ Annum	Authorized recyclers

18.	--	Plastic Waste	200 Kgs/ Annum	Authorized recyclers
19.	--	Metal Scrap	3 TPA	Sale to outside agencies/ recyclers
20.	--	Used Filters (HEPA filters, Oil Filters etc.)	25 Nos /Year	Sent to TSDF
21.	--	Used / Discarded RO Membranes	0.2 TPA	Sent to TSDF

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

EFFLUENT WATER								SOLID WASTE In kg						
Water input in	Water in	Organic s in	TDS in Kg	COD in Kg	HTDS in liter	LTDS in liter	Total Effluent	Organic	In Organic	Spent carbon	Spent catalyst	Spent solvent	Distillati on	Process Emission 211.4
21470.0	23049.4	415.6	243.5	621.1	2546.3	368.9	25825.3	471.0	224.2	40.3	6.7	233.3	267.7	

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 62.6 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 17.75 Lakh per annum. The industry proposes to allocate ₹ 6.0 lakhs towards CER.
15. It is proposed to provide green belt in an area of 2679.85 m², covering the boundary of the site. Native trees of 670 Nos. shall be identified for plantation and guidelines issued by CPCB for development of green belt shall be followed.
16. The PP proposed to set up an Environment Management Cell (EMC) consisting of HOD (Environment and safety)- Deputy Manager (Env) – Ass. Manager (Safety)- officer (safety) for the functioning of EMC.
17. The PP submitted the onsite and offsite disaster management plans in the EIA report.
18. The estimated project cost is ₹ 5.5 Crores. Total Employment will be 30 persons as direct & 15 persons indirect.
19. **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 layout plan and hazardous waste generation and advised the PP to submit the following:

- Revised Layout Plan so as to include entry to the individual production blocks and utility areas.
- The hazardous waste (spent ion exchange resin) should be quantified.

The PP submitted the above information/documents and the 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.

20. 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 2679.85 m² by planting 850 number of trees of which 60% shall be planted 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 ₹ 3.35 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 HOD (Environment and safety)- Deputy Manager (Env) – Ass. Manager. 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 ₹ 62.6 Lakh (Capital cost) and ₹ 17.75 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 consumption is estimated around 87.8 KLD including domestic consumption of 2 KLD and will be met from KIADB. 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 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) 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) Low TDS effluent of 13.1 KLD (excluding domestic sewage) will be collected and neutralized in Equalization and Neutralization tank of capacity 20 KLD each and later on, shall be sent to CETP

- (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. 40.7

Proposed Expansion of Pharmaceutical Manufacturing unit by adding API and Intermediate products within existing herbal products manufacturing unit with production capacity of 43.85 TPA located at Plot No. SP-15, RIICO Industrial Area, Keshwana Gujar, Tehsil Kotputli, Jaipur, Rajasthan by M/s. Shree Nath Life Sciences Pvt. Ltd. - Consideration of EC.

[Proposal No. IA/RJ/IND3/240986/2021; File No. IA-J-11011/291/2021-IA-II(I)]

1. The proposal is for the expansion of Pharmaceutical Manufacturing unit by adding API and Intermediate products within existing herbal products manufacturing unit with production capacity of 43.85 TPA located at Plot No. SP-15, RIICO Industrial Area, Keshwana Gujar, Tehsil Kotputli, Jaipur, Rajasthan.
2. The project/activity is covered under Category 'B' of item 5(f), of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by Expert Appraisal Committee (EAC). However, since the project site is located within 5 km of interstate boundary, 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/RJ/IND3/221593/2021 dated 5.8.2021. The PP submitted that the Public Hearing is not required for the proposed project per clause **7 (i) (iii) stage (3)(i)(b)** of EIA notification 2006 (as per OM J-11011/321/2016-IA. II(I) dated 27th April 2018). The PP applied for the Environment Clearance on 29.11.2021 in Form-2 and submitted EIA/EMP Report and other documents. Due to some shortcomings, the Project was referred back to PP on 30.11.2021, 15.7.2022, 21.8.2022 and reply to the same was submitted by the PP on 30.6.2022, 3.8.2022, 7.10.2022 The PP in the Form-2 reported that it is an **Expansion EC**. The proposal was placed in 40th EAC Meeting held on 18-19 October, 2022, wherein the PP and an accredited Consultant, Perfect 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 1.1279 Ha and no R&R is involved in the Project. The details of products and by-products are as follows:

S. No.	Particulars	CAS No.	Existing Production Capacity TPA	Proposed Production Capacity TPA	Total After Expansion Production Capacity TPA
I. Herbal Products (Non-EC) as per CTE obtained from RSPCB and under installation phase					
1	10-Deacetyl Baccatin	32981-86-5	0.06	0.00	0.06
2	Caffeine (Natural)	58-08-2	0.45	0.00	0.45
3	Calcium Sennoside	62211-03-04	15.00	0.00	15.00
4	Coffee Bean	68916-18-7	18.00	0.00	18.00
5	Colchicine	64-86-8	0.18	0.00	0.18
6	Curcumin	458-37-7	6.00	0.00	6.00
7	Garcinia	27750-13-6	2.40	0.00	2.40
8	Grape Seeds Extract	84929-27-1	0.40	0.00	0.40
9	Green Tea Extracts	84650-60-2	0.30	0.00	0.30
10	Hyoscine Butylbromide	149-64-4	0.36	0.00	0.36
11	Thiocolchicoside	602-41-5	0.30	0.00	0.30
12	Yohimbine HCl	65-19-0	0.40	0.00	0.40
A.	Subtotal		43.85	0.00	43.85
II. Chemical Intermediates(Covered under 5f)					

1	1-Acetoxy Ethyl Bromide	40258-78-4	0.00	480.00	480.00
2	para-Nitro Benzyl Bromide	100-11-8	0.00	363.96	363.96
3	Para-Nitro Benzyl Alcohol	619-73-8	0.00	12.00	12.00
4	Para-Nitro Benzaldehyde	555-16-8	0.00	36.00	36.00
5	Para-Nitro Benzoic Acid	62-23-7	0.00	36.00	36.00
6	Ortho-Tolyl BenzoNitrile (OTBN)	114772-53-1	0.00	300.00	300.00
7	Bromo OTBN	114772-54-2	0.00	330.00	330.00
8	Hydrobromic Acid 48%	10035-10-6	0.00	540.00	540.00
9	Sodium Bromide	7647-15-6	0.00	60.00	60.00
10	Potassium Bromide	7758-02-03	0.00		
11	Calcium Bromide	7789-41-5	0.00		
12	Zinc Bromide	7699-45-8	0.00		
13	Magnesium Bromide	7789-48-2	0.00		
B.	Subtotal	-	0.00	2157.96	2157.96
III. APIs(Covered under 5f)					
1	Dexamethasone Sodium Phosphate	2392-39-4	0.00	3.75	3.75
2	Betamethasone Sodium Phosphate	151-73-5	0.00	1.88	1.88
3	Betamethasone Valerate	2152-44-5	0.00	1.65	1.65
4	Betamethasone Dipropionate	5593-20-4	0.00	1.65	1.65
5	Beclomethasone Dipropionate	5534-09-08	0.00	1.50	1.50
6	Clobetasol Propionate	25122-46-7	0.00	1.50	1.50
7	Prednisolone Sodium Phosphate	125-02-0	0.00	1.65	1.65
8	Prednisolone Acetate	52-21-1	0.00	1.88	1.88
9	Methylprednisolone	83-43-2	0.00	1.20	1.20
10	Paracetamol	103-90-2	0.00	6,240.00	6240.00
11	Azithromycin	83905-01-05	0.00	30.00	30.00
12	Methylcobalamin	13422-55-4	0.00	3.00	3.00
C.	Subtotal	-	0.00	6,289.65	6289.65
D.	R & D Trial Products	-	0.00	120.00	120.00

E. By-Products(Covered under 5f)					
1	Spent Acid (H ₂ SO ₄)	7664-93-9	0.00	1479.30	1479.30
2	Spent Acid (HCl)	7647-01-0	0.00	683.40	683.40
3	Sodium Bromide Soln.	7647-15-6	0.00	360.00	360.00
4	Dil. Acetic Acid	64-19-7	0.00	10137.30	10137.30
5	1-Di bromomethyl-4-Nitrobenzene (Di Bromo)	0100-11-8	0.00	65.00	65.00
6	HBr 40%	10035-10-6	0.00	540.80	540.80
E.	Subtotal	-	0.00	13265.80	13265.80
Total Production (A+B+C+D+E)		-	43.85	21833.41	21877.26

