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

Dated: 30.06.2022

MINUTES OF THE 33rd EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON June 20-22, 2022

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

Time: 10:30 AM onwards

(i) Opening Remarks by the Chairman, EAC

Prof. (Dr.) A.B. Pandit, Chairman EAC 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 EAC meeting.

(iii) Confirmation of Minutes of the 32nd Meeting of the EAC (Industry-3 Sector) held during May 30-31, 2022 through VC.

The EAC noted that the final minutes were issued after incorporating the comments offered by the members and approved by the Chairman on 07.06.2022. Based on the request received from a project proponent for factual corrections, the EAC confirmed the minutes of meeting with the following corrections:

Agenda No. 32.2

Proposed Pesticide manufacturing plant with production capacity of 5100 TPA located at Plot No. H-34 & H-35 Kosi Kotwan Extension-1, Uttar Pradesh State Industrial Development Corporation (UPSIDC) Industrial Area, Mathura, Uttar Pradesh by M/s Yoshi Crop Care Private Limited - Consideration of Environmental Clearance

[Proposal No. IA/UP/IND3/266321/2021; File No. IA-J-11011/255/2021-IA-II(I)]

1. The proposal was considered in 32nd EAC Meeting on 30 May, 2022, wherein the Committee recommended the proposal. The MoM were published on 8.6.2022. The PP vide their e-mail dated 10.6.2022 requested the following corrections in approved MoM.

Page No. of Minutes	Specific Points	Information as per Minutes of Meeting	Details to be corrected	Justification/ Remarks
Page11	Point No. 3	ToR & EC Application -The PP applied for	ToR & EC Application - The PP applied for ToR	Proposal number &

		ToR vide proposal number **IA/UP/IND3/266321/2021** dated 19.06.2021 and Standard ToR was issued by the Ministry vide letter No. IA-J-11011/255/2021-IA-II(I) dated 3.7.2021. The PP reported that the project is located inside OPSIDC which was declared as notified industrial area under the Gazette No. 215 dated 5.9.2001, i.e. prior to 2006 and hence the Public Hearing is exempted in pursuant to Ministry's OM No. J-11011/321/2016-IA.II(I) dated 27.4.2018. The PP vide proposal no. **IA/GJ/IND2/102692/2019** dated 9.4.2022 applied for grant of EC in Form-2 the submitted the EIA/EMP Report. Due to some shortcomings, the project was referred back to PP and reply to the same was submitted by the PP on 5.5.2022. The proposal is now placed before 32nd EAC meeting held on **May, 30-21, 2022** wherein the project proponent and the accredited Consultant, M/s. EQMS India Pvt. Ltd. having accreditation number [NABET/EIA/1922/RA0197 valid till 23.11.2022] made a	vide proposal number **IA/UP/IND3/215829/2021** dated 19.06.2021 and Standard ToR was issued by the Ministry vide letter No. IA-J-11011/255/2021-IA-II(I) dated 3.7.2021. The PP reported that the project is located inside OPSIDC which was declared as notified industrial area under the Gazette No. 215 dated 5.9.2001, i.e. prior to 2006 and hence the Public Hearing is exempted in pursuant to Ministry's OM No. J-11011/321/2016-IA.II(I) dated 27.4.2018. The PP vide proposal no. **IA/GJ/IND3/266321/2021** dated 9.4.2022 applied for grant of EC in Form-2 the submitted the EIA/EMP Report. Due to some shortcomings, the project was referred back to PP and reply to the same was submitted by the PP on 5.5.2022. The proposal is now placed before 32nd EAC meeting held on **May, 30-31, 2022** wherein the project proponent and the accredited Consultant, M/s. EQMS India Pvt. Ltd. having accreditation number [NABET/EIA/1922/RA0197 valid till 23.11.2022] made a detailed presentation on the salient features of the project and informed the following:	date of meeting is to be corrected

		detailed presentation on the salient features of the project and informed the following:		

2. Deliberations by the EAC:

The EAC deliberated the issues and noted that that these are typographical errors and factual in nature and recommended for appropriate corrections in the minutes, as requested by the PP.

(iv) Correction in Minutes of the 31st Meeting of the EAC (Industry-3 Sector) held during May 11-12, 2022 through VC

Agenda No. 31 .7

Amendment in Environment Clearance for Proposed Pesticides and Pesticide Specific Intermediates manufacturing located at Plot No. D-2/11/B/3/2, GIDC, Dahej-II, Taluka: Vagra, District: Bharuch-392130 (Gujarat) by M/s. NACL Spec Chem Ltd. - Consideration of Amendments in Environmental Clearance

[Proposal No. IA/GJ/IND3/269078/2022, File No. IA-J-11011/437/2017-IA-II(I)]

1. The proposal was considered in 31st EAC Meeting held on 11-12 May, 2022, wherein the Committee recommended the proposal. The MoM were published on 20.5.2022. Subsequently, the Ministry has noted the following correction in the minutes:

Page No. of Minutes	Para of EC issued by MoEF&CC	Information as per Minutes of Meeting	Details to be corrected	Justification/Remarks
Page 88	Point – (xii) of Annexure on page – 7	Process Organic Residue and spent carbon, if any, shall be sent to cement industries. ETP Sludge process inorganic & evaporation salt shall be disposed-off to TSDF.	Process Organic Residue and spent carbon, if any, shall be sent to cement industries. ETP Sludge **will be reduced from 300 TPM to 280 TPM**, process inorganic & evaporation salt **will be reduced from 100 to 95 TPM** and shall be disposed-off to TSDF.	The technical condition remains same. Only the reduced quantities of ETP sludge and process inorganic & evaporation salt are being specified.

2. Deliberations by the EAC:

The EAC deliberated the issue and noted that that this is a typographical error and factual in nature and recommended for appropriate corrections in the minutes as requested by the PP.

After confirmation of the minutes of 31st and 32nd EAC meetings, discussion on each of the agenda items was taken up ad-seriatim. Details of the proposals considered during the meeting **conducted through Video Conferencing (VC)**, deliberations made and the recommendations of the Committee are detailed in the respective agenda items as under:

Agenda No. 33.1

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

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

1. The proposal is for the Environmental Clearance for Setting up of API Manufacturing Unit of production capacity 469.77 TPA located at Plot No. N-28, MIDC Tarapur, Tehsil & District – Palghar, Maharashtra by M/s JPN Industries LLP.

2. The project/activity is covered under Category 'B2' of item 5(f) (Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended vide S.O. 2859(E) dated 16.07.2021). Due to applicability of general condition that the Project site is located in Tarapur MIDC, classified as Critically Polluted Area (CPA), the project requires appraisal at central level by the Expert Appraisal Committee (EAC) in the Ministry.

3. The PP vide proposal number IA/MH/IND3/248122/2021 submitted the final PFR and EMP on 31.12.2021. The PP reported in Form-1 that it is a **Fresh EC.** The proposal was referred back to the PP on 3.1.2022. The PP replied to the shortcomings on 21.3.2022 and the proposal was placed in 29th EAC Meeting held on April 11, 2022 wherein the Committee **deferred** the proposal for want of requisite information. Reply to the same was submitted by the PP on 8.6.2022 and the proposal is now placed in the 33rd EAC Meeting held on June 20-22, 2022 wherein the project proponent and an accredited consultant M/s. Sadekar Enviro Engineers Pvt. Ltd., [Accreditation Number NABET/EIA/2124/SA0146 valid till 18.4.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP so far is as follows:

4. The PP reported that the project area is 0.405 Ha and no Rehabilitation and Resettlement (R&R) issues are involved in the project. The proposed production is as follows:

S. No.	Product Details (Complete Name)	CAS No.	Existing Quantity TPA	Proposed Quantity TPA	Total Quantity TPA	Uses
1	Silver	22199-	-	36	36	Infected Burn

	Sulfadiazine	08-2				
2	Silver Nitrate	7761-88-8	-	4	4	
3	Alendronate Sodium	121268-17-5	-	26	26	Osteoporosis
4	Alendronic Acid	66376-36-1	-	26	26	
5	Risedronate Sodium	329003-65-8	-	5	5	
6	Ibandronate Sodium	138926-19-9	-	3.5	3.5	
7	Ibandronic Acid	114084-78-5	-	3.5	3.5	
8	Pamidronate Sodium	109552-15-0	-	2	2	
9	Eplerenone	107724-20-9	-	2	2	Antihypertensive
10	Fosphenytoin Sodium	32134-98-0	-	10	10	Antiepileptic
11	Phenytoin base	57-41-0	-	40	40	
12	Phenytoin Sodium	630-93-3	-	75	75	
13	Phenobarbital base / Phenobarbitone	50-06-6	-	75	75	Anticonvulsant
14	Phenobarbital Sodium / Phenobarbitone Sodium	57-30-7	-	30	30	
15	Trimetazidine Hydrochloride	13171-25-0	-	30	30	Cardiovascular system
16	Ticagrelor	274693-27-5	-	2	2	Antithrombotic
17	Tizanidine Hydrochloride	64461-82-1	-	3	3	Muscle Relaxant
18	Bisacodyl	603-50-9	-	7	7	Laxative
19	Sodium Picosulfate	10040-45-6	-	3	3	
20	Glycopyrrolate	596-51-0	-	0.03	0.03	Anticholinergic
21	Silodosin	160970-54-7	-	1.0	1.0	Anti-alpha Blockers
22	Febuxostat	144060-53-7	-	1.5	1.5	Genito Urinary System
23	Allupurinol	315-30-0	-	50	50	Antigout
24	Ondansetron	99614-02-5	-	1.5	1.5	Antiemetics
25	Ondansetron HCL	103639-04-9	-	2.0	2.0	
26	Palonosetron	135729-	-	0.03	0.03	

	Hydrochloride	62-3				
27	Hydrocortisone hemi succinate	2203-97-6	-	24.0	24.0	Corticosteroids
28	Tigecycline	220620-09-7	-	0.005	0.005	Antibiotics
29	Isepamicin	58152-03-7	-	0.005	0.005	
30	Eosin Disodium	17372-87-1	-	1	1	Antiseptic
31	Fluorescein sodium	518-47-8	-	0.2	0.2	
32	Propyl Gallate	121-79-9	-	2	2	Antioxidant
33	Risperidone	106266-06-2	-	1	1	Neuroleptic
34	Pioglitazone HCL	112529-15-4	-	0.5	0.5	Antidiabetic
35	R&D products (API)	--	-	2	2	--
Total (Any of three products will be manufactured at any given point of time			**-**	**469.77**	**469.77**	

5. The PP reported that there are no court case or show causes notice issued by MPCB to M/s JPN Industries LLP.

6. The PP reported that the proposed project does not fall under violation category as per the provision of S.O. 804 (E) dated 14.3.2017.

7. The PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. There is no forest land involved in the proposed project. Banganga River and Jununa River are flowing at an approx. distance of 1.70 km in SE direction and 3.25 km in SSE direction respectively. There is one Schedule-I species i.e. Peacock (Indian peafowl) and the conservation plan for the same has been submitted to DCF, Dahanu on 20.5.2022 with budgetary provision of ₹ 15.04 Lakh.

8. The PP reported that total water requirement is 122.6 KLD of which fresh water requirement of 81.8 KLD will be met from M.I.D.C Tarapur water supply. Generated effluent (11.06 KLD) quantity will be treated through the Stripper-MVR-ATFD-ETP-RO system and the entire treated effluent will be reused. The plant will be based on Zero Liquid Discharge (ZLD) system.

9. The PP reported that Power requirement after establishment will be 375 KVA and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). Additionally, 1 Nos. of 500 KVA DG sets will be set up and to be used as standby during power failure after establishment. Stack of height 5 m above the roof level will be provided as per CPCB norms to the proposed DG sets. Additionally, 2 number of 1.5 TPH steam boilers will be installed. Utilization of cleaner fuel PNG with a stack of height of 30 m will be installed for controlling the particulate emissions within the

statutory limit of 115 mg/Nm^3 for the proposed 1.5 TPH boiler. The steam requirement for plant operations will be met through PNG/LDO fired Steam boilers, since combustion of PNG/LDO will not generate fly ash; hence fly ash utilization will not be involved.

10. Details of Process Emissions Generation and its Management:

S. No.	Name of gas	Source	Quantity (kg/day)	Treatment Method
1	NOx	Manufacturing Process	2.132	5000 CFM X 1 No. of alkaline scrubber
2	HCL	Manufacturing Process	101.611	5000 CFM X 5 Nos. of alkaline scrubbers (2 Scrubbers will be standby)
	Total Process Emissions		**103.74**	
3	Solvent Vapors (MDC/ Methanol/ Toluene/ DPE/ Acetic Acid/ Acetone/ Ethyl Acetate/ n-Heptane/ Acetonitrile/ MEK/ n-Propanol)	Manufacturing Process	43.75	Double condenser system will be provided to capture emissions & recover solvents.
Total Fugitive emissions			**43.75**	
4	SO_2	LDO fired Boiler Operation	23.616	Adequate stack height of 30 m will be provided; Cleaner fuel PNG will be used primarily.
Total Gaseous emissions			**171.11**	

Details of Individual Process and Fugitive emissions:

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

11. Details of Solid Waste/ Hazardous Waste Generation and their Management:

Hazardous Waste:						
S. No.	**Name of waste**	**Source**	**Category as per HW Rules, 2016**	**UOM**	**Quantity**	**Disposal Method**

1	Used /Spent Oil	Manufacturing Process	5.1	kg/day	0.321	Sale to authorized re-processor / Disposal to CHWTSDF
2	Spent Hyflow	Manufacturing Process	28.3	kg/day	0.27	Disposal to CHWTSDF / Co-processing
3	Spent Carbon	Manufacturing Process	28.3	kg/day	0.69	Disposal to CHWTSDF / Co-processing
4	Process Residue	Manufacturing Process	28.1	kg/day	0.0040	Recycle within process/ Disposal to CHWTSDF/ Co-processing
5	Spent Solvent	Solvent Recovery	28.6	kg/day	2345.17	Reuse within process / Sale to authorized re-processor
6	ETP Sludge	Effluent Treatment	35.3	kg/day	12.821	Disposal to CHWTSDF / Co-processing
7	Empty drums / carboys/containers	Packaging of Raw Materials / Finished Products	33.1	kg/day	80	Sale to Authorized Vendor/Disposal to CHWTSDF.
8	Used Filter Cloth	Manufacturing Process	33.2	kg/day	0.080	Disposal to CHWTSDF/ Co-processing
9	Evaporation residue (MVR & ATFD)	HTDS Effluent Treatment	37.3	kg/day	7.692	Sale to authorized re-processor / Disposal to CHWTSDF/ Co-processing
10	Spent Catalyst	Manufacturing Process	28.2	kg/day	0.00003	Recycle to process / Sale to authorized recycler
11	Off specifications products	Manufacturing Process	28.4	kg/day	1	Disposal to CHWTSDF
12	Mixed Solvent from stripper (Spent)	Solvent containing Effluent Treatment	28.6	kg/day	40	Disposal to CHWTSDF /Co-processing

Non Hazardous Waste:					
Sr.	**Name of waste**	**Source**	**UOM**	**Quantit**	**Disposal**

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

E-Waste:

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

Battery Waste:

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

12. Summarized Pollution Load Information:

kg Per Day			
WATER	**EFFLUENT WATER**	**SOLID WASTE**	**AIR EMISSIONS**

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

13. The Budget earmarked towards Environmental Management Plan (EMP) is 201 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 121.65 Lakh per annum, which includes Air Pollution Control [₹ 60 lakh (capital) and ₹ 4.0 lakh/annum (Recurring)], Water Pollution Control [₹ 88.5 lakh (capital) and ₹ 70.0 lakh/annum (Recurring)],Occupational Health & Safety [₹ 5.0 lakh (capital) and ₹ 10 lakh/annum (Recurring)],Noise Pollution Control [₹ 7.0 lakh (capital) and ₹ 1.0 lakh/annum(Recurring)], Waste Management [₹ 2.0 lakh (capital) and ₹ 6.0 lakh/annum (Recurring)],Green Belt [₹ 3.0 lakh (capital) and ₹ 2.5 lakh/annum (Recurring)]and Rain Water Harvesting [₹ 5.0 lakh (capital) ₹ 0.5 lakh/annum(Recurring)], Energy conservation [₹ 8.5 lakh (capital) and ₹ 0.65 lakh/annum (Recurring)], Environment Monitoring [₹ 22.0 lakh (capital) and ₹ 22.0 lakh/annum (Recurring)]. The PP has allocated 4.0 % of the total project cost viz. 60.16 Lakhs for CER activity for a period of 3 years.

14. The industry will develop greenbelt in an area of 40 % i.e., 1644.2 m^2 out of the total area of the project.

15. The PP reported that Carbon footprint and sequestration analysis indicates that, approximately 169.53 Tons of CO_2 eq. will be generated due to proposed manufacturing (worst case scenario); out of which 75.82 Tons of CO_2 eq. will be sequestered annually by mitigation measures such as Greenbelt (high carbon sequestering species) development. In addition, Solar energy, Cleaner fuel (CNG), Solvent recovery, etc. will also be used to reduce carbon foot-print.

16. The PP reported that Quantitative risk assessment is done for the storage of flammable/hazardous chemicals. Based on the unsafe distances identified and Maximum Credible Loss Scenario, appropriate mitigation measures are suggested/ recommended to avoid the impacts due to accidents. Also, onsite/offsite emergency management plan is prepared as per the MSIHC Rules, 1989 and Maharashtra

Factories Rules, 2003. The same has been conveyed to District collector and Director of Industrial Safety& Health (DISH) of Palghar district authority.

17. The PP also submitted "*This is to confirm that , we have reviewed the pre-feasibility report & form-1 prepared by M/s. Sadekar Enviro Engineers Pvt. Ltd. titled "Environment Clearance for setting up of API Manufacturing Unit of M/s JPN Industries LLP", located at Plot No. N-28, MIDC Tarapur, Tehsil & District-Palghar, Maharashtra, The information related to our project & process is correct as per our understanding, being understood the Environment Management Plan (EMP), Quantification of Pollution load (Air Emission, Liquid Effluent & Solid Hazardous Waste), CER action plan, etc. will be implemented as given in the PFR & from- Report. We declare the ownership of contents (Information & data) of Pre-feasibility report, Environment Management Plan & Form-1".*

18. The Consultant also submitted that "*PFR, Form-I and Environment Management Plan for the project "Environment Clearance for setting up of API manufacturing Unit of M/s JPN industries LLP located at plot No N-28, MIDC Tarapur, Tehsil & District – Palghar, Maharashtra has been prepared by M/s Sadekar Engineers Pvt. Limited according to the gidelines of MOEF&CC and EIA notification, 2006. We also confirm that PFR, Form-I & EMP prepared is based on the project related factual data as submitted by PP to us".*

19. The PP reported the estimated project cost is ₹ 15.04 Crores including existing investment of ₹ 4.38 Crores and total Employment will be 50 Nos. persons as direct & 15 Nos. persons indirect after establishment.

20. 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 8.6.2022 which is as follows:

S. No.	Queries Raised by EAC	Reply by PP	Observation of EAC
1.	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 instant project.	PP have explored the alternative site analysis as per the provisions of EIA Notification, 2006 and as per the Standards terms of references published by Ministry of Environment Forest and Climate Change published in April 2015. The study has been submitted by the PP.	The EAC found the reply submitted by the PP satisfactory.
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?	As per the MoEF&CC Office Memorandum dated 31/10/2019, we have proposed all the additional mitigation measures to safeguard environment. The tabular chart including compliance of the same is addressed. To identify, assess and mitigate the carbon footprints, we have carried out Life cycle assessment. Total	The EAC found the reply submitted by the PP satisfactory.

		carbon footprints due to proposed project will be 169.53 tons of CO_2 eq. Mitigation measures are suggested to reduce the carbon footprints such as solar energy alternatives, use of cleaner fuel and solvent recovery etc.	
3.	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 green belt plan along with budgetary allocation has been submitted by the PP. Action plan for high carbon sequestration species in the green belt has also submitted. Total carbon sequestration due to green belt will be 57.95 tons of CO_2 eq.	The EAC found the reply submitted by the PP satisfactory.
4.	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.	Indian Peafowl is observed in the study area. The conservation plan of this schedule I specie along with budgetary allocation is prepared and submitted for approval. The detailed plan and acknowledgement of the submission of conservation plan to Dy. Conservator of Forest, Dahanu	The EAC found the reply submitted by the PP satisfactory.
5.	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.	To identify, assess and mitigate the carbon footprints, we have carried out Life cycle assessment. Total carbon footprints due to proposed project will be 169.53 tons of CO2 eq. Total carbon sequestration due to green belt & solar energy alternatives will be 75.82 tons of CO2 eq. The detailed write-up of the Carbon footprints including mitigation measures for reducing carbon footprints has been submitted.	The EAC found the reply submitted by the PP satisfactory.
6.	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 satisfactory.
7	The PP needs to explore the possibility to use of bio fuel in place of coal	PP reported Not applicable to this project as JPN Industries LLP will use Natural Gas as primary fuel.	The EAC found the reply submitted by the PP satisfactory.
8	The PP needs to submit details of energy conservation measures proposed in the Unit.	Details of proposed solar energy alternatives including percentage savings, budgetary cost etc. has been submitted.	The EAC found the reply submitted by the PP satisfactory.
9	The PP needs to submit the details of Onsite/Offsite emergency plan and mitigation measures to be	Quantitative risk assessment is done for the storage of flammable/hazardous chemicals. Based on the unsafe distances	The EAC found the reply submitted by the PP satisfactory.

	proposed during implementation of the project.	identified and Maximum Credible Loss Scenario, appropriate mitigation measures are suggested/ recommended to avoid the impacts due to accidents. Also, onsite/offsite emergency management plan is prepared as per the MSIHC Rules, 1989 and Maharashtra Factories Rules, 2003. The same has been conveyed to District collector and Director of Industrial Safety & Health (DISH) of Palghar district authority. The Risk assessment and Disaster Management Plan has been submitted.	

21. Deliberations by the EAC:

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

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

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

The Committee noted that the PFR/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the conservation plan for schedule–I species, and EAC suggested to submit the same to Chief wildlife warden, which PP has submitted vide letter dated 21.06.2022.

The Committee deliberated on the specification of chemicals contributing to the ozone layer Depletion. PP submitted that MOEF&CC have enlisted the list of Ozone depleting chemicals and the raw materials of JPN Industries do not come under the said list. The EAC also deliberated on quantity of production, and suggested to submit the Benefit to cost analysis ratio of all 5 alternative sites. The PP submitted the benefit to cost analysis ratio with respect to environmental impacts with mitigation measures and EAC found it to be satisfactory.

The Committee deliberated the Onsite and Offsite Emergency plan and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. In addition to this the PP submitted that onsite disaster management plan is submitted to District collector Palghar and Joint director, Industrial safety and Health Vasai, Palghar for the approval. The EAC also suggested for the Fire NOC approval, PP submitted that after completing of construction, Building Completion Certificate (BCC) is issued when Chief Fire officer of MIDC approves the Final Fire NOC and Industry will follow the same procedure for MIDC and NOC will be obtained from MIDC before completion of the project.

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 Committee 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 (SPCB), prior to construction & operation of the project.

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

(i) Since the project site is in a critically polluted area, the additional mitigation measures already committed by PP to safeguard the environment as per the MoEF&CC O.M. dated 31/10/2019 and those stipulated by the SPCB from time to time shall be duly complied.

(ii) The PP shall develop Greenbelt over a minimum area of 1644.2 m^2 by planting additional 411 trees within a year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be ₹ 3.0 Lakh (capital cost) 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.

(iii) 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 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.

(iv) 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 ₹ 201 Lakh (Capital cost) and 121.65 (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.

(v) The total water requirement is 122.6 KLD of which fresh water requirement of 81.8 KLD will be met from M.I.D.C Tarapur water supply. The PP should ensure that water supply should not be above the permissible limit and only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year

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

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

(viii) The 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.

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

(x) 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.

(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.

(xii) 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.

(xiii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and the entire volume of 11.06 KLD effluent shall be treated through Stripper-MVR-ATFD-ETP-RO system.

(xiv) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

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

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

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

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

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

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

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

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

Agenda No. 33.2

Proposed Expansion in Existing Production Capacity and Addition of New Products Within Existing Premises, located at Plot Nos. 12 & 14, GIDC Phase-I, Vatva, Dist.

Ahmadabad, Gujarat by M/s Anar Chemicals LLP - Reconsideration of Environmental Clearance

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

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

2. The project/activity is covered under Category 'A' of item 5(f) (Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) of Schedule of Environment Impact Assessment (EIA) Notification2006 (as amended) and requires appraisal at Central Level by Expert Appraisal Committee (EAC) due to applicability of general condition that the Project site is located in GIDC Vatva, classified as Critically Polluted Area (CPA).

3. The Project Proponent (PP) applied for ToR vide proposal number IA/GJ/IND2/174419/2020 dated 21.9.2020 and the **standard ToR** was granted vide letter No. J-11011/508/2006-IA-II(I) dated 6.10.2020. The PP reported that project is located inside the notified industrial area and hence, the Public Hearing is exempted in pursuant to Ministry's OM No. J-11011/321/2016-IA. II (I) dated 27.4.2018. The PP vide proposal number IA/GJ/IND3/268019/2006 dated 16.4.2021 applied for grant of EC in Form-2 and submitted the final EIA/EMP report. The PP reported in Form-2 that it is an **Expansion case.** The proposal was placed in 30th EAC Meeting held on April 27, 2022 wherein the Committee deferred the proposal for want of requisite information. Reply to the same was submitted by the PP on 7.6.2022 and the proposal was then placed in the 33rd EAC Meeting held on June, 20- 22, 2022 wherein the project proponent and the accredited consultant M/s. Anand Environmental Consultants Pvt. Ltd. [Accreditation Number NABET/EIA/1922/RA 0167 valid till 26.9.2022] made a detailed presentation on the salient features of the project. The information submitted by the PP so far is as follows:

4. The PP reported that the proposed expansion will be carried out within the existing premises of 1.3389 Ha. Therefore, no Rehabilitation and Resettlement (R&R) issues are involved in the project. The proposed production is as follows:

Sr. No.	Name of Product	Quantity of Product (MT/Month)			
		Existing	Proposed	Total	CAS No.
EXISTING PRODUCT					
1 to 11	Dyes* (and mixtures) Solvent Green 33 Solvent Blue 79 Solvent Blue 98 (Automate Blue 8A, Automate Blue 8AHF & Automate Blue 9BHF) Solvent Red 161 Solvent Red 19 E (Liquid Red 3, Automate Red PB XF mixture)	70	97	167	 97862-23-2 64553-79-3 71819-49-3 85750-13-6 56358-09-9

	Solvent Red 164 (Automate Red IKHF, Automate Red IKHF D50, Liquid Red HX, Automate Red BXL, Automate Red 9BHF) Solvent Yellow 107 Solvent Yellow 124 Solvent Orange 98 (Automate Yellow 8HF, Liquid Yellow 1) Solvent Marker 1, Marker 2, Marker 3 and Marker 7 - new proposed Solvent Yellow HF 2 (Automate Yellow HF) - new proposed				92257-31-3 67900-27-6 34432-92-3 65087-00-5
12	Dye Intermediate- DAZN (BON DCA)	03	-03	00	--
13	R&D Products for dyes intermediates, metal Phthalocyanines and speciality chemicals	01	00	01	--
14	Metal Phthalocyanines and its derivatives	20	-05	15	132-16-1 14055-02-8 28901-96-4
15	Naphthols	30	-15	15	135-62-6 137-52-0
16	Blue 700	05	-05	00	--
Existing 16 Products Total (A)		**129**	**69**	**198**	
PROPOSED PRODUCT					
1.	Photo initiators	**--**	25	25	75980-60-8
2.	Fluorescent monomers	**--**	03	03	276878-97-8
3.	Hydrogenated Products	**--**	25	25	104-42-7
4.	Di-BromoDi-ketoPyroloPyrolle (DBDPP)	**--**	03	03	1000623-98-2
Proposed 04 products Total (B)		**--**	**56**	**56**	
TOTAL (A + B)		**129**	**125**	**254**	

5. The PP reported that M/s. Anar Chemicals LLP has been granted EC for existing project vide letter No. J-11011/508/2006-IA-II(I), dated 24-07-2007. The certified compliance report was issued by MoEF&CC, IRO Gandhinagar vide file no. J-11/5-2022-IROGNR, dated 15.2.2022. The action taken report on implementation of non-complied and partly complied conditions was submitted on 15th March 2022 to MoEFCC, IRO Gandhinagar. The updated status of compliance with respect to non-complied and partly complied conditions of EC was received on 26th April, 2022 from MoEFCC, IRO Gandhinagar.

6. The PP reported that no Court Cases are pending against the project and/or land in which the project is proposed to be set up.

7. The PP reported that the proposed project does not fall under violation category as per the provision of S.O. 804 (E) dated 14.3.2017 and that closure notice has been

received on 30th June, 2018. Subsequently, Industry has sent the compliance report for which revocation notice had been received on 19th July, 2018.

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 there is no forest land involved in the proposed project. River/water body Sabarmati is flowing at a distance of 8.5 km in NW direction. There is two Schedule-I species i.e. Peacock (Indian peafowl) and Mud or Flap shell Turtle and the conservation plan for the same has been submitted to PCCF Wildlife, Gandhinagar on 24th November, 2020 with budgetary provision of ₹ 35000. The PP committed to implement the plan in five years

9. Ambient air quality monitoring was carried out at 8 locations during April 2019 to June 2019 and the baseline data indicates the ranges of concentrations as: PM_{10} (49 – 88 µg/m³), $PM_{2.5}$ (22 – 52 µg/m³), SO_2 (19 - 45 µg/m³) and NO_2 (15 – 42 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.12 µg/m³, 0.16 µg/m³ and 0.09 µg/m³ with respect to PM_{10}, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Noise level was recorded at eight locations within the study area to provide the baseline data. Baseline data reveals that in the surrounding area noise levels are within the permissible limits as per National Ambient Air Quality Standards (NAAQ). Ground and surface water samples were collected within the study area. Its analysis results are as per drinking water standards (IS 10500: 2012) and Class–B outdoor bathing (IS 2296: 1982) as per CPCB except few parameters. Physico-Chemical characteristics of soil samples were determined from 5% leachate of the samples as per the applicable Act /Rules prescribed by MoEF&CC, CPCB related statutory authority.

10. The PP reported that total water requirement is 435 KLD of which fresh water requirement of 395 KLD (after recycling) will be met by bore-well. Domestic waste water (24 KLD) will be treated in Effluent Treatment Plant while, industrial wastewater (254 KLD) will be treated in Effluent Treatment Plant. ETP treated water (278 KLD) will be sent to CETP, Vatva. while, other treated wastewater from process (1 KLD) will be sent to Common MEE. The water from RO Reject (28 KLD) will be treated in ETP and from stream trap (40 KLD) will be recycled and used in manufacturing process.

11. The PP reported that the Power requirement after expansion will be 525 KW and will be met from Torrent Power Ltd. However, in case of power failure, proposed D.G. set with capacity 250 kVA will be used as standby during power failure/ emergency. Stack (height 11 m) will be provided as per CPCB norms to the proposed D.G. Set.

12. The existing unit has 1.5 TPH capacity white coal fired boiler with APCM of Multi Cyclone Dust collector with a stack height of 30 m. and 6,00,000 kcal/Hour Thermic fluid heater. Additionally, 1.5 TPH Natural gas fired / White coal fired boiler will be installed with APCM Cyclone separator & Bag filter with adequate stack height of 30 m and one no. of D.G. Set (250 KVA) will be installed.

