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

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Dated: 25.06.2021

MINUTES OF THE 12th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD DURING JUNE 17-18, 2021

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

Time: 10:30 AM onwards

DAY 1 - 17th JUNE, 2021 (THURSDAY)

(i) Opening Remarks by the Chairman

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

Prof. Pandit, also appreciates the efforts of the Ministry's Team (Industry 3 Sector) for preparation and uploading the agenda of the EAC meetings very systematic and timely on Parivesh Portal.

(ii) Details of Proposals and Agenda by the Member Secretary

Dr. R. B. Lal, Scientist 'E' & Member Secretary, EAC appraised to the Committee about the details of Agenda items to be discussed during this EAC meeting.

(iii) Confirmation of the Minutes of the 11th Meeting of the EAC (Industry-3 Sector) held during 31st May, & 1st June 2021 at MoEFCC through VC.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (Industry-3 Sector) members on the minutes of its **11th Meeting of the EAC (Industry-3) held on 31st May, & 1st June 2021** conducted through Video Conferencing (VC), and as such no request has been received for any modifications, in the minutes of the project/activities, **confirmed the same.**

(iv) Preliminary discussions in the Committee

The EAC noted that the Committee is vested with the power to appraise various Fertilizer/Pesticide projects along with other chemical projects and to provide recommendations to the Ministry. The Committee being examining considerable Fertilizer/Pesticide projects is apprehensive of plausible impact of such products on the

receiving soil and ecology. **The Committee is of the view that such industries shall conduct study on ecology and fertility of soil, and a comparative study of broad categories of Microbial species present in the soil of area where product is supplied on large scale.**

The Committee was very concerned about the increase of fertilizer/pesticide use and opined that the industries shall explore production of bio-pesticides/organic fertilizers also.

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

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

Consideration of Environmental Clearance

Agenda No. 12.1

Manufacturing of technical grade Pesticides of capacity 400 MTPA by M/s Hindustan Rasayan Private Limited, located at Plot No-C-32-33 Industrial Growth Center Mansa Road, Dist. Bhatinda, Punjab- Consideration of Environment Clearance

[Proposal No. IA/PB/IND2/171090/2020, File No. IA-J-11011/195/2020-IA-II(I)]

The Project Proponent and the accredited Consultant M/s Wolkem India Limited, made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Manufacturing technical grade Pesticides at C – 32 - 33, Industrial growth center, Mansa road, Bathinda, Punjab by M/s Hindustan Rasayan Pvt. Ltd.

The details of products and capacity as under:

S. No.	Existing Formulation products	Capacity (TPD)
1	Solid formulation (Powder & WDG)	07
2	Liquid Formulation (including weedicide)	33
3	Granule formation	40

Proposed products

S. No.	LIST OF PRODUCTS	CATEGORY	PROPOSED TPA
1	Clodinafop Propargyl	HERBICIDE	50

2	Lembdacyhelothrin	INSECTICIDE	50
3	Pretilachlor	HERBICIDES	50
4	Thiamethoxam	INSECTICIDE	50
5	Imidacloprid	INSECTICIDE	50
6	Cypermithrin	INSECTICIDE	50
7	Alphamithrin	INSECTICIDE	50
8	Fipronil	INSECTICIDE	50
TOTAL			**400**

The project/activities are covered under Category 'A' of item 5(b) 'Pesticides industry and pesticide specific intermediates' of the Schedule to the Environment Impact Assessment Notification, 2006, and appraised at Central Level by Expert Appraisal Committee (EAC).

The ToR has been issued by Ministry vide letter dated 06.12.2020. It is informed that Public Hearing is exempted because project site is located on notified industrial area. No litigation is pending against the project. The existing unit is a formulation unit and EC was not required.

Deliberations in the EAC:

The EAC made detailed deliberation on the proposal. The EAC noted that the project proponent has pesticide formulation unit, operating with CTO from the SPCB. **The Committee noted that the PP has not submitted the compliance status of the existing CTO conditions, as per ToR granted to the project. The Committee also observed that the consultant has failed to guide the PP regarding requirement of certified compliance report.** The Committee also observed that the project is claiming public hearing exemption without providing supporting documents for location of the project in the notified industrial area.

The Committee noted that the consultant has not properly guided the PP regarding the EIA provisions and submitted incomplete EIA/EMP report and without CTO compliance report. The Committee noted that the PP reported incremental concentration with respect to PM10, SOx and NOx as 95.58 µg/m3, 17.62 µg/m3 and 18.35 µg/m3 respectively, which is factually incorrect and require recalibration. The Committee also noted that the consultant has not provided adequate reply/documents during presentation. **The Committee also showed its displeasure on the technical quality of the EIA/EMP report and incomplete application submitted by the Consultant for the PP and recommended that Show Cause Notice shall be issued to the Consultant, and the Consultant shall make a detailed explanation before the Committee in the next presentation.**

The Committee has also deliberated on **various technical and environmental data deficiencies** in the proposal and desired for following requisite information/input, as under:

(i) Project proponent/Consultant shall revise the complete EIA/EMP Report providing all the requisite information as per the Appendix III of the EIA Notification, 2006.

(ii) The data mentioned in EIA/EMP report w.r.t. project area in consistent units i.e. m^2, study area and other data are different than the Form 2. Form -2 shall be revised with complete details of the project.

(iii) Compliance status of the existing CTO conditions shall be forwarded by the Ministry's Regional Office.

(iv) Details of Raw material and its linkage and its mitigation measure during transportation needs to be submitted.

(v) Recalibration of incremental GLCs due to the proposed project.

(vi) Justification for public hearing exemption along with documents for location of the project site in notified industrial area.

(vii) Detailed process flow diagram.

The EAC expressed its concern on the quality of the EIA/EMP prepared by M/s Wolkem India Limited, and their extremely poor technical presentation before the Committee and flimsy justification. The Committee is of the view that Consultant should have guided the project proponent properly on the environmental aspects and provisions of the EIA Notification, which is not been seen in the present case. The Consultant should ensure compliance of the existing CTO conditions/ToR before submission of the final EIA/EMP report. The Committee was of the view that in the instant case the Consultant failed in these aspects leading to delay in project and wastage of Committee's time. The Committee recommended that a Show-cause Notice be issued to the Consultant [M/s Wolkem India Limited]

The proposal was accordingly <u>returned</u> for revision of complete report as mentioned above.

<u>Agenda No. 12.2</u>

Setting up of Bulk Drugs & Drug Intermediates Manufacturing Unit of capacity 245300 Kg/Month by M/s FCR Organics located at Plot Nos. 277 & 278, Kadechur Industrial Area, Kadechur Village, Taluk & District Yadgir, Karnataka - Environmental Clearance - reg.

[Proposal No.: IA/KA/IND3/183954/2020, File No.: IA-J-11011/290/2020-IA-II (I)]

The project proponent and the accredited consultant M/s Rightsource Industrial Solutions Pvt. Ltd., made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of Bulk Drugs & Drug Intermediates Manufacturing Unit of capacity 245300 Kg/M by M/s FCR Organics located at Plot Nos. 277 & 278, Kadechur Industrial Area, Kadechur Village, Yadgir Taluk, Yadgir District, Karnataka.