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 project site is not located within 10 km distance of national parks, sanctuaries, Biosphere Reserves, Migratory corridors of wild Animals. River/ water body Sota Nadi 0.16 Km N, Sahibi or Sabi Nadi 6.95 Km SSE, Budhwak Sub Minor 8.04 Km WSW, Nalpur Distributary 9.26 Km NW, River near Parsa Ka Bas 11.01 Km SE. The PP reported that one Schedule-I species Pavo Cristatus exist within 10 km study area of the project for which conservation plan has been prepared and submitted to CWW of Rs. 3 Lakhs for 3 years.
7. The PP submitted the self-certified compliance report of CTO conditions as per OM No. IA3-22/10/2022-IA.III [E 177258] dated 08.06.2022. Since there are no non-conformities or non-compliances, there is no requirement for the Action Taken Report (ATR).
8. The PP reported that ambient air quality monitoring was carried out at 7 locations during winter season from December 2020 to February 2021 and the baseline data indicated the ranges of concentrations as: PM₁₀ (60.05 µg/m³ to 131.14 µg/m³), PM_{2.5} (32.4 µg/m³ to 63.58 µg/m³), SO₂ (9.51 µg/m³ to 17.72 µg/m³) and NO_x (14.28 µg/m³ to 26.83 µg/m³). AAQ modelling study for point source emissions indicates that the maximum GLCs after the proposed project would be 0.163 µg/m³, 0.355 µg/m³, 1.29 µg/m³, 2.52 µg/m³ and 0.014 mg/m³ with respect to PM₁₀, PM_{2.5}, SO_x and NO_x and CO. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). The ambient noise level during day time at the proposed project site varied from 58.6 dB (A) to 58.8 dB (A) which are within the day time standard limit of Industrial area ~ 75 dB (A). During night the noise level at the project site ranges from 49.5 dB (A) to 49.6 dB (A) which are within the night time standard limit of Industrial area 70.0 dB (A). The water quality of the core zone shows that all the parameters are higher than the drinking water standards (IS:10500). Thus, the water quality of the core zone is not fit for consumption. After analysing the samples collected from the site, it shows that the soil texture is silt loam, Colour is Brown, pH is 6.8. Amount of primary nutrients like Organic matter is 0.43 %, the available nitrogen 61.6 mg/kg is low and available Potassium 10.8 mg/kg is low while the available Phosphorus 26.8 mg/kg is in a higher range. Thus it can be concluded that soil is average fertile in the core Zone.
9. The PP reported that total water requirement will be 71.7 KLD out of which 42.7 KLD of freshwater requirement will be met by CGWA supply and the remaining 29 KLD will be inhouse treated water. The total waste water generated from the industry will be 41.3 KLD out of which domestic sewage will be 4 KLD which will be disposed of to septic tank followed by soak pit, high TDS Process

Effluent/ Mother Liquor (ML) will be 17.8 KLD which will be treated in line Distillation System (built in recovery system in each production area) & rest non-process effluent will be 19.5 KLD which will be treated in ETP of 20 KLD. The treated water of 33 KLD will be reused within the unit for washing, scrubbing & industrial processes. Thus it will be a Zero Liquid Discharge (ZLD) unit.

10. The PP reported that Power requirement after expansion will be 630 kVA and will be sourced from Jaipur Vidyut Vitran Nigam Limited. Existing unit has DG sets with a capacity of 250 kVA and the proposed unit has DG sets with a capacity of 25 kVA, 125 kVA, 380 kVA. Adequate stack height will be provided as per CPCB norms of the proposed DG sets.
11. Existing unit has 1 No. of 2 TPH and 1 No. of 2 TPH will be proposed for expansion with Multi cyclone separator with a stack of height of 30 m and 15 m for controlling the particulate emissions within the statutory limit of 150 mg/Nm³ for the boilers.

12. Details of Process emissions generation and its management:

Stack No	Name of Stack	Pollution Control Measure	Height in Mtr	Stack Dia	Emissions	Fuel used	Proposed/Expansion
1	Boiler , 1 TPH	Multicyclone	15	1 m	TPM SO ₂	Coal	Existing (within herbal CTE)
2	DG 250 kVA	Acoustic enclosure with stack	3.5 above roof	0.3	PM, SO, NO _x	HSD	Existing (within herbal CTE)
3	Boiler, 2 TPH	Cyclone + water Scrubber	30	1 m	TPM SO ₂	Coal	New Installation
4	DG 380 kVA	Acoustic enclosure with stack	4.0 above roof	0.3	PM, SO, NO _x	HSD	New Installation
5	DG 125 kVA	Acoustic enclosure with stack	2.5 above roof	0.25	PM, SO, NO _x	HSD	New Installation
6	DG 25 kVA	Acoustic enclosure with stack	1.5 above roof	0.2	PM, SO, NO _x	HSD	New Installation

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

Category	Type of Waste	Treatment Method	Existing kg/day	Proposed kg/day	After expansion kg/day
Biodegradable	Organic Waste	approved vendor disposal for to MSW site	4.0	1.0	5.0
Non-Biodegradable	Recyclable Waste (Plastic, paper, wood, glass, etc)	Approved recycler	6.0	3.0	9.0
	Total		10.0	4.0	14.0

Process Waste	Unit	Quantity of generation After expansion	Treatment/Disposal
Boiler Ash	TPA	45	will be sold to Cement and brick Manufacturing unit

S.No.	Type of waste	Category (as per HWM Rules,2016)	Unit	Quantity of generation	Disposal
1	Residues from Effluent Evaporator	28.10	TPA	362	Disposed off at TSDF site approved by State Pollution Control Board as per HoWM 2016
2	ETP Sludge	35.3	TPA	2.5	Disposed off at TSDF site approved by State Pollution Control Board as per HoWM 2016
3	Inorganic Residue from SRU	28.1	TPA	1577.4	Disposed off at TSDF site approved by State Pollution Control Board as per HoWM 2016
4	Discarded Containers	33.1	TPA	200	Sold to secondary users after decontamination having registration under Rule 9 of HoWM 2016 from CPCB
5	Used Oil	5.1	TPA	0.21	TSDF site or sold to recyclers having registration under Rule 9 of HoWM 2016 from CPCB
6	Spent Catalyst	28.20	TPA	31.8	TSDF or Sent to Recycler having registration under Rule 9 of HoWM 2016
7	Process Residue and waste	28.1	TPA	1362.08	Disposed off at TSDF site approved by State Pollution Control Board as per HoWM 2016
8	Spent Catalyst	28.2	TPA	0.9	Disposed off at TSDF site approved by State Pollution Control Board as per HoWM 2016
9	Spent Carbon	28.3	TPA	265.005	Disposed off at TSDF site approved by State Pollution Control Board as per HoWM 2016

10	Sludge from wastewater treatment	35.3	TPA	1.8	Disposed off at TSDF site approved by State Pollution Control Board as per HoWM 2016
----	----------------------------------	------	-----	-----	--

14. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 97 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 13.5 Lakh per annum. The industry proposes to allocate ₹ 20 Lakhs for social activities.
15. Green belt/greenery has been developed along most of the periphery of the project area as well as along roads. Green area of 3,837.58 m² (34.02 % of total plot area) will be developed.
16. The PP proposed to set up an Environment Management Cell (EMC) consisting of Environment Officer- maintenance incharge- Air management incharge- wastewater management incharge- waste management incharge- EHS Engineer 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 **5576 MT eq. CO₂/annum** which is equivalent to **0.73 MT CO₂ eq / MT Production**. Through development of a green belt having a total area of 3837.58 m² having 950 trees within the premises, there will be natural sequestration of CO₂ emissions which leads to savings of **2068 MT eq. CO₂ /annum**. Therefore, at peak production the *Residual Gate to Gate* CO₂ emissions from the proposed plant will be **3507 MT eq. CO₂/ annum** which is about **0.46 MT CO₂ eq. /MT production**.
18. The PP submitted the onsite and offsite disaster management plans in the EIA report.
19. The estimated project cost is ₹ 2935 lakhs . Total Employment generation will be 91 persons as direct & indirect after expansion.
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 inter-alia, deliberated on the usage of cleaner fuel, domestic wastewater treatment, green belt development and advised the PP to submit the following:

- Undertaking for use of agro-briquettes as primary fuel and coal only in emergency i.e. in monsoon/non-availability of agro-briquettes.
- Undertaking for installation of a STP for treating the domestic wastewater generated within the unit and to reuse the treated water for gardening.
- Undertaking that the Plant production shall not commence for the proposed expansion until sufficient greenbelt is developed in compliance with the EIA Report.

The PP submitted the above Undertaking and the 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 3873.58 m² by planting 950 number of trees shall be planted 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 ₹ 2 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 Environment Officer- maintenance in-charge- Air management in-charge- wastewater management in-charge- waste management in-charge- EHS Engineer. 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 ₹ 97 Lakh (Capital cost) and ₹ 13.5 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) As committed by the PP, Industry shall use agro- Briquettes as a primary fuel for boiler and only during the unavailability of Briquettes, the PP shall use coal as an alternative fuel.
- (v) The total water requirement will be 71.7 KLD out of which 42.7 KLD of freshwater requirement will be met by CGWA supply and the remaining 29 KLD will be inhouse treated 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
- (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) 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) As committed by the PP, zero liquid discharged shall be ensured. The treated water (33 KLD) will be reused within the unit for washing, scrubbing & industrial processes. And Domestic water shall be treated in the Dedicated Unit STP and all STP treated water shall be used for gardening.
- (xii) The PP shall explore possibilities for recycling and reusing the 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. 40.8.

Proposed expansion of Monochloro Acetic Acid (MCA) Manufacturing Unit by increase in production capacity from 32,000 TPA to 48,000 TPA and co-product (HCl) from 41,600 TPA to 62,400 TPA and HE-Di-Chloro and Tri-chloro acetic acid from 448 TPA to 672.00 TPA located at Plot No. 33/P1 (part of plot no. 33), Village Atul, Tehsil & District Valsad, Gujarat by M/s. Anaven LLP (Joint Venture of Nouryon Chemicals B and Atul industries) - Consideration of EC (under 7(ii))

[Proposal No. IA/GJ/IND3/290050/2022; File No. J-11011/286/2018-IA-II(I)]

1. The proposal is for the expansion of Monochloro Acetic Acid (MCA) Manufacturing Unit by increase in production capacity from 32,000 TPA to 48,000 TPA and co-product (HCl) from 41,600 TPA to 62,400 TPA and HE-Di-Chloro and Tri-chloro acetic acid from 448 TPA to 672.00 TPA located at

Plot No. 33/P1 (part of plot no. 33), Village Atul, Tehsil & District Valsad, Gujarat by M/s. Anaven LLP (Joint Venture of Nouryon Chemicals B and Atul industries).