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

S. No.	Vent attached to	Stack height from G.L., meter	APCM	Expected Pollutant
Existing				
1	Reaction Vessel - 1 (Naphthol, LSD plant)	21 m	Water Scrubber followed by Alkali Scrubber	HCl – 16 mg/Nm^3
2	Reaction Vessel - 2 (Metal Phthalocyanines, PH Plant)	21 m	Two stage water scrubber followed by Acid scrubber	Ammonia (NH_3) – 140 mg/Nm^3
Proposed				
1	Reaction Vessel - 3 (Solvent dyes, LSD Plant)	21 m	Acetic acid scrubbing system	Amine Acetate
2	Reaction Vessel - 4 (Photoinitiator, Pilot Plant)	21 m	Water Scrubber followed by Alkali Scrubber	HCl – 16 mg/Nm^3
3	Reaction Vessel System – 5 (alkyl halides gases)	21 m	Water Scrubber followed by Alkali Scrubber	Sodium Chloride

14. **Details of Solid Waste/ Hazardous Waste Generation and their Management:**

S. No.	Type of Waste	Waste Category	Quantity per Year			Mode of Disposal**
			Existing* (a)	***Proposed (b)***	***Total (a+b)***	
1	ETP Sludge	35.3 (Sch-I)	400 MT	200 MT	600 MT	Will be collected, stored, transported and disposed at GPCB approved TSDF site.
2	Used Oil	5.1 (Sch-I)	0.04 MT	0.01 MT	0.05 MT	Will be collected, stored and disposed by selling it to registered recyclers/ refiners.
3	Discarded Containers/Liners	33.1 (Sch-I)	600 Nos. 2000 Nos.	100 Nos. 300 Nos.	700 Nos. 2300 Nos.	Will be collected, stored and disposed by selling it to authorized recycler.
4	Inorganic Acid (Spent sulphuric acid 18-20%)	26.3 (Sch-I)	912 MT	1246 MT	2158 MT	Will be collected, stored, transported to registered spent acid recovery unit (NSAM, Vatva, Ahmedabad).
5	Oil & Grease	35.4 (Sch-I)	5 MT	0.5 MT	5.5 MT	Will be collected, stored, transported and disposed to registered recycler (RSPL, Ankleshwar).

6	Solvent Residue	20.3 (Sch-I)	10 MT	90 MT	100 MT	Will be collected, stored, transported and disposal to registered recycler/incinerator. (RSPL, Ankleshwar).
7	Cotton Waste	33.2 (Sch-I)	--	5 MT	5 MT	Will be collected, stored, transported and disposal to registered recycler/incinerator. (RSPL, Ankleshwar)
8	Ammonium Solution	26.1	--	100 MT	100 MT	The Ammonium solution generated due to the scrubbing of Ammonia will be collected, stored and used for neutralization in our ETP. Excess if any will be sold to actual users under rule-9 of HWM Rules, 2016.
9	Zinc Chloride Solution	26.1	--	50 MT	50 MT	Collection, Storage, Transportation and disposal by selling to actual users under rule-9 of HWM Rules, 2016.

Note:
*__Existing quantity as per CC&A granted by GPCB__
**__As per Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016__
Other waste like E-Waste and Battery Waste (if any) will be managed as per E-Waste (Management) Rules,2016 and Batteries (Management and Handling) Amendment Rules, 2010 as well as MoEFCC Notification/CPCB guidelines.

15. The PP reported that total capital cost earmarked towards environmental pollution control measures is ₹ 1.55 Crores and the Recurring cost (operation and maintenance) will be about ₹ 0.94 Crore per annum. For air pollution control ₹ 6.0 Lakh [(Capital cost) and ₹ 5.5 Lakh per annum (Recurring cost)], water pollution control [₹ 1.105 crore (Capital cost) and ₹7.3 Lakh per annum (Recurring cost)], Noise pollution control [₹40,000 (Capital cost) and ₹15,000 per annum (Recurring cost)], solid waste management [₹ 2.85 lakh (Capital cost) and ₹ 75.0 Lakh per annum (Recurring cost)], greenbelt [₹ 50,000 (Capital cost) and ₹ 3.0 Lakh per annum (Recurring cost)], Occupational Health & Safety [₹ 3.5 Lakh (Capital cost) and ₹ 4.0 Lakh per annum (Recurring cost)], and CER [₹ 32.0 lakh (Capital cost)].

16. The industry has already developed greenbelt within and outside of the project site in an area of 40.7 % i.e. 5,457 m^2 out of total area of the project.

17. The PP reported that Project Activities associated with the Emission of CO_2 Consumption of fuel, Usage of electricity, from transportation sector, from effluent treatment plant, it may be noted that there will be no CO_2 emission from the proposed manufacturing process, the total CO_2 emission from the all of above activities is summarized in the below table:

Emission Sector	CO_2 Emission (tCO_2e/Annum)	% Contribution to Total CO_2 Emission
Fuel Consumption	4228.63	50.69
Electricity Consumption	3890.75	46.64
Transportation	83.80	1.00
Effluent Treatment Plant	138.30	1.66
Total CO_2 Emission per Annum	**8341.48**	**100.00**

18. The total Carbon Footprint of proposed project will be to the tune of **8341.48 tCO_2e per annum.** A minimum total of 1365 trees belonging to 17 different species are to be developed, with minimum total carbon sequestration potential of 1302.66 tCO2e per annum.

19. The project proponent submitted the onsite and offsite emergency plan in the EIA.

20. The PP proposed to set up an Environment Management Cell (EMC), wherein it is proposed to engage EHSQ representative- EHS- Environment Engineer and consultant safety officer, Consultant technical specialist – quality assurance, DGM-QA& ISO system, Dy. Manager QA, Sr. lab tech., chemist. R& D manager- technical manager, chemist, Lab tech/ trainee.

21. The PP also submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.*2011 " that the data as well as the information stated in the report prepared by M/s. Anand Environmental Consultants Pvt Ltd., Ahmedabad are owned by M/s. Anar Chemicals LLP and that they have been allowed to use/incorporate the same in the said report".*

22. The consultant submitted an undertaking that with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009 that "*In this connection, we give the following undertaking with respect to compliance of Terms of Reference (ToR) issued by MoEFCC to carry out EIA study for the above stated project. We hereby declare that the date as well as the information stated in the report prepared by us are owned by M/s. Anar Chemicals LLP and that we have been allowed to use/ incorporate the same in the said report. The Terms of Reference (ToR) issued by MoEFCC for carrying out EIA study has been addressed /incorporated in final EIA/EMP report"*

23. The PP reported the total estimated cost of the proposed expansion is ₹ 16 Crores and Total Employment will be 50 persons as direct as well as other indirect employees for expansion.

24. The proposal was placed in 30th EAC Meeting held on April 26-27, 2022, wherein the Committee deferred the proposal for want of requisite information. Reply to the same is submitted by PP on 7.5.2022 which is as follows:

S. No.	Queries Raised by EAC	Reply by PP	Observation of EAC
1.	**EAC is of the view that since the existing Unit is**	A latest report submitted to CPCB by Gujarat Pollution Control Board (GPCB) related to the	The EAC found the reply submitted by the PP satisfactory.

	located in Critically Polluted Area having CEPI Score of 70.94, and PP informed EAC that the CEPI score is reduced upto some extent. In this regard PP need to submit the letter regarding the same and PP shall submit the additional mitigation measures to safeguard to the environment and also to explain how carbon foot print to be minimized?	CEPI score of Gujarat. It is calculated that a CEPI score for Vatva is 50.83 based on the recent environmental quality monitoring reports of the Gujarat state, while earlier it was 70.94. The mitigation measures that we have taken to safeguard the environment and to reduce carbon footprint are as follows: Gujarat Pollution Control Board has launched Emission Trading Scheme to reduce emission of Particulate Matter in which we have participated and as per the guidelines we are in process to install CEMS and Flow meter. The copy of purchase order industry has provided breathers in all necessary storage tanks of solvents. We also have facilities of Nitrogen Blanketing in reactors during reaction of the product and filling of solvents in ISO tank	
2.	The EAC is of the view that since the Unit is to be located in Critically Polluted Area the PP need to explore the alternative site for this instant project.	Anar Chemicals is an MSME industry and we have been operating our synthetic organic chemical manufacturing unit in Vatva Industrial Estate, GIDC since 1980 which has best environmental infrastructure available in Ahmedabad. PP reported that We are operating our own primary and secondary effluent treatment plant for our effluent and we send our treated effluent to the Vatva CETP only for further treatment. Vatva Industrial Estate has set up the best environmental infrastructure in Ahmedabad over the years. We have membership of Vatva CETP having advanced Fanton reactors and Vatva Common MEE operated by M/s. The Green Environment Services Co-op Soc. Ltd, Vatva for further treatment of wastewater and NOVEL Spent Acid Management, Vatva for disposal of spent acid.If	The EAC found the reply submitted by the PP satisfactory

		we relocate our unit to a different Estate, we will need to set up our own separate facilities for complete treatment of our effluent as well as all high COD streams and spent acid and it will be very difficult for us to achieve the norms which we are able to achieve today in GIDC Vatva.Our proposed expansion project has linkages with our existing unit in Vatva and therefore lot of transportation will be avoided by locating the proposed expansion within the existing premises as the nearest alternative site is around 250 km from our existing location. Industry have skilled and experienced human resources to run the facilities in Vatva and a fully equipped QA Lab and R&D Lab in the existing premises which will be invaluable for the proposed expansion project. **Vatva GIDC has been improving and now it is below 60.**	
3.	The detailed greenbelt plan along with budgetary allocation for completion of greenbelt in six months. Action plan for high carbon sequestration species trees in the greenbelt needs to be submitted.	For greenbelt development, we, Anar Chemicals LLP have allotted **5457 m^2 which is 40.7 % of the total land area**, i.e. 13,389 m^2. Out of the total allotted greenbelt area, 937 m^2 of greenbelt area is within premises, 3270 m^2 of greenbelt area is on land belonging to M/s. Vatva Industries Association and 1250 m^2 of land area is purchased at Alina village. As per the CPCB guidelines for green belt development, we have considered 2m x 2m ratio for plantation and accordingly a minimum total of **1365 numbers of trees** having high canopy are to be planted. The following points are considered for selection of plant species. Greenbelt/plants that	The EAC found the reply submitted by the PP satisfactory.

		absorbs both gaseous as well as particulate pollutants to a great extent. Thus, removes/reduce pollutant from the atmosphere. For absorbance of gases, the duration of the foliage should be longer. Characteristics of tree/plants including shapes of crowns considered necessary for effective removal of dust particles, Greenbelt/plant species having good root system are selected, so that soil erosion rates can be controlled significantly, Greenbelt/plant species are selected based on their air pollution tolerance index (APTI) value. The budget for the greenbelt development includes initial capital cost of ₹ **16,35,000/-** which has already been spent by purchasing the rights of developing greenbelt on the land belonging to M/s. Vatva Industries Association (VIA) on 12/07/2021. As per the letter received from VIA, the full responsibility of tree plantation and their maintenance will be carried out by them. The letter stating the same from Vatva Industrial Association and **additional recurring cost of ₹ 3,00,000/-** will be spent towards the maintenance for our remaining existing greenbelt area. A minimum total of 1365 trees belonging to 17 different species are to be developed, with the **minimum total carbon sequestration potential of 1302.66 tCO_2e per annum. The detailed report on carbon sequestration with respect has been submitted.**	
4.	Schedule I Species as per WL (P) Act, 1972 Schedule	Conservation plan along with budget allocation for Schedule I Species to PCCF Wildlife,	The EAC found the reply submitted by the PP satisfactory.

	were recorded in the study area. Conservation plan with sufficient budget allocated for conservation along with approval letter for same shall be provided.	Gandhinagar on 24th November, 2020. PP reported that our unit is in notified GIDC Industrial Area and therefore Wild Life conservation plan approval is not applicable to our unit	
5.	The PP shall submit the details of carbon foot prints and carbon sequestration study w.r.t. project. Proposed mitigation measures also needs to be submitted for further appraisal of the EAC.	The total Carbon Footprint of our proposed project will be to the tune of **8341.48 tCO_2eper annum.** A minimum total of 1365 trees belonging to 17 different species are to be developed, with **minimum total carbon sequestration potential of 1302.66 tCO_2e per annum**. The mitigation measures to sequester the carbon have been submitted. **The total carbon footprint reduction will be approximately 20% of total carbon footprint of the proposed project.**	The EAC found the reply submitted by the PP satisfactory.
6.	The PP needs to submit the details of Onsite/Offsite emergency plan and mitigation measures to be proposed during implementation of the project.	Detailed of Onsite/Offsite emergency plan has been submitted.	The EAC found the reply submitted by the PP satisfactory.
7.	The PP needs to submit the English translation of direction letter given by Gujarat Pollution Control board to M/s Anar chemicals.	English translation of direction letter given by Gujarat Pollution Control has been submitted.	The EAC found the reply submitted by the PP satisfactory.
8.	The PP need to submit the permission letter for ground water withdrawal from CGWA	No Objection Certificate for ground water withdrawal has been submitted.	The EAC found the reply submitted by the PP satisfactory.
9.	PP need to submit the recent ToR letter issued by the	PP reported that Term of Reference issued by MoEFCC vide their letter Ref. No.: J-	The EAC found the reply submitted by the PP satisfactory.

	MoEF&CC	11011/508/2006-IA-II (I) dated **06th October 2020** for our proposed expansion application.	
10.	PP need to submit the process water consumption reduction details	Industry will reduce process water requirement at the source on the basis of studies carried out. Industry will reuse boiler steam condensate for utility and waste RO water will be used in process water. Industry will reuse our treated effluent for the scrubbing system. Industry will reduce use of fresh bore-well water by using treated water in some processes like preparation of Lime, Alum and Flocculating agent solutions, floor washing, reactor washing, filter press washing, filter clothes washing, dryer trays washing etc. In Monsoon, we will use rain water to the extent possible.	The EAC found the reply submitted by the PP satisfactory.
11.	PP need to submit that as the Industry comes under CPA so recycled water should be increased upto 33% not upto 10%. In this regard PP need to submit the commitment letter regarding the same.	The commitment letter for the same has been submitted dated 7.6.2022	The EAC found the reply submitted by the PP satisfactory.

12.	PP need to submit action plan for compliance of the conditions mentioned in the previous EC.	Industry have received Certified Compliance Report (CCR) issued by MoEFCC, IRO Gandhinagar dated 15th February, 2022 related to the EC granted to our unit. Subsequently, we have submitted an action taken cum compliance report on implementation of non-complied and partly conditions on 15th March, 2022 to MoEFCC, IRO Gandhinagar. Consequently, industry also received updated status of compliance with respect to non-complied and partly complied conditions of Environmental Clearance on 26th April, 2022 by MoEFCC, IRO Gandhinagar	The EAC found the reply submitted by the PP satisfactory.

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

The Committee deliberated on the clarification regarding 13,080 number of trees planted by Vatva Industrial Association and subsequent carbon sequestration, PP submitted that 13,080 number of trees have been planted on 3,270 m^2 of land area. VIA has adopted Miyawaki technique for dense tree plantation in which various native species of trees are planted close to each other so that the trees receive sunlight from the top and grow faster in an upward direction. As a result, the trees planted are approximately 30

times denser, grow 10 times faster and become self-sustaining after a few years. Total carbon sequestration potential of the same is estimated to be 12,450 tCO_2e per annum. Whereas carbon footprint of unit is estimated to be 8,341.48 tCO_2e per annum. Therefore, total carbon footprint will be reduced by over 100% through carbon sequestration.

The Committee also deliberated on Schedule-I species as per WL (P) Act, 1972 schedule were recorded in the study area and the conservation plan along with the budgetary provision. PP submitted that conservation plan along with budgetary provision has been submitted on 24.11.2020.

The EAC also noted that project is located inside the notified industrial area hence the Public Hearing is exempted in pursuant to Ministry's OM No. J-11011/321/2016-IA. II (I) dated 27.4.2018.

The Committee deliberated the Onsite and Offsite Emergency plans and various mitigation measures proposed to be taken during the 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 Committee 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.

26. 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) Since the project site is in a critically polluted area, the additional mitigation measures already committed by PP to safeguard the environment as per the MoEF&CC O.M. dated 31/10/2019 and those stipulated by SPCB from time to time shall be duly complied.

(ii) The PP shall develop Greenbelt over an area of at least 5,457m^2 by planting 1365 trees within a year of grant of EC. This is in addition to the 13,080 number of trees planted on 3270 m^2 of the plant area. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be ₹ 16,35,000 Lakh and shall be kept in separate account and should be audited

annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iii) 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 EHSQ representative- EHS- Environment Engineer and consultant safety officer, Consultant technical specialist – quality assurance, DGM-QA& ISO system, Dy. Manager QA, Sr. lab tech, chemist, R& D manager- technical manager, chemist, Lab tech/ trainee. 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.

(iv) 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 ₹1.55 Crores (Capital cost) and ₹ 0.94 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 previous year.

(v) The total water requirement (including the existing) will be 435 KLD (Fresh –395 KLD) which will be met from the Bore Well. The PP has submitted application for ground water withdrawal submitted on 9.8.2021. The PP should ensure that Ground water utilization should not be above the permissible limit and only after obtaining valid NOC from CGWA/ Concerned Authority. The PP should submit the details of GW abstraction and utilization to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year. In addition to this, the PP shall submit the target for reduction of GW utilization to Regional Office of MoEF&CC within a period of one year.

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

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

(viii) The 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.

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

(x) 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.

(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.

(xii) 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.

(xiii) As already committed by the project proponent, Domestic waste water (24 KLD) will be treated in Effluent Treatment Plant while, industrial wastewater (254 KLD) will be treated in Effluent Treatment Plant. ETP treated water (278 KLD) will be sent to CETP, Vatva. while, other treated wastewater from process (1 KLD) will be sent to Common MEE. The water from RO Reject (28 KLD) will be treated in ETP and from stream trap (40 KLD) will be recycled and used in manufacturing process.

(xiv) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

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

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

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

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

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

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

(xxi) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products

from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

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

Agenda No. 33.3

Establishment of Fine Chemicals & API Intermediates manufacturing unit of production capacity 2400 MT/A located at Plot No. B-29, MIDC Paithan, Taluka: Paithan, District: Aurangabad, Maharashtra by M/s. Dakshayani Chemicals Pvt. Ltd. - Consideration of Environmental Clearance

[Proposal No IA/MH/IND3/259566/2021; File No. IA-J-11011/379/2021-IA-II(I)]

1. The proposal is for environmental clearance to the project for Establishment of Fine Chemicals & API Intermediates manufacturing unit of production capacity 2400 MT/A located at Plot No. B-29, MIDC Paithan, Taluka: Paithan, District: Aurangabad, Maharashtra by M/s. Dakshayani Chemicals Pvt. Ltd.

2. The project/activity is covered under Category 'B1' of item 5(f) **(**Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) of Schedule of Environment Impact Assessment (EIA) Notification,2006 (as amended) as the General condition is applicable to project and requires appraisal at Centre Level, MoEFCC, New Delhi. The Proposed Project Site in MIDC Paithan is located 1.25 km from the boundary of Jaikwadi Bird sanctuary (JBS). Further, ESZ for JBS is finalized vide notification No. S.O. 2202 (E) dated 12 July 2017. Project Site in MIDC is located at 1.0 km from Notified ESZ, so requires appraisal at Central Level by Expert Appraisal Committee (EAC)

3. The PP applied for ToR vide proposal number /MH/IND3/229544/2021dated 29.9.2021 and the **standard ToR** has been issued by the Ministry, vide letter No. IA-J-11011/379/2021-IA-II(I)dated **5.10.2021**. PP reported that PH is exempted as it is located inside the notified industrial area MIDC. The PP applied for Environment Clearance on 23.3.2022 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 29.3.2022 and 23.5.2022 and reply to the same was submitted on 10.5.2022 and 5.6.2022. The proposal is now placed in 33nd EAC Meeting held on 20-22 June, 2022, wherein the Project Proponent and the accredited Consultant M/s Equinox Environments (I) Pvt. Ltd. [Accreditation number NABET/EIA/1821/RA 0135Valid up to July, 8, 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 0.4027 Ha and no R& R is involved in the Project. The details of products are as follows-

S. No.	Name of the Product	Quantity (MT/A)	CAS No.	End Use
A	**Product**			
1.	4-Bromo-aniline	60.00	106-40-1	API Intermediate
2.	Cyanuric acid	60.00	108-80-5	API Intermediate
3.	Para-Chlorophenyl acetic acid	78.00	1878-66-6	API Intermediate
4.	3,4-Dimethoxy aniline	78.00	6315-89-5	API Intermediate
5.	5-Chloro-2-nitro aniline	60.00	1635-61-6	API Intermediate
6.	3,4-Dichloro nitrobenzene	90.00	99-54-7	API Intermediate
7.	Sodium bromide	180.00	7647-15-6	Fine Chemical
8.	Sodium sulphite	300.00	7757-83-7	Fine Chemical
9.	4-(2-Piperidinyl-ethoxy)-benzoic acid	78.00	84449-80-9	API Intermediate
10.	3-Me-amino-1-(naphthalen-1-yl)-propan-1-one	78.00	53419-80-8	API Intermediate
11.	5-Methoxy-2-mercaptobenzimidazole	78.00	37052-78-1	API Intermediate
12.	2-mercaptobenzimidazole	78.00	583-39-1	API Intermediate
13.	4-chlorobutyryl chloride	150.00	4635-59-0	API Intermediate
14.	Bis-(2-Chloro-ethyl)-amine HCl	150.00	821-48-7	API Intermediate
15.	Methyl-5-Acetyl-Salicylate	78.00	16475-90-4	API Intermediate
16.	4-Propyl-thiodiamine	120.00	66608-52-4	API Intermediate
17.	3'-Chloro-propiophenone	78.00	34841-35-5	API Intermediate
18.	5-Difluoromethoxy-2-mercaptobenzimidazole	60.00	97963-62-7	API Intermediate
19.	meta-dichlorobenzoic acid	60.00	320-72-9	API Intermediate
20.	2-(chloromethyl-3,4-dimethoxy-pyridine	78.00	72830-09-2	API Intermediate
21.	5-Difluoromethoxy-2-(3,4-dimethoxy-thio)-benzimidazole	48.00	102625-64-9	API Intermediate
22.	5-methoxy-2-[(4-methoxy)-3,5-dimethyl-pyridin-2-yl)-methyl]-1H-benzimidazole	60.00	73590-85-9	API Intermediate
23.	1-Fluoro-2-nitrobenzene	60.00	1493-27-2	API Intermediate
24.	5-Bromo-2-methyl benzoic acid	60.00	79669-49-1	API Intermediate
25.	3-dimethylamino-1-(naphthalen-1-yl)-propan-1-one	78.00	10320-49-7	API Intermediate
26.	N-(2-nitrobenzyl)-N-	78.00	80638-08-0	API Intermediate

S. No.	Name of the Product	Quantity (MT/A)	CAS No.	End Use
	methyl- cyclohexylamine			
27.	5-chloro-4 (2-imidazoline-2 yl-amino)2-1-3-benzthiazole	6.00	51322-75-9	API Intermediate
	Total (A)	**2382**		
B	**By-products**			
1.	Aluminum Hydroxide	10	21645-51-2	--
2.	Sodium chloride	4	7647-14-5	--
3.	Ammonium chloride	4	12125-02-9	--
	Total (B)	**18**		
	Total (A+B)	**2400**		

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 EPA Act/Air Act/Water Act.

6. The PP reported that there are no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from site. However, the Jaikwadi Bird Sanctuary is located about 1.25 km from project site in MIDC.ESZ for Jaikwadi Bird Sanctuary is finalized vide notification No. S.O. 2202 (E) dated 12 July 2017. ESZ of Jaikwadi Bird Sanctuary is located at 1 km from project site. The PP reported that there is no forest land involved in the proposed project and Schedule I species i.e. Indian Gazelle, Indian Monitor Lizard, Black Kite, Indian wolf, Black Buck, Indian peafowl, Black-Shouldered Kite exist within 10 km study area of the project, conservation plan is submitted to CWLW on 19.3.2022 with budgetary provision of ₹ 50 Lakh. The PP committed to implement the plan in three years.

7. The PP reported that Ambient air quality monitoring was carried out at 8 locations during Oct-Nov-Dec 2021 and baseline data indicates that ranges of concentrations of PM_{10} (64.5 to 46.6 µg/m^3), $PM_{2.5}$ (26.3 to 14.1 µg/m^3), SO_2 (24.5 to 16.4 µg/m^3), NO_x (30.8 to 17.5 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs would be 0.059 µg/m^3 for PM_{10} (towards West side), 0.015 µg/m^3 for $PM_{2.5}$ (towards Westside), 1.54 µg/m^3 for SO_2 (towards Westside) and 0.148 µg/m^3 NO_x (towards West side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).) Noise levels monitoring was done at 8 locations within the study area Industrial Site, Pimpalwadi, Katpur, Narayangaon, Pachalgaon, Wahegaon, Isarwadi, Dhangaon. Leq(day) ranges from 51.0 to 61.4 dB(A), Leq(night) ranges from 40.8 – 45.4 dB(A), Leq(dn) ranges from 51.1 – 59.9 dB(A). Soil Characteristic as per CPCB guidelines observed for 8 locations Mudhalwadi, Dalwadi, Dhangaon, Paithan, Narayangaon, Kherda, Dhorkin, Waghadi. Soil is observed to be neutral in nature, mostly black clayey. Ground water monitoring at 8 locations was collected- GW1 Isarwadi (DW), GW2 Mudhalwadi (DW), GW3 Mudhalwadi (DW), GW4 Mudhalwadi (DW), GW5 Katpur (DW), GW6 Dalwadi(DW), GW7 Pimpalwadi (DW), GW 8 Isarwadi (DW). It is observed that, all parameters are within limits except TDS at GW2, GW3, GW6, GW7, Calcium at GW2, Mg at GW2, Hardness at GW2, GW3, GW6, GW7, Ammonical Nitrogen at GW2, GW3, GW6, GW7, total coliforms and faecal coliforms which are exceeding permissible limits.

8. The PP reported total water requirement for establishment project will be 54 KLD. Out of which, 34.5 KLD will be fresh water from MIDC Water supply scheme. Total domestic water for proposed activity will be 1.8 KLD. The effluent generated from same will be treated in Sewage Treatment Plant (STP) to be provided. 1.5 KLD of treated domestic effluent will be recycled. Industrial Effluent of quantity 26 KLD will be treated in ETP to be provided separately for strong and weak streams thereby achieving Zero Discharge. Effluent generated from proposed manufacturing & utility operations is segregated into two streams – Stream I (High TDS and High COD Effluent) and Stream II (Low TDS and Low COD Effluent).

9. The PP reported that Power requirement of project will be 47.72 KWH and will be taken from MSEB grid. DG set of 125 KVA (1 No.) capacity will be installed as standby during power failure. Stack of height 5M ARL will be provided as per CPCB norms to the proposed DG set. Industry will install a boiler of 1.5TPH, D.G. Set of 125 KVA and one Thermic fluid heater having capacity 2 lakh kcal/hr will be installed. The boiler and thermic fluid heater stack will be provided with MDC followed by bag filters as APC equipment followed by stack height of 35 M above ground level (AGL) and for D.G. set, stack height of 5 M above roof level (ARL) will be provided. Fuel used for boiler will be Briquette / Biomass or imported coal to the tune of 18 MT/Day or 9 MT/ Day resp. and for D. G Set High Speed Diesel (HSD) to the tune of 20 L/Hr will be used.

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

S. No.	Process Emission	Dia. (M)	Ht. (ft)	Packing Material	Mode of regeneration of the packing material	Scrubbing Media	Disposal/ Recycle/ Reuse
1	HCl	0.6	6	Glass /HDPE	Water washing	Water/ Caustic lye	ETP
2	NH3, Amine	0.5	3	Glass /HDPE	Water washing	HCl	ETP

11. **Details of Solid Waste Generation and its Management**:

S. No.	Description	Quantity (MT/M)	Disposal
1.	Boiler Ash	12	Sale to Brick Manufacture
2.	Plastic, Glass, Wooden, Metal Scrap.	3.0	Sale to Authorized recyclers
3.	Battery Waste	0.08	
4.	Packaging Material	0.75	
5.	E-Waste	0.03	

12. **Details of Hazardous Waste Generation & its Management**

The entire quantity of hazardous waste would be handled and disposed as per Hazardous Waste (Management, Handling and Trans boundary Movement) Rules 2016.

S.	Description	Cat	Quantity	Disposal Facility

No.			(MT/M)	
1.	Used / Spent Oil	5.1	50 Lit	CHWTSDF
2.	Distillation Residue	20.3	15.0	
3.	Process Residues and wastes	28.1	10	
4.	Spent Carbon	28.3	1.0	
5.	Spent Solvent	28.6	2.5	
6.	Discarded containers / barrels / liners contaminated with hazardous chemicals / wastes	33.1	150 Nos.	Sale to Authorized recycler.
7.	Chemical Sludge from WWT	35.3	10.0	CHWTSDF
8.	Filter Medium	36.2	0.200	
9.	Sludge from MEE	37.1	0.75	

13. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 3.23 Crores (capital) and the Recurring cost (operation and maintenance) will be about ₹ 0.26 Crores per annum which includes APC Equipment [₹ 65 lakh (capital) and ₹ 4 lakh/annum (Recurring)],Water Pollution Control [₹ 100 lakh (capital) and ₹ 10 lakh/annum(Recurring)],Noise Pollution Control[₹ 15 lakh (capital) and ₹ 2lakh/annum (Recurring)],Environmental Monitoring & Management [₹ 25 lakh (capital) and ₹ 5 lakh/annum(Recurring)],Occupational Health and Safety [₹ 75 lakh (capital) and ₹ 0.5 lakh/annum (Recurring)],Green Belt Development [₹ 3 lakh (capital) and ₹ 2 lakh/annum (Recurring)]and Rain Water Harvesting [₹ 20 lakh (capital)], Hazardous Disposal [₹ 10 lakh (capital) and ₹ 3 lakh/annum (Recurring)], Solar Photovoltaic Electricity Generation System[₹ 10 lakh (capital)],Industry proposes to allocate ₹ 18 Lakh towards CER for Solar Photovoltaic Energy Generation & Non-Conventional Energy Promotion in Gram Panchayat /PHC /Zilhaparished Schools.

14. The industry will develop Green Belt of 1350.82 sq. m with 430 number of trees will be planned to achieve 33% of total plot area. Industry has started to plantation on site and planted 250 number of trees.

15. The PP proposed to set up an Environment Management Cell (EMC) by engaging Chairman & Managing Director, Environmental Officer, ETP In-charge, Safety Officer, Chief Chemist, Environment Consultant for the functioning of EMC.

16. The PP submitted that approximately, 17 MT/Day CO_2 (1 kg of steam production generates 303-476 g of CO_2) Emission will be generated from fuel burning operations in Boiler.135 MT/Day CO_2 eliminates from the manufacturing process. Various technologies & Steps for Carbon Sequestration / Develop Carbon Sink-Implementation of GB, Process Improvements, Renewable Energy / Solar Power, Transportation, ZLD Implementation, Use of Biomass Briquettes as Fuel.

17. The PP submitted the disaster and Onsite and Offsite Emergency Plan in the EIA report.

18. The PP submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.2011 "*that the information, data and details presented in this report are true to the best of our knowledge. The primary and secondary data have been generated through actual exercise conducted from time to time as well as procured from the*

concerned Govt. offices/ departments has been incorporated here subsequent to necessary processing, formulations and compilation".

19. The Consultant submitted an undertaking that with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009 that "*This is to state that the EIA report submitted here with has been prepared in respect of establishment project Fine chemicals & API intermediates manufacturing unit by M/s Dakshyani Chemical Pvt. Ltd. The information, data and details presented in this report are true to the best of our knowledge. The primary and secondary data have been generated through actual exercise conducted from time to time as well as procured from the concerned Govt. offices/ departments has been incorporated here subsequent to necessary, processing, formulations and compilation".*

20. The estimated project cost is ₹ 8 Crore. Total Employment will be 40 persons.

21. **Deliberations by the EAC:**

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

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

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

The Committee deliberated on the fuel coal usage, PP committed that coal will not be used as a fuel for the proposed 1.5 TPH boiler only biomass briquettes will be used. The Committee also deliberated on the Greenbelt and plantation and observed that as suggested the PP has now committed 1350.82 m^2 area which accounts for 33% of the total plot area, 430 number of trees will be planted instead of 338 number considering the survival rate. Thereunder, plantation of 430 number of trees will be done as per CPCB norms. Further, as suggested, more trees will be planted towards west side of plot as maximum GLC concentration was in west direction. Accordingly, 430 number of trees will be considered for plantation under greenbelt and also more number of trees will be considered on west side of the plot.

The Committee deliberated on specific information submitted on risk mitigation measures. EAC also noted that on the treatment of domestic effluent, PP committed that

domestic effluent 1.8 KLD will be sent to ETP for combined treatment along with trade effluent.