The details of products and capacity as under:

S. No.	Name	Quantity in Kg/Month	CAS Number	Therapeutic Category
1	2,4-Diamino-6-Chloro Pyrimidine-3-Oxide	20000.00	35139-67-4	Minoxidil Intermediate
2	2,6-Dimethyl Phenoxy Acetyl Chloride	5000.00	20143-48-0	Lopinavir Intermediate
3	2-Phenyl-1h-Benzoimidazole-5-Sulfonic Acid (PBSA)	30000.00	27503-81-7	Cosmetic sunscreen
4	3-Bromobenzocaprolactam	5000.00	86499-96-9	Drug intermediate
5	4-Amino -2- Chloro-6,7-Dimethoxy Quinazoline	1000.00	23680-84-4	Alfuzosine Intermediate
6	4-Methyl-6-(2, 4, 4-Trimethyl-Pentyl)-Pyran-2-One (Piroctone Olamine Intermediate)	50000.00	50650-75-4	Piroctone Olamine Intermediate
7	4-N-Butyl Resorcinol	5000.00	18979-61-8	Tyrosinase Inhibitor
8	4-N-Hexyl Resorcinol	5000.00	136-77-6	Analgesic agent
9	5-Bromoindole	2000.00	10075-50-0	Drug Intermediate
10	5-Cyanoindole	500.00	15861-24-2	Drug Intermediate
11	5-Nitroindole	500.00	6146-52-7	Drug Intermediate
12	6-Chloropyrimidine-2, 4-Diamine	20000.00	156-83-2	Minoxidil Intermediate
13	8-Hydroxy quinoline	10000.00	148-24-3	Halquinol Intermediate
14	Atazanavir	1000.00	198904-31-3	Anti-retroviral
15	Brexpiprazole	2500.00	913611-97-9	Anti-psychotic
16	Cetirizine Dihydrochloride	10000.00	83881-52-1	Anti-histamine
17	Ciclopirox Olamine	5000.00	29342-05-0	Anti-fungal/ Cosmetic
18	Cinnarizine Hydrochloride	5000.00	83881-52-1	Anti -Allergic
19	Ciprofloxacin Hydrochloride	20000.00	86483-48-9	Antibacterial
20	Citicoline Sodium	5000.00	33818-15-4	Alzheimer disease
21	Dabigatran Etexilate Mesylate	1000.00	872728-81-9	Anti-coagulant
22	Diacerein	2000.00	13739-02-1	Used to treat osteoarthritis
23	Diethyl Hexyl Butamido Triazone (Iscotrizinol)	20000.00	154702-15-5	Cosmetic sunscreen
24	Diphemanil Methylsulphate	500.00	62-97-5	Anti-cholinergic
25	Enrofloxacin	10000.00	93106-60-6	Anti-bacterial
26	Esomeprazole Magnesium Trihydrate	5000.00	161796-78-7	Anti-ulcer
27	Ethambutol Hydrochloride	2000.00	1070-11-7	Anti-tuberculosis
28	Ethyl hexyl glycerine	5000.00	70445-33-9.	Cosmetic
29	Ethylhexyltriazone (EHT)	20000.00	88122-99-0	Cosmetic sunscreen

S. No.	Name	Quantity in Kg/Month	CAS Number	Therapeutic Category
30	Etoricoxib	10000.00	202409-33-4	Anti -Inflammatory
31	Famotidine	5000.00	76824-35-6	Histamine-2 blockers
32	Favipiravir	15000.00	259793-96-6	Anti-viral
33	Fluconazole	5000.00	86386-73-4	Anti-fungal
34	Halquinol	10000.00	8067-69-4	Anti-microbial
35	Hydrochlorothiazide	10000.00	58-93-5	Diuretic
36	Hydroxychloroquine Sulphate	5000.00	747-36-4	Anti- Inflammatory
37	Itraconazole	10000.00	84625-61-6	Antifungal
38	Ketoconazole	10000.00	65277-42-1	Antifungal
39	Ketorolac tromethamine	2000.00	74103-06-3	Anti- inflammatory
40	Levetiracetam	2000.00	102767-28-2	used to treat epilepsy
41	Linezolid	1000.00	165800-03-3	Anti-biotic
42	Lopinavir	5000.00	192725-17-0	Anti-retroviral
43	Losartan potassium	5000.00	114798-26-4	Anti-hypertensive
44	Mesalamine	2000.00	89-57-6	Anti-inflammatory
45	Minoxidil	10000.00	38304-91-5	Anti- Hypertensive
46	Mirtazapine	5000.00	61337-67-5	Anti-depression
47	Montelukast sodium	1000.00	151767-02-1	Used for treatment of asthma
48	Olmesartan	10000.00	144689-63-4	Anti-hypertensive
49	Ondansetron hydrochloride dihydrate	5000.00	103639-04-9	Anti- emetic
50	Pantoprazole Sodium	10000.00	138786-67-1	Anti- Ulcer
51	Para chloro meta xylenol	30000.00	88-04-0	Anti-septic
52	Paracetamol	10000.00	103-90-2	Pain Reliever
53	Pazopanib Hydrochloride	1000.00	635702-64-6	Anti-Neoplastic
54	Piroctone Olamine	20000.00	68890-66-4	Anti-dandruff/ Cosmetic
55	Pregabalin	5000.00	148553-50-8	Anti- Convulsant.
56	Rabeprazole sodium	5000.00	117976-90-6	Anti -ulcer
57	Remdesivir	5000.00	1809249-37-3	Anti-viral
58	Ribavirin	1000.00	36791-04-5	Anti-viral
59	Ritonavir	5000.00	155213-67-5	Used to treat HIV
60	Rivaroxaban	500.00	366789-02-8	Anti-thrombotic
61	Rosuvastatin calcium	5000.00	287714-41-4	Anti-hypertensive
62	Sertraline hydrochloride	5000.00	79559-97-0	Anti-Depressant
63	Solifenacin Succinate	1000.00	242478-38-2	Anti-spasmodic
64	Sorafenib	1000.00	284461-73-0	Anti-Neoplastic
65	Sumatriptan Succinate	2000.00	103628-46-2	Anti-Migraine
66	Tamsulosin Hydrochloride	1000.00	106463-17-6	Anti -Adrenergic Agent

S. No.	Name	Quantity in Kg/Month	CAS Number	Therapeutic Category
67	Telmisartan	5000.00	144701-48-4	Anti-hypertensive
68	Teneligliptin Penta Hydro Bromide Hydrate	1000.00	906093-29-6	Anti- Diabetic
69	Tizanidine Hydrochloride	10000.00	64461-82-1	Muscle Relaxant
70	Valsartan	2000.00	137862-53-4	Anti-hypertensive
71	R & D Products	300.00	--	--
Total (Any ten products + R & D products will be manufactured at any given Point of time)		**245300**		

LIST OF BY-PRODUCTS AND ITS QUANTITIES

S. No	Product	By-product	Quantity in Kg/day
1	4-Methyl-6-(2, 4, 4-trimethyl-pentyl)-pyran-2-one (Piroctone Olamine Intermediate)	Aluminium hydroxide Solution (33%)	4680.00
2	6-Chloropyrimidine-2, 4-diamine (Minoxidil Intermediate)	Sodium nitrate	554.64
		Trisodium phosphate	899.50
3	Ciprofloxacin HCl	Sodium acetate	158.48
		Piperazine HCl	229.30
4	Citicoline sodium	Calcium Chloride	114.10
		Morpholine	89.60
5	Enrofloxacin	Sodium acetate	126.78
6	Ethambutol hydrochloride	Monosodium glutamate	104.90
7	Ethyl hexyl glycerine	Methyl formate	108.80
8	Etoricoxib	Aluminium hydroxide (33%)	374.26
		Phosphoric acid	116.27
		Isobutanol	76.46
9	Favipiravir	Sodium acetate	166.70
		Potassium Bromide	174.70
10	Fluconazole	(Aluminium Hydroxide solution (33%)	257.90
		Ammonium nitrate	66.10
		Dimethyl Sulfoxide	56.10
11	Itraconazole	Potassium chloride	482.26
		Phenol	172.29
		Potassium bromide	337.31
		Sodium bromide	245.08
		Sodium Benzoate	206.72
		Triethylamine Hydrochloride	167.86
12	Ketoconazole	Benzoic acid	222.18
		Sodium bromide	187.18