- The project/activity is covered under Category 'A' of item 5(f), of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by Expert Appraisal Committee (EAC). The project falls under clause 7(ii)(a), as per MoEF&CC notification S.O.3518 (E) dated 23.11.2016 and S.O. 980(E) dated 02.03.2021 & MoEF&CC OM Nos. IA3-22/10/2022-IA.III [E177258] dated 11.04.2022 & 30.05.2022.
- The PP applied for the Environment Clearance on 30.8.2022 in Form-2 and submitted EIA/EMP Report and other documents. Due to some shortcomings, the Project was referred back to PP on 7.9.2022, 21.9.2022 and reply to the same was submitted by the PP on 10.9.2022, 7.10.2022. The PP in the Form-2 reported that it is an Expansion under para 7(ii). The proposal was placed in 40th EAC Meeting held on 18-19 October, 2022, wherein the PP and an accredited Consultant, Perfect 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:
- The PP reported that the proposed land area is 0.66303 Ha and no R&R is involved in the Project. The details of products are as follows:

S. No.	Products Name	Existing (TPA)	Phase Expansion (TPA) 20%		End Use of the Product	Hazardous/Non Hazardous & CAS No.	State	Transportation (by Road/Air/Sea)	Product Sale (Local/Export)
			Proposed	After Expansion					
Products									
1.	Monochloro Acetic Acid	32,000	6,400	38,400	Agro (2,4-D and CAC), Pharma (Ibuprofen), CMC (Oilfield & Detergent) & Surfactants (Betaines)	Hazardous (Corrosive & Toxic) 79-11-18	Solution flakes	Pipeline/Road (Truck) Road (Truck)	Domestic / Export
2.	HCl acid	41,600	8,320	49,920	Chemical industries like Dyes, Agrochemicals, Pharmaceuticals etc.	Hazardous (Corrosive & Toxic), 7647-01-0	HCl anhydrous is in Gaseous State & then it is	Road (Truck)/Pipeline. Gas will be converted to Solution within the site to the max. extent possible.	Domestic /Export (Sell to Industry having permission under Rule 9 of HW rule 2016)

							converted to solution of HCl acid which is in Liquid State	And then the solution will be transported via trucks and excess gas will be supplied to Atul via Above ground pipelines & will be used as per requirement	
3.	HE-Di-Chloro and Tri-chloro acetic acid	448	90	538	Agrochemicals (herbicides) & cosmetics	Hazardous (Toxic) CAS No. - NA	Liquid	Road (Truck)	Sale (Domestic) or treatment in ETP (for biodegradation within the plant)

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 project site is not located within 10 km distance of national parks, sanctuaries, Biosphere Reserves, Migratory corridors of wild Animals River/ water body Par river is flowing at a distance of 0.40 km in SE direction. The PP reported that no forest area is involved in the proposed project. and two Schedule I species i.e. *Pavo cristatus*, *Panthera pardus* exist within 10 km study area of the project, for which conservation plan is submitted to Chief conservator of Forest on 146.2022 with budgetary provision of Rs. 4.07 Lakh for five years
7. The PP reported that Certified compliance vide file no. E- File No.- J- 11- 26/2022- IRONGR dated 22.06.2022 has been issued by RO, MoEF&CC. An action taken report has been submitted to Regional Officer, MoEF&CC, Gandhinagar, Gujarat for the partially complied points of the certified compliance report via email dated 06 August, 2022.
8. **Ambient air quality monitoring** was carried out at 8 locations during December 2022 to February 2022 and the baseline data indicates the ranges of concentrations as: PM₁₀ (72.6- 91.9 µg/m³), PM_{2.5} (42.5- 57.2 µg/m³), SO₂ (9.5-12.8 µg/m³), NO₂ (28.5 - 38.3 µg/m³) and CO (1.0 - 1.3 mg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.723 µg/m³, 0.638 µg/m³, 4.25 µg/m³, 2.38 µg/m³ and 0.003 mg/m³ with respect to PM₁₀, PM_{2.5}, SO₂, NO₂ and CO. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). **The groundwater quality** was collected from 6 locations (Nearby site, Atul Plant area, J colony, Down Colony, Haria Village & Bhagod) during December 2022

to February 2022 and the baseline data indicates that the range of the Total Dissolved Solids (TDS) ranges from 270 mg/l to 625 mg/l, Total Hardness ranges from 156 mg/l to 272 mg/l, Alkalinity ranges from 104 mg/l to 296 mg/l, Calcium Concentration ranges from 33.6 mg/l to 65.6 mg/l, Chloride Concentration ranges from 39.7 mg/l to 85.08 mg/l. Thus it can be concluded that the water quality is well within the drinking water standard (IS:10500) except for total dissolved solids & alkalinity at J colony which is 625 mg/l & 296 mg/l and Total hardness at J colony & down colony which is 272 mg/l & 208 mg/l respectively. **The surface water quality** was collected from 5 locations (Par River Upstream, Par River Downstream, Lake near Pardi hariya, Chichwada talav & Water Body near Atul Plant Area) during December 2022 to February 2022 and the baseline data indicates that the range were in compliance with the Class "B" i.e. Outdoor Bathing (Organised)- Designated Best Use Water Quality Criteria. **The ambient noise level monitoring** was carried out in 10 locations during December 2022 to February 2022. The ambient noise level during day time at the project site varies from 67.8 dB (A) to 68.9 dB (A) which are within the standard limit of Industrial area ~ 75 dB (A). During night the noise level at the project site ranges from 60.8 dB (A) to 62.6 dB (A) which are also within the standard limit of Industrial area 70.0 dB (A). In the Buffer Zone, noise levels at the day time range from 55.8 dB(A)-73.2 dB(A) and at night time it ranges from 45.2 dB (A) to 67.3 dB (A). The increased noise level is due to vehicular activity in the area & at NH 48. **Soil samples** was carried out at 8 locations during December 2022 to February 2022 and the baseline data indicates the ranges of concentrations of primary nutrients like Organic matter ranges from 0.59-1.3%, the available nitrogen ranges from 67.4 mg/kg- 126.4 mg/kg, available Potassium 28.4mg/kg - 61.6 mg/kg and the available Phosphorus ranges from 12.8 mg/kg- 24.6 mg/kg. Thus it can be concluded that soil is average fertile in the core Zone. Primary nutrient profile shows that soil is average fertile due to the availability of low amounts of nitrogen, available potassium.

9. The PP reported that Total Water Requirement after 20% expansion will be 583 KLD out of which fresh water requirement will be 290 KLD & treated water will be 293 KLD (243 KLD RO Permeate for reuse & 50 KLD MEE Condensate for reuse). Total water will be used for (domestic purposes (17 KLD), industrial processes (219 KLD), Cooling Tower (340 KLD), Washing (reactor and floor) (1 KLD) and Gardening (6 KLD). 94 KLD water from the cooling tower will be used in the scrubber After Phase I expansion, 303 KLD of total waste water will be generated which will be treated in ETP and includes 123 KLD of wastewater from industrial process, 1 KLD wastewater from washing, 68 KLD of cooling tower blowdown, 94 KLD wastewater from scrubber, and 16 KLD from Domestic activities which will be sent to septic tank followed by ETP for further treatment. ETP treated water will be sent to RO for further treatment. RO permeate (297 KLD) will be recycled back for reuse while 54 KLD RO reject will be sent to MEE. MEE condensate (50 KLD) will be reused while 4 KLD MEE concentrate will be sent to filtration through centrifuge and salt generated will be sent to TSDF. No treated water will be discharged outside the premises; hence it will be a ZLD unit.

10. The PP reported that Power requirement after expansion will be 1302 KW including existing 1087 kW and will be met from Dakshin Gujarat Vij Company Limited (DGVCL)). Existing unit has a 1 x 500 kVA DG set. Additionally, no DG sets will be used as standby during power failure. Stack height of 10 m is provided as per CPCB norms to existing DG sets. There is no boiler installed in the unit premises, steam of 48360 TPA will be taken from Boiler of Atul, steam shall be transported in Above Ground pipeline of length 120 cm, and Dia 10 cm, pressure 19 bar & temp 211 deg. C.