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

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

The Committee 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.

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

(i) The PP shall develop Greenbelt over an area at least 1350.82 m^2 by planting 430 trees within a year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be ₹ 3 Lakh and shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(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 Environmental Officer, ETP In-charge, Safety Officer, Chief Chemist, Environment Consultant. 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) As committed by the PP shall use only biomass Briquettes - as the first priority fuel. The PP shall submit to the Regional Office of MoEF&CC before 1st July of every year for the fuel used during previous year clearly mentioning the quantity.

(iv) 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 ₹ 3.23 Crores (Capital cost) and ₹ 0.26 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 previous year.

(v) The total water requirement (including the existing) will be 54 KLD (Fresh–34.5 KLD) which will be met from MIDC Water supply scheme. The PP should ensure that water supply should not be above the permissible limit and only after obtaining valid agreement from Concerned Authority. The PP should submit the details of utilization to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year

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

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

(viii) The 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.

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

(x) 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.

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

(xii) Total domestic water for proposed activity will be 1.8 KLD. The effluent generated from same will be treated in Sewage Treatment Plant (STP) to be provided. 1.5 KLD of treated domestic effluent will be recycled. Industrial Effluent of quantity 26 KLD will be treated in ETP to be provided separately for strong and weak streams thereby achieving Zero Discharge.

(xiii) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

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

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

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

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

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

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

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

(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. 33.4

Proposed Pesticide Manufacturing Project of production capacity of 5110 MT/Annum [Insecticides: 1200 MT/Annum, Fungicides: 600 MT/Annum, Herbicide: 2200 MT/Annum, Plant Growth Regulator- 10 MT/Annum, Advanced Pesticide Specific Intermediates: 800 MT/Annum and R&D based Products: 300 MT/Annum] located at Plot No. H-42 & H-43 Kosi Kotwan Extension-1, Uttar Pradesh State Industrial

Development Corporation (UPSIDC) Industrial Area, Mathura, Uttar Pradesh by M/s Umwelt Life Science Pvt. Ltd. - Consideration of Environmental Clearance

[Proposal No.IA/UP/IND3/215844/2021; File No IA-J-11011/256/2021-IA-II(I)]

1. The proposal is for environmental clearance for Proposed Pesticide Manufacturing Project of production capacity of 5110 MT/Annum [Insecticides: 1200 MT/Annum, Fungicides: 600 MT/Annum, Herbicide: 2200 MT/Annum, Plant Growth Regulator- 10 MT/Annum, Advanced Pesticide Specific Intermediates: 800 MT/Annum and R&D based Products: 300 MT/Annum] located at Plot No. H-42 & H-43 Kosi Kotwan Extension-1, Uttar Pradesh State Industrial Development Corporation (UPSIDC) Industrial Area, Mathura, Uttar Pradesh by M/s Umwelt Life Science Pvt. Ltd.

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) Notification2006 (as amended) and requires appraisal at Central Level by Expert Appraisal Committee (EAC)

3. The PP applied for ToR vide proposal number IA/UP/IND3/215844/2021dated 28.6.2021 and the **standard ToR** has been issued by the Ministry, vide letter No. IA-J-11011/256/2021-IA-II(I) dated **3.7.2021.** PP reported that PH is exempted as it is located inside the notified industrial area vide gazette dated 5.9.2021. The PP applied for Environment Clearance on 12.5.2022 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 23.5.2022 and reply to the same was submitted on 26.5.2022. The proposal is now placed in 33rd EAC Meeting held on 20-22 June, 2022, wherein the Project Proponent and an accredited Consultant, EQMS India Pvt. Ltd. [Accreditation number NABET/EIA/1922/RA0197 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 0.8 Ha and no R& R is involved in the Project. The details of products are as follows-

S. No.	Name of Product	Proposed Capacity (MT/Annum)	CAS No.
INSECTICIDE GROUP			
1	Thiomethoxam	**1200**	153719-23-4
2	Diafenthiuron		80060-09-9
3	LambdaCyhalothrin		68085-85-8
4	Imidacloprid		138261-41-3
5	Novaluron		116714-46-6
6	Bifenthrin		82657-04-3
7	Chlorpyriphos		2921-88-2

8	Profenofos		41198-08-7
9	Acetamiprid		135410-20-7
10	Dinotefuran		165252-70-0
11	Pymetrozine		123312-89-0
12	Fenproxymate		134098-61-6
13	Propargite		2312-35-8
14	CypermethrinTech92%		52315-07-8
15	Pyriproxifen		95737-68-1
16	Spiromesifen		283594-90-1
17	Thiacloprid		111988-49-9
FUNGICIDE GROUP			
18	Tricyclozole		41814-78-2
19	Propiconazole		60207-90-1
20	Tebuconazole	**600**	107534-96-3
21	Difenconazole		119446-68-3
22	Metalxyl		57837-19-1
23	Azoxystrobin		131860-33-8
24	Pyclostrobin		175013-18-0
25	HexaconazoleTech		79983-71-4
26	Thifluzamide		130000-40-7
27	CopperOxychloride		1332-40-7
HERBICIDE GROUP			
28	Atrazine		1912-24-9
29	Sulfosulfuron		141776-32-1
30	Glyphosate		1071-83-6
31	ClodinofopPropargyl	**2200**	105512-06-9
32	Pretilachlor		51218-49-6
33	PyrazosulfuronEthyl		93697-74-6
34	ChlorimuronEthyl		90982-32-4
35	BispyribacSodium		125401-

			92-5
36	GlufosinateAmmonium		77182-82-2
37	Butachlor		23184-66-9
38	QuizalofopEthyl		76578-14-8
PLANT GROWTH REGULATOR			
39	PaclobutrazoleTech	**10**	76738-62-0
ADVANCED PESTICIDE SPECIFIC INTERMEDIATES			
40	1,2,4Triazole	**800**	288-88-0
41	CCMT		105827-91-6
42	MNIO		153719-38-1
43	CCMP		70258-18-3
RESEARCH AND DEVELOPMENT BASED PRODUCTS			
	TRIALPRODUCTION	**300**	
	TOTAL	**5110**	
	PesticidesFormulations	**2000**	
No banned pesticides will be manufactured ***** As per season, the demand of products pattern changes and accordingly products will be manufactured. All the products will not be manufactured at a time. The likely production capacities of the products will depend upon demand but limited to the sanctioned capacity.***			

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

6. The PP reported that there are no National Parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from site. No forest land is involved for the proposed project. One Schedule I species i.e. Indian peafowl, exists within 10 km study area of the project and conservation plan is submitted to Chief wildlife warden on 8.4.2022 with budgetary provision of ₹ 9.6 Lakh. The PP committed to implement the plan in ten years.

7. The PP reported that Ambient air quality monitoring was carried out at 8 locations during Oct-Nov-Dec 2021 and baseline data indicates that ranges of concentrations of PM_{10} (56 µg/m^3 to 98 µg/m^3), $PM_{2.5}$ (21 µg/m^3 to 48 µg/m^3), SO_2 (5.8 µg/m^3 to 16.5 µg/m^3), NO_x (14 µg/m^3 - 35 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs would be 0.34 µg/m^3 for PM_{10}, 0.28 µg/m^3 for $PM_{2.5}$, 1.46 µg/m^3 for SO2 and0.66 µg/m^3 NO_x (towards West side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).) The noise level at Umrala & Hasanpur Nagla location was observed to be marginally exceeding the ambient CPCB noise limit. The major source of the noise in the Umrala is due to community activity and nearest road which is directly connected with NH2 and in the Hasanpur Nagla is due to community activity in residential Area, Railway Line & NH-2 and for all other location of the study area it is found within the prescribed National Ambient Noise Quality Standards. The soils of study area area and project site is slightly alkaline in nature as pH value of soils in all analyzed samples is

less than 8.5 and simultaneously the value of EC is less than 1 dS/m (1000 µmhos/cm). The analysis results indicate that the pH ranged between 6.87 to 8.14, which are well within the specified standard of 6.5 to 8.5 limit. Total hardness was recorded to range from 298 to 2672 mg/l, which is within the permissible limit 600 mg/l at all locations except the location GW2, GW3, GW5, GW6 & GW7. The Total Dissolved Solids (TDS) concentration recorded ranged between 895 to 3985 mg/l and was within the permissible limits (2000 mg/l) at GW1 and GW4 and exceeding it at all other locations. Chlorides was recorded to range from 202 to 1650 mg/l, which is within the permissible limit 1000 mg/l at all locations except the location GW2, GW3 & GW6. Sulphates at all the locations were within the permissible limits (400 mg/l) as it ranged between 56 – 294 mg/l. Bacteriological studies reveal that no coliform bacterial are present in the samples. The heavy metal contents were observed to be in below detectable limits.

8. The PP reported that total water requirement is 175 KLD of which freshwater requirement of 120 KLD will be met from borewell. Application for obtaining grant of authorization/no objection certificate for sinking of proposed well in non-notified area has been submitted vide MTHR0522NIN0050 & MTHR0522NIN0051 dated 6.5.2022 Total Wastewater Generation from the project will be 60 KLD (55 KLD Industrial Effluent + 5 KLD Domestic Sewage). 5 KLD domestic sewage will be treated in Sewage Treatment Plant of capacity 10 KLD and 4 KLD of treated water will be used for gardening purpose. 52 KLD High COD/High TDS (46 KLD Process Effluent + 2 KLD DM Plant Effluent + 4 KLD cooling tower Effluent) will be treated in MEE (Capacity- 75 KLD). Out of which, 46 KLD MEE Condensate will be reused in cooling tower makeup water. 5 KLD distillate along with rest of 3 KLD Low COD/Low TDS industrial effluent will be treated in ETP (capacity 10 KLD) followed by RO treatment. Total 51 KLD recycled water will be reused in cooling tower makeup water. The project will be a "Zero-liquid Discharge" Project.

9. The PP reported that the power requirement of the plant will be 1250 kVA which will be met through Uttar Pradesh Power Corporation Limited (UPPCL). DG sets of capacity 1x380 kVA and 1x500 kVA (with appropriate stack height as per CPCB norms) are proposed as power backup. 2 nos. of stream boiler (2 TPH) & (3 TPH) will be installed. Cyclone followed by bag filter with a stack of height of 32 m will be installed for controlling the particulate emissions within the statutory limit of 800 mg/Nm^3 for the proposed boiler.

10. Details of Process Emissions Generation and their Management:

S. No.	Source	Fuel Used	APCM	Stack (m)	Expected Pollutants	Maximum Emission (mg/Nm^3)
1	Steam Boiler (2 TPH, 3 TPH)	Agro-waste Briquette	Cyclone followed by bag filter	32	PM	PM< 800
2	DG Set (1x380kVA, 1x500 kVA)	HSD	-	25	PM, CO SO_2& NO_x	PM<0.2 g/KW-hr CO<3.5 g/KW-hr NOx+HC<4.0 g/KW-hr
Process Stacks / Vents						
1	Process Reactor Vents	-	Two stage water scrubbers	32	HCl	HCl < 20
2	Process Reactor Vents	-	Two stage water scrubbers	32	HBr	HBr < 5
3	Process Reactor Vents	-	Two stage Alkali Scrubber (1^{st} Stage- Water & 2^{nd} Stage-Alkali)	32	HCl & SO_2	HCl < 20
4	Process Reactor Vents	-	Two stage Alkali Scrubber (1^{st} Stage- Water & 2^{nd} Stage-Alkali)	32	HCl & Cl_2	HCl < 20 Cl_2 < 5

11. **Details of Solid Waste Generation and its Management**:

Sr. No.	Type of waste	Category (As per Schedule I & II, 2016)	Quantity (Per Annum)	Mode of Treatment & Disposal Method
Hazardous Waste				
1	Chemical Sludge from wastewater Treatment (ETP sludge + Waste left after Evaporation)	29.2	350 MT	Collection, Storage, Transportation, and disposal at Nearest common TSDF site
2	Concentration & evaporation Residue.	37.3	200 MT	Collection, Storage,

				Transportation, and disposal at Nearest common TSDF site
3	Spent Solvents	29.4	100 MT	Solvent Recovery within unit
4	Discarded Containers/barrel/liners/contaminated with wastes/chemicals	33.1	12 000 Nos	Authorized vendors
5	Used/spent oil	5.1	0.9 MT	Authorized Vendors
Non-Hazardous/Industrial				
7	Ash from Boilers	-	53 MT	Brick Manufacturers
8	Empty barrels (used for non-hazardous material)	-	9000 Nos	Authorised Recyclers
9	Scrap metals	-	40 MT	Authorised Recyclers

12. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 176 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 52 Lakh per annum which includes Air pollution & Noise Pollution control monitoring [₹ 27 lakh (capital) and ₹13 lakh/annum (Recurring)], Water Pollution Control [₹ 68 lakh (capital) and ₹19 lakh/annum (Recurring)], Solid Waste Management [₹13 lakh (capital)], Environment monitoring and management [₹ 10 lakh (capital) and ₹5 lakh/annum (Recurring)], Occupational Health & Safety [₹ 25 lakh (capital), ₹ 12 lakh/annum (Recurring)], Greenbelt [₹ 22 lakh (capital) and ₹2 lakh/annum, Rain water harvesting [₹ 11 lakh (capital), ₹ 1 lakh/annum (Recurring)]. Industry proposes to allocate ₹ 22.6 Lakh towards CER. Plantation will be provided under CER activity in nearby Umerla & Hasanpur Nagla area. Approx. 3000 trees will be planted 21 accounting 214 tons of CO_2 sink per year, RO system shall be provided in nearby villages.

13. The industry will develop greenbelt in an area of 33.15 % i.e., 2652 m^2 out of total area of the project. ULSPL shall develop the greenbelt as per CPCB/MoEF guidelines. The Total Budget for 5 years is ₹ 18.35 Lakh.

14. The PP proposed to set up an Environment Management Cell (EMC), it is proposed to engage 2 Environment Officers, Air management in-charge, water management in-charge, waste management in-charge, Noise management in-charge, occupational health, Fire and Safety Department, Team for horticulture and technical team under these heads for the functioning of EMC.

15. The rate of carbon sequestering depends on growth parameters of the plants. Density of wood of plants plays a major role. Trees act as sinks for carbon dioxide by fixing carbon during photosynthesis and storing carbon as biomass (Carbon sequestration) PP reported that 36.73 Tonne/ year carbon sequestrated.

16. The PP submitted the disaster and Onsite and Offsite Emergency Plan in the EIA report.

17. The PP also submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.*2011* ‘’*I here by given undertake that the data and information given in the EIA report and the enclosures are true to the best of my knowledge and content (information and data) in the EIA report pertains to the project and not being copied from other EIA reports. I am aware that if at any stage, it is observed or brought to notice to the Ministry of Environment, Forest and climate change that the contents of the EIA report pertains to a project have been copied from other EIA reports such projects shall be summarily rejected and proponent will have to initiate the process and in case of those project where decision has already been taken and environment clearance granted based on the copied EIA Report, the environment clearance granted would be withdrawn and the procedure for obtaining environment clearance will be initiated de-novo. Also, I own the contents of the EIA Report*’.

18. The consultant submitted an undertaking that with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009 “*I, S.K.Jain, hereby confirm that the above-mentioned experts prepared the EIA/EMP REPORT for Proposed Pesticide Manufacturing Project at Plot No. H-42 & H-43 Kosi Kotwan Extension-1, Uttar Pradesh State Industrial Development Corporation (UPSIDC) Industrial Area, Mathura, Uttar Pradesh- 281403 by M/s Umwelt Life Science Pvt. Ltd. I also Confirm that EC has gone through the report, and the consultant organization shall be fully accountable for any mis-leading information mentioned in the statement. It is certified that no unethical practices including plagiarism have been carried out and external data/text has not been used without proper acknowledgment, while preparing this EIA report*”

19. The estimated project cost is ₹ 11.30 Crore. Total Employment will be 155 persons during operation phase.

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

The Committee deliberated on the greenbelt and plantation and observed that as suggested, the PP has now committed that the industry will plant 3000 number of additional trees in nearby villages (Umrala & Hasanpur Nagla) after consultation with UPSIDC and local village panchayat, additional tree plantation will be done within a span of one year post the grant of Environmental Clearance. Tree species aiding for better carbon sequestration like Neem, Chandan, Shisham, Teak, Bargad etc. will be planted in the areas.

The Committee deliberated on the Life Cycle Assessment study of products submitted by the PP. The EAC also noted that project is located inside the notified industrial area, hence the Public Hearing is exempted in pursuant to Ministry's OM No. J-11011/321/2016-IA. II (I) dated 27.4.2018.

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

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

The Committee 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.

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

(i) The PP shall develop Greenbelt over an area at least 2652 m^2 by planting 3000 trees in nearby villages Umrala and Hasanpur Nagla 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 ₹ 22 Lakh and shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(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 2 Environment Officers, Air management in-charge, water management in-charge, waste management in-charge, Noise management in-charge, occupational health, Fire and Safety Department, Team for horticulture and technical team. 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 ₹ 176 lakh (Capital cost) and ₹ 52 lakh (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iv) The total water requirement (including the existing) will be 175 KLD (Fresh –120 KLD) which will be met from from Borewell. The PP has submitted Application for obtaining grant of authorization/no objection certificate for sinking of proposed well in non-notified area has been submitted vide MTHR0522NIN0050 & MTHR0522NIN0051 dated 6.5.2022 The PP should ensure that Ground water utilization should not be above the permissible limit and only after obtaining valid NOC from CGWA/ Concerned Authority. The PP should submit the details of GW abstraction and utilization to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year. In addition to this the PP shall submit the target for reduction of GW utilization to Regional Office of MoEF&CC within a period of one 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 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.

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

(ix) All necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed

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

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

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

(xii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and Wastewater Generation from the project will be 60 KLD (55 KLD Industrial Effluent + 5 KLD Domestic Sewage). 5 KLD domestic sewage will be treated in Sewage Treatment Plant of capacity 10 KLD and 4 KLD of treated water will be used for gardening purpose. 52 KLD High COD/High TDS (46 KLD Process Effluent + 2 KLD DM Plant Effluent + 4 KLD cooling tower Effluent) will be treated in MEE (Capacity- 75 KLD). Out of which, 46 KLD MEE Condensate will be reused in cooling tower makeup water. 5 KLD distillate along with rest of 3 KLD Low COD/Low TDS industrial effluent will be treated in ETP (capacity 10 KLD) followed by RO treatment. Total 51 KLD recycled water will be reused in cooling tower makeup water.

(xiii) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

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

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

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

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

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

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

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

(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. 33.5

Proposed Expansion of Existing Inorganic Chemical plant (Sodium Iodide- 1.5 TPM) for manufacturing of Bulk drug and Intermediates (8 nos.) (14.75 TPM) and 22.51TPM of by-product located at Plot No. IP 13 Part 2, KIADB Kudumalakunte Industrial Area, 1st Phase, Kudumalakunte village, Gouribidanur Taluka, Chikkaballapura District, Karnataka by M/s Racs Pharmachem (INDIA) PVT. LTD. - Consideration of Environmental Clearance

[Proposal No. IA/KA/IND3/232776/2021; File No. IA-J-11011/137/2021-IA-II(I)

1. The proposal is for environmental clearance to the project for Proposed Expansion of Existing Inorganic Chemical plant (Sodium Iodide- 1.5 TPM) for manufacturing of Bulk drug and Intermediates (8 nos.) (14.75 TPM) and 22.51TPM of by-product located at Plot No. IP 13 Part 2, KIADB Kudumalakunte Industrial Area, 1st Phase, Kudumalakunte village, Gouribidanur Taluka, Chikkaballapura District, Karnataka by M/s Racs Pharmachem (INDIA) PVT. LTD.

2. The project/activity is covered under Category 'A' of item 5(f) **(**Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) as the General condition is applicable as the location of the project site falls at a distance of 0.4 km from Karnataka – Andhra Pradesh State, so the project requires appraisal at Central Level.

3. The PP applied for ToR vide proposal number IA/KA/IND3/232776/2021dated 29.10.2021 and the standard ToR has been issued by the Ministry, vide letter No IA-J-11011/137/2021-IA-II(I) dated **2.11.2021.** The PP reported that PH is exempted as it is located inside the notified industrial area. 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 a **Fresh EC**. Due to some shortcomings, the Project was referred back to the PP on 20.5.2022 and 2.6.2022 and reply to the same was submitted on 24.5.2022 and 2.6.2022. The proposal is now placed in 33rd EAC Meeting held on 20-22 June, 2022, wherein the Project Proponent and an accredited Consultant Samrakshan [Accreditation number NABET/EIA/1922/SA 0138 Valid up to 25.7.2022 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 0.32 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.	Product Details	CAS No.	Existing Quantity TPM	Proposed Quantity TPM	Total Quantity	Final Product	Therapeutical usage
1	Sodium Iodide	7681-82-5	1.5	-	1.5	Iodine molecule induction to many APIs	treat iodine deficiency
2	2-N-Methylchloroacetamido-5-chloro benzophenone	6021-21-2	-	5.0	5.0	Diazepam	Treat Anxiety and to relieve muscle spasms
3	Orphenadrine citrate intermediate	4682-36-4	-	2.5	2.5	---	Pakinson' Disease
4	Chlomipramine Hydrochloride and intermediates	17321-77-6	-	1.25	1.25	---	Antidepressant obsessive-compulsive disorder
5	2-N-chloroacetamido-5-nitro-(2)- Floro benzophenone	59467-70-8	-	2.0	2.0	Midazolam	Treat Anxiety And Anasthetic
6	Doxylamine succinate and intermediates	652-10-7	-	2.0	2.0	---	allergy, hay fever, and the common cold.
7	Valethamate Bromide	90-22-2	-	1.0	1.0	---	anticholinergic
8	Melitracin Hydrochloride	10563-70-9	-	1.0	1.0	---	Antidepressant
Total			1.5	14.75	16.25		

List of by-products

Sl. No.	By-product's name	CAS No.	Quantity in TPM
1	Succinamide	123-56-8	5.37
2	Ammonium chloride	12125-02-9	0.59
3	Potassium sulphate	7778-80-5	2.94
4	Potassium chloride	7447-40-7	0.58
5	Potassium bicarbonate	298-14-6	1.08
6	Zinc chloride	7646-85-7	2.37

7	Zinc sulphate	7733-02-0	3.13
8	Sulphuric acid	7664-93-9	0.95
9	Zinc Bromide	7699-45-8	0.91
10	Magnesium chloride	7786-30-3	2.39
11	Sodium Iodide	7681-82-5	0.99
12	Iron acetate	3094-87-9	0.55
13	Copper Nitrite	74332-41-5	0.66
Total			**22.51**

5. The PP reported that the RO, KSPCB visited the facility to verify the existing consent conditions on 16.6.2021 and issued Certified Compliance report on 16.07.2021.

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

7. The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger /Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. PP reported that no forest land is involved for the proposed project. Pennur River is flowing at a distance of 1.8 km in West direction, this River flows only during monsoon season. PP reported that no Schedule I species exist within 10 km study area of the project.

8. The PP reported that Ambient air quality monitoring was carried out at 8 locations during October, November and December 2021 and the baseline data indicates the ranges of concentrations as: PM_{10} 30.6 –49.4 µg/m^3, PM $_{2.5}$ 8.2 – 19.7 µg/m^3, SO_2 3.2 - 6.9 µg/m^3 and NO_2 9.1 – 18.1 µg/m^3. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 51.07 µg/m^3, 7.4 µg/m^3 and 18.28 µg/m^3 with respect to PM, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). The maximum noise level at all the locations is within the limits stipulated in the Environmental (protection) Rules 1986 and the Noise Rules 2000 for industrial and residential area. All the parameters of the groundwater samples analyzed are meeting maximum permissible limits in the absence of alternate source as per IS: 10500-2012 standards. It is observed that, surface water quality falls Class C standards as per the classification of CPCB for "Water Quality Criteria for best use practice. The soil results are within the permissible limits.

9. The PP reported that Total water requirement is 31.3 KLD and will be met from local suppliers/ KIADB supply. Effluent of 15.3 KLD quantity, out this 8.8 KLD will be treated in primary ETP and sent to CETP, M/s Eco Green Solution Systems (P) Ltd., located at Doddaballapura Industrial area. Other effluents viz., boiler blowdown – 1 m^3/day is used for ash quenching, cooling tower bleed -1 m^3/day is used for gardening, scrubber effluent - 3 KLD will be sold as by product and 1.5 KLD is treated in septic tank and disposed to soak pit.

10. The PP reported that Power requirement after expansion will be 193 kVA and will be met from BESCOM). Existing unit has DG set of 125 kVA capacity, additionally 250 kVA DG set is proposed and used as stand by during power failure. Stack (height 3 m & 5 m ARL) will be provided as per CPCB norms to the proposed DG sets.

11. Existing unit has 1 TPH Briquette fired boiler and 1 Lakh kcal/hr Thermic Fluid Heater it is provided with Cyclone separator for boiler emission control and a common stack of height of 30 m for existing boiler and thermic fluid heater. Additionally, 3 TPH Briquette fired boiler will be installed, with Cyclone separator and a stack of height of 30 m for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers.

12. **Details of Process Emissions Generation and their Management:** Acid mist and VOC are from process emissions section and this will be treated in two stage scrubbers. Treated effluent will be sold as by product. Solvents are recovered from reactors by installing condensers.

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

Sl. No.	Hazardous waste	Category	Quantity	Mode of Disposal
1	Used Oil	5.1	100 KL/ Annum	Sent to authorized recycler
2	Inorganic solid waste	28.1	0.012 Tons /Month	Sent to TSDF
3	Process waste /Organic residue		3.55 Ton/ Month	
4	Spent carbon	28.3	0.4 Ton/ Month	Sent to brick manufacturers
5	Spent catalyst	28.2	0.1 Ton/ Month	Sent to manufacturer for Reactivation
6	Detoxified container	33.1	5 Nos. /Annum	Sent to authorized recycler
7	Spent Solvent/Bottom residue	20.3	1.0 KL/Month	Sent to authorized recyclers
8	Boiler Ash	-	0.8 Ton /day	Sent to brick manufacturing industry

14. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 21.1 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 19.7 Lakh per annum, which includes Primary ETP facility, Real time effluent flow meter, Night vision IP Camera [₹3.0 lakh (capital) and ₹ 1.0 lakh/annum (Recurring)], to CETP [₹ 8.5 lakh/annum (Recurring)], Air Pollution control - Installation of boiler cyclone separator and stack & DG set stack [₹ 5.0 lakh (capital) and ₹ 2.0 lakh/annum (Recurring)], Noise pollution control [₹ 2.0 lakh (capital), ₹ 0.2 lakh/annum (Recurring)], Environment monitoring and management [₹ 1.0 lakh (capital) and ₹ 3.0 lakh/annum (Recurring)], Occupational Health & Safety [₹ 5.1 lakh (capital), ₹ 2.0 lakh/annum (Recurring)], Greenbelt [₹ 3.0 lakh (capital) and ₹ 2.0 lakh/annum, Rain water harvesting [₹ 2.0 lakh (capital), ₹ 1.0 lakh/annum (Recurring)], Industry proposes to allocate ₹ 4.0 Lakh towards CER for Avenue tree planation KIADB industrial area and in Kudumalakunte village, Government school development at Kudumalakunte village.

15. The industry will develop greenbelt in an area of 34 % i.e., 1122 m^2 out of total area of the project.

16. The PP proposed to set up an Environment Management Cell (EMC), it is proposed to engage Manager Environment and chemists, ETP operations, Environment Engineers for the functioning of EMC.

17. The PP submitted the disaster and Onsite and Offsite Emergency Plan in the EIA report.

18. The PP submitted that as per the Office Memorandum of Government of India Ministry of Environment and Forest No. J-11013/41/2006-IA-(I) dated 05.10.2011 *'' We have engaged M/s. SAMRAKSHAN, Swastik Manandi Arcade, 1st Floor, S.C. Road, Seshadripuram, Bangalore-560020 as our Environmental Consultant to undertake EIA studies and to prepare report in accordance with the EIA Notification, 2006 and subsequent Amendments, circulars and office memorandums issued from time to time for manufacture bulk drugs and intermediates in additions to existing inorganic product at plot No. IP 13 Part-2, KIADB, Kudumalakunte Industrial area, 1st phase, Kudumalakunte village, Gauribidanur Taluk, Chikkaballapur District, Karnataka State. We have gone through that contents (Information and data) in the EIA report prepared by SAMRAKSHAN. We certify that, the correct and factual information/data are contained in the EIA report. We own the contents (Information and data) in the EIA report''*

19. The consultant submitted that *experts prepared the EIA for M/s Racs Pharmachem (India) Pvt Limited Plot No. IP 13 Part 2, KIADB Kudumalakunte Industrial Area, 1st Phase, Kudumalakunte village, Gouribidanur Taluka, Chikkaballapura District, Karnataka. I also confirm that SAMRAKSHAN shall be fully accountable for any misleading information mentioned in the statement.*

20. The estimated project cost is ₹ 4.92 Crores including existing investment of ₹ 4.42 crores. Total Employment will be 51 persons as direct after expansion.

21. **Deliberations by the EAC:**

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

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

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

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

The Committee deliberated on the greenbelt and plantation that as suggested, the PP has now submitted that the industry will plant 281 Nos. tree saplings as per the guidelines, already industry have planted 80 Nos. trees and additional 201 tree saplings will be planted within the factory premises located at Plot No. IP 13 PART-2, KIADB, Gauribidanur Industrial area, 1st Phase, Kudumalakunte village, Gowribidanur Taluk, Chikkaballapur District, Karnataka State to maintain 34% green belt out of the total plot area of 0.81 Acres. The local species will be planted and maintained. Industry, have already planted about 500 Nos. trees in KIADB industrial area and these trees are also maintained by us. The compensatory plantation will be completed during this monsoon within three months' time and plantation will be in place before we take up production of new product mix.

The Committed also noted water balance, product wise- solvent recovery loss and found it to be satisfactory. The EAC also noted that project is located inside the notified industrial area hence the Public Hearing is exempted in pursuant to Ministry's OM No. J-11011/321/2016-IA. II (I) dated 27.4.2018.

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

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

The Committee 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.

26. 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 1122 m^2 by planting 281 trees within a year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. In addition to this, PP shall plant 201 saplings within Industry premises. The budget earmarked for the plantation shall be ₹ 3.0 Lakh and

shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(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 and chemists, ETP operations, Environment Engineers. 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 ₹ 21.1 Lakh (Capital cost) and ₹ 19.7 Lakh Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iv) The total water requirement (including the existing) will be 31.3 KLD (which will be met from local suppliers/ KIADB supply. The PP should ensure that water utilization should not be above the permissible limit and only after obtaining valid agreement from Concerned Authority. The PP should submit the details of GW abstraction and utilization to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year. In addition to this the PP shall submit the target for reduction of GW utilization to Regional Office of MoEF&CC within a period of one 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 Pharmaceuticals/Bulk Drugs Industry as notified by the Ministry of Environment, Forest and Climate Change, vide GSR 541(E), dated 06.08.2021 under the provisions of the Environment (Protection) Rules, 1986.

(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 already committed by the project proponent, 8.8 KLD will be treated in primary ETP and sent to CETP, M/s Eco Green Solution Systems (P) Ltd., located at Doddaballapura Industrial area. Other effluents viz., boiler blowdown – 1 KLD is used for ash quenching, cooling tower bleed -1 KLD is used for gardening, scrubber effluent 3 KLD will be sold as byproduct, 1.5 KLD is treated in septic tank and disposed to soak pit

(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.

(xx) 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. 33.6

Expansion of APIs from 21.042 TPM to 23.6 TPM located at Ajanta House, Charkop, Kandivli West, Mumbai, Maharashtra by - Ajanta Pharma Limited - Consideration of Environmental Clearance [Under Para 7 (ii)]

[Proposal No.IA/MH/IND3/270018/2022; File No. J-11011/359/2008-IA-II(I)]

1. The proposal is for environmental clearance to the project for Expansion of APIs from 21.042 TPM to 23.6 TPM located at Ajanta House, Charkop, Kandivli West, Mumbai, Maharashtra by - Ajanta Pharma Limited.