S. No	Product	By-product	Quantity in Kg/day
13	Linezolid	Imidazole	27.00
14	Lopinavir	Benzyl Alcohol	95.80
		Monosodium citrate	189.60
		Potassium chloride	153.40
		Monosodium citrate	163.10
15	Losartan Potassium	Succinimide	54.40
		Trityl alcohol	124.40
		Sodium bromide	49.20
16	Paracetamol	Acetic acid	154.10
17	Piroctone Olamine	Aluminum hydroxide solution (33%)	738.58
18	Rabeprazole Sodium	Sodium acetate	96.60
		Acetic acid	70.70
19	Ritonavir	Sodium acetate	95.80
		Boric acid	44.70
		4-Nitro phenol	104.70
		Sodium phosphate	34.10
20	Rivaroxaban	Tri ethyl amine Hydrochloride	17.13
21	Rosuvastatin Calcium	Meta Chloro benzoic acid	293.30
		Ethanol	29.30
22	Solifenacin Succinate	Triethylamine Hydrochloride	14.03
23	Sertraline Hydrochloride	Ammonium Chloride	35.20
Note: The quantity of By-products based on respective products being manufactured.			

The proposed project is coming under Category 'B' as per the Environmental Impact Assessment (EIA) Notification S.O. 1533 (E), dated 14th September, 2006 and attracts general condition i.e. project site falls within interstate boundary i.e., Karnataka to Telangana State which is located within 5 km from the project boundary. Hence, requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The Standard ToR was issued by MoEFCC vide its letter No. IA-J-11011/290/2020-IA-II(I) dated 02.12.2020. Public hearing for the proposed project is exempted as it is located at KIADB, Industrial area – Kadechur and this Ministry has granted environmental clearance (EC) to Kadechur Industrial Area at Kadechur village in Yadgir district, Karnataka vide its letter No. 21-8/2014-IA.II, dated 14.10.2016. No litigation is pending against the proposal.

The proposed project will be established in a land area of 10.0 Acres (40470 Sqm). Industry will develop greenbelt in an area of 13892.00 Sqm which is 34.32 % out of 40470 Sqm of the total project area. The proposed project cost is about Rs.39.8 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.306 Lakhs and the recurring cost (operation and maintenance) will be about Rs.35 Lakhs per annum. Total Employment under proposed project will be of 340 persons. Industry proposes to allocate Rs.79.6 Lakhs for 5 years towards Corporate Environmental Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Ambient air quality monitoring was carried out at 8 locations during Winter Season (November, 2020 to January, 2021) and submitted baseline data indicates that ranges of concentrations of PM10 (43.6 – 67.2 µg/ m^3), PM2.5 (16.6 - 26.9 µg/ m^3), SO2 (8.4 – 18.8 µg/ m^3), NOx (10.2 - 24.1 µg/ m^3), CO (0.2 – 0.57 mg/ m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be PM10, PM2.5, SO_2 & NOx would be 0.116 µg/ m^3, 0.027 µg/ m^3, 0.634 µg/ m^3 & 0.747 µg/ m^3 respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The total water requirement is 508.78 m^3/day of which fresh water requirement of 388.0 m^3/day will be met from KIADB water supply. Generated effluent of 152.17 m^3/day will be treated through stripper followed by MEE/ATFD, Biological Treatment Plant followed by RO plant will be based on Zero Liquid Discharge System or will be sent to CETP- Mother Earth, Kadechur.

Power requirement will be 2000 kVA and will be met from Karnataka Power Corporation Limited (KPCL). The unit has proposed to install 1 X 250 kVA, 1 x 500 kVA & 1 x 650 kVA DG Sets, Stacks (height 7, 8 & 9mts) will be provided as per CPCB norms to the proposed DG sets.

PP reported that 2 x 5.0 TPH (1 – Proposed & 1 – Stand-by) & 1 x 4.0 TPH boilers has been proposed with stacks height of 30 mtrs for each boiler. Cyclone separators followed by bag filters will be installed for the proposed boilers for controlling the particulate emissions (within statutory limit of 115 mg/ Nm^3). 3 x 4 Lakh K. Cal/Hr (2 – Proposed & 1 – Stand-by) Thermic fluid heaters are proposed with stacks height of 11 mtrs for each TFH.

Details of Process emissions generation and its management.

S. No.	Gas	Quantity in Kg/Day	Treatment Method
1	Carbon dioxide	1295.00	Dispersed into the atmosphere
2	Hydrogen	52.00	Diffused by using Nitrogen through Flame arrestor
3	Ammonia	141.50	Scrubbed by using chilled water media
4	Oxygen	231.00	Dispersed into the atmosphere
5	Nitrogen	20.00	Dispersed into the atmosphere
6	Hydrogen Bromide	796.00	Scrubbed by using C. S. Lye solution
7	Hydrogen chloride	3739.00	Scrubbed by using chilled water media
8	Dimethylamine	162.00	Scrubbed by using chilled water media
9	Hydrogen Iodide	92.00	Scrubbed by using C.S.Lye Solution
10	Propane	4.00	Diffused by using Nitrogen through Flame arrestor
11	Chloromethane	19.00	Scrubbed by using C.S.Lye Solution
12	Hydrogen Fluoride	63.00	Scrubbed by using C.S.Lye Solution
13	Sulphur dioxide	977.00	Scrubbed by using C.S.Lye Solution

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

S. No	Waste	Quantity	Disposal Method
Hazardous Waste Details			
1	Organic solid waste	5496 Kg/Day	Will be sent to Cement Industries
2	Spent Carbon	230 Kg/Day	
3	Solvent Distillation Residue	1140 Kg/Day	
4	Organic distillate from MEE stripper	1730 Ltrs/Day	
6	Inorganic Solid Waste	2989 Kg/Day	Will be sent to TSDF
7	MEE Salts	5672 Kg/Day	
8	ETP Sludge	200 Kg/Day	
9	Used Oils	300 Ltrs/Annum	Will be sent to SPCB Authorized Agencies for Reprocessing/ Recycling
10	Detoxified Containers/ Container liners	2000 No's / Month	After Detoxification will be sent to SPCB authorized agencies
11	Used Lead Acid Batteries	6 No's/ Annum	Send back to suppliers for buyback of New Batteries
Solid waste details			
12	Ash from boilers	10.5 TPD	Will be sent to Brick Manufacturers

CONSOLIDATED STATEMENT- POLLUTION LOADS DETAILS

Water Input	Effluent Water	Inorganics in Effluent	Organics in Effluent	TDS	COD	HTDS	LTDS	Total Effluent	Organic solid waste	Inorganic solid waste	Spent Carbon	Distillation Residue	Process Emissions	Fugitive Emissions	Solvent Vapour Loss
Ltrs/ Day	Ltrs/ Day	Kg/ Day	Kg/ Day	Kg/ Day	Kg/ Day	Ltrs/ Day	Ltrs/ Day	Ltrs/ Day	Kg/ Day	Kg/ Day	Kg/ Day	Kg/ Day	Kg/ Day	Kg/ Day	Kg/ Day
58283.33	60949.23	2150.64	1924.33	2150.64	3221.49	59688.04	9484.55	69172.60	5496.35	2989.08	230.00	1139.67	5834.70	1242.33	1242.33

WATER & EFFLUENT DETAILS

Water Input	Effluent Water	Inorganics In Effluent	Organics In Effluent	TDS	COD	HTDS	LTDS	Total Effluent
Ltrs/ Day	Ltrs/ Day	Kg/Day	Kg/ Day	Kg/ Day	Kg/ Day	Ltrs/ Day	Ltrs/ Day	Ltrs/ Day
58283.33	60949.23	2150.64	1924.33	2150.64	3221.49	59688.04	9484.55	69172.60

Deliberations by the EAC:

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

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

The Committee noted that the EIA/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for green belt development and suggested to complete plantation in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested use of coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested increase in the use percentage of recycled water and effective mitigation of VOCs.