11. Details of Process emissions generation and its management:

S. No	Name of Stack	Pollution Control Measure	Height in Mtr	Stack dia.	Parameter
1	Chlorinator (STACK02)	Scrubber connected to HCl absorption scrubber (TA 901), chlorine destruction unit (TA 903, 905) via scrubber to column 912 and	35	0.15	HCl, Cl

		discharge to WWTP Media- Water followed by Caustic			
2	Hydrogenator (STACK03)	Column 717 (scrubber) overhead is connected to TA 720 where outlet gas introduced via sparger dipped in water (discharged to WWTP) Media- Water	35	0.10	Hydrogen+ HCl
3	vacuum pump (STACK04)	Stack is connected to TA-440 where gas(air)-liquid from vacuum pump discharge separates and liquid overflows to WWTP. Vacuum pump is connected to CO-441 and CO-415 scrubbers in the upstream. Media- Water	38	0.10	HCl
4	Flakers (STACK05)	Scrubber (CO-507) connected to vent of flaker scrubber (CO-527 and CO-537) Media- Water	45	0.50	Traces of HCl
5	HCl Storage tank (STACK06)	Scrubber Media- Water	18	0.20	Traces of HCl
6	Acetic acid storage tank (STACK07)	Scrubber Media- Water	15	0.10	Traces of Acetic acid

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

SOLID WASTE MANAGEMENT					
Category	Unit	Existing	Phase-I (After 20% Expansion)		Disposal/Treatment Method
			Proposed	After Expansion	
Biodegradable	(Kg/day)	3	0	3	Given to local vendor
Recyclable Waste (Plastic, paper, wood, glass, etc)	(Kg/day)	9	1	10	Given to authorised recycler
	(Kg/day)	12	1	13	-

Waste	Category	Unit	Existing	Phase-I (20% Expansion)	Disposal
-------	----------	------	----------	-------------------------	----------

	(as per HWM Rules,2016)			Proposed	After Expansion	
ETP Sludge from Wastewater Treatment	35.300	Tons per annum	1,120	-	1,067	TSDf of Atul Ltd. and common facility approved by GPCB i.e. Detox India (Safe Enviro Pvt. Ltd.) (Agreement with TSDf of Atul ltd. has been done & membership has been taken for disposal at common facility of Detox India)
Salt from MEE	35.300	Tons per annum	1551	-	1,450	
Liners & used containers from Packaging	33.100	Tons per annum	3.14	0.63	3.76	Decontaminate and discard to authorised vendor
Used Oil from DG Sets, Gear boxes	5.100	KL per annum	6.27	0.50	6.78	Disposal to authorised vendor
Spent Catalyst from Process	17.200	Tons per annum	0.96	0.54	1.5	Sent to regenerator

12. The Budget earmarked towards the Environmental Management Plan (EMP) is ₹ 23.79 Crore (capital) and the Recurring cost (operation and maintenance) will be about ₹ 7.29 Crore per annum. The industry proposes to allocate ₹ 6 Lakhs towards CER for renovation of primary school & distribution of stationery items at primary school & provision of library, drinking water facilities, sanitation, Provision of solar light in the village.
13. Industry has already developed greenbelt in an area of 647 m², i.e. 9.8%, within the plant premises and 1594 m² i.e. 24% has been developed outside the plant premises within Atul village. Total 33.8 % of the project area has been developed as the green area with a tree density of 1100 trees per hectare (3x3 m spacing).
14. The PP proposed to set up an Environment Management Cell (EMC) consisting of General manager- HSE manager- Maintenance manager for the functioning of EMC.
15. The PP submitted the onsite and offsite disaster management plans in the EIA report.
16. The estimated project cost is Rs. 194.70 crores including existing investment of Rs. 187.5 crores. Total Employment will be 127 persons as direct & indirect after expansion

17. **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 density of greenbelt developed by the Unit i.e. 1100 trees per hectare (3x3 m spacing) vs. the current norm of 2500 trees per hectare (2x2 m spacing). The PP submitted an undertaking that they will plant 140 trees within the plant area and 266 trees within the close vicinity of the Plant, considering 70% survival rate within 7 days to comply with the current norms. The PP will not commence any activity or production for 20% expansion until & unless the committed green area density is achieved. The PP also submitted the drone imagery & videography of the green area development progress complying the current norms of plantation.

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.

18. 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 647 m² by planting 140 trees inside the plant area and another 266 trees in close vicinity of plant. The saplings selected for the plantation should be of sufficient height, preferably 6-ft (about 2m). The budget earmarked for the plantation shall be ₹ 2 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 General manager- HSE manager- Maintenance manager. 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 ₹ 23.79 Lakh (Capital cost) and ₹ 7.29 Crore (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) As committed by the PP, Industry shall not commence any activity or production for 20% expansion until & unless the committed green area density is achieved.
- (v) Total water requirement is 583 m³/day of which fresh water requirement of 290 m³/day will be met from Surface Water (Par River). 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 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) 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) As committed by the PP, zero liquid discharge shall be ensured, Effluent of 303 m³/day quantity will be treated through ETP, MEE and RO

- (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. 40.9.

Proposed expansion of Agrochemicals & its formulation and specialty chemicals in existing unit with production capacity from 14400 TPM to 21600 TPM located at plot no. d-2/ch-12, GIDC, industrial estate, Village Dahej, Taluka Vagra, Dist. Bharuch, Gujarat by M/s. Indofil Industries Limited - Consideration of EC.

[Proposal No. IA/GJ/IND2/48107/2013; File No. J-11011/265/2013-IA II (I)]

1. The proposal is for the environmental clearance for proposed expansion of Agrochemicals & its formulation and specialty chemicals in existing unit with production capacity from 14400 TPM to 21600 TPM located at plot no. d-2/ch-12, GIDC, industrial estate, Village Dahej, Taluka Vagra, Dist. Bharuch, Gujarat by M/s. Indofil Industries Limited.
2. The project/activity is covered under Category 'A' of item 5 (b), Pesticides industry and pesticide specific intermediates (excluding formulations) and 5(f), Synthetic organic chemicals industry of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). Therefore, the project requires appraisal at Central Level.
3. The PP submitted that Public hearing is exempted as the Unit is located in Notified Industrial Area of GIDC, Dahej – 2, which falls in PCPIR. Hence, Public Hearing is exempted and PCPIR Region has obtained EC vide file no. 21-49/2010-IA-III dated: 14th September, 2017. The PP applied for Environment Clearance on 3.8.2022 in Form-2 and submitted EIA/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 22.8.2022, 4.10.2022, 8.10.2022 and reply to the same was submitted on 19.9.2022, 7.10.2022, 10.10.2022. The proposal was placed in 40th EAC Meeting held on 18-19 October, 2022, wherein the PP and an accredited Consultant, M/s. Aqua Air Environmental Engineers Pvt. Ltd. [Accreditation number NABET/EIA/1922/SA 0143 Valid up to 7.10.2023], 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 10.19007 Ha and no R& R is involved in the Project. The details of products are as follows:

S. No	Name of the Products	CAS Nos.	LD50	Capacity (MT/Annum)			
				as per Existing EC	Existing as per CC&A	Additional Proposed	Total after Proposed Expansion
A	EBDC FUNGICIDES PRODUCTS						
1	Mancozeb & its Formulation	8018-01-7	LD 50 > 2000 mg/kg	25000	55000	5000	*60000
2	Maneb & its Formulation	12427-38-2	LD 50 > 5000 mg/kg for rats	500	500	0	500
3	Zineb & its Formulation	12122-67-7	LD 50 (oral – rat): > 5 g/kg	5000	5000	5000	10000
4	Propineb & its Formulation	12071-83-9	LD50 Oral - rat - 8.500 mg/kg	5000	5000	0	5000
	Total A			35500	65500	10000	75500
A1	HERBICIDES						
5	Glyphosate Tech and its Intermediates Volume	1071-83-6	--	30000	(- 30000)	0	0
	Total A1			30000	(- 30000)	0	0
B	SPECIALITY CHEMICALS						
6	Solution Polymers	29132-58-9	-	3634	3634	14862	18496
7	Re-dispersible	-	-	11571	11571	0	11571

	Powder						
8	Plastic Modifiers	9010-88-2	-	20055	20055	0	20055
9	Acrylic Emulsions	25212-88-8	-	2635	2635	13161	15796
10	PVC Processing Aid	-	-	0	900	1907	2807
11	PVC Impact Modifier	-	-	0	600	3125	3725
12	Indtron	-	-	0	420	0	420
	Total B			37895	39815	33055	72870
C1	SYNTHESIS TECHNICAL PRODUCTS						
13	Tricyclazole and / or its intermediates: HMBT	41814-78-2	--	1000	0	0	1000
14	Myclobutanil	88671-89-0	GHS Category 4	135	0	0	135
15	Metalaxyl	57837-19-1	GHS Category 4	125	0	0	125
16	Cymoxanil	57966-95-7	LD 50 > 2000 mg/kg	300	0	0	300
17	Dodine	2439-10-3	GHS Category 4	150	0	0	150
18	Hexaconazole	79983-71-4	Acute oral LD50 (rat): male 2189mg/kg, female 6071mg.kg	200	0	0	200
19	Propiconazole	60207-90-1	ORL-RAT LD50 1517 mg kg-1	300	0	0	300
20	Propargite	2312-35-8	LD50 - 950 mg/kg (rat)	400	0	0	400
21	Difenturon	80060-09-9	3830 mg/kg	200	0	0	200
22	Tebuconazole	107534-96-3	Male rat 4000mg/kg Female rat 1700mg/kg Mouse 3000mg/kg	300	0	0	300
23	Difenconazole	119446-68-3	LD50: 1453 mg/kg (rat) >2000mg/kg9mouse)	200	0	0	200
24	Thifluzamide	130000-40-7	rat > 6500 mg/kg	200	0	0	200
25	Bispyribac	125401-75-4	NA	65	0	0	65
	Total C1			3575	0	0	3575
C2	Out of following 10 products, only 1 product shall be made at a time						
26	Thiamethoxam	153719-23-4	LD50> 5000 mg/kg	225	0	0	225
27	Epoxyconazol	133855	> 5.000 mg/kg				

	e	-98-8					
28	Prothioconazole	178928-70-6	LD50 (Rat) > 6,200 mg/kg				
29	Fluazinam	79622-59-6	> 2,000 mg/kg				
30	Azoxystrobin	131860-33-8	200 mg/kg;				
31	Pyraclostrobin	175013-18-0	5000a.i. mg/kg				
32	Boscalid	188425-85-6	> 2,000 mg/kg (OECD Guideline 423)				
33	Cyazofamid	120116-88-3	NA				
34	Penconazole	66246-88-6	5,628 mg/kg (rat)				
35	Cyproconazole	94361-06-5	(Rat) > 2000 mg/kg				
	Total C2			225	0	0	225
C3	Out of following 5 products, only 1 product shall be made at a time						
36	Spirodiclofen	148477-71-8	(Rat) > 2.500 mg/kg	200	0	0	200
37	Spiromesifen	283594-90-1	> 2,000 mg/kg				
38	Tolfenpyrod	129558-76-5	77.2 mg/kg (Rat)				
39	Clodinofop	105512-06-9	> 5000 mg/kg.				
40	Pretilachlor	81690-06-4	-				
	Total of (C3) product			200	0	0	200
	Total of (A + A1 + B + C1 + C2 + C3) products			107395	105315	43055	152370
D	AGRO FORMULATION						
41	Powder & Granules Formulation	-	-	32000	32000	70000	102000
42	Liquid Formulation	-	-	10000	10000	0	10000
	OR						
43	Glyphosate Formulations	-	-	70000	(-70000)	0	0
44	Mancozeb Formulations	-	-	0	70000	(-70000)	0
	Total of (D) products	-	-	112000	112000	70000	112000
E	INORGANIC						
45	Sodium Sulphate	7757-82-6	-	14400	14400	7200	21600