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

3. The PP applied for Environment Clearance on 5.5.2021 in Form-1 and submitted PFR/EMP Report and other documents. Due to some shortcomings, the Project was referred back to PP on 23.5.2022 and reply to the same was submitted on 27.5.2022. The PP reported in Form -2 that it is an **Expansion under para 7(ii.)** The proposal is now placed in 33rd EAC Meeting held on 20-22 June, 2022, wherein the Project Proponent and an accredited Consultant, Sadekar Enviro Engineers Pvt. Ltd. [Accreditation number NABET/EIA/2124/SA 0146 Valid up to 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 0.32005 Ha and no R& R is involved in the Project. The details of products and by–products are as follows:

S. No.	As per Environment Clearance granted		After proposed Expansion (As per OM vide F. No. 22-33/2019-IA.III dated 28th January 2021)		
	Product	Allowed Capacity (MT/month)	Particulars of Products	Production Capacity (MT/month)	Remark
1	Lumefantrine	0	API and intermediates	23.6	Addition of 9 no. of API products of total production capacity 2.558 TPM has been
2	Artemether	0			
3	Nepafenac	1.6			
4	Loteprednol Etabonate				
5	Bromfenac Sodium				
6	Prednisolone Acetate				

7	Tafluprost				planned in the proposed expansion.
8	Iguratimod				
9	Desonide 21-Phosphate				
10	Levobetaxolol Hydrochloride				
11	Apremilast				
12	Difluprednate				
13	Mesalamine				
14	Nimesulide, Pilocarpine HCl				
15	Indomethacin				
16	Meclofenamate Sodium				
17	Fenspiride Chlorhydrate				
18	Fluorometholone Acetate				
19	Roflumilast, Atogepant				
20	Mometasone Furoate Monohydrate				
21	crisaborole	0.8			
22	Polmacoxib				
23	Piclidenoson				
24	Lifitegrast				
25	Betaxolol Hydrochloride				
26	Cyclosporine				
27	Dexamethasone				
28	Propyphenazone				
29	Dimethyl fumarate				
30	Triamcinolone Hexacitonide				
31	Apabetalone				
32	Amtolmetin Guacil	0.7			
33	Naproxcinod				
34	Neramaxane Mesylate				
35	Tofacitinib Citrate				
36	Nadifloxacin				
37	Zucapsaicin				
38	Nalbuphine Sebacate	0.2			
39	Sufentanil Citrate				
40	Penicillamine	0.4			
41	Hydroxychloroquine sulphate				

42	Baricitinib				
43	Benvitimod				
44	Ilaprazole	0.6			
45	Lansoprazole sodium				
46	Lafutidine				
47	Dexlansoprazole	0.2			
48	Omeprazole Sodium				
49	Tegoprazan				
50	Diquafosol Tetrasodium				
51	Omidenepag Isopropyl	0.1			
52	Metaxalone	0.05			
53	Rebamipide	0.1			
54	Linaclotide	0.1			
55	Nitroglycerin	0.05			
56	Olopatadine Hydrochloride	0.332			
57	Bilastine				
58	Bepotastine Besilate				
59	Tacalcitol MH				
60	Palonosetron Hydrochloride				
61	Silodosin	0.1			
62	Fexapotide	0.1			
63	Mirabegron	0.1			
64	Colestipol Hydrochloride	0.1			
65	Aripiprazole	0.2			
66	Olanzapine	0.05			
67	Ropinirol HCl	0.1			
68	Latanoprost	0.12			
69	Brinzolamide				
70	Bimatoprost				
71	Ripasudil Hydrochloride Dihydrate	0.38			
72	Limaprost				
73	Netarsudil				
74	Latanoprostene Bunod				
75	Travoprost				
76	Brimonidine Tartrate				
77	Travilermide				
78	Glycerol	0.05			
79	Cortexolone 17a-Propionate	0.05			

80	Vilanterol trifenatate	0.05			
81	Rolapitant	0.05			
82	Varenicline Tartrate	0.05			
83	Ulipristal Acetate	0.05			
84	Dabigatran Etexilate	0.1			
85	Rivaroxaban	0.6			
86	Edoxaban				
87	Betrixaban				
88	Pentosan Polysulfate Sodium, Imeglimine HCl				
89	Elinogrel				
90	Divalproex sodium	0.05			
91	Ursodiol	0.01			
92	Raltegravir Potassium	0.35			
93	Maraviroc				
94	Daclatasvir Dihrochloride				
95	Valganciclovir Hydrochloride				
96	Simeprevir				
96	Gemifloxacin Mesylate	0.65			
97	Minocycline Hydrochloride				
98	Besifloxacin Hydrochloride				
99	Retapamulin				
100	Sodium Hyaluronate				
101	N-acetyl-L-carnosine				
102	Ospemifene	1			
103	Ozenoxacin				
104	Solithromycin				
105	Erythromycin Ethyl Succinate, Pemafibrate				
106	Moxifloxacin Hydrochloride				
107	Tobramycin				
108	Rifaximin				
109	Doxycycline Hyclate				
110	Doxycycline Monohydrate				
111	Levofloxacin Hemihydrate				
112	Sarecycline				
113	Nemonoxacin				

114	Flucloxacillin Sodium				
115	Amadacycline				
116	Almotriptan	1			
117	Sumatriptan				
118	Frovatriptan Succinate				
119	Lasmiditan				
120	Eletriptan Hydrobromide				
121	Zolmitriptan				
122	Rimegepant				
123	Sevelamer Carbonate				
124	Aclidinium Bromide	1.41			
125	Solifenacin Succinate				
126	Azelnidipine				
127	Cilnidipine				
128	Azilsartan Medoxomil Potassium				
129	Metoprolol Succinate				
130	Fimasartan Potassium Trihydrate				
131	Rosuvastatin calcium				
132	Efonidipine Hydrochloride Ethanolate				
133	Olmesartan				
134	Perindopril Arginine				
135	Phentermine Hydrochloride	0.8			
136	Sacubitril				
137	Nifedipine				
138	Chlorthalidone				
139	Diltiazem Hydrochloride				
140	Telmisartan				
141	Timolol Maleate				
142	Dalcetrapib Thiol				
143	Valsartan				
144	Ambrisentan				
145	Sacubitril- Valsartan				
146	Sacubitril-Telmisartan				

147	Polaprezinc	0.05			
148	Bempedoic acid	0.05			
149	Ivabradine Hydrochloride	0.1			
150	Delmopinol Hydrochloride	0.1			
151	Octenidine Hydrochloride				
152	Bibrocathol				
153	Lanthanum Carbonate	0.05			
154	Asenapine Maleate	0.1			
155	Clozapine				
156	Propafenone Hydrochloride	0.05			
157	Deferasirox	0.05			
158	Trientine Hydrochloride	0.05			
159	Cinacalcet Hydrochloride	0.03			
160	Tavaborole	0.4			
161	Efinaconazole				
162	Luliconazole				
163	Fenticonazole Nitrate	0.2			
164	Flucytosine				
165	Voriconazole				
166	Bremelanotide				
167	Topiroxostat				
168	L-Methylfolate Glucosamine	0.1			
169	Odanacatib	0.02			
170	Sapropterin Dihydrochloride	0.04			
171	Dendrimer	0.05			
172	Colesevelam Hydrochloride	0.9			
173	Teneligliptin Hydrobromide hydrate				
174	Sitagliptin Phosphate				
175	Alogliptin				
176	Vildagliptin				
177	Linagliptin				
178	Chiglitazar				
179	Canagliflozin Hemihydrate	1.2			
180	Dapagliflozin				

	Propanediol Monohydrate				
181	Anagliptin				
182	Trelagliptin succinate				
183	Empagliflozin				
184	Ipragliflozin				
185	Saxagliptin				
186	Mirogabalin				
187	Sotagliflozin				
188	Canagliflozin				
189	Dapagliflozin Propanediol Monohydrate				
190	Dapagliflozin				
191	Lobeglitazone				
192	Luseogliflozin				
193	Tofogliflozin				
194	Gemigliptin				
195	Evogliptin				
196	Emixustat Hydrochloride				
197	Retagliptin Phosphate				
198	Ertugliflozin				
199	Omarigliptin				
200	Semaglutide				
201	Vardenafil HCl Trihydrate	0.7			
202	Sildenafil Citrate Mask	0.3			
203	Mirodenafil				
204	Sildenafil Citrate				
205	Tadalafil				
206	Dapoxetine Hydrochloride	0.1			
207	Ticagrelor	0.05			
208	Voclosporin				
209	Alcaftadine	0.1			
210	Azelastine Hydrochloride	0.1			
211	Cloperastine Fendizoate				
212	Acotiamide HCl Hydrate	0.3			
213	Obeticholic acid	0.05			
214	Ibrutinib	0.05			
215	Pirfenidone	0.05			
216	Vortioxetine HBr	0.05			

217	Hypochlorous Acid	0			
218	Apixaban				
219	Dienogest	0.05			
220	Carboxymethyl cellulose sodium	0.05			
221	Hydroquinone	0.05			
222	Pyridoxine Hydrochloride	0.05			
223	Ivacaftor	0.05			
224	Febuxostat	0.2			
225	Lesinurad	0.1			
226	Netupitant	0.05			
227	Indacaterol Maleate	0.05			
228	Vilazodone Hydrobromide	0.1			
229	Potassium Citrate	0.05			
230	Alosetron Hydrochloride	0.05			
231	Tizanidine Hydrochloride	0.05			
232	Isosorbide Mononitrate	0.07			
233	Entacapone	0.05			
234	Cytidine- 5' Disodium Monophosphate	0.1			
235	Uridine Diphosphate Disodium				
236	Phloroglucinol Dihydrate	0.1			
237	Triamcinolone Acetonide	0.07			
238	Sprironolactone	0.07			
239	Trimethyl Phloroglucinol	0			
240	Vadadustat	0.05			
241	Suvorexant	0.08			
242	Finerenone	0.05			
243	Vilaprisan	0.05			
244	Olumacostat Glasaretil	0.06			
245	Nolasiban	0.05			
246	Picotamide	0.4			
247	Clopidogrel bisulfate	0.3			
248	Montelukast Sodium	0.2			
249	R & D Project	0.3			
250	Elobixibat	0			
251	Flupirtine Maleate	0			
252	Cetilistat	0			

253	Cholestyramine	0			
254	Duloxetine Hydrochloride	0			
255	Omadacycline	0			
256	Finafloxacin Hydrochloride				
257	Cethromycin				
258	R & D Products	0.3			
259	Bexagliflozin	0			
TOTAL PRODUCTION CAPACITY		**21.042**		**23.6**	

5. The PP reported that earlier EC has been granted by the Ministry vide F. No. J-11011/359/2008-IA.II (I) dated 13.10.2020 (Increasing the number of API products from 85 to 259 within total production capacity 21.042 TPM). The project has been granted Certified Compliance by IRO, MoEF&CC vide F. No. EC-1506/RON/2022-NGP/9556 dated 11.04.2022.

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

7. The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. PP reported that no forest land is involved for the proposed project. Kaum River is flowing at 1.13 km (E) from the project site. PP reported that no Schedule I species exist within 10 km study area of the project.

8. The PP reported that total water requirement after expansion will be 83.2 KLD of which 61 KLD will be supplied by MIDC Waluj Supply and rest will be supplied from recycled water. The total wastewater generation after expansion will be 25.2 KLD (Industrial: 21.2 KLD & Domestic: 4 KLD). Domestic sewage will be treated in STP, and rest of the wastewater will be treated in ETP with evaporator & RO. 22 KLD treated water from ETO-RO system will be completely reused within the premises while 4 KLD STP treated water will be reused in in-house gardening. The project will be maintaining the status of "**ZLD" Unit.**

9. The PP reported that the power requirement of the plant will be 450 kW which will be supplied by MSEDCL. For power backup, 400 kVA DG set (with appropriate stack height as per CPCB norms) has already been installed on the site, which is used to run ETP, STP and common lights. Also, a separate 100 KVA DG has been installed for Zero Liquid Discharge scheme 1 no. of LDO based boiler has been installed in the plant with stack height of 30 m for controlling emissions within statutory limit.

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

Stack No.	**Source**	**Height of Stack**	**Type of Fuel**	**Air Pollution Control System**
1	Boiler	30	LDO (30 Lit/Hr)	Stack
2	Process Reactor	20	-	Venturi Scrubber

3	DG set of 400 KVA & 100 KVA	4.5 above the roof	Diesel (45 Lit/Hr)	Stack with acoustic enclosure

11. **Details of Solid Waste Generation and its Management**:

S. No.	Particulars	Hazardous Waste Category	Unit	Existing (As per CTO)	Total After Expansion	Method of Disposal
HAZARDOUS WASTE						
1	Spent Oil/Used Oil	5.1	lit/month	30	30	Sale to Authorized Recycler/Reprocess or CHWTSDF
2	Spent Solvents	20.2	TPM	7.5	7.5	Sale to Authorized Recycler/Reprocess or CHWTSDF
3	Distillation Residue	20.3	TPM	1.8	1.83	Disposal of CHWTSDF
4	Spent Catalyst/Spent Carbon	28.2	TPM	0.75	0.75	Disposal of CHWTSDF
5	Empty barrels/containers /liners/contamin-Anted with hazar-dous chemicals/ waste	33.1	No./month	265	265	Sale to Authorized Recycler/Reprocess or CHWTSDF
6	Sludge from Wastewater Treatment	35.3	TPM	0.2	0.2	Disposal of CHWTSDF
7	Off-specification Products	28.4	TPM	1.2	1.2	Disposal of CHWTSDF
8	Spent organic Solvent	28.6	TPM	18.0	18.36	Sale to Authorized Recycler/Reprocess or CHWTSDF
NON-HAZARDOUS WASTE						
1	Wooden material	-	kg/month	400	400	Sale to Authorized Recycler
2	Glass Scrap	-	kg/month	400	400	
3	HDPE Drums	-	No./month	125	125	
4	Plastic Scrap	-	kg/month	200	200	
5	Paper Waste	-	kg/month	150	150	
6	E-Wastes	-	kg/annum	100	100	

12. <u>Deliberations by the EAC:</u>

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

The EAC noted that being an expansion project, the project comes under the category of 7(ii) and the addendum EIA report is not complete as per the EIA structure and guidelines, the Greenbelt development plan and its proposed budget needs to be revised and an undertaking needs to be submitted that there is no violation as per the Notification No. S.O.804(E) dated 14.03.2017.

The Committee deliberated the issues related to pollution and conservation of environment. The Committee after detailed deliberations, **recommended to return the proposal in present form** and is of the view that PP shall first comply with the following. Since the Committee has gone through the entire presentation, the PP needs to present only the following before the EAC.

(i) The PP needs to submit the complete Addendum EIA/ EMP report as per the EIA structure and guidelines.
(ii) As this is existing unit, Greenbelt plan inside and outside the premises needs to be revised to increase the plant density and accordingly revise the EMP cost.
(iii) Being an expansion proposal, PP needs to submit an undertaking that there is no violation as per the Notification No. S.O.804(E) dated 14.03.2017.
(iv) The PP shall submit the details of carbon foot print and carbon sequestration study w.r.t. proposed project. Proposed mitigation measures also need to be submitted.
(v) Details of Onsite and Offsite Emergency plans as per provisions of the MSIHC Rules needs to be submitted.

Agenda No. 33.7

Setting up of Chemical manufacturing plant of production capacity of 70.64 TPM (38 nos. of products) located at Plot Nos. 36-P & 37, Kadechur Industrial Area, KIADB, Kadechur Village, Yadgir Taluk & District, Yadgir, Karnataka by Synnova Intermediates PVT. LTD. - Consideration of Environmental Clearance
[Proposal No. IA/KA/IND3/241879/2021; File No. IA-J-11011/500/2021-IA-II(I)]

1. The proposal is for environmental clearance to the project for Setting up of Chemical manufacturing plant of production capacity of 70.64 TPM (38 nos. of products) located at Plot Nos. 36-P & 37, Kadechur Industrial Area, KIADB, Kadechur Village, Yadgir Taluk & District, Yadgir, Karnataka by Synnova Intermediates PVT. LTD.

2. The project/activity is covered under Category 'B1' of item 5(f), Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) of Schedule of Environment Impact Assessment (EIA) Notification2006 (as amended) as the project is located within the notified industrial area, but in the instant case, the project is treated as Category–A as the General condition is applicable due to presence of Inter-state boundary of Karnataka and Telangana State at a distance of 3.63 km. Therefore, the project requires appraisal at Central Level.

3. The PP applied for ToR vide proposal number IA/KA/IND3/241879/2021 dated 4.12.2021 and the standard ToR has been issued by the Ministry, vide letter No IA-J-11011/500/2021-IA-II(I) dated 9.12.2021. The PP submitted that Public hearing is not required for the proposed project as it is located at KIADB, Industrial area – Kadechur and MoEF&CC has granted EC to Kadechur Industrial Area at Kadechur village in Yadgir district, Karnataka vide F. No. 21-8/2014-IA.II Dated: 14.10.2016. The PP applied for Environment Clearance on 16.5.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP in the Form-2 reported that it is a **Fresh EC.** Due to some shortcomings, the Project was referred back to PP on 23.5.2022 and reply to the same was submitted on 27.5.2022. The proposal is now placed in 33rd EAC Meeting held on 20-22 June, 2022, wherein the Project Proponent and an accredited Consultant, M/s. Rightsource Industrial Solutions Pvt. Ltd. [Accreditation number QCI/NABET/ENV/ACO/22/2317 Valid up to 17.7.2022], 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 1.2141 Ha and no R& R is involved in the Project. The details of products and by–products are as follows:

S. No.	Product Name	Quantity in TPM	CAS No.	Therapeutic Use
1	(4,6)-dichloro-5-amino-2-propylthio pyrimidine (Ticagrelor intermediate)	1.25	145783-15-9	Ticagrelor intermediate
2	(R)-2-(oxiran-2-yl methyl)insoindoline-1-3-dione (Rivaroxaban KSM)	1.25	161596-47-0	Rivaroxaban intermediate
3	1-Phenyl-1,2,3,4-tetrahydro-isoquinoline (Solifenacin intermediate)	0.25	22990-19-8	Solifenacin intermediate
4	(S)-1-(2-chloroacetyl) pyrrolidine-2-carbonitrile (Vildagliptin intermediate)	3.00	207557-35-5	Vildagliptin intermediate
5	(S)-4-(4-(5-(aminomethyl)-2-oxooxazolidin-3-yl)phenyl)morpholin-3-one hydrochloride (Rivaroxaban Advanced Intermediate)	1.25	898543-06-*1*	Rivaroxaban intermediate
6	(Z)-Ethyl 2- chloro-2-(2-(4-methoxyphenyl) hydrazono) acetate (Apixaban Intermediate)	2.00	27143-07-3	Apixaban intermediate
7	1,2,3,9-Tetrahydro-9-methyl-4(H)-Carbazol-4-One (Ondansetron KSM)	1.63	27387-31-*1*	Ondansetron intermediate
8	Ethyl 4-(1-hydroxy-1-methylethyl)-2-propyl-imidazole-5-carboxylate (Olmesartan KSM)	2.50	144689-93-0	Olmesartan intermediate
9	2 –Butyl-4-Chloro-5-Formyl	5.00	:83857-96-9	Losartan Potassium

	Imidazole (BCFI)			intermediate
10	3-(2-((4-cyano-phenylamino)-methyl)-1-methyl-1H-benzo[d] midazole-5-carbonyl)-pyridin-2-yl-amino)-proponoic acid ethyl ester Hydrochloride (Dabigartan intermediate)	1.75	211915-84-3	Dabigatran intermediate
11	3-(trifluoromethyl)-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrazine hydrochloride (Sitagliptin pyrazine intermediate)	1.25	762240-92-*6*	Sitagliptin intermediate
12	3-amino-1-adamantanol (Vildagliptin intermediate)	3.00	702-82-9	Vildagliptin intermediate
13	4 Hydroxy Carbazole (Carvedilol KSM)	2.50	52602-39-8	Carvedilol intermediate
14	4-(4-aminophenyl) morpholin-3-one (Rivaroxaban KSM)	1.25	438056-69-0	Rivaroxaban intermediate
15	4-(4-methyl piperazine-1-yl) methyl benzoic acid di HCl (Imatinib intermediate)	0.50	106261-49-8	Imatinib intermediate
16	4-bromo 1- chloro-2-(4-ethoxybenzyl) benzene (Dapagliflozin intermediate)	2.00	461432-23-5	Dapagliflozin intermediate
17	4-Methyl-3-[[4-(3-pyridinyl)-2-pyrimidinyl] amino]benzoic acid (Nilotinib Intermediate)	0.38	641569-94-0	Nilotinib Hydrochloride intermediate
18	5-Chloro-2-thiophene carboxylic acid (Rivaroxaban KSM)	1.25	24065-33-6	Rivaroxaban intermediate
19	Apixaban	2.00	503612-47-3	Used to prevent stroke and blood clots
20	Aripiprazole	1.00	129722-12-9	Anti-psychotic
21	Carvedilol	1.25	72956-09-3	Used to treat high blood pressure
22	Dabigatran Etexilate Mesylate	1.75	872728-81-9	Used to prevent stroke and blood clots
23	Dapagliflozin Propanediol Monohydrate	2.00	960404-48-2	Used for the treatment of Type 2 diabetes mellitus.
24	Imatinib	1.00	152459-95-5	Used to treat cancer
25	Lacosamide	1.00	175481-36-4	Used to prevent and control seizures
26	Linagliptin	2.00	668270-12-0	Used to treat type 2 diabetes
27	Losartan Potassium	5.00	124750-99-8	Anti-Hypertensive
28	Lurasidone Hydrochloride	1.00	367514-88-3	Anti-psychotic
29	N-(5-amino-2-methylphenyl)-	0.50	152460-10-1	Imatinib intermediate

	4-(3-pyridynl)-2-pyrimidine (Imatinib intermediate)			
30	Nilotinib Hydrochloride hydrate	0.63	923288-90-8	used to treat leukemia
31	Olmesartan Medoxomil	3.75	144689-63-4	Anti-Hypertensive
32	Ondansetron Hydrochloride Dihydrate	2.50	103639-04-9	Used to prevent nausea and vomiting caused by cancer chemotherapy
33	Rivaroxaban	1.25	366789-02-8	Used to treat deep vein thrombosis
34	Sacubitril/Valsartan	2.00	936623-90-4	Used to treat heart failure
35	Sertraline Hydrochloride	2.50	79617-96-2	Anti-depressant
36	Sitagliptin	2.50	486460-32-6	Used to treat type 2 diabetes
37	Ticagrelor	1.25	274693-27-5	Used to prevent heart stroke
38	Vildagliptin	3.75	274901-16-5	Used for the treatment of Type 2 diabetes mellitus
	Total	**70.64**		

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

6. The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger /Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. The PP reported that no forest area is involved in the proposed project. 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 Winter Season (December, 2021 to February, 2022) and submitted baseline data indicates that ranges of concentrations of PM_{10} (45.2 – 68.9 µg/ m^3), $PM_{2.5}$ (17.6 – 27.6 µg/ m^3), SO_2 (9.1 – 19.8 µg/ m^3), NOx (11.6 – 24.6 µg/ m^3), CO (0.20 – 0.51 mg/ m^3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be $PM_{10,}$ $PM_{2.5}$, SO_2 & NOx would be 0.247 µg/ m^3, 0.059 µg/ m^3, 0.456 µg/ m^3 & 0.603 µg/ m^3 respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NQQS). It has been observed that the pH of the soil quality ranged from 7.59 to 8.26. Percentage of Organic Carbon is observed in between 0.40 to 0.63 indicating that less to On an average sufficient in nature. Ground water- pH of the ground water samples collected was in the range between 7.14 –7.96. Total dissolved solids in the ground water samples were in the range between 671– 2260 mg/l. In the ground water samples collected from the study area, the total hardness was found to vary between 116 – 1024 mg/l. The Chlorides concentration was found to vary between 91.3 – 728.5 mg/l in the collected ground water samples. Fluoride concentration in all ground water samples are found to be 0.86– 1.02. The Sulphates concentration was found to be vary between 26.4 – 163.5 mg/l. Surface water- pH of the water samples collected was in the range between 7.18 – 8.16. Total dissolved solids in the samples were in the range between 161 – 523 mg/l. Total hardness was found to be in the range of

68 –236 mg/l. Chlorides concentration was found to vary between 14.6 – 83.5 mg/l. Fluoride concentration was found to be in the range of 0.26 - 0.78 mg/l. Sulphates concentration was found to vary between 3.46 – 96.7 mg/l.

8. The PP reported that the total water requirement is 102.07 KLD and will be met from KIADB water supply. Effluent of 45.98 KLD is generated from Process, Cooling towers bleed off, Boilers blow down, Washings, Scrubbing system and domestic usage. The generated effluent will be sent to the CETP – Mother Earth Environ Tech Pvt. Ltd., Kadechur.

9. The PP reported that Power requirement will be **650 kVA** and will be met from Karnataka Power Corporation Limited (KPCL). The unit is proposed to install **1 x 320 kVA & 1 x 150 kVA DG Sets**, Stacks (heights of 8.0 mts & 6.0 mts) will be provided as per CPCB norms to the proposed DG sets respectively.1 x 3.0 TPH boiler is proposed with stack height of 30 mtrs. Cyclone separator followed by bag filters will be installed for the proposed boiler for controlling the particulate emissions (within statutory limit of 115 mg/ Nm3). 1 x 2 Lakh K. Cal/ Hr Thermic fluid heater is proposed with stack height of 11 mtrs and Cyclone separator will be installed for controlling the particulate emissions (within statutory limit of 115 mg/ Nm^3).

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

S. No.	Name of the Gas	Quantity in kg/Day	Treatment Method
1	Ammonia	26.00	Scrubbed by using chilled water media
2	Hydrogen	7.00	Diffused by using Nitrogen through Flame arrestor to avoid the formation of explosive mixture.
3	Carbon dioxide	85.00	Dispersed into the atmosphere
4	Oxygen	69.00	Dispersed into the atmosphere
5	Nitrogen	20.00	Dispersed into the atmosphere
6	Hydrogen Bromide	90.00	Scrubbed by using C. S. Lye solution
7	Hydrogen chloride	518.00	Scrubbed by using chilled water media
8	Dimethylamine	63.00	Scrubbed by using chilled water media
9	Hydrogen Fluoride	34.00	Scrubbed by using C. S. Lye solution
10	Boron Trifluoride	31.00	Scrubbed by using chilled water media
11	Propane	10.00	Diffused by using Nitrogen through Flame arrestor to avoid the formation of explosive mixture.
12	Methyl Bromide	48.00	Scrubbed by using C. S. Lye solution
13	Sulphur dioxide	218.00	Scrubbed by using C. S. Lye solution

11. **Details of Solid Waste Generation and its Management**:

S. No	Name of the Waste	Quantity	Disposal Method
Hazardous Waste Details			
1	Organic solid waste (Process Residue)	2537 kg/Day	Will be sent to Cement Industries
2	Spent Carbon	64 kg/Day	

3	Solvent Distillation Residue	614 Ltrs/Day	
4	Inorganic Solid Waste	222 kg/Day	Will be sent to TSDF - Mother Earth-Kadechur.
5	ETP Sludge	50 kg/Day	
6	Used Oils	95 Ltrs/Annum	Will be sent to SPCB Authorized Agencies for Reprocessing/ Recycling
7	Detoxified Containers/ Container liners	450 No's / Month	After Detoxification will be sent to SPCB authorized agencies.
8	Used Lead Acid Batteries	4 No's/ Annum	Send back to suppliers for buyback of New Batteries
Solid Waste details			
9	Ash from boiler	2625 kg/Day	Will be sent to Brick Manufacturers

12. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 85.5 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 15.5 Lakh per annum, which includes Pollution Control Equipment (Cyclone separators, Bag filters, Scrubbers, Sampling port arrangements etc.) [₹ 70.0 lakh (capital) and ₹ 6.0 lakh/annum (Recurring)], Rain Water Collection system (Roof top rain water collected in the tank for reuse in the utilities and gardening) [₹ 3.5 lakh/annum (capital) and ₹ 1.0 lakh/annum (Recurring)], Greenbelt Development (Plantation and Maintenance) [₹ 9.0 lakh (capital) and ₹ 1.5 lakh/annum (Recurring)], Occupational Health & Safety (PPEs, Medical Surveillances Expenses etc. [₹ 3.0 lakh (capital), ₹ 1.0 lakh/annum (Recurring)], Environmental Monitoring (Air, Water, Noise, VOCs, Boiler Stack flue gases, TFH Stack flue gases, DG sets stacks monitoring expenses etc.) [₹ 6.0 lakh/annum (Recurring)], Industry proposes to allocate ₹ 20.3 Lakh towards CER to develop the plantation along the Bank of Nala.

13. The Industry will develop greenbelt in an area of **4084.00 m^2** which is **33.64 %** out of **12141.00 m^2** of the total project area.

14. The PP proposed to set up an Environment Management Cell (EMC) covering EHS (Environment, Health & Safety) team, Environmental Monitoring, Personnel Training, Regular Environmental Audits and Corrective & Preventing Action Plan, for the functioning of EMC.

15. Total CO_2 emission per Annum from the proposed project is 1536.41 Tons. Hectare of 2500 Trees but effective density shall be 2000, Will sequester atmospheric carbon dioxide at an average of 50 pounds (22.67 kg) of carbon dioxide per tree per year. Total CO_2 sequestration = 54.2 + 23 = 77.2 Tons. Will mitigate the CO_2 emissions in future by using Solar Panels and if any availability of gasoline pipes is there, gas-based boiler will be used in future. If any possibility/ availability of CO_2 sequestration, will be ready to implement in future to reduce the CO_2 emissions.

16. The PP submitted the disaster and Onsite and Offsite Emergency Plan in the EIA report.

17. The PP also submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.*2011 '' This is to undertake that I own the contents (information and data) of the EIA report prepared for the project of Synnova Intermediates Pvt.Ltd.)*

located at Plot Nos. 36-P & 37, Kadechur Industrial Area, KIADB, Kadechur Village, Yadgir Taluk & District, Yadgir, Karnataka , I also confirm that I shall be fully accountable for any misleading information mentioned in this report.

18. The consultant submitted an undertaking that with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 4.8.2009 "*I, Yarlagadda V. Prasad, hereby, confirm that the above-mentioned experts prepared the EIA report Synnova Intermediates Pvt. Ltd. located at Plot No's: 36-P & 37, Kadechur Industrial Area, Kadechur Village, Yadgir Taluk, Yadgir District, Karnataka State. I also confirm that the consultant organization shall be fully accountable for any mis-leading information mentioned in this statement"*.

19. The estimated project cost is ₹ 10.15 Crores. Total Employment will be 120 persons.

20. **Deliberations by the EAC:**

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

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

The Committee noted that the EIA 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 observed that the project is located within the KIDAB industrial area for which Ministry of Environment, Forests and Climate Change (MoEF&CC) has granted environmental clearance (EC) to Kadechur Industrial Area at Kadechur village in Yadgir district, Karnataka vide F. No. 21-8/2014-IA. II Dated: 14.10. 2016. Further, in pursuant to Para 7 (i) III (i) (b) of EIA notification 2006 (as amended) and OM number J-11011/321/2016-IA.II(I) dated 27.4.2018 the PH is exempted for this project.

The Committee deliberated on the greenbelt/plantation and Carbon sequestration that as suggested, the PP has now submitted that they will plant 1214 Number of trees in the plant instead of 1021 number of trees and 5 Tonne/annum CO_2 will be sequestrated. The EAC also deliberated on the water conservation measures and suggested PP to utilize the recycled water and implement rain water collection system. In this regard, PP committed that the total effluent generated (High TDS & Low TDS) of 45.98 KLD will be sent to CETP Mother Earth for further treatment. After treatment at CETP, the unit is expected to receive 35 KLD of water back, which will be used in utilities. The unit is

expected to collect 8 KLD (approx.) of water from rain water collection measures. EAC found it to be satisfactory.

The Committed also deliberated on the green energy concept, PP committed to install solar panels on rooftops of the proposed buildings comprising an area of 1500 m^2, which will generate around 160 KWh of power by using the solar panels, the unit is expected to reduce CO_2 – 46 Tons/ Annum. EAC also noted about the hazardous waste disposal, PP submitted that the generated Hazardous waste will be sent to TSDF- Mother Earth for further treatment. However, the unit will look in to various measures to reduce the Hazardous waste by introducing alternative technologies in process and using green solvents instead of organic solvents in future.