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

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

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

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(iii). 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.

(iv). The treated effluent of 152.17 m^3/day proposed to discharge to the CETP- Mother Earth, Kadechur or Unit will be based on Zero Liquid Discharge System. 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.

(v). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.

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

(vii). Total fresh water requirement, sourced from KIADB, shall not exceed 388.0 m^3/day. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(viii). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

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

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

(xi). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space provided with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame

proof. The solvent storage tanks shall be provided with breather valves to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

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

(xiv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

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

Agenda No. 12.3

Proposed project for manufacturing of Pesticides by M/s Punjab Chemicals and Crop Protection Ltd. (Unit-II), Located at village-kolimajra, samalheri, PO -lalru, SAS Nagar, Punjab- Consideration of Environmental Clearance

[Proposal No IA/PB/IND2/104211/2019, File No. IA-J-11011/185/2019-IA-II(I)]

The Project Proponent and the accredited Consultant M/s Eco Chem Sales & Services made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for manufacturing of pesticides at Village Kolimajra & Samalheri, P.O. Lalru, Tal. Dera Bassi, Dist.: SAS Nagar, Punjab by M/s Punjab Chemicals and Crop Protection Ltd(Unit-II).

The details of products and capacity as under:

List of Products

Sr. No.	Product	CAS No.	Capacity, TPA	End-Use
1.	Azoxystrobin	131860-33	2400	Agriculture - active agent protecting plants.
2.	Triazinone	88122-99-0	3600	
3.	Aminoacetonitrile Sulfate (AANS)	5466-22-8	1920	
4.	**CS2 Based 4 Products-Xanthates**			
	Potassium Ethyl Xanthate	140-89-6	1500	
	Sodium Isopropyl Xanthate	140-93-2	1500	
	Potassium isopropyl Xanthate	140-92-1	1000	
	Potassium amyl Xanthate	2720-73-2	1000	
5.	Asulam (Methyl Sulfonyl carbamate)	3337-71-1	500	
6.	Metobromuron	3060-89-7	720	
Total		**---**	**14140**	

List of By-Products

S No	By Products	CAS No.	TPA
1.	Methyl acetate	79-20-9	1308.00
2.	Dimethoxymethane	109-87-5	1866.24
3.	NaHS	16721-80-5	4210.20
4.	Methanol	67-56-1	123.00
5.	Sodium Sulfate from PHU	7757-82-6	276.48
6.	Sodium Sulfate from PMMU	7757-82-6	439.20
7.	Sodium Bromide	7647-15-6	1361.52
Total			**9584.64**

The project/activities are covered under Category 'A' of item 5(b) 'Pesticides industry and pesticide specific intermediates' of the Schedule to the Environment Impact Assessment Notification, 2006, and appraised at Central Level by Expert Appraisal Committee (EAC).

The ToR has been issued by Ministry vide letter No. IA-J-11011/185/2019-IA II (I); dated 11th June 2019. Public Hearing for the proposed project has been conducted by the Punjab Pollution Control Board on 31/12/2019 at 12.00 noon. The main issues raised during the public hearing are related to employment generation and information regarding air and water pollution and its mitigation measures. No Litigation Pending against the proposed project.

The land area available for the project is 21555 m^2. Industry will develop greenbelt in an area of 33 % i.e. 7113.15 m^2 out of total area of the project. The proposed project cost will be Rs. 60 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 640 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 1200

Lakhs per annum. Total Employment will be 300 numbers persons (220 direct & 80 indirect). Industry proposes to allocate Rs. 120 Lakhs towards Corporate Environment Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, wildlife corridors etc. within 10 km distance from the project site. River Ghaggar is flowing at a distance of 4 km in West direction.

Ambient air quality monitoring was carried out at 8. locations during December 2018 to February 2019 and the baseline data indicates the ranges of concentrations as: PM_{10} (62.4 – 85.4 µg/m^3), $PM_{2.5}$ (32.2 – 43.8 µg/m^3), SO_2 (7.7 – 19.4 µg/m^3) and NOx (12.2 – 23.4 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.45 µg/m^3, 2.10 µg/m^3 and 0.30 µg/m^3 with respect to PM_{10}, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 367 KLD (Fresh: 140 KLD + Recycled - 227 KLD) will be met from Tube Well (available within premises). Effluent (Industrial) of 267 KLD quantity will be treated through ETP followed by RO & MEE. The plant will be based on Zero Liquid discharge system.

Total industrial Waste Water Generation will be 267 KLD, out of which 187 KLD from Process and 7 KLD from floor and container washing will be treated in ETP/MEE (12.5 m3/h capacity) followed by ATFD. Total 50 KLD of waste water (3 KLD from the DM Plant, 10 KLD from the boiler, and 30 KLD from the cooling tower with 7 KLD fresh water) will be treated in the RO. RO rejection (10 KLD) will be taken to ETP/MEE. 40 KLD of RO permeate will be recycled in cooling tower. 20 KLD water from the boiler will be treated in ATFD. Total 227 KLD water (i.e. 40 KLD RO Permeate, 64 KLD ATFD condensate, 103 KLD MEE condensate and 20 KLD boiler condensate) will be recycled. Average 55 TPD salt from MEE will be dispose off into TSDF. Thus there will be a Zero Liquid Discharge.

Power requirement for the proposed project will be 2125 kVA and will be met from Punjab State Cooperation Limited. Proposed 03 DG sets of 1000 kVA capacity each will be installed. DG sets are used as standby during power failure. Stack (height 10 m) will be provided as per CPCB norms to the proposed DG sets. Proposed one number of 18 TPH boiler and Multi cyclone dust collector followed by bag filter with a stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boiler.

Details of Process emissions generation and its management:

There will be generation of sulphur dioxide, nitrogen oxides, HCl and SPM from the Incinerator. Multi dust cyclone separator followed by wet scrubber and height of 30 m chimney will be provided. There will be generation of HCl during manufacturing of Trizinone, which will be scrubbed in alkali scrubber. 5 m height of chimney will be provided.

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

Sr. No.	Process waste	Category	Quantity, TPA	Mode of disposal
1	Used oil	Sch: I/5.1	6000 L/A	Generation, collection, storage, transportation and disposed to TSDF, Ramky enviro.
2	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes	Sch: I/33.1	Empty barrels-1.0 TPA,Containers -1200 drums /Annum	Generation, collection, storage, transportation and disposed to TSDF, Ramky enviro.
3	Sludge from wet scrubber	Sch: I/37.1	5	Generation, collection, storage, transportation and disposed to TSDF, Ramky enviro.
4	Ash from Incinerator & Flue Gas Cleaning Residue	Sch:I/37.2	20	Generation, collection, storage, transportation and disposed to TSDF, Ramky enviro.
5	MEE Residue	Sch:I/37.3	20075	Generation, collection, storage, transportation and disposed to TSDF, Ramky enviro.
6	Salt from Process	Sch:I/35.3	4203.6	Generation, collection, storage, transportation and disposed to TSDF, Ramky enviro.
Solid Waste				
7	STP Sludge	--	0.5	Used as a manure within own premises.