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 Unit has obtained EC for the existing Unit vide file no. J-11011/265/2013-IA II(I) dated 28/10/2016 and an Amendment of EC vide file no. J-11011/265/2013-IA II(I) dated 12/03/2018. Certified EC Compliance Report from IRO- Gandhinagar, MoEF&CC has been obtained vide file no. J-11/17-2022-IRO vide dated 26/05/2022. Action Taken Report from IRO-Gandhinagar, MoEF&CC has been obtained vide file no. J-11/17-2022-IRO vide dated 30/06/2022.
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. Narmada is flowing at distance of 4.80 Km in south direction. The PP reported that no forest area is involved in the proposed project and five Schedule-I species exist within 10 km study area of the project, for which conservation plan is submitted to PCCF and chief wildlife warden on 4.2.2022 with budgetary provision of Rs. 3,70,000 for two years.
8. The PP reported that Ambient air quality monitoring was carried out at 10 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentrations as: PM10 (74.42 – 78.12 $\mu\text{g}/\text{m}^3$), PM2.5 (43.18 – 46.68 $\mu\text{g}/\text{m}^3$), SO2 (15.59 – 17.72 $\mu\text{g}/\text{m}^3$) and NO2 (16.76 – 19.48 $\mu\text{g}/\text{m}^3$) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.25 $\mu\text{g}/\text{m}^3$, 0.39 $\mu\text{g}/\text{m}^3$ and 0.14 $\mu\text{g}/\text{m}^3$ with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Ground water quality monitoring was carried out at 10 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentrations as: pH (7.56 – 8.09), TSS (<10.0 – 12 mg/l), Total Hardness (116.8 – 590.3 mg/l), Total Dissolved Solids (246 – 1986 mg/l) & Chlorides (21.06 – 695.3 mg/l). The resultant concentrations are within the Indian Standard (IS 10500:2012). Surface water quality monitoring was carried out at 8 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentrations as: pH (8.07 – 8.79), DO (6.49 – 6.96 mg/l), COD (9.25 – 21.76 mg/l) & BOD (1.21 – 2.68 mg/l). Noise quality monitoring was carried out at 10 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentrations as: Leq (Day) (49.1 – 54.5 dB (A)), Leq (Night) (39.8 – 44.8 dB (A)). Soil quality monitoring was carried out at 10 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentrations as: pH (6.98 – 9.25), Nitrogen (N) (981.3 – 4369.7 mg/l), Phosphorus (P) (25.46 – 58.86 mg/l), Potassium (K) (30.9 – 194.7 mg/l) & Electric Conductivity (0.132 – 0.461 mg/l).
9. The PP reported that the water requirement will be met through Dahej GIDC Water Supply. Total water requirement will be 3384 KL/Day (Fresh Water: 2073 KL/Day + Recycled: 1311 KL/Day). Total 1418 KL/Day (Existing: 1418 KL/Day + Additional Proposed: 0.0 KL/Day) of effluent shall be generated. Total 1418 KL/Day effluent will be segregated in two streams Low COD & High TDS and another stream High COD & Low TDS. 1323 KL/Day Waste Water from (Process: 796 KL/Day = (High COD & Low TDS: 20 KL/Day + Low COD & High TDS: 776 KL/Day)) along with (Washing + Scrubber: 222 KL/Day), (Boiler: 184 KL/Day and (Colling tower: 121 KL/Day). Low COD & High TDS effluent will be treated in inorganic ETP followed by MEE and condensate water will be recycled within premises for process & utility. High COD & Low TDS effluent will be treated in organic ETP followed by RO, WHE & ATFD and RO Permeate water will be recycled within premises for process & utility. Total 1406 KL/Day (Industrial: 1311 KL/Day + Domestic: 95 KL/Day) water will be reused within premises. 95 KL/Day domestic wastewater generated will be treated in STP and treated water will be reused for gardening. Industry will continue to maintain Zero Liquid Discharge even after the proposed expansion.

10. The PP reported that the power requirement after expansion will be 7.5 MW including existing KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has 4 Nos. of DG sets of (2 No. of 1650 KVA & 2 No. of 500 KVA) capacity, additionally 2 No. of 750 KVA 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.
11. The PP reported that the existing unit has 1 Nos. of 20.0 TPH Boiler, 1 Nos. of 5.0 TPH Boiler (stand by) additionally, 1 Nos. of 20.0 TPH Boiler & 1 Nos. of 8.0 TPH Boiler will be installed. Existing ESP + Scrubber & Adequate Stack Height with a stack of height of 32 m, and additionally, ESP + Scrubber with a stack of height of 32 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm³ for the proposed boilers.

12. Details of Process Emissions Generation and their Management:

Sr. No.	Stack Attached to	Fuel Type	Stack Height, m	APC M	Fuel Consumption	Probable Pollutant
As per Existing EC						
1.a	Boiler-1(8 TPH) for Process	Coal	32	ESP	24 MT/Day	PM, SO ₂ & NO _x
1.b	Boiler-2(8 TPH) for Process	Coal	32		24 MT/Day	PM, SO ₂ & NO _x
1.c	Boiler-3(8 TPH) for Process	Coal	32	ESP	24 MT/Day	PM, SO ₂ & NO _x
1.d	Boiler-4(9 TPH) for Process	Coal	32		27 MT/Day	PM, SO ₂ & NO _x
2.	Thermo Pack – 1 No.	Natural Gas	20	NA	45 m ³ /hr	PM, SO ₂ & NO _x
3.	D. G. Sets – 3 Nos (Cap 1500 KVA each)	HSD	15	NA	110 Lit/hr	PM, SO ₂ & NO _x
4.	Incinerator & Thermal Oxidation (Common, for all distillation residues & Vapors etc.- Cap: 2 MT/Day)	Natural Gas / FO	35	Alkali Scrubber	50 m ³ / hr or 50 Lit/hr	SPM, HCl, SO ₂ , NO _x , CO etc.
As per CC&A						
5.a	Boiler-1 (20 TPH)	Coal OR	32	ESP + Scrubber	65 MT/Day OR 2000 SCM/HR	PM SO ₂ NO _x
5.b	Boiler-2 (5 TPH) – Stand By	Natural Gas	32			
6.1	DG Set – 2 Nos. (1650 KVA each) - one standby	HSD	15	NA	900 Lit/hr	
6.b	DG Set – 2 Nos. (500 KVA each) - one standby	HSD	15	NA		
Additional Proposed						
7.a	Boiler (08 TPH)	Briquettes OR Agro waste	32	ESP + Scrubber	50 MT/Day	PM SO ₂ NO _x
7.b	Boiler (20 TPH)	Coal	32	ESP + Scrubber	65 MT/Day	
8.a	D. G. Sets – 02 Nos (Cap 750 KVA each)- one standby	HSD	15	Adequate stack	--	

				height		
Total after proposed expansion						
8.a	Boiler (20 TPH)	Coal OR Natural Gas	32	ESP + Scrubber	65 MT/Day & 2000 SCM/HR	PM SO2 NOx
8.b	Boiler (5 TPH)- standby		32	Adequa te stack height		
9.a	D. G. Sets – 02 Nos (Cap 1650 KVA each)- one standby	HSD	15	Adequa te stack height	900 Ltr/hr	
9.b	D. G. Sets – 02 Nos (Cap 500 KVA each)- one standby		15	Adequa te stack height		
9.c	D. G. Sets – 02 Nos (Cap 750 KVA each)- one standby		15	Adequa te stack height		
12.a	Boiler (08 TPH)	Briquettes OR Agro waste	32	ESP + Scrubber	50 MT/Day	PM SO2 NOx
12.b	Boiler (20 TPH)	Coal	32	ESP + Scrubber	65 MT/Day	