The Committee suggested to carryout detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species. The Committee also suggested that the PP shall carry out detailed Phyto and Zooplankton study of the Nala water passing through the Industrial area during non-monsoon season and submit the report within one year. The committee also suggested to develop green belt on the recommendations of agricultural expert report.

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

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

The Committee 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 4084.00 m^2 by planting 1241 trees within a year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be ₹

9.0 Lakh and shall be kept in separate account and should be audited annually. PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(ii) A separate Environmental Management Cell (having qualified persons with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions. PP shall engage EHS (Environment, Health & Safety) team, Environmental Monitoring, Personnel Training. 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 ₹ 85.5 Lakh (Capital cost) and ₹ 15.5 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 previous year.

(iv) The total water requirement (including the existing) will be 102.07 KLD (which will be met from KIADB water supply. The PP should ensure that water utilization should not be above the permissible limit and only after obtaining valid agreement from Concerned Authority. The PP should submit the details of GW abstraction and utilization to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year. In addition to this the PP shall submit the target for reduction of water utilization to Regional Office of MoEF&CC within a period of one year.

(v) As committed, the PP shall install solar panels on rooftops of the proposed buildings comprising an area of 1500 m^2, which will generate around 160 KWh of power and is expected to reduce CO_2 – 46 Tons/ Annum.

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

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

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

(ix) The project proponent shall comply with the environment norms for Pharmaceuticals/Bulk Drugs Industry as notified by the Ministry of Environment,

Forest and Climate Change, vide GSR 541(E), dated 06.08.2021 under the provisions of the Environment (Protection) Rules, 1986.

(x) 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.

(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.

(xii) 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.

(xiii) As already committed by the project proponent, the generated effluent will be sent to the CETP – Mother Earth Environ Tech Pvt. Ltd., Kadechur

(xiv) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

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

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

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

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

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

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

(xxi) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes.

(c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.

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

Agenda No. 33.8

Expansion of synthetic organic chemical plant from 5.975 TPM (13 no. of products) to 16.0914 TPM (15 no. of products including 9 new products) located at 2/98-A, Vellipalayam road, Mettupalayam Taluka, Coimbatore District, Tamil Nadu by Encee Aromatics (P) Limited – Consideration of Environmental Clearance

[Proposal No. IA/TN/IND3/271578/2019; File No. J-1101/142/2008-IA-II(I)]

1. The proposal is for Expansion of synthetic organic chemical plant production capacity from 5.975 TPM (13 no. of products) to 16.0914 TPM (15 no. of products including 9 new products) located at Encee Aromatics (P) Ltd 2/98-A, Vellipalayam road, Mettupalayam Taluka, Coimbatore District, Tamil Nadu, by Encee Aromatics (P) Limited.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) as the project is located outside the notified industrial area.

3. The PP applied for ToR vide proposal number **IA/TN/IND3/271578/2019** dated 3.5.2019 and the Standard ToR has been issued vide letter No. J-1101/142/2008-IA-II(I) dated **11.6.2019.** Public Hearing for the proposed expansion project has been conducted by the State Pollution Control Board under the chairmanship of the District Collector on 03.02.2021. The PP applied for Environment Clearance on 28.06.2021 in Form-2 and submitted EIA/EMP Report and other documents. The proposal was placed in 18th EAC Meeting held on October 5-6, 2021, wherein the Committee observed many deficiencies in the proposal and the PP was advised to revise the application with justification along with the additional information sought. Accordingly, the proposal was returned in the present form for submission of the revised proposal incorporating the observations of the EAC.

4. The PP re-applied for Environment Clearance on 9.5.2022 in Form-2 and submitted EIA/EMP Report and other documents. The PP in the Form-2 reported that it is an **Expansion case**. Due to some shortcomings, the Project was referred back to PP on 23.5.2022 and reply to the same was submitted on 31.5.2022. The proposal is now placed in 33rd EAC Meeting held on 20-22 June, 2022, wherein the Project Proponent and the accredited Consultant Vimta Labs Limited [Accreditation number NABET/EIA/1922/RA0226 Valid up to 27.3.2023 made a detailed presentation on the salient features of the project The information submitted by the PP so far is as follows:

5. The PP reported that the proposed land area is 3.78 Ha and no R& R is involved in the Project. The proposed project involves omission of some of the products and addition of new products. The details of products and by–products are as follows:

S. No.	Products details	CAS No	Existing Quantity in TPM	Proposed Quantity in TPM	Total Quantity in TPM	Uses
1	Ambrettolide	28645-51-4	2.000	3.000	5.000	Perfumery, Flavour
2	Iso Butyl Quinoline	65442-31-1	1.500	1.500	3.000	Perfumery
3	Floral Concretes	--	0.200	---	---	Perfumery, Cosmetics
4	Floral Absolutes	--	0.100	---	---	Perfumery, Cosmetics
5	Enamber	36306-87-3	0.750	2.250	3.000	Perfumery, Cosmetics
6	Vetiverol	89-88-3	0.200	0	0.200	Perfumery, Food & beverages
7	Vetiveryl Acetate	117-98-6	0.200	0	0.200	Perfumery, Food & beverages
8	Undecavertol	81782-77-6	0.400	---	---	Perfumery
9	Enascone	56973-85-4	0.150	---	---	Perfumery
10	Spice Extraction Concrete	--	0.100	---	---	Perfumery, Flavour
11	Spice Extraction Absolute	--	0.050	---	---	Perfumery, Flavour
12	Spice Oil (Black Pepper & Ginger)	8007-08-7	0.200	---	---	Perfumery, Flavour & Medicine
13	Enafran	116-26-7	0.125	0	0.125	Perfumery
14	Ethyl Safranate	35044-59-8	---	0.400	0.400	Perfumery
15	Essential Oil	--	---	0.016	0.016	Perfumery
16	Nootkatone	4674-50-4	---	0.066	0.066	Flavour & Fragrance
17	Trans-Trans-2-4-Decadienal	25152-84-5	---	0.166	0.166	Perfumery
18	Trans- 2-Dodecenal	20407-84-5	---	0.166	0.166	Flavour & Fragrance
19	Water Melon Ketone	28940-11-6	---	2.500	2.500	Flavour & Fragrance
20	Concretes	8022-96-6	---	0.167	0.167	Perfumery,

						Cosmetics, Flavour
21	Absolutes	91770-14-8	---	0.083	0.083	Perfumery, Cosmetics, Flavour
22	Jasmonyl	18871-14-2	---	1.000	1.000	Perfumery, Cosmetics
	Note: * In proposed expansion undecavertol and enascone will not be produced. * Floral concretes and absolutes, spice extraction concretes and absolutes and spice oil (Black Pepper & Ginger) will be categorized under a common name as concretes and absolutes					

6. The PP reported that Earlier EC was granted by MoEF&CC for Expansion of Synthetic/natural aromatic manufacturing unit at Chikadasampalayam village, Mettupalayam Taluk, Coimbatore district, Tamil Nadu vide letter no: J-11011/142/2008-IA-II (I); dated 16.09.2009. CTO obtained from TNPCB vide Proceedings No. T11/TNPCB/F.0883CBN/RL/CBN/A&W/2017 dated:06/07/2017 valid upto 31.03.2022 Certified compliance report for the existing EC conditions has been obtained from RO, MoEF&CC, Chennai vide Letter No. F.No.EP/12.1/2019-20/2/TN/426 dated 22.04.2021 as per which the project was inspected on 8.4.2021.

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 Nilgiri Biosphere Reserve is at a distance of 2.1 km and elephant corridor (Kallar-Hulical Drug RF) is 3.5 km from the project site, the application has been filed with NBWL vide proposal number FP/TN/IND/5824/2021 dated 17.3.2021. PP reported that no forest land is involved for the proposed expansion project. The PP reported that Jakkanare Slope RF is at a distance of 3.3 km in NW direction and Odanthurai RF is at a distance 1.4 km in NW direction. Bhavani river is flowing Adjacent to the plant site in North direction. PP reported that Santalum album (Sandal Wood), Pterocarpus Santalinus (Red Santers), Elephas maximus (Elephant), Bos gaurus (Bison), Trachypithecus johnii (Nilgiri Langur), Anhinga Melanogaster (Oriental Dart) schedule–I species exist within 10 km study area of the project. The Wildlife Conservation Plan for Sch-I species has been prepared with the budget of 14.5-15.5 lakhs and submitted to the Chief Wildlife Warden for authentication.

9. The PP reported that Ambient air quality monitoring was carried out at 8 locations during 1st May 2019 to 31st July 2019 and the baseline data indicates the ranges of concentrations as: PM_{10} (45.0-73.0 µg/m^3), $PM_{2.5}$ (15.4-34.9 µg/m^3), SO_2 (5.2-15.0. µg/m^3) and NO_2 (6.8-25.0. µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 5.65 µg/m^3, 3.60 µg/m^3 and 5.65 µg/m^{3}with respect to PM_{10}, SO_x and NO_x. The resultant concentrations are 78.65 µg/m^3, 18.60 µg/m^3 and 30.65 µg/m^3 with respect to PM_{10}, SO_2 and NO_x are well within the National Ambient Air Quality Standards (NAAQS). It is observed that the day time noise levels are broadly in accordance with the prescribed limit. It has been observed that the texture of the soil is mostly “Sandy clay soil” in the study area. The common color of the soil is pale brown. The pH of the soil ranged from

6.5 to 7.1, indicating that the soil is slightly acidic in nature. The bulk density of the soil ranges in between 1.1 - 1.5 gm/cc. The organic carbon content in the study area is observed as 0.68% - 0.94%. The electrical conductivity of the soil was observed to be in range of 182 µs/cm - 326 µs/cm with the maximum value observed in Mettupalayam (S5) and the minimum was observed in Lingapuram (S6). Available nitrogen was observed to be ranging from 271.0 kg/ha to 326.0 kg/ha. A minimum concentration is observed at Mettupalayam (S5) and maximum concentrations are observed at Vellipalayam (S2). Available phosphorous was observed to be in the range of 40.0 kg/ha – 71.0 kg/ha. Available potassium was observed as 418 kg/ha to 742 kg/ha in the study region. The minimum value observed at Lingapuram (S6) and maximum value observed at plant site (S1). The soil in the region has been found to have sufficient quantities of nutrients for crop growth and also indicate that no external industrial contamination in the study area. The results of the ground water samples are compared with the standards for drinking water as per IS: 10500:2012. The analysis results indicate that the pH ranges in between 6.83 to 7.85, which is well within the specified standard of 6.5 to 8.5. The maximum pH of 7.85 was observed at Sirumugai (GW4) and the minimum pH of 6.83 was observed at Mettupalayam (GW7). Total hardness was observed to be ranging from 19.9 to 375.9 mg/l. The maximum hardness was recorded at Vellipalayam (GW2) and the minimum hardness was recorded at Mettupalayam (GW7). The Total Dissolved Solids (TDS) concentrations were found to be ranging in between 53 to 1471 mg/l. The maximum TDS was recorded at Karamadai (GW8) and the minimum TDS was recorded at Mettupalayam (GW7). Chlorides at all the locations were within the permissible limit, ranging in between 13.2 to 438.4 mg/l. Fluorides are ranging in between 0.2 to 0.9 mg/l and are found to be within the permissible limit. Nitrates were found to be in the range of from 0.7 mg/l to 5.6 mg/l. The heavy metal content is below detectable limits. The EAC observed that baseline data is well within the time limit mentioned in Ministry's O.M. No. IA3-22/10/2022-IA.III [E177258] dated 8.6.2022.

10. The PP reported that total water requirement of the existing plant is about 48.0 KLD. The fresh water requirement for the expansion activity will be about 35.44 KLD. The total water requirement for project will be about 39.65 KLD. Source of water will be from Bhavani river. During the monsoon, the water requirement will be met from the harvested rainwater (100%) for plant activity and no freshwater will be consumed from the Bhavani river. Therefore, the reduction of fresh water usage is100%; and During the dry season the freshwater will be consumed from the Bhavani river in case of non-availability of rainwater from the storage tanks. There will be reduction in the freshwater consumption in the proposed expansion activity. Total effluent generation from the plant will be about 19.31 KLD (Industrial +Domestic). The effluent generated from the process of natural aroma product (concretes, absolutes and essential oils) will be treated in the proposed SBT-Bioreactor where the concentrated water is treated through patented media and collected at the bottom of the bioreactor which will be used for plant activity. The effluent from the rest of the process (Synthetic) will be send to the Multiple Effect Evaporator for effluent evaporation and the treated water will be reused in cooling tower and water ejector makeup process. The condensate water from the boiler of quantity 8.18 KLD will be used for green belt development (1.35 ha). The concentrated effluent from MEE of 6.26 KLD will be sent to the Hybrid Solar Drying System for further treatment process. The domestic wastewater of 4.80 KLD will be treated in the existing Septic tank and dispersion trench. Hence no wastewater will be discharged outside the plant premises.

11. The PP reported that Power requirement after expansion will be 500 KVA (Existing:500 KVA & Expansion:0 KVA) which will be met from Tamil Nadu Generation and Distribution corporation Limited (TANGEDCO). Existing unit has DG sets of capacity 2X250 kVA,1X125 kVA. Additionally, 1X60 KVA DG set will be proposed in the expansion as standby during power failure. Stack height is about of 6 m for DG sets. Existing unit has Three boilers of capacity 0.3 TPH (LPG fired), 0.6 TPH (Diesel fired), 1.0 TPH (Firewood boiler) and also has four thermic fluid heaters (2X 65000 kcal/hr & 2 X 100000 kcal/hr). Additionally, 65000 kcal/hr thermic fluid heater will be installed with the stack height of 13.0-15.0 m.

12. The process emissions will be controlled by adopting the closed leak proof system and the vapours are dipped into the lye solution before letting into the atmosphere. The efficient condenser cooling system will also be followed in the proposed expansion. The solvents such as Methanol, Toluene, Hexane, Ethanol will be recovered with high efficiency and again it will be used in the plant process. Spent acid recovered in the nitration process will be used in ETP for neutralization. Some of the solvents such as glycerin, distillation lites will be sold to authorized recyclers.

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

Sr. No.	Sch No.	Solid Waste	Existing (TPM)	After Expansion (TPM)	Method of Disposal
Non-Hazardous Waste					
1	--	Floral/Spice Waste	73.8	79.13	Used as a manure in agricultural land
2	--	Wax	0.085	0.107	Sold to local suppliers
3	--	Firewood Ash	4.65	4.452	Used in agricultural land
Hazardous Waste					
1	20.3	Distillation residues from various process	4.8	15.68	Stored temporarily in HDPE bags, barrels and send to secured landfill facility
2	34.4	Chemical sludge and residue from ETP	7.75	36.05	
3	5.1	Waste Oil from maintenance (Litres)	0.25	0.80	Stored in HDPE/MS barrels and sent to SPCB authorized recycle dealers

With the effect of the revised mass balance, about 17.295 TPM of ETP salt has been reduced compared with earlier submitted proposal (53.35 TPM). Further, effective R& D will be carried out for the reduction of solid waste generation in each process associated with the expansion.

14. The PP submitted that the advertisement for Public Hearing was published in Dinamani *(Tamil), and The New Indian Express (English)* on 1.1. 2021. Public Hearing for the proposed expansion project has been conducted by the State Pollution Control Board under the chairmanship of the District Collector on 03.02.2021 at National Matric Hr. Sec School, Sirumugai road, Mettupalayam. No major issues were raised during the public hearing except the Panchayat president raised fund for their respective Panchayat. A budget of 5.0 lakhs has been allotted for Chikadasampalayam village.

15. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 160 Lakh (capital) and the Recurring cost (operation and maintenance) will be about ₹ 47 Lakh per annum, which includes Air pollution control systems [₹ 25.0 lakh (capital) and ₹ 5.0 lakh/annum(Recurring)], water pollution control system [₹ 95.0 lakh/annum (capital) and ₹ 30.0 lakh/annum(Recurring)], Environment monitoring [₹ 10.0 lakh (capital) and ₹ 7.0 lakh/annum (Recurring)], Greenbelt development, rainwater harvesting and others [₹ 3.0 lakh (capital) and ₹ 5.0 lakh/annum, EAPL proposes to take part in various CER activities like potable water facility for nearby school, infrastructure facility to government school and revamping of water pumps at Chikadasampalayam village. 2.5 % of the project cost will be allocated for CER activity, which is ₹ 20.0 lakhs and this will be completed within the period of 3 years from the date of commencing of expansion activity.

16. Industry has already developed greenbelt in an area of 25.1 % i.e., 0.950 ha (9500 m^2) out of total area of the project. Additional greenbelt of 0.40 ha will be developed in the proposed expansion which more than covers 33% (1.350 ha) of the total area.

17. The PP proposed to set up an Environment Management Cell (EMC) it has proposed to engage Environment Management Cell will be headed by a Board of Directors and will constitute General Manager, Assistant general manager for finance, accounts and Technical divisions, Environmental Engineer, safety officer, Chemists, Administrative staff and officer. for the functioning of EMC.

18. The PP reported that Emission generated during CDP 2021 disclosure is 1249.57 MT of CO_2e whereas emission generated during CDP 2022 disclosure is 1202.94 MT of CO_2e which results in 3% reduction of carbon emission when compared with previous year; Company is purchasing electricity from the TNEB (Tamilnadu Electricity Board) and also have our own 850 KW wind mill generator at Palladam which provides nearly 40% of total energy; > Scope-2: During CDP 2021 disclosure is 800.72 MT of CO_2e whereas emission during CDP 2022 disclosure is 888.81 MT of CO_2e which results in 11% increase in adjustment of total energy consumed when compared with previous year. At present as a part of carbon reduction initiative - installed 1 MW capacity solar power generation unit at Tuticorin on 30" March 2022 to cater the energy requirement.

19. The PP submitted the disaster and Onsite and Offsite Emergency Plan in the EIA report.

20. The PP submitted that '*M/s.Encee Aromatics (P) Limited, proposes an expansion of the Synthetic/Natural Organic Aromatic Plant at Chickadasampalayam Village, Mettupalayam Taluk, Coimbatore District, Tamil Nadu. We undertake that the*

information and the data provided in the EIA report and submitted to the ministry are factually correct and project proponent is fully accountable for the same'.

21. The consultant submitted that "I*, M. Janardhan, hereby, confirm that the above-mentioned experts prepared the Environmental Impact Assessment for the Proposed Expansion of Synthetic/ Natural Organic Aromatic Plant at Chikadasampalayam Village, Mettupalayam Taluka, Coimbatore District, Tamil Nadu I also confirm that the consultant organization shall be fully accountable for any misleading information mentioned in this statement".*

22. The capital cost of existing project is about ₹ 1.0 crores. The additional cost due to proposed project is about ₹ 8.0 crores. The total cost of the project including existing and proposed will be about ₹ 9.0 crores

23. The proposal was placed in 18th EAC Meeting held on October 5-6, 2021, wherein the proposal was returned in the present form for submission of the revised proposal incorporating the observations of the EAC. The reply of PP to the same and the observations of EAC on it are as follows:

S. No.	Query Raised by EAC	Reply by PP	Observation of EAC
1.	The Committee noted that the chemical manufacturing company was established in 1978 prior to the EIA Notification 1994 and earlier environmental clearance for expansion of the manufacturing unit was obtained vide letter No. J-11011/142/2008-IA.II(I) dated 16th September, 2009, for a production capacity 5.975 TPM. The committee further took note the baseline monitoring study has been carried out from 1st May, 2019 to 31st July, 2019, which is considered as monsoon season as per IMD data and hence the Committee desired that the baseline monitoring study for one more month (non-monsoon season) shall be carried out and submitted to this Ministry. Consultant accepted his mistake for wrong baseline data	Baseline monitoring studies have been carried out for one month during the period of 11th October, 2021 to 10th November, 2021. The meteorological parameters were recorded at site on hourly basis during the study period and consists of parameters like wind speed, wind direction and temperature.	The EAC found the reply submitted by the PP satisfactory.

	monitoring		
2.	The Committee took note that the project site is located at a distance of 2.1 km from the Nilgiri Biosphere and 3.5 km away from the elephant corridor (Kallar-Hulical Drug RF). The Committee was informed that the Wildlife Conservation Plan for Sch-I species is submitted to the Chief Wildlife Warden and under progress. The Committee took serious note that the project site remains same as that of the EC granted in 2009 and Wildlife Conservation Plan for Sch-I species was then not prepared in 2009 as informed by the Project Proponent and NBWL clearance was not obtained at that point in time. The Committee desired for justification from the project proponent in this regard.	The unit has been operating since 1978 and much before the declaration of Nilgiri Biosphere as Eco-Sensitive Zone in 1986. An application has been filed with NBWL vide proposal no. FP/TN/IND/5824/2021 dated 17/03/2021. The status of the application is under examination. Wildlife Conservation Plan have been prepared for Sch-I species and the same submitted to the Chief Wildlife Warden for authentication with a budget allocation of 14.5-15.5 lakhs.	The EAC found the reply submitted by the PP satisfactory.
3.	The Committed noted that the fresh water is being sourced from Bhavani river and the EIA/EMP report does not comprise of any mitigation plan for the same. The Committee also noted that there was non-compliance of the conditions stipulated in the EC granted in 2009. The Committee desired that the Project Proponent shall submit an action taken report on the non-compliances observed during meeting also submit an action plan for hazardous substance management and issues raised during the public consultation.	The fresh water for the plant process of 39.65 KLD will be sourced from the Bhavani river. The permission for the water withdrawal has been obtained from the Public Works Department vide letter no. DB/JDO.1/F.Encee Aromatics/210 M. The effective rainwater system will be implemented in the expansion phase of the project to reduce the water source from river. Rain harvested water will be used for the greenbelt development. The Rain water collected from roof top and storm water runoff would be stored up to 186.5 KLD in the proposed storage tanks. This would meet up the fresh water requirement of plant process for 8 days @ 25.44 KLD	The EAC found the reply submitted by the PP satisfactory.

		During the monsoon, the water requirement will be met from the harvested rain water (100 %) for plant activity and no fresh water will be consumed from the Bhavani river. Therefore, the reduction of fresh water usage is 100%; and Further, during the dry season the fresh water will be consumed from the Bhavani river in case of non-availability of rain water from the storage tanks.No wastewater will be discharged outside the plant premises. There will not be any impact on Bhavani river Drivers having sufficient knowledge about the chemical transported and they should have sufficient training on mitigation measures that need to be followed in case of any accident / incident involving spillage of hazardous waste • GPS devices shall be incorporated in the vehicles carrying hazardous waste to track the location. All statutory and regulatory compliance will be fulfilled for transportation. First aid box and portable extinguisher shall be available in the vehicle PPEs shall be provided to the workers during the loading and unloading operations Transportation route maps as well as emergency contact details of Police dept, Fire Dept and Ambulance details will be shared to the driver.The Do and Don'ts shall be placed in the vehicle. Industry has submitted an action plan on the issues raised during PH	
4.	The Committee took note that a solar evaporation pond was provided in the waste water treatment scheme which is not	Comparison Table of Existing and Proposed Sludge Drying System has been submitted	The EAC found the reply submitted by the PP satisfactory.

	permissible as per the extant norms and is existing as per 2009 clearance. Accordingly, the Committee desired that the waste water treatment scheme shall be revised and submitted to the EAC.		
5.	Details of Onsite emergency plan as per provisions of the MSIHC Rules needs to be submitted.	Proceedings of Industrial safety and health has been submitted .	The EAC found the reply submitted by the PP satisfactory.
6.	EAC also noted that water mass balance and chemical balance seems wrong. PP needs to revise the same.	Revised water balance has been submitted.	The EAC found the reply submitted by the PP satisfactory.
7.	The action plan along with budgetary provisions and timelines on the issues raised during PH needs to be submitted.	The action plan along with budgetary provisions and timelines on the issues raised during PH has been submitted.	The EAC found the reply submitted by the PP satisfactory.

24. **Deliberations by the EAC**:

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

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

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

The Committee deliberated on carbon emissions and CDP reporting for the financial year 2021-2022, and the score card PP submitted that Emission generated during CDP 2021 disclosure is 1249.57 MT of Co2e whereas emission generated during CDP 2022 disclosure is 1202.94 MT of Co2e which results in 3% reduction of carbon

emission when compared with previous year; Company is purchasing electricity from the TNEB (Tamilnadu Electricity Board) and also have our own 850 KW wind mill generator at Palladam which provides nearly 40% of total energy; > Scope-2: During CDP 2021 disclosure is 800.72 MT of Co2e whereas emission during CDP 2022 disclosure is 888.81 MT of Co2e which results in 11% increase in adjustment of total energy consumed when compared with previous year. At present as a part of carbon reduction initiative - installed 1 MW capacity solar power generation unit at Tuticorin on 30th March 2022 to cater the energy requirement. In addition to this PP submitted the Score card for the year 2022.

The EAC observed that the certified compliance report is well within the timeline as stipulated in the Ministry's O.M. No. IA3-22/10/2022-IA.III[E 177258] dated 8.6.2022.

The Committee deliberated the Onsite and Offsite Emergency plan and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. In addition to this the Committee also suggested for Public Liability Insurance for workers, appointment of Environment Health and safety officer according to qualification before the construction activities. PP committed for the same and submit an undertaking regarding the appointment of Environment health and safety officer according to the qualification given in Factories Act 1948 within a month.

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 Committee 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.

26. 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) **This Environmental Clearance is subject to the NBWL clearance as Nilgiri Biosphere Reserve is at a distance of 2.1 km and elephant corridor (Kallar-Hulical Drug RF) is 3.5 km from the project site**

(ii) The PP shall develop Greenbelt over an area at least 1.350 Ha by planting trees within a year of grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. The budget earmarked for the plantation shall be ₹ 3.0 Lakh and shall be kept in separate account and should be audited annually. PP

should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iii) 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. As committed, PP shall engage at least Environment Management Cell will be headed by a Board of Directors and will constitute General Manager, Assistant general manager for finance, accounts and Technical divisions, Environmental Engineer, safety officer, Chemists, Administrative staff and 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.

(iv) 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 ₹160 lakh (Capital cost) and ₹ 45 lakh (Recurring cost) shall be kept in separate account and should be audited annually. The PP should submit the annual audited statement along with proof of implementation of activities proposed under EMP duly supported by photographs (before & after with geo-location date & time) and other document as applicable to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(v) The total water requirement (including the existing) will be 48.0 KLD (Fresh –35.44 KLD) which will be met from the Bhavani River. The permission for the water withdrawal has been obtained from the Public Works Department vide letter no DB/JDO 1 F Encee Aromatics/ 210 M.

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

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

(viii) The 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.

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

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

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

(xii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured and the Total effluent generation from the plant will be about 19.31 KLD (Industrial +Domestic). The effluent generated from the process of natural aroma product (concretes, absolutes and essential oils) will be treated in the proposed SBT-Bioreactor where the concentrated water is treated through patented media and collected at the bottom of the bioreactor which will be used for plant activity.The effluent from the rest of the process (Synthetic) will be send to the Multiple Effect Evaporator for effluent evaporation and the treated water will be reused in cooling tower and water ejector makeup process. The condensate water from the boiler of quantity 8.18 KLD will be used for green belt development (1.35 ha). The concentrated effluent from MEE of 6.26 KLD will be sent to the Hybrid Solar Drying System for further treatment process. The domestic wastewater of 4.80 KLD will be treated in the existing Septic tank and dispersion trench.

(xiii) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

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

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

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

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

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

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

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

(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. 33.9

Proposed Pesticide Manufacturing Project of production capacity 250 MT/month located at C - 367, Saykha GIDC Industrial Estate, Saykha, Taluka- Vagra, District- Bharuch, Gujarat by MGA Crop Care CO. - Consideration 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 MT/month 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/IND3/201085/2021dated 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 is now placed in 33rd EAC Meeting held on 20-22 June, 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 any 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: PM_{10} (71.58 – 76.73 µg/m^3), $PM_{2.5}$ (42.21 – 45.69 µg/m^3), SO_2 (9.13 – 14.21 µg/m^3) and NO_2 (10.25 – 15.68 µg/m^3respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.02 µg/m^3, 0.05 µg/m^3 and 0.01 µg/$m^3$with respect to PM_{10}, 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 have1 No. of Boiler (Capacity: 1 TPH). Cyclone Separator with a stack of height of30 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 SO2 < 100 ppm NOx < 50 ppm	Cyclone Separator
2.	D G Set (Stand by) (25 kVA)	11	HSD	10 Lit/Hr		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_2O_5	Two stage Water Scrubber	10 mg/Nm^3
2	Reaction Vessel (Zinc Phosphide)	Height-11 Meters	P_2O_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_3PO_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 estimated project cost is ₹ 1.78 Crore. Total Employment will be 25 persons as direct.

14. **Deliberations by the EAC**:

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

The EAC noted several deficiencies in the proposal (viz. Greenbelt budget and plantation schedule, carbon footprint, life cycle assessment, microbial diversity of flora and fauna, water and energy conservation measures proposed in the unit). The plantation plan was not as per the standard requirement. The consultant should have considered spacing of 2m x 2m and number of trees has to be increased.

The Committee noted that PP had not adequately prepared onsite/offsite emergency plan and mitigation measures to be adopted during implementation of the project.

The Committee deliberated the issues related to pollution and conservation of environment. The Committee, after detailed deliberations, **deferred** the proposal and desired for requisite information/inputs in respect of the following:

(i) 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.
(ii) 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.

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

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

(v) The PP needs to submit the impact of the court case on the project and clarification regarding the direction issued by the GPCB.

(vi) 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.

Agenda No. 33.10

Proposed Manufacturing of Caustic Soda (1310 KTPA) and Acetylene (860 KTPA) (as a part of Proposed Coal to Poly-Vinyl Chloride(PVC) Project) located at industrial area of APSEZ, Taluka- Mundra, District-Kutch, Gujarat by Adani Enterprises Ltd. - Consideration of Environmental Clearance
[Proposal No. IA/GJ/IND3/239895/2021; File No. IA-IA-J-11011/149/2021-IA-II(I)]

1. The proposal is for environmental clearance to the Proposed Manufacturing of Caustic Soda (1310 KTPA) and Acetylene (860 KTPA) (as a part of Proposed Coal to Poly-Vinyl Chloride(PVC) Project) located at industrial area of APSEZ, Taluka-Mundra, District-Kutch, Gujarat by Adani Enterprises Ltd.

2. The project/activity is covered under Category 'A' of item 4(d) Chlor-alkali industry & 5(f) Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended) and requires appraisal at Central Level by Expert Appraisal Committee (EAC) as the proposed unit is located outside the notified industrial area.

3. The PP applied for ToR vide proposal number IA/GJ/IND3/239895/2021 dated 3.12.2021 and the Standard ToR has been issued by the Ministry, vide letter No. IA-J-11011/149/2021-IA-II(I) dated 10.12.2021. Public Hearing was conducted by Gujarat Pollution Control Board on 30.4.2022. The PP applied for Environment Clearance on 7.6.2022 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 and reply to the same was submitted on 8.6.2022. The proposal is now placed in 33rd EAC Meeting held on 20-22 June, 2022, wherein the Project Proponent and an accredited Consultant, Kadam Environmental Consultants [Accreditation number NABET/EIA/2023/SA0164 Valid up to March, 19, 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 323.69 Ha and no R&R is involved in the Project. The proposed products and their production capacity are as follows:

Sr. No.	Product Name	CAS No.	Capacity	Uses

Caustic Soda Plant (Chlor-Alkali Process)				
1	Caustic Soda	1310-73-2	1310 KTPA	Textile industries, paper industries, Aluminum industry
2	Caustic Soda (50% wt)	1310-73-2	810 KTPA	
3	Hydrochloric Acid	7647-01-0	1232 KTPA	In-house uses for VCM production
4	Sodium Hypochlorite	7681-52-9	16 KTPA	Use for water treatment for bleaching agent in Textile industries, for household products.
5	Caustic Potash	1310-58-3	130 KTPA	In-house uses, liquid fertilizers, soap and detergents
6	Potassium Carbonate	584-08-7	33 KTPA	Uses in agricultural as fertilizers, in agrochemical industries
7	Sodium bi-carbonate	144-55-8	66 KTPA	In-house use for brine purification
8	Caustic Soda flakes	1310-73-2	600 KTPA	Textiles, Paper industries, Aluminum industry
9	Liquid Chlorine	7782-50-5	60 KTPA	Use in value added products like chloromethane, chlorinated Paraffin wax
10	Sodium Sulphate	7757-82-6	75 KTPA	Use as filler in detergents, textile industries
Acetylene Plant				
1	Acetylene	74-86-2	860 KTPA	In-house uses for VCM production
2	Carbide Lime Sludge	1305-62-0	5700 KTPA	In-house uses for Cement plant

5. The PP reported that there is no violation case as per the Notification No. S.O.804(E) dated 14.03.2017 and no Direction issued under E(P) Act/Air Act/Water Act. One Court Case is pending against the project and/or land in which the project is proposed to be set up.