Deliberations in the EAC:

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

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

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

The Committee noted that the EIA/EMP report are in compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee also deliberated on the activities/action plans and found to be addressing the public hearing issues in the study area. The Committee suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio. The Committee noted that the project proponent submitted revised greenbelt development plan. The committee suggested to conduct study on ecology and fertility of soil, and a comparative study of Micro species present in the soil of area where product is supplied on large scale. The Committee was very concerned about the increase of pesticide use and opined that the industries shall explore production of bio-pesticides also.

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

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

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

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

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

(ii). The project proponent shall undertake a study on ecology and fertility of soil, and a comparative study of micro-species in the soil where their product is applied on large scale and a report shall be submitted to the Regional Office of the Ministry within 3 years.

(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.

(iv). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture. Domestic effluent shall be treated in STP and used for greenbelt development.

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

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

(vii). 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.

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

(ix). 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.

(x). Necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents.

(xi). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space 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.

(xii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.996% with effective chillers/modern technology.

(xiii). Total fresh water requirement shall not exceed 95 cum/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

(xiv). 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.

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

(xvi). The green belt of at least 5-10 m width shall be developed in nearly 33-40% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration and plantation shall be started from first year onwards. The action plan proposed shall be completed in letter and spirit.

(xvii). The activities and the action plan proposed by the project proponent to address the Public hearing and socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.

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

Agenda No.12.4

Setting up of Active Pharmaceutical Ingredients (API) manufacturing unit of capacity of 46 TPM, located at Plot No. 61, Kadechur Industrial area, Yadagir Taluk & District, Karnataka by M/s Chemwin Laboratories Pvt Ltd - Environment Clearance

[Proposal No. IA/KA/IND2/205646/2021, File No. IA-J-11011/207/2021-IA-II(I)]

The project proponent and the accredited consultant M/s AM Enviro Engineers**,** made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of Active Pharmaceutical Ingredients (API) manufacturing unit at Plot No. 61, Kadechur Industrial area, Yadagir Taluk & District, Karnataka by M/s. Chemwin Laboratories Pvt. Ltd

The details of products and capacity as under**:**

S. No.	Product	Qty in TPM	CAS Number	Therapeutic Use
1	Anastrozole	3	120511-73-1	To treat breast cancer
2	Bicalutamide	1	90357-06-5	To treat metastatic prostate cancer
3	Canagliflozin	5	842133-18-0	Used along with diet
4	Chlorphenesin	10	104-29-0	Muscle relaxant
5	Cyclophosphamide	1	50-18-0	To treat cancer
6	Docetaxel	3	114977-28-5	To treat cancer
7	Fluconazole	8	86386-73-4	Azole antifungals
8	Gefitinib	1	184475-35-2	Anti cancer (lung cancer)
9	Gemcitabine HCl	3	95058-81-4	Anti-cancer ("antineoplastic" or "cytotoxic") chemotherapy drug
10	Irinotecan HCl	1	136572-09-3	Topoisomerase I inhibitors
11	Ivabradine HCl	2	155974-00-8	To treat heart disease
12	Ivacaftor	2	873054-44-5	To treat cystic fibrosis
13	Lacosamide	2	175481-36-4	To prevent and control seizures
14	Linagliptin	5	668270-12-0	Antidiabetic
15	Metformin HCl	5	1115-70-4	Antidiabetic
16	Metronidazole	8	443-48-1	Antibiotic
17	Moxifloxacin	2	354812-41-2	To treat pneumonia
18	Myrtecaine	5	7712-50-7	Muscle strains, tendinitis or ligament sprains and joint pain
19	Nebivolol HCl	5	99200-09-6	To treat high blood pressure
20	Nizatidine	10	76963-41-2	Ulcers
21	Olanzapine	10	132539-06-1	Antipsychotic
22	Pirfenidone	2	53179-13-8	Antiviral
23	Ramipril	5	87333-19-5	To treat high blood pressure
24	Risperidone	2	106266-06-2	Schizophrenia
25	Sorafenib	2	284461-73-0	To treat cancer
26	Tadalafil	2	171596-29-5	To treat erection problems
27	Tapentadol HCl	3	175591-09-0	Pain relieve
28	Temozolomide	2	85622-93-1	Alkylating agents- To treat brain tumor
29	Thalidomide	1	50-35-1	To treat a skin condition and cancer

30	Vildagliptin	2	274901-16-5	Antidiabetic
	Total	**113 TPM**		
	Total (5 products)	**46 TPM**		

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and its amendment dated 27.03.2020 and 15.10.2020. Due to applicability of general conditions (interstate boundary within 5 km), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

Proposed project will be established in a land area of 2 Acres (8089.8 Sqm). Industry will develop greenbelt in an area of 2694.3 Sqm which is 33.3% out of the total project area. The proposed project cost is about Rs.6.5 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.77 Lakhs and the recurring cost (operation and maintenance) will be about Rs.15 lakhs per annum. Total Employment under proposed project will be of 50 persons. PP allocated Rs.7 Lakhs to be spent in 5 years towards CER.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Kadechur lake is at a distance of 1.5 km in the East direction.

Total water requirement is 132.6 KLD, out of which fresh water requirement of 80.4 KLD will be met from KIADB. Generated effluent of 66.1 KLD will be treated through Common Effluent Treatment Plant CETP, Kadechur. The treated water from CETP will be reused for utility purposes includes cooling tower (41.5 KLD) and gardening (10.7 KLD).

Power requirement of project will be 500 kVA and will be met from GESCOM. The unit is proposed to install 1X250 kVA of DG Set with stack height of 4 m will be provided as per CPCB norms. The unit has proposed to install 1X4TPH Briquettes/Coal fired boiler with stack of height 30 m. Multi Cyclone separator will be installed for the boiler for controlling the particulate emissions-(within statutory limit of 115 mg/ Nm^3).

Details of Process emissions generation and its management:

S. No	Gas	Quantity in Kg/Day	Treatment Method	Disposal Method after treatment
1	Hydrogen chloride	89.76	Scrubbed by using water media	Generated Dil. HCl will be reused within the industry
2	Ammonia	54.17		Generated NH_4OH will be reused within the industry
3	Sulfur dioxide	20.6	Scrubbed by using C.S. Lye solution	Residues from the reaction will be sent to TSDF
4	Hydrogen Bromide	400		
5	Oxygen	68.58	Dispersed into atmosphere	-
6	Carbon dioxide	103		
7	Nitrogen	22.74		

8	Hydrogen	12.44	Dispersed into atmosphere through flame arrester	-

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

S. No	Category of the HW	Hazardous Waste	Quantity	Disposal Method
Hazardous waste generation from plant				
1	5.1	Waste oils & Grease/ Used Mineral oil	0.2 KL/Annum	Agencies authorized by KSPCB
2	5.2	Oil Soaked Cotton	2 Kgs/month	KSPCB authorized Vendor
3	20.3	Distillation Residue	671 kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing
4	28.1	Process Residues & Waste	1828 kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
5	28.2	Spent Catalyst	9 kgs/day	Store in secured manner and hand over to authorized recycler
6	28.3	Spent Carbon + Hyflow	188 Kgs/Day	Store in secured manner and hand over to authorized cement industry for Co-processing
7	28.4	Off Specification Products	1 TPM	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
8	28.5	Date expired products	500 Kgs/Month	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
9	33.1	Detoxified-Container & Container Liners of Hazardous Chemicals and Wastes	250 No's/Month	After complete detoxification, shall be disposed to the outside agencies.