13. Details of Solid Waste Generation and its Management:

S. No.	Name of Waste	Source of waste generation	Waste category	Quantity (MT/Annum)			Disposal Mode
				Existing	Additional Proposed	Total after expansion	
1	ETP Sludge	ETP	35.3	1200	4800	6000	Collection, Storage, Transportation & Disposal at TSDF site
2	Used Oil	From machine	5.1	14400 Ltr. / Annum	6000 Ltr. / Annum	20400 Ltr. / Annum	Collection, Storage, Transportation, Disposal by Selling to registered refiners.
3	*Discarded Containers/carboys/bottles/drums	Raw material storage	33.1	18000 Nos./Annum	36000 Nos./Annum	54000 Nos./Annum	Collection, Storage, decontamination, transportation, disposal by selling to registered recyclers/

							decontamination facility.
4	**Incineration Ash	Incinerator	36.2	120	-120	0.0	Collection, Storage, Transportation & Disposal at TSDf site
5	Process Residue	Mfg. process	29.1	720	0.0	720	Collection, Storage, Transportation & Disposal by sent to common incineration/ Co-process facility.
6	Fly ash	Boilers	--	2160	3240	5400	Collection, Storage, Transportation & send to brick Manufacturer/TS DF site.
7	Contaminated Bags/Liners/Laminates	Mfg. process	33.1	--	900	900	Collection, Storage, decontamination, transportation, disposal by selling to registered recyclers/ decontamination facility.
8	Insulation Waste/ Glass Wool/ Used PPE's	Mfg. process	33.1	--	120	120	Collection, Storage, Transportation & Disposal at TSDf site.
9	Used Batteries	Mfg. process	A5	--	360 Nos. / Annum	360 Nos. / Annum	Collection, Storage, transportation & disposal by selling to registered recyclers.
10	Date Expired/ Off-Specification Products	Mfg. process	29.3	--	300	300	Collection, Storage, Transportation & Disposal by sent to common incineration site or co-processing site.
11	Manganese Carbonate	ETP	35.3	11760	--	11760	Collection, Storage,

							Transportation & sell to actual end user or TSDF site.
12	Spent Sulphuric Acid	Mfg. process	Synthesis products	24	--	24	Collection, Storage and Sold to end users having under rule 9 permission.
13	Aq. Hydrochloric Acid (Conc. 30%)	Mfg. process	Synthesis products	1440	--	1440	
14	Aq. Sodium Bromide (Conc.17%)	Mfg. process	Synthesis products	1800	--	1800	
15	Aq. Potassium Bromide (Conc.16% to 29%)	Mfg. process	Synthesis products	2100	--	2100	
16	Aq. Hydrobromic Acid (Conc. 30%)	Mfg. process	Synthesis products	600	--	600	
17	Formic Acid (conc. 50%)	Mfg. process	Synthesis products	1200	--	1200	
18	Aq. NaSH (Conc. 20% to 25 %)	Mfg. process	Synthesis products	300	--	300	
19	Aq. Sodium Sulphite	Mfg. process	Synthesis products	600	--	600	
20	Spent Solvent	Mfg. process	Sch. I 29.4	--	1200	1200	
21	E-Waste	--	15	15	To GPCB approved/registered E-waste recycler.

14. The budget earmarked towards Environmental Management Plan (EMP) is ₹ 395.36 Crores (capital) and the recurring cost (operation and maintenance) will be about ₹ 3.2 crores per annum. The PP proposes to allocate ₹ 37 Lakhs towards Corporate Environment Responsibility (CER) for Lake (Pond) of Simaliya village was dig to increasing its water holding capacity for Rain Water harvesting under Sujalaam-Suflaam Scheme of Govt. of Gujarat, Company will increase the improve beautification of surrounding pond area by providing paver blocks, fencing, and planting trees, Plastic waste management in Nearby villages of Dahej area, Providing health services through Villages of Dahej, Bharuch health camps, For Water Conservation Rain water harvesting in nearby villages.

15. The PP reported that total 1,01,900.75 sq. meter land area is available at site; out of this area about 33,330 sq. meter (33%) of the total land area have been developed as greenbelt and remaining 5,000 sq. mt. of the total land area will be developed as greenbelt after expansion. i.e. 38,330 sq. meter (37.61%) of the total land area as greenbelt.
16. The PP proposed to set up an Environment Management Cell (EMC) by engaging Managing director-head of works- plant manager- Head- Environment for the functioning of EMC.
17. The PP reported that Company has developed 16,770 nos. of trees of greenbelt within premises & remaining 2500 nos. of trees will be planted within 1 Year, which will result in 908.06 tCO₂/annum sequestered in 1st year, further 1155.10 tCO₂/annum in 2nd year, 1794.72 tCO₂/annum in 3rd year & 2457.55 tCO₂/annum in 5th year. Total Carbon load from energy is 21,387.28 tCO₂/annum and by using an alternative energy sources Wind Solar Hybrid energy as substitution of the power & will reduce min. 21 % of Actual power drawn from GETCO that will be reduce 4491.32 tCO₂/annum Equivalent and 1304 Nos. of LED lights has installed instead of conventional light in all premises & carbon foot print will be reduce to 298.10 tCO₂/annum Equivalent. Unit has planned to use waste steam generated from WHB of H₂SO₄ plant which is generated by nearby unit DMCC Ltd. situated Infront of Unit-3. Steam available will be 5 to 6 MT/Hr ~ 120 MT/day @ 6 bar Pressure and will be used in operation of MEE. It will reduce 283.34 tCO₂/annum due to no use of coal up to approx. 7000 MT/annum. Total Tonnes of CO₂ emission will 37,225.05 tCO₂/annum and company has planned to sequester 6025.09 tCO₂/annum in 1st year, further 6272.13 tCO₂/annum in 2nd year, 6911.75 tCO₂/annum in 3rd year & 7574.58 tCO₂/annum in 5th year.
18. The PP submitted the Disaster and Onsite and Offsite Emergency Plans in the EIA report.
19. Total capital investments for the project will Rs. 395.36 Crores (Existing Project Cost – Rs. 358.3 Crores + Additional Proposed Project Cost – Rs. 37.06 Crores. Total 519 Nos. (Existing: 454 Nos. + Proposed: 65 Nos.)
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 Life Cycle Assessment Report. The LCA modelling was performed on GaBi professional software. Based on the impact assessment, Action Plan was prepared w.r.t energy conservation, waste steam use and green belt development. The EAC found it to be satisfactory.

The EAC inter-alia, deliberated on the usage of cleaner fuel, compliance of EC of the existing Unit, green belt development and advised the PP to submit the following:

- Undertaking for use of briquettes or agro waste as primary fuel for the proposed 8 TPH boiler and shall convert the proposed 20 TPH boiler to briquette or agro waste fired instead of coal within 3 years.
- Revised Flue Gas Emission Details
- Compliance status of 01 party complied condition of the existing EC
- Details of green belt development undertaken and the proposed action plan

The PP submitted the above information/documents and the 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.

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 an additional Greenbelt over an area of at least, 5,000 m² (total 38,330 sq. meter including the existing green belt i.e. 37.61% of total area) by planting 2500 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 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 Managing director- head of works- plant manager- Head- Environment. 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 [₹ 395.36 (Capital cost) and ₹ 3.2 crores per annum (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) As committed by the PP, Industry shall use Briquette or agro waste as a primary fuel only, additional proposed 8 TPH boiler and shall convert an additional proposed 20 TPH boiler to briquette OR agro waste fired instead of coal.
- (v) Total water requirement will be 3384 KL/Day sourced from Dahej GIDC. 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) 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.
- (xi) 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.
- (xii) As committed by the PP, Zero Liquid Discharge shall be ensured. 95 KL/Day domestic wastewater generated will be treated in STP and treated water will be reused for gardening.
- (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 vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.
- (xxi) 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. 40.10.

Proposed Nano-Fertilizer Manufacturing Plant with production capacity 36500 KL/Annum located at Plot No. 75, KIADB Industrial Area, Phase-2, Channarayapatna Village, Devanahalli Taluk, Bengaluru Rural District, Karnataka by M/s. IFFCO (INDIAN FARMERS FERTILISER COOPERATIVE LIMITED) - Consideration of EC.

[Proposal No. IA/KA/IND3/400359/2022; File No. IA-J-11011/146/2022-IA-II(I)]

1. The proposal is for the environmental clearance for Proposed Nano-Fertilizer Manufacturing Plant with production capacity 36500 KL/Annum located at Plot No. 75, KIADB Industrial Area, Phase-2, Channarayapatna Village, Devanahalli Taluk, Bengaluru Rural District, Karnataka by M/s. IFFCO (INDIAN FARMERS FERTILISER COOPERATIVE LIMITED).
2. The project/activity is covered under Category 'A' of item 5 (a) Chemical Fertilizers of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). Therefore, the project requires appraisal at Central Level.
3. The PP reported that the project being in an industrial park/estate that has been recommended for Environmental Clearance by SEAC/SEIAA (Karnataka), Public Hearing for the proposed project will be exempted as per 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 4.10.2022 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 10.10.2022 and reply to the same was submitted on 12.10.2022. The proposal was placed in 40th EAC Meeting held on 18-19 October, 2022, wherein the PP and an accredited Consultant, M/s EQMS India Pvt. Ltd [Accreditation number NABET/EIA/1922/RA 0197 Valid up to 23.11.2022], 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 4.803266 Ha and no R& R is involved in the Project. The details of products are as follows:

S. No.	Particulars	Unit	Details
1.	Nano Urea	kL/Annum	36500

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 ecologically sensitive areas or protected areas located around the project site. However, there are several reserved forests located in the surroundings of project. Reserve Forests like Mandibele Reserved Plantation Reserve Forest (4.47 km, N), Rayasandra Reserved Forest (4.49 km, W), Koramangala Extension Reserved Forest (5.17 km, NW), Koramangala Reserved Forest (5.14 km, N), Gulhalli Reserved Forest (6.84 km, SE) , Mutsandra Reserved Forest (6.28 km, SE), Bettakote Reserved Forest (6.22 km, NW), Yaratiganahali Reserved Forest (9.10 km, W) , Chikhiradi Reserved Forest (9.35 km, ENE), Akkupette Reserved Forest (9.56 km, WNW) are located within 10 km radius of project site. Ponnaiyar or Dakshina Pinakini River is flowing 1.53 km in East direction of project site. 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.
7. The PP reported that Ambient air quality monitoring was carried out at 8 locations during March 2022 to May 2022 and the baseline data indicates that ranges of concentrations as: PM₁₀ (44-130 µg/m³), PM_{2.5} (20-57 µg/m³), SO₂ (5.1-16.2 µg/m³) and NO_x (8.1-27.8 µg/m³), CO (0.19- 0.83 mg/m³). AAQ modelling study for point source emissions indicates the maximum incremental GLCs after proposed project would be 0.910 µg/m³, 0.819 µg/m³, 1.81 µg/m³ & 1.8 µg/m³ with respect to PM₁₀, PM_{2.5}, NO_x & SO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Noise- The noise level is within the prescribed limit in all the monitoring stations. Increased noiselevels in the residential areas are due to community noise as well vehicular traffic in the area contributes to noise levels in the area. The major source of the noise in the study area is the community noise, industrial activity, and vehicular movement.