6. 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. Dhanesri River flows at a distance of 1.71 km in NE direction. Forest clearance is not required for the project as the land is already a notified industrial area. Total 7 species of fauna, i.e. Gazella Bennettii, Varanus bengalensis, Lissemus punctatea, Pavo cristatus, Acipiter Badius, Circus aeruginosus and Platalealeucordia of Schedule-I species exist within 10 km study area of the project. The Chief Wildlife Warden, Gandhinagar vide letter no. WLP/32/C/297- 298/2022-2023 dated 18/06/2022 has approved the Wildlife Conservation plan for the proposed project with budgetary provision of ₹ 24,50,000. The PP committed to implement the plan in five years.

7. The PP reported that Ambient Air Quality monitoring was carried out at 12 Locations during 22nd March, 2021 to 22nd June, 2021 and base line data indicates the ranges of

average concentrations as: PM_{10} (63-81µg/m^3), $PM_{2.5}$ (17-40 µg/m^3), SO_2 (6.5 – 11.4 µg/m^3) and NO_2 (12.1-19.1 µg/m^3). AAQ modelling study for point source emissions indicates that maximum incremental GLCs after the proposed project would be 8.8 µg/m^3, 6.2 µg/m^3, 5.8 µg/m^3 and 11.7 µg/m^3 for PM_{10}, $PM_{2.5,}$ SO_x and NOx respectively. The resultant GLCs are within the National Ambient Air Quality Standards (NAAQS). Noise level during daytime & night time, in Industrial area & Residential area was observed within CPCB standards i.e. Industrial area (75 dBA (d) & 70 dBA (n)), Residential area (55 dBA (d) & 45 dBA (n)) and Silence area (50 dBA (d) & 40 dBA (n) The surface water TDS in pond and river waters (SW- 4 (Nagvanti Nadi), 5 (Zarpara village Pond), 6 (Navinal village Pond) and 7 (Siracha village Pond)) are between 720 mg/l to 1840 mg/l. Value of BOD in the surface water (SW4 and SW6) is found high since the pond and rivers are expected to be contaminated due to washing of clothes and also agricultural discharges. Quality of SW 4 can be considered in Class E and SW 5 can be considered in Class C as per classification of inland surface water standards and can be used in Propagation of wild life, fisheries and Drinking water source with conventional treatment followed by disinfection. The Quality of SW 6 and SW 7 can be considered in Class E and D as per inland surface water classification and can be used for Irrigation/Industrial Cooling and Propagation of wild life, fisheries. The Quality of creek/sea water (SW 1 (Intake Channel of APL), 2 (Kotadi Creek) and 3 (Baradi Mata Creek)) can be considered in class SW-I or V as per water marine standards and can be used for navigation and controlled waste disposal purposes. The study area is in vicinity of sea, relatively groundwater is of good quality. The TDS ranges from 412 (Nana Bhadiya) – 3968 (Siracha). The reason for this could be the location of observation well near the Stream and the season of water sample collection. TDS found in samples GW 04 (Siracha) & GW 08 (Desalpur) is above their permissible limit & higher as compared to the contain of TDS in other samples found. Only sample found at GW 07 (Nana Bhadiya) is within the desirable limit. Total Hardness found in almost all samples are within their permissible limit and this variation in total hardness could be due to varying proportion of TDS in water samples. The presence of Nitrate found in ground water sample could be due to by-product of organic compounds, septic system and animal manure, agriculture waste. The presence of higher variation in contains of Nitrate at Moti Khakhar (2.37 mg/lit) and Deshalpar (32.83 mg/lit) could be due to the probability of leakage from upper aquifer into lower aquifer. Soil samples were taken from 8 locations namely Project Site (ST1), Vandh (ST2), Tragadi (ST3), Motakandagra (ST4), Moti Khakhar (ST5), Nani Bhujpur (ST6), Jarpara (ST7) & Navinal (ST8). Porosity ranged from 37 – 54% and Water Holding Capacity varied from 31.07 – 37.87%, while permeability ranged from 16.02 – 41.40 mm/hr. The moderate porosity and Water Holding Capacity as well as good permeability due to loamy sand to sandy loam texture of soils. The Electrical Conductivity ranged from 102-9310 µmho/cm. pH of the soils is normal (pH 7.34 to 9.23) to alkaline (pH>8.5).

8. The PP reported that there will be no groundwater extraction for this project. The total water requirement is 2,22,875 KLD including 1,60,053 KLD of continuous make-up water, which will be met from APSEZL Seawater Desalination plant and rest will be met from internal recycling of water. The PP reported that the total water requirement is 2,22,875 KLD of which fresh water requirement of 1,60,053 KLD, will be met from APSEZL Desalination plant. This make-up water consumption quantity is arrived after recycling of water Quantity 62,822 KLD (Boiler: 7860 KLD, Cooling tower: 48,636 KLD, MEE Condensate: 5109 KLD, Treated sewage: 1217 KLD). Effluent of 54,254 KLD will

be treated through Effluent Treatment Plants. The plant will be based on Zero Liquid Discharge system

9. The PP reported that during the construction phase, the power requirement of 30 MW will be provided by DISCOM within APSEZL. During operation phase, the power requirement of 2000 MW will be provided by DISCOM within APSEZL. DG sets of 20,000 KVA total capacity (1250 KVA – 10 Units and 750 KVA – 10 units) are being proposed for the Proposed Project in case of emergency/power failure.

10. Details of Process Emissions Generation and their Management:

Name of the plant	Vent attached to	No. of vents	Vent height	Emission	Pollutants emitted	Air Pollution Control Measures Attached
Caustic Soda Plant	Hydrochloric Acid Section exhaust vent (Units - 1, 2, 3, 4) - 8 vents for each unit	32	50	Continuous	HCl	Caustic Scrubber
	H2 vent (1 common vent for each Phase) - 2 vents	2	50	Intermittent	H_2	NA
	chlorine gas treatment section exhaust vents (Units - 1, 2, 3, 4) - 4 vents - one for each unit	4	50	Intermittent	CL_2	Caustic Scrubber
Acetylene plant	Unit 1&2 - Calcium Carbide dust collector	1	50	Intermittent	Particulate Matters	Bag Filter
	Unit 3 & 4 - Calcium Carbide dust collector	1	50	Intermittent	Particulate Matters	Bag Filter

11. Details of Solid Waste Generation and its Management:

S. No	Plant/ Unit	Waste Description	Quantity in (	Category as per Hazardo	Collection Method	Mode of Trans	Distance from	Treatment / Dispos

			TPA)	us waste management rule 2016		port	site (km)	al Mode
1.	Handling of hazardous chemicals and waste	Empty barrels, containers, liners contaminated with hazardous chemicals Empty	4000	33.1	Drums/containers/ bags	By road	70	Disposed to authorized TSDF facility
2.	MEE Area	MEE Salt	4801	35.3	Bags	By road	70	Disposed to authorized TSDF facility
3.	ETP Area	Chemical Sludge	2254	35.3	Bags	By road	70	Disposed to authorized TSDF facility
4.	DM plant	Ionic Membranes /Resins	8	35.2	Barrels/ Drums/ Bags	By road	70	Disposed to authorized TSDF facility
5.	Industrial Operation using mineral orSynthetic Oil aslubricant in hydraulic system or other applications, e.g. workshop / Heavy m/c	Used Oil / Spent Oi	75	5.1	Barrels/ Drums/	By road	60	Sent to registered oil reprocessor

	Caustic Soda and Cl2 Manufacturing plant	Spent ion exchange resin containing toxic metal	25 m3/year	35.2	Barrels/ Drums/	By road	70	Disposed to authorized TSDF facility

Details of Non-Hazardous (Solid) Waste Generation and its Management:

S. No.	Plant/Unit	Type of Waste	Composition of Waste	Generation Frequency	Quantity per Year (Tons)	Mode of Transportation	Mode of Treatment/ Disposal
1.	Production of Caustic Soda and Cl_2 Manufacturing plant	Brine sludge	Brine sludge	Continuous	17030	Truck	Disposal to authorised TSDF / Sanitary Landfill site / sale to authorised brick manufacturers
2	STP Area	Biological Sludges	Biological Sludges	Solid	110	Bags	Used as Manure for Greenbelt within site premises
3	Boiler Plant (Pocket-1)	Boiler Ash	Ash	Solid	28800	Fly Ash bulk trailers	Use in house in Cement Plant
		Bottom Ash	Ash	Solid	14400	Fly Ash bulk trailers	Use in house in Cement Plant
4	Boiler Plant (Pocket-3)	Boiler Ash	Ash	Solid	14400	Fly Ash bulk trailers	Use in house in Cement Plant
		Bottom Ash	Ash	Solid	7200	Fly Ash bulk trailers	Use in house in Cement Plant

12. The PP submitted that advertisement for Public Hearing was published in newspaper viz *"' **Gujarat Samachar & Kutch Mitra** dated 28.3.2022 and in English newspaper **''Times of India'' dated 28.3.2022*** and the Public Hearing has been conducted by Gujarat Pollution Control Board on 30.4.2022, which was presided by Additional Collector and Additional District Magistrate, Bhuj-Kutch. Employment, CSR, cumulative impact and land related issues were raised during the Public Hearing.

13. The Budget earmarked towards Environmental Management Plan (EMP) is ₹ 2874.59 Crore (capital) and ₹ 1494.55 Crore (recurring) which includes Air pollution control systems [₹ 1650 crore (capital) and ₹ 450 crore (Recurring) and ₹ 3.5 crore (Recurring for third party ambient air monitoring)], Material consumption of air pollution control [₹ 175 Crore (Recurring)], online continuous emissions monitoring system for APCM [₹ 390 Crore (capital) and ₹ 39 crore (Recurring)], water pollution control system [₹ 553.21 Crore (capital cost for ETP and STP) and ₹ 451.5 Crore (Recurring cost for ETP and STP) ₹ 1.97 (capital cost for Monitoring systems) ₹ 2.95 Crore (Recurring cost for Monitoring), [material consumption of water pollution control ₹ 124.5crore(Recurring)], Online continuous Emission monitoring system for effluent [₹ 98.3Crore (capital) and ₹ 9.8 Crore (Recurring)] and solid hazardous waste handling and management site [₹ 36.11 crore (capital) and ₹ 156.8 crore (Recurring)], solid hazardous waste handling and management site [₹ 36.11 crore (capital) and ₹ 156.8 crore (Recurring)] hazardous waste disposal [₹40 crore (Recurring)]Environment management system [₹ 25 crore (capital) and ₹ 3.5 crore(Recurring)] Laboratory [₹ 45 crore (capital) and ₹ 8 crore (Recurring)] Greenbelt within the project area and eco-development drive in study area [₹ 75 crore (capital) and ₹ 30 crore (Recurring)]. Industry proposes to allocate ₹ 75 crore towards CSR to focus on education development, community health, sustainable livelihood and community rural infrastructure development like providing facility for potable drinking water by providing RO Plants, drinking water supply system, overhead tank and underground pump in villages, Creation of clean and hygienic environment by proper drainage systems, sewage treatment plants, community led sanitation campaign etc., Construction of various community centres to facilitate social activities, upgradation of facility at crematoriums, Gaushala, and creation of bus stands etc. Conservation of water by construction of check dams and pond, Upgradation of primary health centres, renovation of roads and expansion of roads, construction of toilet facilities etc. Provision of solar street lighting, green nurturing programs, implementation of Swachchh Bharat initiatives, Contingency and monitoring.

14. The Budget earmarked towards occupational health and safety is ₹ 6 crore for construction phase workers. The PP reported that once project is commenced, pre-medical check-up report and periodic medical check-up report will be maintained.

15. The industry will develop greenbelt in an area of 33 % i.e., 107.14 ha out of total area of the project. Industry will plant 2,67,600 numbers of trees in 5 years.

16. The PP proposed to set up an Environment Management Cell (EMC), it is proposed to engage Chief Sustainability Officer (CSO), Head Environment, lead Environment at corporate level, EC/CTO wise site environment engineer and Laboratory analytical staff for the functioning of EMC.

17. The PP submitted that Coal to PVC project will support reduction in CO_2 emission at country level on the basis of end use of PVC in comparison to Steel. Example production of schedule -40 PVC pipe for water delivery per km will emit 70% less CO_2 in comparison to Schedule-40 Steel pipe. Coal to PVC project will be Net Carbon Positive as a standalone PVC project but 70% neutral when compared with MS steel manufacturing for on product basis as example given above. Efforts will be made to optimise the carbon emission from respective processes in detailed engineering and operational stage and renewable consumption.

18. The PP submitted the disaster and Onsite and Offsite Emergency Plan in the EIA report. The PP also informed that District administration will be informed by them about the hazards involved in the project for needful preparedness for administration point of view also, after the grant of EC and copy of EC shall also be submitted to district administration.

19. The PP submitted an undertaking with reference to O.M. No. J-11013/41/2006-IA. II (I) dated 5.10.*2011* "We *hereby given an undertaking that the data and the information given in the EIA Report and its relevant enclosures, prepared by Kadam Environmental Consultants, are factually correct to the best of our knowledge and belief"*

20. The consultant submitted an undertaking that with reference to O.M. No. J-11013/41/2006-IA.II(I)dated 4.8.2009 that "*We, Kadam Environmental Consultant, have been engaged by M/s. Adani Enterprises Limited located at near village vandh & Tunda, Tuluka Mundra, District Kachchh, Gujarat for conducting and EIA study in compliance with the EIA notification dated September 14,2006 as amended till date and the prescribed ToRs issued by Ministry of Environment, Forests and Climate Change (MoEF&CC), New Delhi. We hereby given an undertaking that the data and the information given in the EIA Report and its relevant enclosures, are factually correct to the best of our knowledge and belief and that the prescribed ToRs issued by MoEF&CC have been complied with".*

21. The estimated project cost is ₹ 6000 Crore for the proposed plant within domain of Industry-3 sector and total cost of coal to PVC project is ₹ 34,900 Crore. Total employment will be ~12000 numbers during construction phase (i.e. ~5000 direct and ~7000 indirect) and ~11,600 numbers during operation phase (i.e. ~3600 on direct and ~8000 indirect).

22. <u>Deliberations by the EAC</u>:

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

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

project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

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

The Committee deliberated on the wildlife conservation plan for Schedule-I species, which was also approved the Wildlife Conservation plan for the proposed project. The EAC also deliberated on the Carbon footprint of project with details of sources causing carbon emissions. PP submitted the carbon footprint of projects with details of sources causing carbon emissions. The EAC noted the STP tertiary level treatment in light of the fact that treated STP water is to be used for gardening only. PP committed that AEL has proposed to provide STPs with primary, biological and tertiary chlorination, pressure sand filtration and carbon adsorption treatment. The reason for doing so is the possibility of using this treated water in the future for other uses such as toilet flushing. Since this would require a higher level of treatment, tertiary treatment including PSF and ACF have been provided. This tertiary treatment will only be operated whenever end use of this treated water is required to make-up the water system for toilet flushing and sanitation in the plant.

The EAC also deliberated on the Greenbelt/Plantation and suggested that rather to deploy uniform greenbelt of equal width all-round the plant boundary, it may reduce the width of the green belt by 15 to 25 meters on seaward side of the project and increase the width of the greenbelt on landward side of the project maintaining the total 33% of the greenbelt. This will result in more width attenuation of the noise going towards residential area on west and landward side. PP committed for increasing the width of green belt towards noise and air emissions impact point of view.

The EAC noted that the project boundary was superimposed on the CZMP map by NCSCM, Chennai. PP submitted that the Proposed Project Boundary of all 3 pockets of the land falls outside the CRZ area. PP has submitted the CRZ maps superimposed with project boundary and report received from NCSCM which concludes that, Pocket Ill falls outside the CRZ Categories such as CRZ IA, (Mangroves, 50m Mangrove Buffer Zone, Mudflat and Reserved Forest), CRZ /8, CRZ II, CRZ Ill and CRZ IV area. The minimum distance between the Proposed Project Boundary to CRZ-1// (No Development Zone) is about 5 m to 6m which runs parallel to the south side of Pocket -Ill} falls in Reserved Forest (as given in Land use Map of 2017} and the same area has been shown as Diversion of Reserved Forest area in the approved CZMP as per the proposed Project Boundary. The Proposed Project Boundary (CRZ Notification, 2017. The CRZ map (1:4000 scale) has been prepared in accordance with the CRZ Notification 2011 and approved CZMP maps of Gujarat State. The Proposed Project Boundary - Pocket Ill falls within the Sheet Number F 42 J 9/SW and Map Number GJ 179 of approved CZMP of Gujarat State prepared as per CRZ Notification 2011. The proposed layout plan of the proposed project activities is not superimposed into the CRZ map. A CRZ map covering about 7 km radius of the proposed project boundaries of Pocket-I, Pocket-JI and Pocket-JI/ representing CRZ categories based on approved CZMP.

The Committee deliberated on 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. In addition to this the Committee also suggested for Public Liability Insurance for workers, appointment of Environment Health and safety officer according to qualification before the construction activities.

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 Committee 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.

27. 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 Environmental Clearance (EC) is subject to the outcome of the PIL No. 36 of 2022 pending before the Hon'ble High Court of Gujarat.

(ii) The PP shall develop Greenbelt over an area at least 107.14 ha by planting 2,67,600 number of trees in 5 years from the grant of EC. The saplings selected for the plantation should be of sufficient height, preferably 6-ft. In addition to this as committed by the PP, Industry shall deploy a uniform greenbelt of equal width all-round the plant boundary, it will reduce the width of the green belt by 15 to 25 meters on seaward side of the project and will increase the width of the greenbelt on landward side of the project maintaining the total 33% of the greenbelt. The budget earmarked for the plantation shall be ₹ 75 crore and shall be kept in separate account and should be audited annually. The PP should annually submit the audited statement along with proof of activities viz. photographs (before & after with geo-location date & time), details of expert agency engaged, details of species planted, number of species planted, survival rate, density of plantation etc. to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year.

(iii) 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. As committed PP shall engage CSO, Head Environment, lead Environment at corporate level, EC/CTO wise site environment engineer and Laboratory analytical staff 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.

(iv) 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 ₹ 2874.59 Crore (Capital cost) and ₹ 1494.55 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 previous year.

(v) The total water requirement (including the existing) will be 2,22,875 KLD that includes desalinated sea water 1,60,053 KLD which will be met from APSEZL Desalination plant and rest will be met form the internal recycling of the water. Project has obtained willingness letter for 220 MLD water supply from APSEZL. The PP should ensure that water utilization should not be above the permissible limit and only after obtaining valid agreement from the Concerned Authority. The PP should submit the details of water abstraction and utilization to the Regional Office of MoEF&CC before 1st July of every year for the activities carried out during previous year. In addition to this the PP shall submit the target for reduction of GW utilization to Regional Office of MoEF&CC within a period of one year.

(vi) As committed by PP, the tertiary treatment for STP will be operated only when end use of the treated water is required to make-up the water system for toilet flushing and sanitation in the plant.

(vii) 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.

(viii) 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.

(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 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.

(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.

(xii) 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.
(xiii) As already committed by the project proponent, the Effluent (54,254 KLD) will be treated through ETPs and Zero Liquid Discharge (ZLD) shall be ensured.
(xiv) Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB servers. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
(xv) The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
(xvi) The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
(xvii) Training shall be imparted to all employees on safety and health aspects for handling chemicals. Safety and visual reality training shall be provided to employees. Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.
(xviii) The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
(xix) The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
(xx) The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
(xxi) The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapor recovery system. (f) Use of high pressure-hoses for equipment cleaning to reduce wastewater generation.
(xxii) The activities and the action plan proposed by the project proponent to address the issues raised during the public hearing as well as the related socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EIA report in letter and spirit.

Agenda No. 33.11

Manufacturing of Specialty Chemicals and Agro-Chemicals located at Plot No. C-9, C-10 & C-11, SIPCOT Industrial Complex, Village Kudikkadu, District Cuddalore, Tamil

Nadu by M/s Crimsun Organics Private Limited - Consideration of Amendment in Environmental Clearance
[Proposal No. IA/TN/IND3/272258/2022; File No. IA-J-11011/207/2018-IA-II(I)]

The PP vide letter dated 13.6.2022 informed that they wish to withdraw the above proposal due to change in internal planning and requested for withdrawal.

The EAC has accepted the request of PP and recommended to **return the proposal in its present form.**

Agenda No. 33.12

Setting up of Pesticides Technical and Pesticides Intermediates Manufacturing of capacity 32100 TPM at Plot No. DP -154, GIDC Chemical Zone, Saykha-II, Taluka Vagra, District Bharuch, Gujarat by M/s Dharmaj Crop Guard Limited (Unit-II) - Consideration of Amendment in Environmental Clearance
[Proposal No. IA/GJ/IND3/275379/2022; File No. IA-J-11011/419/2019-IA-II(I)]

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

2. M/s. Dharmaj Crop Guard Ltd. (Unit-II) vide proposal No. **IA/GJ/IND3/275379/2022** applied for amendment in EC on 28.5.2022. The proposal is now placed in 33rd EAC meeting held on June, 20-22, 2022, wherein the project proponent and the accredited Consultant, M/s San Envirotech Pvt. Ltd. having accreditation number NABET/EIA/2023/RA0216 valid till 23.12.2023] made a detailed presentation and requested for following amendment in previously granted EC. The details are as under:

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

		Treatment of ETP. Treated water of 375 cum/day shall be sent to CETP Saykha for final treatment & disposal. Domestic wastewater of 10 KLD will be disposed through Septic Tank/ Soak Pit.	Treatment of ETP. Treated water of 375 cum/day shall be sent to CETP Saykha for final treatment & disposal. Domestic wastewater of 8 KLD will be treated in STP and treated water will be reused for greenbelt development.	
2.	Page no-6 of 11, para-3	Unit shall install one **Natural Gas** fired Steam Boiler (8 TPH), one **Natural Gas based**Thermopack (2 x 1000 U) and 2 D. G. Sets (Diesel-200 Liter/Day). Stack of height of 11 m will be installed for controlling the particulate emissions within statutory limit of 150 mg/Nm^3	Unit shall install one **Agro Briquettes (88 TPD)/Coal(78 TPD)** fired Steam Boiler (20 TPH), one **Agro Briquettes (20 TPD)/ Coal (17.5 TPD)** based Thermopack (2 x 1000 U) and 2 D. G. Sets (Diesel-200 Liter/Day). Stack of height of 40 m (For boiler), 21 m (for Thermopack and 11 m (for D G Set) will be installed for controlling the particulate emissions within statutory limit of 150 mg/Nm^3	Our proposed project needs continuous and uninterrupted steam requirement in process to maintain reaction parameters. At the time of application of EC, we assumed that we will obtain un-interrupts Natural Gas supply. Now, supply of Gas is also irregular and gas price is also too high and we are unable to get viability of project. Viability chart of **Agro Briquettes/Coal is given in the covering letter as well as in Additional file.** In such situation, our humble request to give the amendment for change in fuel from Natural Gas to **Agro Briquettes/Coal.** We commit to give firstpriority to use **Agro Briquettes** as fuel and consume coal only during unavailability of briquette as fuel. We will install ESP as air pollution control

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

3. **Deliberations by the EAC:**

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

The EAC noted that, the PP requested to amend the Environmental Clearance w.r.t total and fresh water requirement, and fuel requirement for Boiler. i.e. Agro Briquettes/Coal shall be used in place of Natural Gas. The Committee is of the view that previous EC was granted considering the fuel as natural gas and this modification in fuel type require modification in the layout of the plant, pollution equipment, Environmental Management Plan etc. Further, the Committee observed that no serious efforts were made by the PP to escalate the matter to higher authorities in the Gujarat Gas Limited to obtain the gas connection. The Committee is also of the view that such type of proposal for fuel change needs to be supported by detailed scientific study.

Based on the discussion held and documents submitted, the EAC **deferred** the proposal and is of the view that the PP should first make serious efforts for obtaining the natural gas connection by escalating the matter to higher authorities in the Gujarat Gas Limited. In case, the Gujarat Gas Limited in writing commit that they are not able to provide gas connection at all or for a specific period of time, only in such case, the PP may approach this Committee with above documents.

Agenda No. 33.13

Proposed expansion of Synthetic Organic Chemical Manufacturing Unit from 3000 TPA to 13266 TPA along with R&D facility, located at Plot No. N-14/2, MIDC Tarapur, Taluka & District Palghar, Maharashtra by M/s VE CAPS LLP - Consideration of ToR

[Proposal No. IA/MH/IND3/268643/2022; File No. IA-J-11011/145/2022-IA-II(I)]

1. The proposal is for expansion of production capacity of Synthetic Organic Chemical Manufacturing Unit along with R&D facility in an area of 3467.50 m^2, from 3000 TPA to 13266 TPA, located Plot No. N-14/2, MIDC Tarapur, Taluka & District Palghar, Maharashtra by M/s VE CAPS LLP.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) of Schedule of Environment Impact Assessment (EIA) Notification 2006 (as amended) and requires appraisal at Central Level by Expert Appraisal Committee (EAC) as the General Condition is applicable as the project is located in Tarapur i.e., a Critically Polluted Area (CPA) as identified by CPCB.

3. The PP applied for ToR vide proposal number IA/MH/IND3/268643/2022 dated 25.04.2022. The proposal was referred back to PP on 13.05.2022 & 20.05.2022 as there were some shortcomings in the proposal. The PP provided its reply on 14.05.2022 and 23.05.2022 respectively. The proposal is now placed in 33rd EAC Meeting held on 20th - 22nd June, 2022 wherein the Project Proponent and an accredited Consultant, M/s. Eco Green Enviro Services, Surat [Accreditation number NABET/EIA/2023/IA0070 Valid up to 12th December, 2023] made a detailed presentation on the salient features of the project and submitted the following:

4. The PP also informed that the Unit started operation from 21.11.1989 with the name of M/s. Century Alloy Steels Private Limited with valid consent obtained from MPCB vide letter no. Consent No. AP/BMR/L/TR27/1512-R/AC-3985 dated 21.11.1989. The Unit changed product from "Alloy Steel Steels" to "Formulation of Polyol and Glycol Solution" and obtained Consent to Operate on 22.05.2015 under orange category. Thereafter, M/s. Century Alloy Steels Private Limited has changed constitution and Name of Company from M/s. Century Alloy Steels Private Limited to M/s. Century Alloy Steels LLP. In this connection, Corporation convert from M/s. Alloy Steel Steels Private Limited to M/s. Alloy Steel Steels LLP, subsequently the name of M/s. Alloy Steel Steels LLP was changed as M/s. VE CAPS LLP on 10.03.2016. The PP reported that existing unit do not require EC and was operating based on CTO issued by SPCB. The CTO was obtained from MSPCB vide Consent No. MPCB/16/08300/RO/TR-I/1919/41 dated 23.06.2016 valid till 31.05.2021 for manufacturing of Polyol and Glycol Solution. The same consent was renewed vide Consent No. RO-Thane/Consent/TRI/2106000608 dated 14.06.2021 and valid till 31.05.2031 for manufacturing of Polyol and Glycol Solution (Only Mixing, Blending activities under Orange Category). PP reported that there is no violation of The EIA Notification, 2006 due to expansion and modification with the addition of the new Synthetic Organic Chemicals.

5. The PP reported that it is proposed to increase the production capacity from 3000 TPA to 13266 TPA. The details of products with capacity are as follows:

S. No.	Category of product	Existing/Proposed	Quantity-TPA
1	Vesol - EG (Polyol)	Existing	2520
2	Glycol Solutions		480
Total -1			**3000**
3	Phenolic Resin, Antioxidant, Antioxidant Formulations		8004
4	Perfumery Aromatic Aldehydes And Ketone Such As Benzaldehyde, Acetophenone etc.		600
5	Perfumery Esters Such As Aldehyde C16 Melonal etc.		360
6	Perfumery Aliphatic Aldehdyes Such As Aldehyde C8, C10, C12 ETC.		640
7	Tops and High boilers (By-Product) Tops and higher Boiling fractions of the Job Work, R&D Chemicals and other Speciality Chemicals which can be used in low cost applications, as solvents or as fuel		240
8	Ammonium Salts		120
9	Aqueous Blend Of Ethoxylat Product		152
10	Job works		100
11	R & D products		50
		Total-2	**10266**
		Total (1+2)	**13266**

6. The PP reported that the proposed land area is 3467.50 sq. m. The land for the proposed project has been acquired from the MIDC Tarapur Industrial area, which is a notified Industrial area by Maharashtra Government. PP reported that Rehabilitation and Resettlement (R & R) Plan is not applicable as the project is within the notified and allotted industrial area.

7. The PP reported that proposal does not involves Approval/ Clearance under Forest (Conservation) Act,1980, Wildlife (Protection) Act,1972 and C.R.Z notification, 2011 as amended. PP reported that the proposed project site is within notified industrial area, allotted by Govt. of Maharashtra. Hence, there are no protected areas under international conventions, national or local legislation for their ecological, landscape, cultural or other related values within 10 km from the project site and no Eco sensitive area notified under Section 3 of the Environment (Protection) Act 1986 within 10 km radius areas from the Plant Site. Bangana River flows at a distance of 2.0 km in the West direction.

8. The PP reported that total water requirement is 20.87 KLD of which will be source from the MIDC water supply The total water requirement of the project for domestic and industrial activity during the operation phase will be 4.0 KLD. The water requirement will be met through Tarapur MIDC supply.

9. The PP reported that the power requirement will be 62 KVA and will be met from the MSEDCL. DG sets will act as back-up facilities in case of power failure, the details of power requirement given below:

Details	Existing Capacity	Proposed capacity	After expansion	Source
Power Requirement	62 KVA	NIL	62 KVA	MSEDCL
Power Backup DG Sets	45 KVA x 1 Nos	NIL	45 KVA x 1 Nos	-

10. The PP reported that, no court case is pending against the proposal and no direction issued under E(P) Act/Air Act/Water Act.

11. The PP reported that Public Hearing is exempted for the project in pursuant to Ministry's OM No. J-11011/321/2016-IA.II(I) dated 27.04.2018 as the proposed project is located in the notified industrial area (prior to 14.09.2006) i.e., Tarapur MIDC.

12. The PP reported that green belt in 300 m^2 has already been developed within the plot premises. Additionally, greenbelt will be done in future so as to cover 33% of the project area under greenbelt.

13. The estimated project cost is ₹ 5 Cr. Total Employment will be 45 persons.

14. Deliberations by the EAC:

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

The EAC also noted that the project located in Tarapur i.e., a Critically Polluted Area as identified by the CPCB and treated as Category A project in pursuant to Ministry's Notification S.O. 1949 (E) dated 13.11.2006. Further, Public Hearing is exempted for the project in pursuant to Ministry's O.M. No J-11011/321/2016-IA.II(I) dated 27.04.2018.

The PP informed that the existing unit is manufacturing Polyol and Glycol Solution (Only by Mixing, Blending activities) under Orange Category) with valid CTO obtained from MPCB vide Consent No. RO. THANE/ CONSENT/TR-I/2106000608 dated 14.06.2021 valid till 31.05.2031. Formulation process does not involve any sort of reaction. Therefore, existing unit does not require Environmental Clearance. The Committee noted that the PP informed the existing unit does not require EC and is operating based on CTO issued by State Pollution Control Board. PP also submitted that there is no violation of the EIA Notification, 2006. In addition to this, the committee observed that there is some discrepancy in the production, water and power requirement figure and asked the PP to confirm the same. The PP vide letter dated 25.06.2022 confirmed that the existing production is 3000 TPA and proposed increase will be 10266 TPA thus total production will be 13266 TPA. The water requirement will be 20.87 KLD and there is no additional power requirement for the proposed expansion. The committee also deliberated on several issues related to pollution and conservation of environment and found in order.