10	33.2	Contaminated cotton rags or other cleaning materials	25Kgs/month	Store in secured manner and hand over to KSPCB Authorized Vendor
11	A1160	Used Lead Acid batteries	2No's/Annum	Returned back to dealer/ Supplier
Other & Miscellaneous Solid Wastes				
12	--	Coal ash	1120 kgs/day	Sent to Brick Manufacturers
13		Briquette ash	2860 kgs/day	Sent to Fertilizer industries
14	--	Residue from scrubber	509 kgs/day	Shall be stored in secured manner & handed over to TSDF.
15	--	Used PPE	5 Kgs/ Month	Sent to authorized vendor
16	--	E- Waste	150 Kgs/ Annum	Authorized recyclers
17	--	Plastic Waste	200 Kgs/ Annum	Authorized recyclers
18	--	Metal Scrap	3 TPA	Sale to outside agencies/ recyclers
19	--	Used Filters (HEPA filters, Oil Filters etc.)	25 Nos /year	Sent to TSDF
20	--	Used / Discarded RO Membranes	0.2 TPA	Sent to TSDF

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

Kg per day													
EFFLUENT WATER								**SOLID WASTE**					
Water input	Water in Effluent	Organics in effluents	TDS	COD	HTDS	LTDS	Total Effluent	Organic	In Organic	Spent carbon	Spent Catalyst	Process Emission	Distillation residue
34073	34135.9	540.89	2777.5	840.62	30975.1	5122.8	36098	1037.17	790.41	187.67	8.67	564.3	671

HAZARDOUS SOLID WASTE DETAILS

Organic solid waste	Inorganic solid waste	Spent Carbon	Distillation Residue
Kg/day	Kg/day	Kg/day	Kg/day
1037.17	790.41	187.67	671

EMISSION DETAILS

Kg/day							
HCl	**CO_2**	**N_2**	**H_2**	**NH_3**	**SO_2**	**O_2**	**HBr**
89.76	103	22.74	12.44	54.17	20.6	68.58	400

Deliberations by the EAC:

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

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

The Committee was further informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load and 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 action plan and budget allocation for green belt development and suggested to complete plantation in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested use of coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested increase in the use percentage of recycled water and effective mitigation of VOCs. Revised water balance and CER commitment found satisfactory by the EAC.

The EAC deliberated on the proposal with due diligence using the process as notified under the provisions of the EIA Notification, 2006, as amended from time to time and accordingly made the recommendations to the proposal. The Experts Members of the EAC

also found the proposal in order and recommended for the grant of environmental clearance.

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

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

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(iii). 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.

(iv). The treated effluent of 66.1 KLD proposed to discharge to the CETP, Kadechur. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.

(v). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.

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

(vii). Total fresh water requirement shall not exceed 80.4 KLD will be met from KIADB. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(viii). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

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

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

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

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

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

(xiv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule

presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

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

Agenda No.12.5

Setting up of Active Pharmaceutical Ingredients (API) manufacturing unit of capacity 31 TPM at Plot No. 65, Kadechur Industrial area, Yadagir Taluk & District, Karnataka by M/s Sanovi Pharmaceuticals Pvt. Ltd. - Environmental Clearance

[Proposal No. IA/KA/IND2/205514/2021, File No. IA-J-11011/209/2021-IA-II(I)]

The project proponent and the accredited consultant M/s AM Enviro Engineers, made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of Active Pharmaceutical Ingredients (API) manufacturing unit at Plot No. 65, Kadechur Industrial area, Yadagir Taluk & District, Karnataka by M/s Sanovi Pharmaceuticals Pvt. Ltd.

The details of products and capacity as under:

Sl. No	Product	Qty. in TPM	CAS Number	Therapeutic Use
1	Atorvastatin calcium	5	134523-03-8	To Treat Cholesterol
2	Clopidogrel Bisulphate	5	120202-66-6	To Treat The Symptoms of Acute Coronary Syndrome
3	Dapoxetine Hydrochloride	2	129938-20-1	Inhibitor
4	Darunavir Amorphous & Ethanolate	1	206361-99-1	To Treat HIV-1 Infection
5	Domperidone	3	57808-66-9	Anti-Sickness
6	Etodolac	1	41340-25-4	To Reduce Pain & Swelling
7	Etoricoxib	2	202409-33-4	To Reduce Pain & Swelling
8	Fluconazole	8	86386-73-4	To Treat Gastritis
9	Gefitinib	1	184475-35-2	To Treat Lung Cancer
10	Ibrutinib	1	936563-96-1	Kinase Inhibitors
11	Imatinib Mesylate	1	152459-95-5	To Treat Cancer
12	Irinotecan Hcl	1	136572-09-3	Topoisomerase I Inhibitors
13	Lenalidomide	1	191732-72-6	To Treat Anemia
14	Letrozole	3	112809-51-5	To Treat Breast Cancer
15	Levocetirizine Dihydrochloride	3	130018-77-8	To Relieve Runny Nose

16	Melphalan	1	148-82-3	Alkylating Agents – To Treat Ovarian Cancer
17	Montelukast Sodium	2	151767-02-1	To Prevent Wheezing
18	Omeprazole	8	73590-58-6	To Treat Gastritis
19	Oxaliplatin	1	63121-00-6	To Prevent Colon Cancer
20	Paclitaxel	0.5	33069-62-4	Chemotherapy Medication
21	Pazopanib Hcl	1	635702-64-6	To Treat Kidney Cancer
22	Rosuvastatin Calcium	3	147098-20-2	To Treat Cholesterol
23	Saquinavir Mesylate	1	127779-20-8	HIV Medications
24	Sildenafil citrate	5	171599-83-0	To Treat Male Sexual Function Problems
25	Sorafenib	1	284461-73-0	To Treat Cancer
26	Stavudine	1	3056-17-5	Nucleoside Reverse Transcriptase Inhibitors
27	Tapentadol Hydrochloride	3	175591-09-0	Pain Relieve
28	Temozolomide	1	85622-93-1	To Treat Brain Tumor
29	Thalidomide	1	50-35-1	To Treat Skin And Cancer
30	Zoledronic Acid	1	118072-93-8	To Treat High Levels Of Calcium
	Total	**68.5**		
	Total (5 Products)	**31**		

LIST OF BY-PRODUCTS AND ITS QUANTITIES

S. No	Product	By-Product	Qty in kg/day
1	Melphalan	O-Pthalamide	42
Note: The quantity of By-products based on respective products being manufactured.			

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and its amendment dated 27.03.2020 and 15.10.2020. Due to applicability of general conditions (interstate boundary within 5 km), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposed project will be established in a land area of 2 Acres (8089.8 Sqm). Industry will develop greenbelt in an area of 2694.3 Sqm which is 33.3% out of the total project area. The proposed project cost is about Rs.5.9 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.78 Lakhs and the recurring cost (operation and maintenance) will be about Rs.15.5 lakhs per annum. Total Employment under proposed project will be of 60 persons. In accordance with O.M. F. No. 22-65/2017-IA.III dated 30th September 2020 issued by MoEF&CC by suppressing the CER notification dated 1st May 2018, Government of India, the industry is willing to allocate amount of Rs.7 lakhs in 5 years (from the date of commercial commence).

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Kadechur lake is at a distance of 1.6 km in the North-East direction.