8. The PP reported that all physical and general parameters were observed within the permissible limit as per IS10500:2012 (Second Revision), based on Nutrient Index Value for N, P and K, the soils of study area fall into “Medium” fertility status.
9. The PP reported that the total water requirement of plant will be 252 KLD. Out of total, 189.5 KLD will be sourced from KIADB STP, 9.5 KLD will be sourced from tanker and rest of the water requirement will be sufficed by reusing 53 KLD treated water within the premises. Use of recycled water will reduce freshwater demand. The total wastewater generation from the project will be 59.35 KLD {Domestic Sewage- 10.35 KLD; Industrial Effluent- 49 KLD}. 10.35 KLD of sewage will be treated in Sewage Treatment Plant (Capacity-20 KLD). 9 KLD of treated water generated from STP will be reused within the plant for horticultural purposes. The source of industrial effluent will be DMF, Cooling Tower, Boiler, DM Plant, Process, Air Washer, RO, and cooling towers. Approx. 49 KLD of process effluent shall be treated in ETP/RO/MEE plant and reused within the plant. The project will be based on “Zero Liquid Discharge (ZLD)” concept. All the standards of SPCB and MoEF&CC shall be maintained.
10. The PP reported that the total power requirement of the proposed plant will be 3557 kVA which shall be sourced through BESCOM (Bangalore Electricity Supply Company Limited). 2 no. of DG sets of capacity 750 kVA each will be installed within the plant exclusively for backup purposes. Maximum stack height 30 m will be provided as per CPCB norms to the proposed DG Sets. HSD based boiler will be installed. Appropriate stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers.
11. **Details of Process emissions generation and its management-** The manufacturing process of Nano-Urea is a closed loop reactor vessel setup with regulated control. Hence, nano-urea plant will not contribute to air emissions. No process stack is proposed in the project. There shall be no process gaseous emission from Nano Urea Plant.
12. Details of Solid waste/ Hazardous waste generation and its management.

S. No	Name of Waste	Source of Generation	Category No. (As per Sch-I&II 2016)	Quantity	Mode of Treatment & Disposal Method
HAZARDOUS WASTE					
1	Discarded Barrels/Containers/Liners contaminated with hazardous chemicals/waste	Storage & Handling of Raw Materials	Sch-I/33.1	1500 Nos/annum	Collection, Storage, Decontamination and sale to authorized decontamination facility/ authorized recycler.
2	Used/Spent Oil	Used/Spent Oil	Sch-I/5.1	800 Lt/Annum	Collection, storage in MS drum, transportation and disposal by selling to registered Re-refiners.
3	Chemical Sludge from wastewater Treatment	In-house ETP	Sch-I/35.3	1825 Tons/Annum	Collected in Drying Pits, stored in HDPE bags, Transported and disposed off to approved TSDF site.

INDUSTRIAL WASTE					
4	Plastic	Bottling Plant	-	6 MTPA	Will be Sold/Disposed off to Registered Recycler
MUNICIPAL WASTE					
5	Solid Waste Generation	-	-	96 Kg/day	Biodegradable waste will be disposed at KIADB solid waste site and recyclable waste will be sold off to authorized recyclers
All the plastic waste generated from Bottle and Cap manufacturing unit will be recycled after grinding and reused in bottle and cap manufacturing process. However, around 6 MTPA of plastic waste will be generated from Bottle Manufacturing Unit and same cannot be used as raw material. All plastic waste materials will be sold / disposed-off to Registered recycler. Also, Extended Producer Responsibility (EPR) guidelines as per Plastic waste Management Rules 2016 shall be followed. Also, PWM Rules 2022 shall be followed.					

13. The budget earmarked towards Environmental Management Plan (EMP) is ₹ 560 lakhs (capital) and the Recurring cost (operation and maintenance) will be about ₹ 62 Lakhs per annum. The PP proposes to **Approx. Rs. 225 lacs i.e., 1% of total project cost** will be spent on CSR activities. Through CSR activity company management will be committed to improve the Infrastructure improvement of government schools and library, Improvement of drinking water infrastructure in government schools and libraries, Landscaping development and improvement in the government schools and library and the roads outside the project, Additional Plantation in KIADB & nearby villages after consultation with KIADB, Provision of solar streetlights on roads outside the project sites and in Government schools, parks and library.
14. The PP reported that Industry shall develop greenbelt in an area of 33% of 16165.45 m² out of total project area. Total No. of Trees to be planted: 4848 no. (Spacing between Trees: 2x2 m)
15. The PP proposed to set up an Environment Management Cell (EMC) by engaging Plant manager- Environment officer- Air Environment in-charge- waste management in-charge- water management in-charge- noise management in-charge- occupational health- fire safety department- team for horticulture for the functioning of EMC.
16. The PP reported that considering a 10-year-old Greenbelt of 4848 trees and assuming the diameter and tree height at the age of 10 year as per the standards, the total Carbon sequestered per year by the proposed greenbelt at its initial age will be 688.58 tons per year.
17. The PP submitted the disaster and Onsite and Offsite Emergency Plans in the EIA report.
18. The estimated cost of for proposed project is Rs 225 Crores. Total employment of the plant will be 320 no. (Permanent Employees -70 and Contractual Workers- 250).
19. **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 water balance, green belt development, carbon sequestration, wastewater treatment, CER and advised the PP to submit the following:

- Revised water balance
- Revised greenbelt development plan and carbon sequestration calculations considering 80% survival rate.
- Details of wastewater treatment schemes and their revised inlet and outlet characteristics.
- Revised CER including additional plantation in nearby areas

The PP submitted the above information/documents and the 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.

20. 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, 16165.45 m² by planting 4848 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 ₹ 120 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 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 Plant manager- Environment officer- Air Environment incharge- waste management incharge- water management incharge- noise management incharge - team for horticulture. 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 [₹ 560 Lakh (Capital cost) and ₹ 62 Lakhs (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) The Total water requirement of plant will be 252 KLD. Out of total, 189.5 KLD will be sourced from KIADB. 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 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 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.
- (vi) 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.
- (vii) 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.
- (viii) 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.
- (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. The PP shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

- (x) As committed by the PP, Zero Liquid Discharge shall be ensured. 49 KLD of process effluent shall be treated in ETP/RO/MEE plant and reused within the plant..
- (xi) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB 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.
- (xii) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (xiii) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xiv) Training shall be imparted to all employees on safety and health aspects 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.
- (xv) 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.
- (xvi) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xvii) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (xviii) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.
- (xix) 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. 40.11.

Proposed Expansion of technical grade Pesticides with production capacity 300 MTPA located at UNIT – 2, VPO Nagla Megha, Meerut Road, Khasara No. 36/24 (Khewat No. 317/284 & Khatoni

No. 366), Tehsil Gharounda, District Karnal, Haryana by M/s. Shree Ram Agro India – Consideration of EC.

[Proposal No. IA/HR/IND3/401133/2022; File No. IA-J-11011/3/2021-IA-II(I)]

1. The proposal is for environmental clearance for the proposed Expansion of technical grade Pesticides with production capacity 300 MTPA located at UNIT – 2, VPO Nagla Megha, Meerut Road, Khasara No. 36/24 (Khewat No. 317/284 & Khatoni No. 366), Tehsil Gharounda, District: Karnal (Haryana) by M/s. M/s Shree Ram Agro India.
2. The project/activity is covered under Category ‘A’ of item 5(b) Pesticides industry and pesticide specific intermediates (excluding formulations), of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and appraised at the Centre.
3. The PP reported that the Public Hearing for the proposed project has been conducted by the Haryana State Pollution Control Board on 9th June 2022. The main issues raised during the public hearing are related to Employment, Discount to local farmers on the pesticide product, Environment safety, Rate of Pesticide, Water level, VOC Control measures, Water Demand, Quality of pesticide, Online monitoring system of the plant, Mitigation measures taken while construction. The PP applied for Environment Clearance on 4.10.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP reported in Form-2 that it is a **Fresh EC**. Due to the shortcoming the Proposal was refereed back to PP on 10.10.2022 and the reply for the same has been submitted on 12.10.2022. The proposal is now placed in 40th EAC Meeting held on 18-19 October 2022, wherein the Project Proponent and an accredited Consultant, **M/s.Wolkem India Limited** [Accreditation number NABET/EIA/2124/RA0216 up to 5.10.2024], 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 **1846.37 m²** and no R& R is involved in the Project. The details of products are as follows:

S.No.	Product details (Complete Name)	CAS No.	Existing Quantity	Proposed Quantity	Total Quantity (TPA)	Uses
1	Clodinafop Propargyl	105512-06-9	Nil	150	150	Herbicide
2	Thiamethoxam	153719-23-4	Nil	150	150	Insecticide
Total					300	

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 proposed project is an existing formulation unit. All formulation activities have been discontinued with effect from 1st March 2020. This project involves a production of new technical grade pesticides capacity of 300 MTPA in existing premises. RO, HSPCB has issued a letter Vide no. HSPCB/KAR/2022/4230, dated 15th September 2022 for the status of Unit of M/s Shree Ram Agro India.
7. The PP reported that there are no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from site. No forest land is involved for the proposed project. River Yamuna is flowing at a distance of 2.55 k.m. in ESE direction. No schedule-I species exist in the 1 Km study area.
8. The PP reported that the Ambient air quality monitoring was carried out at **8** locations during 1st December 2020 to 28th February 2021 and the baseline data indicates the ranges of concentrations

as: PM₁₀ (86.22 µg/m³ to 55.74 µg/m³), PM_{2.5} (51.33 µg/m³ to 31.99 µg/m³), SO₂ (11.46 µg/m³ to 4.11 µg/m³) and NO₂ (20.13 µg/m³ to 5.56 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.22 µg/m³, 0.45 µg/m³ and 0.04 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

9. The PP reported that the Initially freshwater requirement will be **23.65 KLD**. **13.7 KLD** treated wastewater will be recycled in cooling tower, boiler, scrubber and reactor washing **hence** freshwater requirement for proposed project will be **9.95 KLD** and will be met through bore well. CGWA application for ground water withdrawal has been applied to Haryana Water Resources Authority (HWRA) **Application No: HWRA/IND/N/2021/150, dated 10/6/2022**. Effluent of **18.03 KLD (Industrial –13.03 KLD and Domestic – 5.00 KLD** quantity will be treated through Treated at **ETP** Separately and sent to RO Process. RO - Permeate will be reused in Cooling Tower, Boiler, Scrubber and Reactor Washing and RO - Reject will be sent to MEE. The plant will be based on Zero Liquid discharge system.
10. The PP reported that Power requirement will be **580kVA** and will be met from **UHBVN (Uttar Haryana Bizali Vitaran Nigam)**. Unit has DG Sets of 100 HP capacity DG Sets. Stack (height 15 m) will be provided as per CPCB norms to the proposed DG set.
11. Unit propose **2 MT/Day Rice Husk Briquettes for Boiler**. Additionally, **no** boiler will be installed. Multi cyclone separator/ bag filter with a stack of height of **30 m** shall be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers.
12. Details of Process emissions generation and its management.

S. No.	Name of Product	Name of Gas	Gas emission (MT/MT)	Mode of Treatment
1	Clodinafop Propargyl	SO ₂	0.350	Wet Scrubber having caustic lye solution.
		HCL	0.200	
		DMF	0.100	VOC Control system (vent condensers in series to reactors, distillation columns, driers, centrifuges etc. to mitigate VOCs vapor. Activated carbon absorption system for remaining VOC.
		Methanol	0.075	
2	Thiamethoxam	DMF	0.300	
		Methanol	0.100	

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

S. No.	HW/Solid Waste	Category	Quantity	Disposal Method
A. Hazardous Waste MTPA				
1	Process Residue	28.1	33.00	TSDf - M/s Gujarat Enviro Protection and Infrastructure (Haryana) (MoU dated 1 st June 2022.)
2	ETP Sludge	35.3	45.00	
3	MEE Sludge	35.3	222.00	

4	Empty Drums/container	100 No/M	Sale to Authorized
5	Used/spent oil	5.1	50 L/M	Sale to Authorized
6	Fly Ash (Boiler)	115.00	Sale to bricks manufacturer, M/s Ganesh Bhatta Company (MoU dated 10 th February 2022)

14. The estimated project cost is Rs. 8.06 crore (Existing: 2.26 Crore, proposed: 5.80 Crore) including existing investment of Rs. 2.26 crore. Total Employment will be 30 persons as 15 direct and 5 indirect persons.

15. **Deliberations by the EAC:**

The EAC noted that the PP could not provide any proof for the green belt development undertaken. Hence, the PP needs to first comply w.r.t greenbelt condition and submit the details of green belt developed as per CPCB guidelines along with aerial photographs and video. The EAC also noted the water balance and advised the PP to submit the revised water balance.

The EAC noted that the PP could not provide the information regarding the carbon footprint and being a pesticide project, the PP could not cover the life cycle assessment, which is a part of agenda. Hence, the PP needs to submit details of carbon foot print, carbon sequestration study and Life Cycle Assessment including the impact on flora and fauna.

The EAC also noted the inconsistencies in the EIA Report, Brief summary and Presentation, which needs to be appropriately revise/uploaded on PARIVESH.

In view of above, the EAC recommended to **defer** the proposal.

Any Other Item with Permission of Chair

Agenda No. 40.12.

Clarification for applicability of Environmental Clearance for Menthol Crystal (Peppermint) and Menthol Powder

1. The Project Proponent (*M/s Shiuma Process Equipments Pvt Ltd. (Chemical Division), UPSIDC Industrial Area, Site IV, Sahibabad Dist., Ghaziabad, U.P.*) submitted to the Ministry that the query pertains to requirement of EC for Menthol Crystal (Peppermint) and Menthol Powder. Mentha Oil is extracted from Mentha Crop, widely cultivated in Ruhelkhand area of U.P. (mainly in Amroha, Bijnore, Moradabad, Rampure, Sambhal, Badaun, Bareilly, Sahajahanpur, Sitapur Districts of U.P. State). It is a substance that tastes and smell like mint.
2. Mints are group of perennial herbaceous plants belonging to the family *Lamiaceae* or *Labiatae* which yield essential oil on distillation. Mentha species, one of world's oldest & most popular herbs are widely used as an alternative or complementary therapy. It is not a synthetic product and based on agriculture raw material. The process flow chart was also submitted.
3. The PP also submitted that the same type of issue was considered and recommendation have been made by the EAC (Industry-III) in the Agenda No. 32.9 during 32nd meeting held on May 30-31,2022, "That Nicotine is a naturally occurring substance and pure nicotine is extracted from tobacco leaves. The process does not involve

alteration of nicotine molecule at any stage of manufacturing. Thus, the product does not fall under the category of synthetic organic chemicals and does not require EC". It is pertinent to note that the product Menthol is extracted from Agriculture Crop known as Mentha. Fractional Distillation is done only for separation of different products and water from Mentha oil.

4. The EAC deliberated on the above and recommended that the process does not involve any chemical synthesis and the products doesn't fall under the category of synthetic organic chemicals. Hence, they don't require EC under the provisions of the EIA Notification, 2006 (as amended).

Agenda No. 40.13.

Recommendations of EAC (Industry-3) w.r.t CPAs/SPAs and industrial areas

The EAC (Industry-3) has been appraising substantial number of proposals located in the CPAs and SPAs, both greenfield and brownfield. The EAC opines that unless continuous proactive measures are taken to reduce the pollution load of the CPAs and SPAs, they will continue to remain CPAs/SPAs. After detailed deliberations, the EAC recommends that only proposals (Greenfield/ Brownfield) which are carbon-neutral or carbon-negative may be permitted till the next assessment of CEPI score is done by the CPCB/authorized agency of Ministry and the area falls within the threshold limit of SPA.

Further, as a proactive measure to prevent other industrial areas turning into CPAs/SPAs, the EAC recommends that Cumulative Impact Assessment (also considering the impacts of those under appraisal for ToR and EC) by accessing the data from PARIVESH etc. may be made mandatory.

The above recommendations are being made for kind consideration of the Ministry.

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.

List of the Expert Appraisal Committee (Industry-3) members participated during Video Conferencing (VC) meeting

S. No.	Name of Member	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.	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
3.	Dr. Ashok Kumar Saxena, IFS Bungalow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
4.	Prof. (Dr.) Suneet Dwivedi, Professor in K Banerjee Centre of Atmospheric and Ocean Studies, University of Allahabad, Allahabad - 02 Uttar Pradesh E-mail: dwivedisuneet@rediffmail.com /suneetdwivedi@gmail.com	Member
5.	Shri Santosh Gondhalkar 'Shree' Apartment, Flat 401, Plot No. 22, Tukaram Society, Santhnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
6.	Dr. Suresh Panwar House No.4, Gayatri Green Society, NH 58 Bypass, Kankerhera, Meerut, Uttar Pradesh Email: spcppri@gmail.com	Member
7.	Shri Tukaram M Karne "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2, PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	Member
8.	Prof. (Dr.) Vijay S. Moholkar Professor in Department of Chemical Engineering, Block-K (Academic complex), Room No. 111, India Institute of Technology Gawahati, Gawahati – 781039 E-mail: vmoholkar@iitg.ac.in	Member

9.	Shri Dinabandhu Gouda Additional Director, DH IPC-I, Room No. 309A, Third Floor, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 110032 E-mail: dinabandhu.cpcb@nic.in	Member
10.	Dr. M. Ramesh Scientist 'E' Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Room No. A-233, Agni Wing, Jor Bagh Road, New Delhi-110003 Tel. 011-20819249 E-mail: ramesh.motipalli@nic.in	Member Secretary

MOM approved by



**(Prof. Aniruddha B. Pandit)
Chairman**