The Committee, after detailed deliberations, recommended for issuing Standard ToR [**Annexure-II of MoM**] and following additional ToR. As the project site is located in a

critically polluted area, the recommendation of Committee is subject to the current policy of Ministry and legal directions on consideration of projects in critically polluted areas.

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

(ii) The project comes under critically polluted area. In this regard, the PP shall submit the additional mitigation measures to safeguard the environment and also to explain how carbon foot print to be minimized? The PP shall submit the details of carbon foot prints and carbon sequestration study w.r.t. proposed project. Action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.

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

(iv) Details of Onsite and Offsite emergency plans as per provisions of the MSIHC Rules needs to be submitted

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

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

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

(viii) Undertaking to the effect that the project is not a violation proposal in pursuant to S.O. 804(E) dated 14.03.2017.

(ix) A compliance report of CTO conditions duly authenticated by SPCB.

(x) Management of hazardous waste and provision for its utilization in co-processing if applicable.

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

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

(xiii) As this is existing unit, the PP shall comply the Greenbelt related condition mentioned in the previous EC. In additional, the PP should develop 40% Greenbelt of the total land area, beyond the permissible requirement of 33%, accordingly the plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Trees have to be planted with spacing of 2m x 2m and number of trees has to be calculated accordingly.

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

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

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

Agenda No. 33.14

Proposal for expansion of Pesticide Technical and Pharma/API/Intermediates manufacturing unit with increase in production capacity from 6,450 TPA to 1,38,075 TPA, located at Plot No. 640, GIDC Industrial Estate, Panoli, Dist. Bharuch, Gujarat by M/s. PI Industries Ltd. - Consideration of ToR

[Proposal No. IA/GJ/IND3/271873/2022; File No. IA-J-11011/459/2008-IA-II(I)]

1. The proposal is for expansion of Pesticide Technical and Pharma/API/Intermediates manufacturing unit in an area 124616.73 m^2, with increase in production capacity from 6450 TPA to 138075 TPA, located at Plot No. 640, GIDC Industrial Estate, Panoli, Dist. Bharuch, Gujarat by M/s. PI Industries Ltd.

2. The project/activity is covered under Category 'A' of item 5(b) & 5(f) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). PP reported that the project is located in a Critically Polluted Area (CPA) as identified by CPCB.

3. The PP applied for ToR vide proposal number No. IA/GJ/IND3/271873/2022 dated 09.05.2022. The proposal was referred back to PP on 13.05.2022 as there were some shortcomings in the proposal and the PP provided its reply on 03.06.2022. The proposal is now placed in 33rd EAC Meeting held on 20th-22nd June, 2022, wherein the Project Proponent and an accredited Consultant, San Envirotech Pvt. Ltd. [Accreditation number NABET/EIA/2023/RA 0216 Valid up to 23.12.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP informed that the earlier EC was issued to ISAGRO (ASIA) Agrochemicals Pvt Ltd. on 23rd Oct, 2008. Thereafter, they applied for transfer of EC vide online proposal No. IA/GJ/IND3/262366/2022 dated 17th March, 2022, from "M/s ISAGRO (ASIA) Agrochemicals Pvt. Ltd". to "M/s PI Industries Ltd". The EC was transferred in favour of M/s. PI Industries Ltd. on dated 11.04.2022. The PP also reported that the existing Unit has obtained CTE and CTO from Gujarat Pollution Control Board for the existing activity.

5. The PP reported that the existing unit for manufacturing of Technical Pesticide & Pesticide Intermediates with capacity of 1950 TPM and Agrochemical Formulations of 4500 TPM. Now, unit proposed to discontinue manufacturing of existing products and start manufacturing of Pesticide Technical and Pharma/API/Intermediates manufacturing. After proposed expansion, total capacity of the plant will be 138075 TPA details of the same are as follows:

Sr.	Groups	Quantity (TPA)	EC

No.		Existing	Proposed Addition /Omission	Total	Category
1	Existing Technical Pesticide & Pesticide Intermediates	1950	-1950	0.0	**5(b)**
2	Agrochemical Formulations	4500	-4500	0.0	**--**
3	Pesticides Active Ingredients and Intermediates	0.0	+43275	43275	**5(b)**
4	Performance chemicals	0.0	+1050	1050	**5(b)**
5	Electronic chemicals	0.0	+1000	1000	**5(b)**
6	R&D Products	0.0	+250	250	**5(b)**
7	Pesticide Formulation	0.0	+90000	90000	**--**
8	API & API Intermediates	0.0	+2000	2000	**5(b)**
9	Pharma Enzymes	0.0	+500	500	**5(f)**
	Total	**6450**	**131625**	**138075**	

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

7. The PP reported that the proposed Land area is 124616.73 m^2 and no R&R is involved in the Project.

8. The PP reported that proposal does not involves Approval/ Clearance under Forest (Conservation) Act,1980, wildlife (Protection) Act,1972 and C.R.Z notification, 2011 as amended. There is no forest, Eco sensitive areas/National Park/Wildlife Sanctuary in 10 km radius of the site. The project doesn't fall under CRZ boundaries. Narmada River is flowing at a distance of 9.97 km in N direction from project site.

9. The PP reported that total water requirement after expansion will be 3412 KLD of which fresh water requirement will be 1640 KLD and 1772 KLD water will be recycled. The supply of fresh water will be met from the GIDC water supply.

10. The PP reported that the existing power demand is 1300 kVA and additional power demand for expansion activities will be 7500 kVA. It will be source from DGVCL (Dakshin Gujarat Vij Company Limited). Existing unit has DG sets of 750 kVA x 2 nos., 1500 kVA x 1 no. capacity. After expansion, unit proposed to add DG Sets of 2000 kVA x 3 nos. DG sets are used as standby during power failure.

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

12. The PP reported that the total area of the project is 124616.73 m^2. The unit has developed greenbelt in an area of 41479.4 m^2. Overall greenbelt area is tune around 33.29% of the total area of the project. No further greenbelt will be developed for expansion activities.

13. The estimated project cost is ₹ 482.68 Cr. (Existing: ₹ 82.68 Crore + Additional Cost: ₹ 400 Crore). The PP reported that after expansion, the total Employment will be 1470 Persons and (preference will be given to the local people for employment). Industry proposes to allocate ₹ 3.0 Crore @ of 0.75% of project expansion cost towards Corporate Social Responsibility.

14. Deliberations by the EAC:

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

The EAC also noted that the project located in a Critically Polluted Area as identified by the CPCB and treated as Category A project in pursuant to Ministry's Notification S.O. 1949 (E) dated 13.11.2006. Further, Public Hearing is exempted for the project in pursuant to Ministry's O.M. No. J-11011/321/2016-IA. II (I) dated 27.4.2018.

The Committee observed that there is some discrepancy in the land area, production capacity and power requirement. The PP vide letter dated 24.06.2022 confirmed that the land area is 124616.73 m^2, existing capacity is 6450 TPA and there is no change in power requirement.

The committee observed that, the PP has submitted an undertaking on 23.06.2022, that "*project does not fall under the category of violation. No violation has been done at site. We are operating our plant with compliance of conditions laid down in our EC issued by MoEFCC vide EC letter no. F.no. J-11011/459/2008-IA.II(I) dated 23.10.2008*". The Committee noted that PP has mentioned that green belt was already developed and the project was previously granted EC. Therefore, the PP is required to submit the compliance of the EC conditions, in pursuant to Ministry's O.M. No. IA3-22/10/2022-IA.III [E177258] dated 8.6.2022.

The Committee also deliberated on several issues related to pollution and conservation of environment and found in order.

The Committee, after detailed deliberations, recommended for issuing Standard ToR [**Annexure-II of MoM**] and following additional ToR. As the project site is located in a Critically polluted area, the recommendation of Committee is subject to the current policy of Ministry and legal directions on consideration of projects in critically polluted areas.

(i) The status of action plan, if any, prepared by the State Government/SPCB for the CPA needs to be provided.
(ii) The PP need to submit the notification for Industrial area/EC of the industrial area (if notified after 14.09.2006) for PH exemption.
(iii) The project comes under critically polluted area. In this regard, the PP shall submit the additional mitigation measures to safeguard the environment and also to explain how carbon foot print to be minimized? The PP shall submit the details of carbon foot prints and carbon sequestration study w.r.t. proposed project. Action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.
(iv) The PP should submit the photographs of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the

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

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

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

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

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

(ix) Undertaking to the effect that the project is not a violation proposal in pursuant to S.O. 804(E) dated 14.03.2017.

(x) The PP is required to submit the compliance of the EC conditions, in pursuant to Ministry's O.M. No. IA3-22/10/2022-IA.III [E177258] dated 8.6.2022.

(xi) Management of hazardous waste and provision for its utilization in co-processing if applicable.

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

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

(xiv) As this is existing unit, the PP shall comply the Greenbelt related condition mentioned in the previous EC. In additional, the PP should develop 40% Greenbelt of the total land area, beyond the permissible requirement of 33%, accordingly the plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Trees have to be planted with spacing of 2m x 2m and number of trees has to be calculated accordingly.

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

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

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

Agenda No. 33.15

Proposal for Expansion in "Pesticide Technical and Pharma/API/Intermediates Chemicals Manufacturing Unit" with increase in production capacity from 62,500 TPA to 90,000 TPA at Plot No. 3133-3139, 3231-3245, 3330-3351, 3571-3524, GIDC-Panoli, Bharuch, Gujarat by M/s PI Industries Limited - Consideration of ToR

[Proposal No. IA/GJ/IND3/272546/2022; File no. IA-J-11011/168/2022IA-II(I)]

1. The proposal is for Expansion in "Pesticide Technical and Pharma/API/Intermediates Chemicals Manufacturing Unit" in an area of 1,58,742.92 m^2 with increase in production capacity from 62500 TPA to 90000 TPA at Plot No. 3133-3139, 3231-3245, 3330-3351, 3571-3524, GIDC-Panoli, Bharuch, Gujarat by M/s PI Industries Ltd.

2. The project/activity is covered under Category 'A' of item 5(b) & 5(f) of Schedule of Environment Impact Assessment (EIA) Notification, 2006 (as amended). PP reported that the project is located in a Critically Polluted Area (CPA) as identified by the CPCB.

3. The PP applied for ToR vide proposal number No. IA/GJ/IND3/272546/2022 dated 13.05.2022 and submitted Form-1 & PFR. In the Form-1, PP has mentioned that it's an expansion project. The proposal was referred back to PP on 19.05.2022 as there were some shortcomings in the proposal. The PP provided its reply on 02.06.2022. The proposal is now placed in 33rd EAC Meeting held on 20th -22nd June, 2022, wherein the Project Proponent 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. The information submitted by the PP is as follows:

4. The PP reported that EC was earlier granted vide letter no. J-11011/308/2008-IA.II(I) dated 8.12.2008 for production capacity of 1545 TPA and 2259.52 TPA of by–products. The PP in his undertaking informed that no activity has been carried out at site with respect to above mentioned EC. The PP reported that for the existing formulation product, first CTE was obtained on 17.04.2014, which was amended on 27.12.2018. Therefore, the existing unit is operating based on valid consent granted from Gujarat Pollution Control Board. The PP submitted that, as of now, this unit is manufacturing formulation products, hence environment clearance is not applicable for the existing unit. The PP reported that there is no violation of EIA notification, 2006, no court case is pending against the proposal and no direction issued under E (P) Act/Air Act/Water Act.

5. The PP reported that proposed expansion is from 62,500 TPA to 90,000 TPA. The details of the same are as follows:

Existing Formulation Products		
Sr. No.	**Name of Product**	**Quantity (TPA)**
1	Pesticides Formulation Solid (Wettable Dry Granules-WDG/Powder/Granules)	30,000
2	Pesticides Formulation Liquid	15,000
3	Plant Nutrient Liquid	2500
4	Plant Nutrient Solid (Wettable Dry Granules-WDG/Powder/Granules)	15000
	Total	**62,500**

The details of proposed products and their capacity are as follows:

S. No.	Product	IUPAC Name	CAS No	Group wise Quantity (MT/Annum)
(A)	**Pesticides Active Ingredients and Intermediates [5(b) Category]**			**43,275**
1	Valifenalate	methyl 3-(4-chlorophenyl)-N-[[(1-methylethoxy)carbonyl]-L-valyl]-β-alaninate	283159-90-0	
2	Fluindapyr	3-(difluoromethyl)-N-(7 fluoro-2,3-dihydro-1,1,3-trimethyl-1H-inden-4-yl)-1-methyl-1H-pyrazole-4-carboxamide	1383809-87-7	
3	BXL Technical/RXL Technical	methyl N-(2,6-dimethylphenyl)-N-(phenylacetyl)-DL-alaninate	71626-11-4	
4	FDTM / FDTM Sulphate (IAS)	7-fluoro-1,1,3-trimethyl-2,3-dihydro-1H-inden-4-amine	936474-09-8	
5	FNXL	mixture of 85% (2R)-N-[(1RS)-1-cyano-1,2-dimethylpropyl]-2-(2,4-dichlorophenoxy)propanamide and 15% (2S)-N-[(1RS)-1-cyano-1,2-dimethylpropyl]-2-(2,4-dichlorophenoxy)propanamide	115852-48-7	
6	Triforine (TRFRN)	N,N′-{piperazine-1,4-diylbis(2,2,2-trichloroethylidene)}diformamide	26644-46-2	
7	SSF-126/OXIME	(2E)-2-(methoxyimino)-N-methyl-2-(2-phenoxyphenyl)acetamide	133408-50-1	
8	ADCP	2′,3′-dichloro-4′-hydroxy-1-methylcyclohexanecarboxanilide	126833-17-8	
9	DFBA / ATFMD/ TJD-85	N-(3′,4′-difluorobiphenyl-2-yl)-3-(trifluoromethyl) pyrazine-2-carboxamide	942515-63-1	
10	ICF	3-[(3,4-dichloroisothiazol-5-yl) methoxy]-1,2-benzisothiazole 1,1-dioxide	957144-77-3	
11	KTZ (Kitazin)	S-benzyl O,ODiisopropylPhosphorothioate	26087-47-8	

12	TFSN/DP-PCST	methyl (2E)-(methoxyimino)(2-{[({(1E)-1-[3-(trifluoromethyl) phenyl]ethylidene}amino)oxy] methyl}phenyl)acetate	141517-21-7	
13	HMPA	{[2-({(3S,7R,8R,9S)-7-benzyl-9-methyl-8-[(2-methylpropanoyl)oxy]-2,6-dioxo-1,5-dioxonan-3-yl}carbamoyl)-4-methoxy-3-pyridyl]oxy}methyl 2-methylpropanoate	517875-34-2	
14	MEP/ Pendimethalin	N-[4-methyl-6-(prop-1-ynyl)pyrimidin-2-yl]aniline	110235-47-7	
15	CCIM/CZF	4-chloro-2-cyano-N,N-dimethyl-5-p-tolylimidazole-1-sulfonamide	120116-88-3	
16	ISTS	3-[(3-bromo-6-fluoro-2-methyl-1H-indol-1-yl)sulfonyl]-N,N-dimethyl-1H-1,2,4-triazole-1-sulfonamide	348635-87-0	
17	6-FMI/6-MFI	6-fluoro-2-methyl-1H-indole	40311-13-5	
18	M-Alcohol (Intermediate of Tetraconazole)	(RS)-2-(2,4-dichlorophenyl) -3-(1H-1,2,4-triazol-1-yl)propyl 1,1,2,2-tetrafluoroethyl ether	112281-77-3	
19	Q1X41	(5RS)-5-(2,6-difluorophenyl)-4,5-dihydro-3-[2-(1-{[5-methyl-3-(trifluoromethyl)-1H-pyrazol-1-yl]acetyl}-4-piperidyl)thiazol-4-yl]isoxazole	1003318-67-9	
20	BCPA /BCC	N-[(1RS,4SR)-9-(dichloromethylene)-1,2,3,4-tetrahydro-1,4-methanonaphthalen-5-yl]-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxamide	1072957-71-1	
21	PYME/ FDFA/ CYMT	3-chloro-4-(2,6-difluorophenyl)-6-methyl-5-phenylpyridazine	1358061-55-8	
22	PYCL /P1B/ CYPL/SH118	1-(3-chloro-4,5,6,7-tetrahydropyrazolo[1,5-a]pyridin-2-yl)-5-[methyl(prop-2-ynyl)amino]-1H-pyrazole-4-carbonitrile	158353-15-2	
23	DMI/DMAI	1,3-Dimethyl-2-imidazolidinone	80-73-9	

24	747 Ether / AE302 / AE014	2-Chloro-4-(methyl sulfonyl)-3[(2, 2, 2-trifluoroethoxy) methyl]Benzoic acid	60-29-7	
25	TMBT/ 2C6SMT	2-[2-chloro-4-(methylsulfonyl)-3-[(2,2,2-trifluoroethoxy) methyl] benzoyl]- 1,3-cyclohexanedione	335104-84-2	
26	AE-513 and AE-473 (TFT)	2-[2-chloro-4-(methylsulfonyl)-3-({[(2RS)-tetrahydro-2-furyl]methoxy}methyl)benzoyl]cyclohexane-1,3-dione	473278-76-1	
27	CMSBA	2-chloro-4-(methyl sulfonyl) benzoic acid	53250-83-2	
28	Triketone (TKTN) / BZCN	(1RS,5RS)-3-[2-chloro-4-(methylsulfonyl)benzoyl]-4-(phenylthio)bicyclo[3.2.1]oct-3-en-2-one	156963-66-5	
29	2C6SMT	2-{2-chloro-4-(methylsulfonyl)-3-[(2,2,2-trifluoroethoxy)methyl]benzoyl}cyclohexane-1,3-dione	335104-84-2	
30	BIOD	(1R,5S)-3-[hydroxy-[2-(2-methoxyethoxymethyl)-6-(trifluoromethyl)pyridin-3-yl]methylidene]bicyclo[3.2.1]octane-2,4-dione	352010-68-5	
31	Ethoxy Phenyl (Lake Palace)	2,5-dichloro-4-{[(5,5-dimethyl-4,5-dihydroisoxazol-3-yl) sulfonyl]methyl}phenyl ethyl ether	639826-16-7	
32	KPP (Pentoxazone)	3-[4-chloro-5-(cyclopentyloxy)-2-fluorophenyl]-5-isopropylideneoxazolidine-2,4-dione	110956-75-7	
33	Bispyribac sodium salt (BPS)	2,6-bis[(4,6-dimethoxypyrimidin-2-yl)oxy]benzoic acid	125401-75-4	
34	MON 7400 Technical	methyl 2-{[(4-methylpyrimidin-2-yl)carbamoyl]sulfamoyl}benzoate	175076-90-1	
35	AMSC	2-{[(4,6-dimethoxypyrimidin-2-yl)carbamoyl]sulfamoyl}-4-{[(methylsulfonyl)amino]methyl}benzoic acid	400852-66-6	

36	MTAA / DMTFI	2′-[(4,6-dimethoxy-1,3,5-triazin-2-yl)carbonyl]-1,1,6′-trifluoro-N-methylmethanesulfonanilide	874195-61-6	
37	FLSN and MSSN - Me intermediates/ADMP-C/CTFMPE	N-[(4,6-dimethoxypyrimidin-2-yl)carbamoyl]-3-(trifluoromethyl)pyridine-2-sulfonamide	104040-78-0	
38	FRSF (Foramsulfuron) / ISDN-R (iodosulfuron)	2-{[(4,6-dimethoxypyrimidin-2-yl)carbamoyl]sulfamoyl}-4-(formylamino)-N,N-dimethylbenzamide	173159-57-4	
39	ASDN/ BSM	2-{[(4,6-dimethoxypyrimidin-2-yl)carbamoyl]sulfamoyl}-N,N-dimethylpyridine-3-carboxamide	111991-09-4	
40	ACZN	4-amino-N-tert-butyl-3-isopropyl-5-oxo-4,5-dihydro-1H-1,2,4-triazole-1-carboxamide	129909-90-6	
41	PZA (TESA)	1-(3-chloro-2-pyridyl)-4′-cyano-2′-methyl-6′-(methylcarbamoyl)-3-{[5-(trifluoromethyl)-2H-tetrazol-2-yl]methyl}-1H-pyrazole-5-carboxanilide	1229654-66-3	
42	ETMD / MCH /Cis-H	cis-3-(2,5-dimethylphenyl)-8-methoxy-2-oxo-1-azaspiro[4.5]dec-3-en-4-yl ethyl carbonate	203313-25-1	
43	THM/ Thiocyclam/ MTH	Dimethyl (1,2,3-trithian-5-yl) amine	31895-21-3	
44	OBB/ 3-AZBC	3-azabicyclo[3,2,1]octane Hydrochloride	279-82-3	
45	COX	mixture comprised of 80–100% 4-[(5S)-5-(3,5-dichloro-4-fluorophenyl)-5-(trifluoromethyl)-4,5-dihydroisoxazol-3-yl]-N-[(4R)-2-ethyl-3-oxoisoxazolidin-4-yl]-2-methylbenzamide and 20–0% of the (5R,4R), (5R,4S) and (5S,4S) isomers	2061933-85-3	

46	Flub/ Tetraniliprole	N2-[1,1-dimethyl-2-(methylsulfonyl)ethyl]-3-iodo-N1-[2-methyl-4-[1,2,2,2-tetrafluoro-1-(trifluoromethyl)ethyl]phenyl]phthalamide	272451-65-7	
47	2-Methyl 1-Methylthio-2-Propanamine (MMTPA/SAA)	2-Methyl 1-Methylthio-2-Propanamine	36567-04-1	
48	PMTZ	2-Hydrazinopyridine	4930-98-7	
49	DNTFRN (Dinotefuran)	(EZ)-(RS)-1-methyl-2-nitro-3-[(tetrahydro-3-furyl)methyl]guanidine	165252-70-0	
50	Thiamethoxam (TMT)/ Clothianidin/MNO	(EZ)-3-[(2-chlorothiazol-5-yl)methyl]-5-methyl-N-nitro-1,3,5-oxadiazinan-4-imine	153719-23-4	
51	MTN	S-[(5-methoxy-2-oxo-1,3,4-thiadiazol-3(2H)-yl)methyl] O,O-dimethyl phosphorodithioate	950-37-8	
52	DDVP	(Z)-2-chloro-1-(2,4-dichlorophenyl)vinyl dimethyl phosphate	67628-93-7	
53	Ethion Technical	O,O,O′,O′-tetraethyl S,S′-methylene bis (phosphorodithioate)	563-12-2	
54	Profenophos Technical	(RS)-[O-(4-bromo-2-chlorophenyl) O-ethyl S-propyl phosphorothioate]	41198-08-7	
55	BPCA	1-(dimethylcarbamoyl)-5-methyl-1H-pyrazol-3-yl dimethylcarbamate	644-64-4	
56	DPX/ YB449 / Q4039/ Compound D	N,N'-4-xylylenebis(pyridinium)	14208-10-7	
57	Bifenthrin Technical	(2-methylbiphenyl)-3-ylmethyl (1RS)-cis-3-[(Z)-2-chloro-3,3,3-trifluoroprop-1-enyl]-2,2-dimethylcyclopropanecarboxylate	82657-04-3	
58	Fenvalerate Technical & Intermediates	(αRS)-α-cyano-3-phenoxybenzyl (2RS)-2-(4-chlorophenyl)-3-methylbutanoate	51630-58-1	

59	Flucythrinate Technical & Intermediates	(RS)-α-cyano-3-phenoxybenzyl (S)-2-[4-(difluoromethoxy)phenyl]-3-methylbutyrate	915101-98-3	
60	FMTQ/ APBP/ PQO	2-ethyl-3,7-dimethyl-6-[4-(trifluoromethoxy)phenoxy]-4-quinolyl methyl carbonate	875775-74-9	
61	Thiocloprid Technical/CIT	{(Z)-3-[(6-chloro-3-pyridyl)methyl]thiazolidin-2-ylidene}cyanamide	111988-49-9	
62	PRZ/EMTC/PRZF/ PRZY/TMC/DP-FPSN/DMPO/MSPC	2-[1-Methyl-2-(4-phenoxyphenoxy)ethoxy]pyridine	95737-68-1	
63	MTP/ PRSF(Octopussy)	3-[[5-(difluoromethoxy)-1-methyl-3-(trifluoromethyl)pyrazol-4-yl]methylsulfonyl]-5,5-dimethyl-4H-1,2-oxazole	447399-55-5	
64	TLF (Tolfenpyrad)	4-chloro-5-ethyl-2-methyl-N-[[4-(4-methylphenoxy)phenyl] methyl]pyrazole-3-carboxamide	129558-76-5	
65	IBA	N-[4-(1,1,1,3,3,3-hexafluoro-2-methoxypropan-2-yl)-3-(2-methylpropyl)phenyl]-1,3,5-trimethyl-N-(2-methylpropanoyl)pyrazole-4-carboxamide	926914-55-8	
66	BDB	N-[2-(3,4-dichlorophenyl)-4-fluorophenyl]-3-(difluoromethyl)-1-methylpyrazole-4-carboxamide	581809-46-3	
67	IPCZ	2-[(4-chlorophenyl)methyl]-5-propan-2-yl-1-(1,2,4-triazol-1-ylmethyl) cyclopentan-1-ol	125225-28-7	
68	MYDO / HYPE/TTP	2-(3-chloropyridin-2-yl)-N-[4-cyano-2-methyl-6-(methylcarbamoyl)phenyl]-5-[[5-(trifluoromethyl) tetrazol-2-yl]methyl] pyrazole-3-carboxamide	1229654-66-3	
69	Fenpyroximate Technical	tert-butyl 4-[[(E)-(1,3-dimethyl-5-phenoxypyrazol-4-yl)methylideneamino] oxymethyl]benzoate	134098-61-6	

70	ACNDB	5-bromo-2-(3-chloropyridin-2-yl)-N-[4-cyano-2-methyl-6-(methylcarbamoyl) phenyl] pyrazole-3-carboxamide	736994-63-1	
71	ATPC	5-amino-1-[2,6-dichloro-4-(trifluoromethyl)phenyl]-4-(ethylsulfinyl)-1H-pyrazole-3-carbonitrile	181587-01-9	
(B)	**Performance chemicals[5(b) Category]**			**1050**
72	BPoDA	4,4'-[biphenyl-4,4'-diylbis(oxy)]bis (2-benzofuran-1,3-dione)	53303-54-1	
73	3,3BISDA / 4,4BISDA	3,3'(Isopropylidenediphenoxy) bisphthalic dianhydride/ 4,4'(Isopropylidenediphenoxy) bisphthalic dianhydride	38103-06-9	
74	6-FDA	5,5'-(1,1,1,3,3,3-hexafluoropropane-2,2-diyl)bis(2-benzofuran-1,3-dione)	1107-00-2	
75	2,4-DFA/4-FPH/ Fluoro Aromatics	Benzenamine	5509-65-9	
(C)	**Electronic chemicals [5(b) Category]**			**1000**
76	2,3-DHN	2,3-Dihydroxynaphthalene Naphthalene-2,3-diol	92-44-4	
77	2-ADN/ 5H2AND	tricyclo[3.3.1.13,7]decan-2-one	122760-84-3	
78	13-DMDA	1,3-Dimethyladamantane	702-79-4	
79	3CT / LC242	3-Chlorothiophene	17249-80-8	
80	Q2CA/ ECCA	Quinoline-2-carboxylic acid	93-10-7	
81	HPHA	6-[(4-hydroxyphenyl)oxyl]hexyl acrylate	161841-12-9	
82	TCDA	Cyclohexane-1,4-dicarboxylic acid	1076-97-7	
83	SX-01	Fluorodimethyl(3-(methylsulfonyl)propyl) silane	865-46-3	
84	HFPO	2,2,3-trifluoro-3-(trifluoromethyl)oxirane	428-59-1	
85	PCBM	1-(4-Chlorophenyl)-2-Methyl-2-(Morpholin-4-yl) Propan-1-one	88324-57-6	
(D)	**R&D Products [5(b) Category]**			
86	R&D Products	==	==	**250**
Sub Total (Pesticides Active Ingredients and Intermediates, Performance chemicals, Electronic chemicals & R&D Products)				**45575**
(E)	**Pesticide Formulation**			

87	Formulation	==	==	**90000**
(F)	**Pharma API & Intermediates [5(f) Category]**			**2000**
88	ATS8	(4R,6R)-tert-Butyl-6-cyanomethyl-2,2-dimethyl-1,3-dioxane-4-acetate	125971-94-0	
89	NBBA / Sitagliptin	(3R)-3-amino-1-[3-(trifluoromethyl)-6,8-dihydro-5H-[1,2,4]triazolo[4,3-a]pyrazin-7-yl]-4-(2,4,5-trifluorophenyl)butan-1-one	486460-32-6	
90	D5 (Rosuvastatin Intermediate)	t-Butyl (4R-cis)-6-[(acetyloxy)methyl]-2,2-dimethyl-1,3-dioxane-4-acetate	154026-95-6	
91	Z7 (Rosuvastatin Intermediate)	N-[4-(4-fluorophenyl)-5-(hydroxymethyl)-6-(propan-2-yl)pyrimidin-2-yl]-N-methylmethanesulfonamide	147118-36-3	
92	TBBA(Rosuvastatin KSM)	t-Butylbromoacetate	5292-43-3	
93	TFPAA (Sitagliptin KSM)	2-(2,4,5-trifluorophenyl)acetic acid (TFPAA)	209995-38-0	
94	Triazol (Sitagliptin KSM)	3-(trifluoromethyl)-5,6,7,8-tetrahydro-[1,2,4]triazolo[4,3-a]pyrazine hydrochloride	762240-92-6	
95	SABAM-HCL (Intermediate for Levtetiracetam)	L-2-Aminobutanamide hydrochloride	7682-20-4	
96	Cyclohexyl Cynaoacid (Intermediate for Gabapentin)	1-Cyanocyclohexaneacetic Acid	133481-09-1	
97	Atorvastatin	(3R,5R)-7-[2-(4-fluorophenyl)-3-phenyl-4-(phenylcarbamoyl)-5-propan-2-ylpyrrol-1-yl]-3,5-dihydroxyheptanoic acid	134523-00-5	
98	Rosuvastatin	(E,3R,5S)-7-[4-(4-fluorophenyl)-2-[methyl(methylsulfonyl)amino]-6-propan-2-ylpyrimidin-5-yl]-3,5-dihydroxyhept-6-enoic acid	287714-41-4	
99	Gabapentin	2-[1-(aminomethyl)cyclohexyl]acetic acid	60142-96-3	
100	Pregabalin	(3S)-3-(aminomethyl)-5-methylhexanoic acid	148553-50-8	

101	Duloxetine	(3S)-N-methyl-3-naphthalen-1-yloxy-3-thiophen-2-ylpropan-1-amine	116539-59-4	
102	Montelukast	2-[1-[[(1R)-1-[3-[(E)-2-(7-chloroquinolin-2-yl)ethenyl]phenyl]-3-[2-(2-hydroxypropan-2-yl)phenyl]propyl]sulfanylmethyl]cyclopropyl]acetic acid	158966-92-8	
103	Levetiracetam	(2S)-2-(2-oxopyrrolidin-1-yl)butanamide	102767-28-2	
(G)	**Pharma Enzymes [5(f) Category]**			**500**
104	Halohydrin dehalogenase	2-haloacid dehalogenase[ambiguous]	37289-39-7	
105	Ketoreductase	Keto reductase enzyme	9028-12-0	
106	Glucose dehydrogenase	Glucose 1-dehydrogenase	9028-53-9	
107	Transaminase	Aspartate Transaminase	9000-97-9	
108	Nitrilase	Nitrile aminohydrolase	9024-90-2	
Sub Total (Total Pharma API, Intermediates & Pharma Enzymes)				**2500**
Total Production (excluding formulation)				**48075**
Pesticide Formulation				**90000**

6. The PP reported that the proposed land area is 1,58,742.92 m^2 and no R&R is involved in the Project. Proposed expansion shall be carried out on vacant land within the existing manufacturing unit.

7. The PP reported that proposal does not involve Approval/Clearance under Forest (Conservation) Act,1980, Wildlife (Protection) Act,1972 and C.R.Z notification, 2011 as amended. The PP reported that there is no Eco sensitive area/National Park/Wildlife Sanctuary in 10 km radius of the site.