Total water requirement is 141.1 KLD, out of which fresh water requirement of 102.7 KLD will be met from KIADB. Generated effluent of 81.5 KLD will be treated through Common Effluent Treatment Plant CETP, Kadechur. The treated water from CETP will be reused for utility purposes includes cooling tower (27.7 KLD) and gardening (10.7 KLD)

Power requirement of project will be 500 kVA and will be met from GESCOM. The unit is proposed to install 1X250 kVA of DG Set with stack height of 4 m will be provided as per CPCB norms. The unit has proposed to install 1X2TPH and 1X3TPH Briquettes/Coal fired boiler with stack of height 30 m. Multi Cyclone separator will be installed for the boiler for controlling the particulate emissions (within statutory limit of 115 mg/ Nm^3).

Details of Process emissions generation and its management:

S. No	Gas	Quantity in Kg/Day	Treatment Method	Disposal Method after treatment
1	Hydrogen chloride	141.51	Scrubbed by using water media	Generated Dil. HCl will be reused within the industry
2	Ammonia	149.73		Generated NH_4OH will be reused within the industry
3	Sulfur dioxide	100.16	Scrubbed by using C.S. Lye solution	Residues from the reaction will be sent to TSDF
4	Oxygen	25.91	Dispersed into atmosphere	-
5	Carbon dioxide	223.58		-
6	Hydrogen	17.97	Dispersed into atmosphere through flame arrester	-

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

S. No	Category of the HW	Hazardous Waste	Quantity	Disposal Method
Hazardous waste generation from plant				
1	5.1	Waste oils & Grease/ Used Mineral oil	0.2 KL/Annum	Agencies authorized by KSPCB
2	5.2	Oil Soaked Cotton	2 Kgs/month	KSPCB authorized Vendor
3	20.3	Distillation Residue	626 kgs/day	Store in secured manner and hand over to

				authorized cement industry for Co-processing
4	28.1	Process Residues & Waste	3359 kg/day	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
5	28.2	Spent Catalyst	45 Kgs/day	Store in secured manner and hand over to authorized recycler
6	28.3	Spent Carbon + Hyflow	119 Kgs/Day	Store in secured manner and hand over to authorized cement industry for Co-processing
7	28.4	Off Specification Products	1 TPM	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
8	28.5	Date expired products	500 Kgs/Month	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
9	33.1	Detoxified-Container & Container Liners of Hazardous Chemicals and Wastes	250 No's/Month	After complete detoxification, shall be disposed to the outside agencies.
10	33.2	Contaminated cotton rags or other cleaning materials	25Kgs/month	Store in secured manner and hand over to KSPCB Authorized Vendor
11	A1160	Used Lead Acid batteries	2No's/Annum	Returned back to dealer/ Supplier
Other & Miscellaneous Solid Wastes				
12	--	Coal ash	1400 kgs/day	Sent to Brick Manufacturers
13		Briquette ash	3640 kgs/day	Sent to Fertilizer industries
14	--	Residue from scrubber	68.6 kgs/day	Shall be stored in secured manner & handed over to TSDF.
15	--	Used PPE	5 Kgs/ Month	Sent to authorized vendor
16	--	E- Waste	150 Kgs/ Annum	Authorized recyclers
17	--	Plastic Waste	200 Kgs/	Authorized recyclers

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

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

Kg per day													
EFFLUENT WATER								**SOLID WASTE**					
Water input	Water in Effluent	Organics in effluents	TDS	COD	HTDS	LTDS	Total Effluent	Organic	In Organic	Spent carbon	Spent Catalyst	Process Emission	Distillation residue
46199.9	46752.5	892.4	2143.4	1935.8	31809.8	16379.4	48189.16	2395.6	962.7	119.4	44.4	443.2	626

HAZARDOUS SOLID WASTE DETAILS

Organic solid waste	**Inorganic solid waste**	**Spent Carbon**	**Distillation Residue**
Kg/day	Kg/day	Kg/day	Kg/day
2395.6	962.7	119.4	626

EMISSION DETAILS

Kg/day					
HCl	**CO_2**	**H_2**	**NH_3**	**SO_2**	**O_2**
141.51	223.58	17.97	149.73	100.16	25.91

Deliberations by the EAC:

The EAC, constituted under the provision of the EIA Notification, 2006 comprising of Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in the desired format along with PFR & EMP reports prepared and submitted

by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

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

The Committee was further informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load and 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 action plan and budget allocation for green belt development and suggested to complete plantation in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested use of coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested increase in the use percentage of recycled water and effective mitigation of VOCs. Revised water balance and CER commitment found satisfactory by the EAC.

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

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

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

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(iii). 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.

(iv). The treated effluent of 81.5 KLD proposed to discharge to the CETP Kadechur. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.

(v). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.

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

(vii). Total fresh water requirement, sourced from KIADB, shall not exceed 102.7 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(viii). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

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

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

(xi). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space provided with all safety measures. (d) Proper earthing shall be provided in all the

electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valves to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

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

(xiv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

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

Agenda No.12.6

Setting up of Active Pharmaceutical Ingredients (API's) manufacturing unit of capacity 4470 TPA by M/s IPCA Laboratories Limited at Village Hingni, Taluka Seloo, District Wardha, Maharashtra- Environmental Clearance- reg.
[Proposal No. IA/MH/IND2/206120/2021, F.No. J-11011/141/2021-IA-II(I)]

The proposal was earlier considered by the EAC (Industry-3) in its meeting held on 12-13 April, 2021. The requisite information desired by the Committee and response submitted by the PP are as under:

Sl. No.	Requisite information desired by the Committee	Reply of PP	Observation of the Committee
1.	The project is located very near to ESZ therefore in the long run industry may negatively impact the flora and fauna of the area. It is therefore recommended to carry out alternate site analysis. Detail report needs to be submitted.	As per our detailed studies there will not be any significant negative impact on the flora and fauna of the area. Detailed report on alternate site analysis is submitted on the portal on 3.6.2021.	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.
2.	The project involves EC and NBWL clearance and as per Ministry's guidelines PP needs to submit the NBWL clearance and link with EC proposal. However in this case PP has only submitted EC application on Portal. As per Parivesh Portal of this application, no NBWL clearance details mentioned by the PP/Consultant; it seems that application is being made in hurry without following due procedure	The project involves EC and NBWL clearance and as per Ministry's guidelines Ipca already submitted the application for NBWL clearance on 10.04.2021. But, both the proposals were not linked earlier. However, NBWL application is now linked with the EC application. The NBWL application is submitted on Parivesh Portal on April 10, 2021 ref No. FP/MH/IND/5848/2021, the application is under examination of wildlife Warden.	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.
3.	Details of Schedule – I species in the study area, anticipated impact of the project and its conservation plan submitted to Chief Wild Life warden.	Detailed list of Schedule I species is collected from Forest department Wardha and its conservation plan along with anticipated impact of project and suggested mitigation measures is submitted to Chief Wild Life warden.	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.