8. The PP reported that the existing total water requirement of the plant is 82.5 KLD. Fresh water is being met through GIDC supply. After expansion, total water requirement shall increase to 2770 KLD out of which 1870 KLD freshwater requirement shall be met through GIDC Supply and rest 900 KLD from in-house treatment schemes i.e., ETP, MEE, RO and STP and will be sourced from GIDC Supply.

9. The existing power requirement of the plant is 500 KVA, being sourced through Dakshin Gujarat Vij Company Limited (DGVCL). For Power backup, DG sets of capacity 1 x 500 is already installed in existing unit. After expansion, the power requirement of the whole plant will be 7500 KVA. Additional four DG sets of 2000 kVA x 4 shall be installed after expansion.

10. The PP informed that in pursuant to O.M. J-11011/321/2016-IA.II(I) dated 27.04.2018, the Public Hearing is exempted as the proposed project site is located in a Notified Industrial Area i.e., GIDC Industrial Area, Panoli, District Bharuch, Gujarat.

11. The industry will develop greenbelt in an area of 33.09% i.e., 52529.4 m^2 out of total area of the project. Wide green belt will be provided all around the boundary wall of project site.

12. The estimated project cost is ₹ 484.08 Cr. (Existing: ₹ 34.08 Crore + Additional Cost: ₹ 450 Crore). A total 1000 persons will be (during construction and Operational Phase) direct and indirect employed.

13. Deliberations by the EAC:

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

The Committee observed that PP now proposed to manufacture 48075 TPA of new products [Pesticides Active Ingredients and Intermediates-43275, Performance chemicals-1050 TPA, Electronic chemicals-1000 TPA and R&D Products-250 TPA for category 5(b) + Total Pharma API- 2000 TPA, Intermediates & Pharma Enzymes- 500 TPA for category 5(f)]. In addition to this, as against production of 62,500 TPA of existing formulation products, the PP now proposed to produce 90,000 TPA of pesticide formulations. The PP vide letter dated 22.06.2022, informed that existing formulations capacity was amended to 67,500 TPA on 27.12.2018.

The Committee observed that EC was earlier granted vide letter no. J-11011/308/2008-IA.II(I) dated 8.12.2008 for production capacity of 1545 TPA and 2259.52 TPA of by–products. The PP in his undertaking dated 22.06.2022, informed that no activity has been carried out at site with respect to above mentioned EC. The PP reported that for the existing formulation product first CTE was obtained on 17.04.2014 for 62500 TPA, which was amended on 27.12.2018 for 67500 TPA. The PP in his undertaking vide letter dated 22.06.2022, submitted that "*project does not fall under the category of violation. No violation has been done at site.* The PP also committed that industry will plant trees inside and outside the project site. The committee observed that as no activity was carried out within the stipulated time frame as per EIA notification, 2006 (as amended) the said EC has already expired and as reported by the PP, the existing unit is operating based on valid consent granted from the Gujarat Pollution Control Board. Therefore, the PP is required to submit compliance of CTO conditions. The committee also deliberated on several issues related to pollution and conservation of environment and found in order.

The Committee, after detailed deliberations, recommended for issuing the Standard ToR [**Annexure-II of MoM**] and the following additional ToR. As the project site is located in a critically polluted area, the recommendation of Committee is subject to the current policy of Ministry and legal directions on consideration of projects in critically polluted areas.

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

(ii) The project comes under critically polluted area. In this regard, the PP shall submit the additional mitigation measures to safeguard the environment and also to explain how carbon foot print to be minimized? The PP shall submit the details of carbon foot prints and carbon sequestration study w.r.t. proposed project. Action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.

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

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

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

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

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

(viii) Undertaking to the effect that the project is not a violation proposal in pursuant to S.O. 804(E) dated 14.03.2017.

(ix) A compliance report of CTO conditions duly authenticated by SPCB.

(x) Management of hazardous waste and provision for its utilization in co-processing if applicable.

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

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

(xiii) As this is existing unit, the PP shall comply the Greenbelt related condition mentioned in the previous EC. In addition, the PP should develop 40% Greenbelt of the total land area, beyond the permissible requirement of 33%, accordingly the plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Trees have to be planted with spacing of 2m x 2m and number of trees has to be calculated accordingly.

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

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

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

Agenda No. 33.16

Proposal for Establishment of Synthetic Organic Chemical Manufacturing Industry with production capacity 7658 TPA located at Plot No. T-95/1, 95 MIDC Tarapur

Boisar, Tal. & Dist. Palghar, Maharashtra by M/s Nikita Transphase Adducts Private Limited - Consideration of ToR

1. The proposal is for establishment of "synthetic organic chemical manufacturing Industry" in an area 985 m^2 of with production capacity of 7658 TPA located at Plot No. T-95/1, 95 MIDC Tarapur Boisar, Tal. & Dist. Palghar, Maharashtra by M/s Nikita Transphase Adducts Private Limited.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) of Schedule of Environment Impact Assessment (EIA) Notification 2006 (as amended) and requires appraisal at Central Level by Expert Appraisal Committee (EAC) as the General Condition is applicable for the projects falling in critically polluted areas as notified by the Central Pollution Control Board (CPCB).

3. The PP applied for ToR vide proposal number No. IA/MH/IND3/272545/2022 dated 12.05.2022. The proposal was referred back to PP on 19.05.2022 as there were some shortcomings in the proposal. The PP provided its reply on 23.05.2022. The proposal is now placed in 33rd EAC Meeting held on 20th-22nd June, 2022, wherein the Project Proponent and an accredited Consultant, M/s. Ecogreen Enviro Services [Accreditation number NABET/EIA/2023/IA0070 Valid up to 22.12.2023] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that it's a new project and there is no violation of EIA notification, 2006. The proposed plot no. T-95 allotted to M/s Pearl Packaging industries by Tarapur MIDC allotment vide allotment no. MIDC/ROT/TRP/T-95/3277 dated 20.08.1999. M/s Pearl Packaging industries obtained CTE vide letter no. Green/SSI/ Consent no. SROT-1/SAT/E/CC-562 dated 06.04.2012, subsequently, M/s Pearl Packaging industries sold the premises with the existing building to M/s Nikita Transphase Adducts Private Limited vide sale deed dated 03.07.2017. Thereafter, M/s Pearl Packaging industries, discontinued all the manufacturing operations and removed all the machinery and there is no manufacturing activity at all from July 2017 onwards. The proposed plot T-95 measuring is 600 m^2 and the other proposed plot no T-95/1 is a vacant land and has been allotted to M/s Nikita Transphase Adducts Private Limited vide letter no. MIDC/ROT-1/TRP/T-95/1/3134 dated 04.10.2021.

5. The PP proposed to manufacture various synthetic products like Bitterents and denaturants, antioxidant products, NIQUAT/ATAC product, latex surfactant products, etc. The details of the products are as follows:

S. No.	Category of product	Total Quantity-TPA
1.	Bitterents and Denaturants Product	330
2.	Antioxidant Product	1620
3.	Niquat/Atac Product	4050
4.	Latex surfactants products	908
5.	Emulsifier and dispersion (Dispersion and emulsion product)	600
6.	Job works	100

7.	R & D Products	50
	Total	**7658**

6. The PP reported that the total land area is 985 m^2 and no R&R is involved in the Project.

7. The PP reported that proposal does not involves Approval/ Clearance under Forest (Conservation) Act,1980, wildlife (Protection) Act,1972 and C.R.Z notification, 2011 as amended. The PP reported that there is no forest and protected area notified under the Wildlife (Protection) Act (1972) & Eco-sensitive area notified under Section 3 of the Environment (Protection) Act 1986 within 10 km radius areas from the Plant Site. Bangana River flows at a distance of 2.0 km in the West direction.

8. The PP reported that the estimated total water requirement will be 10.10 KLD, which will be sourced from MIDC Tarapur industrial area. Total waste water generation of the project is 4.27 KLD. Out of 2.77 KLD of effluent will be generation from the industrial activity. Total Generated waste water will be treated up to primary treatment and then dispose to CETP discharge line. This plant is based on CETP discharge system.

9. Power requirement of the project is 140 KVA and it will be sourced from MSEDCL. DG sets will act as backup facilities in case of power failure, for Power backup, one DG sets of 140 kVA shall be installed.

10. The PP reported that no court case is pending against the proposal and no direction issued under EPA Act/Air Act/Water Act.

11. The proposed project site is located in a Notified Industrial Area i.e., MIDC Industrial Area, Maharashtra and hence, Public Hearing is exempted pursuant to Ministry's O.M. No. J-11011/321/2016-IA.II (I) dated 27.04.2018.

12. The industry will develop greenbelt in an area of 35% i.e., 347m^2 out of total area of the project.

13. The estimated project cost is ₹ 5 Cr. Total Employment will be 35 persons (Direct employment generation will be during Operational phase, wherein the first preference will be given to the Qualified People from nearby areas. Indirect employment also occurs through transportation of goods and raw materials).

14. Deliberations by the EAC:

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

The EAC noted that the project located in a critically polluted area as identified by the CPCB and it's a green field project and as per documents the land was allotted to M/s Nikita Transphase Adducts Private Limited by MIDC, Maharashtra. The EAC also deliberated on the issues of water and power requirement. The committee also deliberated on several issues related to pollution and conservation of environment and found in order.

The Committee, after detailed deliberations, recommended for issuing the Standard ToR [**Annexure-II of MoM**] and the following additional ToR. As the project site is located in a Critically polluted area, the recommendation of Committee is subject to the current policy of Ministry and legal directions on consideration of projects in critically polluted areas.

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

(ii) The project comes under critically polluted area. In this regard, the PP shall submit the additional mitigation measures to safeguard the environment and also to explain how carbon foot print to be minimized? The PP shall submit the details of carbon foot prints and carbon sequestration study w.r.t. proposed project. Action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.

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

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

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

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

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

(viii) Undertaking to the effect that the project is not a violation proposal in pursuant to S.O. 804(E) dated 14.03.2017.

(ix) Management of hazardous waste and provision for its utilization in co-processing, if applicable.

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

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

(xii) As this is existing unit, the PP shall comply the Greenbelt related condition mentioned in the previous EC. In additional, the PP should develop 40% Greenbelt of the total land area, beyond the permissible requirement of 33%, accordingly the plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Trees have to be planted with spacing of 2m x 2m and number of trees has to be calculated accordingly.

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

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

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

Agenda No. 33.17

Proposal for Synthetic Organic Chemical Manufacturing Unit with production capacity of 4128 TPA located at Plot No. E-73, MIDC Tarapur, District Palghar, Maharashtra by M/s SIP Chemical Industries - Consideration of ToR

1. The proposal is for Synthetic Organic Chemical Manufacturing Unit in an area of 1316 m^2 of production capacity of 4128 TPA located at Plot No. E-73, MIDC Tarapur, District Palghar, Maharashtra by M/s SIP Chemical Industries.

2. The project/activity is covered under Category 'A' of item 5(f), Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) of Schedule of Environment Impact Assessment (EIA) Notification 2006 (as amended). The PP reported that General Condition is applicable for the project, as it falls in a critically polluted area as notified by the Central Pollution Control Board (CPCB) and Inter-State boundaries and international boundaries.

3. The PP applied for ToR vide proposal No. IA/MH/IND3/272164/2022 dated 12.05.2022. The proposal was referred back to PP on 19.05.2022 as there were some shortcoming in the proposal. The PP provided its reply on 20.05.2022. The proposal is now placed in 33rd EAC Meeting held during 20th -22nd June, 2022 wherein the Project Proponent and an accredited Consultant, M/s. Perfact Enviro Solutions Pvt. Ltd. [Accreditation number NABET/EIA/1922/SA0143 Valid up to 26.11.2022] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP proposed to manufacture the following products:

S. No.	Products/By-Product Name	CAS No.	Proposed (TPA)
1	Maleic Acid	110-16-7	360
2	Fumaric Acid	110-17-8	480
3	DL-Tartaric Acid	133-37-9	60
4	Potassium Bitartrate (Cream of Tartar)	868-14-4	48

5	SIP-25(N-Cyano Ethyl N-Methyl Aniline)	94-34-8	120
6	SIP-8(N-Cyano Ethyl N-Ethyl Aniline)	148-87-8	72
7	SIP-EDDM (Biocide)	3586-55-8	480
8	SIP-TZSCAV(Triazine H2S scavenger 50%,61%,78%)	4719 -04 -4	360
9	SIP-RAPSAMIDE(PEG-4 Rapeseedamide)	85536-23-8	240
10	FATTY AMIDE & BLEND (Oleamide, Stearamide, Lauramide)	301-02-0	60
11	Diisopropyl Fumarate	7283-70-7	120
12	SIP-NTBS(H2S Scavenger)	3586-55-8	360
13	SIP-BT20 (Biocide Formulations)	2634-33-5	60
14	SIP-CED (Biocide Formulations)	3586-55-8	240
15	SIP-CM (Biocide Formulations)	3586-55-8	120
16	SIP-C7 (Biocide Formulations)	26172-55-4	120
17	SIP-O45 (Biocide Formulations)	26530-20-1	60
18	SIP-DCO (Biocide Formulations)	26530-20-1	60
19	SIP-OED (Biocide Formulations)	26530-20-1	120
20	SIP-GCI (Gas Corrosion Inhibitor)	68585-99-9	60
21	SIP-ACI (Acid Corrosion Inhibitor)	68585-99-9	60
22	SIP-DEMO (Demulsifier Water in Oil)	68585-99-9 61791-12-6	120
23	SIP-ASP(Asalphtene dispersant)	25155-30-0 64742-47-8	24
24	SIP-15(N-Hydroxy Ethyl N-Ethyl Aniline)	92-50-2	240
25	ACIDON-SD	133-37-9	60
26	SIP-DESCALAR(Scale Remover)	3598-36-2	60
27	SIP-DEMW (Demulsifier oil in water)	25155-30-0	24
28	SIP- OCTANEBOOSTER	13598-36-2	12
29	SIP-CETANEBOOSTER	13598-36-2 27247-96-7	12
30	SIP-LUBRICURE(Lubricant Additive)	61790-12-3	12
31	SIP-ANTOXIDANTF	101-96-2	12
32	SIP-DRAG	151006-60-9	12
		Total (TPA)	**4,128**

5. The PP reported that there is no violation of 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 total Land area is 1316 m^2 and no R&R is involved in the Project.

7. The PP reported that proposal does not involve Approval/ Clearance under Forest (Conservation) Act,1980, Wildlife (Protection) Act,1972 and C.R.Z notification, 2011 as amended. The PP reported that there is no forest area, National Park and Biosphere Reserve, Tiger/Elephant Reserve, Wildlife Corridor etc. within 10 km distance from the project site. The PP also provided the details of River/water body within 10 km of the periphery of the plant area.

8. The PP reported that the total water requirement is 21 KLD, out of which fresh water requirement of 19 KLD will be met through MIDC water supply and the remaining 2 KLD will be from in house treated wastewater. The plant will be based on Zero Liquid Discharge (ZLD) system & shall comply ZLD norms.

9. The power requirement of 74.60 kVA will be met from MIDC. Proposed unit has DG sets of 1 No. of 23 kVA capacity, Light Diesel Oil (LDO)-6 Litres per hour that will be used as standby during power failure. Stack (height) will be provided as per CPCB norms.

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

11. The industry will develop greenbelt in an area of 40% i.e., 526 m^2 (11.93% @157 m^2 within plot area and 28% @ 369.4 m^2 outside plot within MIDC Tarapur and in adjacent villages) as per CPCB guideline.

12. The estimated project cost is ₹ 5.10 Cr. Total capital cost earmarked towards environmental pollution control measures is ₹ 65 Lakh (including CER) and the Recurring cost (operation and maintenance) will be about ₹ 19.50 Lakh per annum. Total Employment will be 14 persons. Industry proposes to allocate ₹ 5 Lakh @ of 1% towards CER.

13. Deliberations by the EAC:

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

The EAC also noted that the project located in a Critically Polluted Area as identified by the CPCB and treated as Category A project in pursuant to Ministry's Notification S.O. 1949 (E) dated 13.11.2006. Further, Public Hearing is exempted for the project in pursuant to Ministry's O.M. No. J-11011/321/2016-IA. II (I) dated 27.4.2018. The EAC deliberated on several issues related to pollution and conservation of environment and found in order.

The Committee, after detailed deliberations, recommended for issuing the Standard ToR [**Annexure-II of MoM**] and the following additional ToR. As the project site is located in a critically polluted area, the recommendation of Committee is subject to the current policy of Ministry and legal directions on consideration of projects in critically polluted areas.

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

(ii) The project comes under critically polluted area. In this regard, the PP shall submit the additional mitigation measures to safeguard the environment and also to explain how carbon foot print to be minimized? The PP shall submit the details of carbon foot prints and carbon sequestration study w.r.t. proposed project. Action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.

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

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

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

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

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

(viii) Undertaking to the effect that the project is not a violation proposal in pursuant to S.O. 804(E) dated 14.03.2017.

(ix) Management of hazardous waste and provision for its utilization in co-processing if applicable.

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

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

(xii) As this is existing unit, the PP shall comply the Greenbelt related condition mentioned in the previous EC. In addition, the PP should develop 40% Greenbelt of the total land area, beyond the permissible requirement of 33%, accordingly the plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Trees have to be planted with spacing of 2m x 2m and number of trees has to be calculated accordingly.

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

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

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

Agenda No. 33.18

Proposal for expansion of Pesticides & Pesticide Specific Intermediates Unit with increase in production capacity from 1200 TPM to 4350 TPM, located at Plot No. 3246 to 3251, 3325 to 3329, GIDC Estate Panoli, Ankleshwar, District Bharuch, Gujarat by M/s. Aero Agro Chemical Industries Limited - Consideration of ToR

1. The proposal is for expansion of Pesticides & Pesticide Specific Intermediates Unit of 20880 m^2 area, with increase in production capacity from 1200 TPM to 4350 TPM, located at Plot No. 3246 to 3251, 3325 to 3329, GIDC Estate Panoli, Ankleshwar, District Bharuch, Gujarat by M/s. Aero Agro Chemical Industries Limited. The PP reported that Ministry had issued EC earlier vide letter no. J-11011/938/2008-IA II (I) dated 3rd June, 2009 to the existing project in favour of M/s. Aero Agro Chemical Industries Limited.

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 requires appraisal at Central Level by Expert Appraisal Committee (EAC). PP reported that Industry is located inside the Industrial Area.

3. The PP applied for ToR vide proposal number No: IA/GJ/IND3/275351/2022 dated 28.05.2022 and the proposal is now placed in 33rd EAC Meeting held during 20th-22nd June, 2022 wherein the Project Proponent and an accredited consultant, M/s. Shree Green Consultants [Accreditation number NABET/EIA/2124/IA0072 Valid up to 24.02.2024] made a detailed presentation on the salient features of the project. The information submitted by the PP is as follows:

4. The PP reported that increase in production capacity is from 1200 TPM to 4350 TPM and the details of the products are as follows**:**

Sr. No.	CAS No.	Products	Production Capacity (TPM)		
			Existing*	Proposed	Total
Herbicides					
1	94-75-7	2,4-Dichloro Phenoxy Acetic Acid (2,4-D Acid)	250	750	1000
	7084-86-8	2,4 D sodium			
	533-23-3	2,4 D Ester			
2	2008-39-1	2,4 D Amine		1100	1350
3	94-74-6	2- Methyl 4 – Chloro Phenoxy Acetic acid	125	50	175
	26544-20-7	2-Methyl-4- Chloro Phenoxy Acetic Acid Ester			
	2039-46-5	2-Methyl-4- Chloro Phenoxy Acetic Acid Amines			

Sr. No.	CAS No.	Products	Production Capacity (TPM)		
			Existing*	Proposed	Total
4	23184-66-9	Butachlor Technical	50	-	50
5	51218-49-6	Pretilachlor Technical	50	-	50
6	1071-83-6	Glyphosate Technical and its salt	25	-	25
7	52315-07-8	Metribuzin Technical	25	-	25
8	52645-53-1	Pendimethalin Technical	50	-	50
9	67375-30-8	Atrazine Technical	50	-	50
10	-	Chloro Phenol	-	140	140
		Total (A)	**625**	**2040**	**2915**
Intermediates					
10	120-83-2	2,4 Dichloro phenol	240	860	1100
11	79-11-8	Monochloro Acetic Acid	275	00	275
12	79-04-9	Chloroacetyl Chloride	60	00	60
		Total (B)	**575**	**860**	**1435**
		Grand Total (A+B)	**1200**	**2900**	**4350**
By products					
13		P-Toluene Sulphuric acid	27.5	00	27.5
14	7647-01-0	HCl (30 %)	570	972	1542
15	7647-15-6	Sodium Bromide (7-8%)	175	00	175
16	7664-93-9	Spent Acid	0	264	264
17	7757-83-7	Sodium sulphite	0	165	165
		Total	**772.5**	**1401**	**2173.5**

Note: *The above-mentioned existing products are as per existing EC No. J-11011/938/2008-IA II (I) dated 3rd June 2009.

5. The PP reported that there is no violation of 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 area is 20,880 m^2. The project is in a notified industrial area, which is already acquired and does not involve any Rehabilitation & Resettlement.

7. The PP reported that proposal does not involves Approval/ Clearance under Forest (Conservation) Act,1980, Wildlife (Protection) Act,1972 and C.R.Z notification, 2011 as amended. The PP reported that there is no Forest, National park, Wild life sanctuary and Biosphere Reserve, Tiger/Elephant Reserve, Wildlife Corridor etc. within 10 km distance from the project site.

8. The PP reported that after proposed expansion, total water requirement for the project would be around 450.54 KLD. Total reused water will be 229.74 KLD and total fresh water will be 220.80 KLD and it will be sourced from GIDC.

9. Total power requirement for the expansion project will be around 1375 KVA, which will be sourced from DGVCL Supply.

10. The PP reported that the proposed project is to be set up within the existing premises of land area of 20880 m^2 out of which 2088 m^2 (i.e. 10%) land area is already used for greenbelt development. Approximately 6600 m^2 area green belt development will be done outside our premises in collaboration with Panoli Industry association. This will constitute a total of 43% greenbelt area development by M/s. Aero Agro Chemicals Industries Limited. Green belt shall be developed at plant boundary, road side, around offices & buildings and stretches of open land.

11. The total estimated cost of the project is ₹ 35.25 Crores. The fund allocated for pollution control will be approximately ₹ 6.50 Crores. After expansion, project will provide total employment of 175 nos. (65 permanent + 110 contract) skilled and unskilled workers from the local area. The manpower requirement for the proposed project is expected to generate some permanent jobs and secondary jobs for the operation and maintenance of plant. This will increase direct as well as indirect employment opportunities and ancillary business development to some extent for the local population.

12. Deliberations by the EAC:

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

The Committee observed that the project is located in a critically polluted area but the same was not mentioned in Form-1 and PFR. The committee also observed that the PP did not submit the PFR as per guidelines of the Ministry. The EAC also observed that, as per KML file, the development of green belt is not sufficient in existing premises. It appears that even after grant of previous EC, no concrete efforts were taken for development of green belt. The committee therefore, **returned the proposal in the present from** and is of the view that the proposal may only be considered after the submission of following:

i) Revised Form-1 complete in all respect
ii) PFR as per the guidelines of the Ministry
iii) As this is existing unit, the PP shall comply the Greenbelt related condition mentioned in the previous EC. Proof of development of green belt in the project site. It is suggested that plants of at least 5-6 ft height may be planted for green belt.
iv) Undertaking to the effect that the project is not a violation proposal in pursuant to S.O. 804(E) dated 14.03.2017 with supporting documents including the details of production vis- a- vis EC capacity in a tabular format.
v) Copy of notification of the industrial area, if notified prior to 14.09.2006 or copy of EC of the same if notified after, 2006.

Agenda No. 33.19

Proposal for production of Pesticides technical, Pesticide Intermediates and R & D products of capacity of 200 TPM located at Plot No. 1409, Phase-III, GIDC Notified Industrial Area, Vapi, District Valsad (Gujarat) by M/s. Hernaba Industries Limited - Consideration of ToR (Under Violation Category).

The Member Secretary informed to the EAC that the PP vide email dated 11.06.2022 requested for withdrawal of the proposal, as they wrongly applied under the violation

category. The PP did not attend the meeting. Therefore, the EAC **returned the proposal in present form**.

The meeting ended with thanks to the Chair.

****

ANNEXURE-I

GENERAL EC CONDITIONS

- No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.
- The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.
- 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 project proponent 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 project proponent shall also upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- 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 project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at **https://parivesh.nic.in/**. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.
- The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.
- This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

***

ANNEXURE-II

STANDARD TERMS OF REFERENCE CONDITIONS

A. STANDARD TERMS OF REFERENCE

1) Executive Summary

2) Introduction

i. Details of the EIA Consultant including NABET accreditation
ii. Information about the project proponent
iii. Importance and benefits of the project

3) Project Description

i. Cost of project and time of completion.
ii. Products with capacities for the proposed project.
iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
iv. Details of existing products and production, if any, along with present product/production details in tabular format, to verify the compliance of the EIA Notifications.
v. Details of existing products and production, if any, along with present product/production details in tabular format, to verify the compliance of the EIA Notifications.
vi. List of raw materials required and their source along with mode of transportation.
vii. Other chemicals and materials required with quantities and storage capacities
viii. Details of Emission, effluents, hazardous waste generation and their management.
ix. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
x. Details of boiler/gensets (including stacks/exhausts) and fuels to be use
xi. Details of boiler/gensets (including stacks/exhausts) and fuels to be used
xii. Process description along with major equipment's and machineries, process flow sheet (quantitative) from raw materials to products to be provided
xiii. Hazard identification and details of proposed safety systems.
xiv. Expansion/modernization proposals:

a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, copy of the latest CTO and status of compliance of Consent to Operate for the ongoing/existing operation of the project from SPCB shall be attached

with the EIA-EMP report.

b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4) Site Details

i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.
ii. A topo-sheet of the study area of radius of 10km and site location on 1:50,000/1:25,000 scale on an A3/A2 sheet. (including all eco-sensitive areas and environmentally sensitive places)
iii. Details w.r.t. option analysis for selection of site
iv. Co-ordinates (lat-long) of all four corners of the site.
v. Google map-Earth download of the project site.
vi. Layout maps indicating existing unit as well as proposed unit indicating storage area, plant area, greenbelt area, utilities etc. If located within an Industrial area/Estate/Complex, layout of Industrial Area indicating location of unit within the Industrial area/Estate.
vii. Photographs of the proposed and existing (if applicable) plant site. If existing, show photographs of plantation/greenbelt, in particular.
viii. Land-use break-up of total land of the project site (identified and acquired), government/private - agricultural, forest, wasteland, water bodies, settlements, etc shall be included. (not required for industrial area)
ix. A list of major industries with name and type within study area (10km radius) shall be incorporated. Land use details of the study area
x. Geological features and Geo-hydrological status of the study area shall be included.
xi. Details of Drainage of the project upto 5km radius of study area. If the site is within 1 km radius of any major river, peak and lean season river discharge as well as flood occurrence frequency based on peak rainfall data of the past 30 years. Details of Flood Level of the project site and maximum Flood Level of the river shall also be provided. (mega green field projects)
xii. Status of acquisition of land. If acquisition is not complete, stage of the acquisition process and expected time of complete possession of the land. Documents related to conversion of land for Industrial purpose.
xiii. R&R details in respect of land in line with state Government policy

5) <u>Forest, wildlife and CRZ related issues (if applicable):</u>

i. Permission and approval for the use of forest land (forestry clearance), if any, and

recommendations of the State Forest Department. (if applicable)

ii. Land-use map based on High resolution satellite imagery of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha)*

iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.

iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon

v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area

vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife

vii. Recommendations and NOC from the concerned State/UT Coastal Zone Management Authority on CRZ angle

6) Environmental Status

i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.

- AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Study should indicate minimum, maximum value of different parameters for the period (3 months) collected. Collected data should be supported by the reference data of either CPCB or SPCB. AAQ data & GLC of pollutants from stack emissions should suggest technology/ measures- Best Practiced Technology (BPT) indicating best achieved results.

ii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.

iii. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.

iv. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.

v. Ground water monitoring at minimum at 8 locations shall be included.

vi. Noise levels monitoring at 8 locations within the study area.

vii. Soil Characteristic as per CPCB guidelines.

viii. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
ix. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
x. Socio-economic status of the study area.

7) Environment Impact and Environment Management Plan

i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
ii. Water Quality Modelling – in case of discharge in water body
iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.
iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules 1986.
v. Details of stack emission and action plan for control of emissions to meet standards.
vi. Measures for fugitive emission control
vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
x. Action plan for rainwater harvesting measures at plant site shall be submitted to

harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.

xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.

xii. Action plan for post-project environmental monitoring shall be submitted.

xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8) Occupational health

i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers

ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre-placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.

iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,

iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

9) Corporate Environment Policy

i. Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.

ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.

iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.

iv. Does the company have system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report

v. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

10) Corporate Environmental Responsibility (CER)

i. Adequate funds, as per the Ministry's OM/Guidelines, shall be earmarked towards the Corporate Environmental Responsibility based on Public Hearing issues/socio-economic issues and item-wise details along with time bound action plan shall be included (CER activities shall be related to environment). Socio-economic development activities need to be elaborated upon. For the projects where public hearing is not conducted, CER plan shall be provided based on socio-economic study of the area.

11) Additional studies/Measures to be considered

(i). Provide latest and ecofriendly technology for product manufacturing.
(ii). Emphasize on Green chemistry/Clean Manufacturing
(iii). Provide CAS No. of products along with product list.
(iv). Provide details of amount of carbon sequestered in their unit through greenbelt/other modes, in case of expansion project.
(v). Life structure and sustainability for carbon and water foot print.
(vi). Detailed pollution Load estimation.
(vii). Transportation of Hazardous substance, effluents etc shall be carriedout through authorized and GPS enable vehicles/Trucks only.
(viii). Category of Hazardous Wastes shall be mentioned in the EIA/EMP report and in presentation.
(ix). Details of greenhouse gases and emissions shall be provided.
(x). Greenbelt shall be developed in the first year of the project and wind breaks shall be erected.
(xi). Study area map shall be overlapped with all the associated features.
(xii). Emphasize on green fuels.
(xiii). The project from NCR shall not use Coal as fuel. Further, PP shall avoid use of Coal in the CPAs and elsewhere also if alternatives are available.
(xiv). Provide the Cost-Benefit analysis with respect to the environment due to the project.

12) Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

13) A tabular chart with index for point wise compliance of above TORs and its details needs to be submitted in the EIA/EMP Report.

B. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR 5(f) CATOGORY SYNTHETIC ORGANIC CHEMICALS INDUSTRY (DYES & DYE INTERMEDIATES;

BULK DRUGS AND INTERMEDIATES EXCLUDING DRUG FORMULATIONS; SYNTHETIC RUBBERS; BASIC ORGANIC CHEMICALS, OTHER SYNTHETIC ORGANIC CHEMICALS AND CHEMICAL INTERMEDIATES)

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like NH_3*,chlorine*,HCl*,HBr*,H_2S*,HF*,*etc*.,(*-as applicable)
4. Work zone monitoring arrangements for hazardous chemicals.
5. Detailed effluent treatment scheme including segregation of effluent streams for units adopting 'Zero' liquid discharge.
6. Action plan for odour control to be submitted.
7. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
8. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
9. Action plan for utilization of MEE/dryers salts.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

***

Annexure-III

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.	**Dr. Ashok Kumar Saxena, IFS** Bungalow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
3.	**Prof. (Dr.) S. N. Upadhyay** Research Professor (Hon.), Department of Chemical Engineering & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi E-mail: snupadhyay.che@iitbhu.ac.in	Member
4.	**Prof. (Dr.) 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, Santnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
6.	**Prof. (Dr.) Vijay S. Moholkar** Professor in Department of Chemical Engineering, Block-K (Academic complex), Room No. 111, Indian Institute of Technology Guwahati, Guwahati – 781039 E-mail: vmoholkar@iitg.ac.in	Member
7.	**Dr. Suresh Panwar** House No.4, Gayatri Green Society, NH 58 Bypass, Kankerkhera, Meerut, Uttar Pradesh Email: spcppri@gmail.com	Member
8.	**Shri Tukaram M Karne** "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2,	Member

	PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	
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

Professor Aniruddha B Pandit, Chairman

***