4.	Alternate fuel should be explored as the project site is very near to Sanctuary.	Ipca will consider Bio Briquette as an alternate fuel which is cleaner fuel in addition of coal. Ipca will utilized Bio Briquette to the tune of 200 TPD as a fuel for heating equipment's. However, only in case of non-availability of Bio briquette, Imported coal having very less content of ash and sulfur as per analysis reports will be utilized in order to avoid shut down of manufacturing facility. Undertaking for use of coal having Sulfur content not more than 0.54% is submitted.	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.
5.	Budget allocation for green belt development should be increased and detailed green belt along with species and budget needs to be submitted.	In existing developed Green belt of 106076.88 Sq. m. (35.26% of total plot area) at the site and around 15800 Nos. of native and pollution resistant species are planted in the green belt. In addition to this 5300 Nos of trees will be planted in green belt at a distance of 2 m x 2.5 m to achieve 2000 Nos of trees/ Ha. To strengthen the Green belt the additional plantation will be done towards the protected forest by using Miyawaki plantation technique using indigenous species. This additional plantation will work as buffer area between Factory site and Forest area. Around 5000 Nos of Tree species will be planted within 1 year. Miyawaki technique results in dense plantation at a faster rate and has better capacity to absorb pollutants. Revised total budget from Rs.50 lakhs to Rs.60 lakhs towards capital investment for the green belt development. and Rs.20 Lakhs per	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee. Further, M/s IPCA vide letter dated 17.06.2021 committed that they will develop green belt of 5 m to 10 m width along the periphery of the project premises i.e, plant boundary wherever possible and will leave no vacant space within the green belt. The existing number of trees are 15800. We had proposed 5300 additional trees. However, as per the suggestions of the Committee we commit to increase the number of

		Annum as a recurring cost has been allocated for green belt development. Pollution resistant/tolerant and native species will be selected for greenbelt development as per CPCB guidelines. The proposed Green belt development within premises and outside plot will be completed within 1 year after getting Final EC.	proposed trees by 6900 over and above already proposed totaling to 28000 (Existing + total additional proposed). Accordingly allocated a revised total budget from Rs, 50 lakhs to Rs. 60 lakhs towards capital investment for the green belt development.
6.	Details of Boundary wall should be at least 12ft high with wire coils on the walls.	Total plot area will be protected by erecting 12 feet high boundary wall with wire coil above it so as to protect the area by any wild animal trespassing.	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.
7.	Revised water balance and source of water along with permission from the concerned regulatory authority.	The net fresh water requirement for the unit will be 1748 CMD and as the proposed unit will run on complete Zero Liquid Discharge (ZLD) basis, after recycling of 649 CMD of treated effluent the total fresh water consumption will get reduced to 1099 CMD. Source of water supply will be from Bor Dam & CGWA. Irrigation department permission and CGWA will be obtained.	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.
8.	Details of Forest clearance may be taken, if required.	Forest Clearance is not appliable as no forest land is involved in the proposed project. However, Ipca has submitted application to forest department for NOC	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.
9.	Details of existing project, along with copy of CTE/CTO with production details to verify, any violation.	IPCA submitted CTE/CTO with production details and commitment letter for not violating the any provisions.	EAC deliberated the CTE/CTO compliance detail and found the reply to be addressing the concerns of the Committee.

10.	Details of agreement with Dam Authority for supply of water.	Water permission from Bor dam & CGWA is in process. Detailed agreement will be made with Dam Authority for supply of water. Hereby, IPCA commited that IPCA will not start any work for proposed unit before getting permission from BOR dam & CGWA.	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.
11.	Details of application and its approval from forest Department for cutting of tree.	For proposed construction Ipca will cut 320 number of tress, a compensatory afforestation will be done in around the plot, on land which is under possession of Ipca. The application is submitted to Forest Dept. on 04/04/2021and 11/05/2021. Ipca will plant as many numbers of trees suggested by Forest department as compensatory afforestation.	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.

The Project Proponent and their accredited Consultant M/s Goldfinch Engineering Systems Private Limited, made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of Active Pharmaceutical Ingredients (API's) manufacturing unit of capacity 4470 TPA by M/s IPCA Laboratories Limited located at Village Hingni, Taluka Seloo, District Wardha, Maharashtra.

The details of products and capacity as under:

S. No	Products	CAS No.	Quantity MT/A	Therapeutic Usage
1	Chloroquine Phosphate	50-63-5	200	Anti-Malarial
2	Chloroquine Sulfate	6823-83-2	200	Anti-Malarial
3	Hydroxy Chloroquine Sulfate	747-36-4	300	Anti-Malarial
4	Etodolac	41340-25-4	300	NSAID
5	Allopurinol	315-30-0	300	Antigout
6	Mesalamine	89-57-6	300	Anti-Hypertensive
7	Furosemide	54-31-9	600	Diuretic
8	Valsartan	137862-53-4	300	Anti-Hypertensive
9	Losartan Potassium	124750-99-8	400	Anti-Hypertensive
10	Hydrochlorothiazide	58-93-5	200	Anti-Hypertensive
11	Chlorthalidone	77-36-1	100	Diuretic
12	Metoprolol Tartrate	37350-58-6	400	Anti-Hypertensive

13	Amodiaquine Base	86-42-0	300	Anti-Malarial
14	Amodiaquine HCl	6398-98-7	300	Anti-Malarial
15	Metaclopramide HCl	7232-21-5	10	Anti-Emetic
16	Piperaquine Phosphate	85547-56-4	250	Anti-Malarial
17	Primaquine Phosphate	90-34-6	10	Anti-Malarial
	Total	**--**	**4470**	--

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and its amendment dated 27.03.2020 and 15.10.2020. Due to applicability of general conditions (Notified Bor Wildlife Sanctuary, the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposed project will be established in a land area of 300787.84 m^2. Industry will develop greenbelt in an area of 2694.3 sqm. which is 33.3% out of the total project area. PP committed to increase the number of proposed trees by 6900 over and above already proposed totaling to 28000 (Existing + total additional proposed).

The proposed project cost is about Rs.5.53 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.43.93 lac (including CER cost of 5.53 lac) and the recurring cost (operation and maintenance) will be about 47.07 lac per annum per annum. Total Employment under proposed project will be of 800 persons during operational phase and 275 persons during construction phase.

There is Notified Bor wildlife sanctuary within 10 km distance from the project site. Proposed project is located within 5 km of protected forest (at distance of 2.4 km from protected forest (buffer area) of Notified Bor Wildlife Sanctuary). Bor River is flowing at a distance of 0.5 Km is in EAST direction. Water bodies like Dongargaon Dam and Bor Dam are located at distance of 1.7 Km and 7.5 Km respectively.

AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.74 µg/m^3, 1.83 µg/m^3 10.54 µg/m^3 and 6.28 µg/m^3 with respect to PM_{10}, $PM_{2.5}$, SOX and NOX.

Total water requirement is 1748 m^3/day of which fresh water requirement will be 1099 m^3/day. Source of water supply will be from Bor Dam & CGWA. Effluent of 557 CMD quantity will be treated through MEE, ETP and RO. The plant will be based on Zero Liquid discharge system. High TDS stream (150 CMD) will be treated separately in MEE-1. Condensate from MEE- 1 (180 CMD= 150 CMD + 30 CMD live steam condensate from MEE) along with Low TDS stream from washings (260 CMD) and utility blow-downs (147 CMD) will be treated in conventional effluent treatment plant having Primary Secondary and tertiary treatment. Treated effluent (587 CMD) will be fed to RO, permeate (440 CMD) will be reused in utilities and reject (147 CMD) will be again treated in MEE-2, condensate from MEE-2 (177 CMD= 147 CMD + 30 CMD live steam condensate from MEE) will be reused in utilities achieving Zero Liquid Discharge (ZLD). The waste water generated from domestic activity will be treated in proposed STP of 40 CMD capacity and treated effluent will be used for gardening.

Power requirement for the project will be 10000 kW (Connected load) & 6500 kW (Operating load) and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). 3 nos. of DG sets having capacity 1500 kVA will be used as standby during power failure. Stack (height 30 m above enclosure to each DG Sets) will be provided as per CPCB norms to the proposed DG sets.

PP reported that the boiler of capacity 16 TPH x 2 no's and 8 TPH x 1 no. Coal/ Bio Briquette fired boilers will be installed. Multi Cyclone followed by ESP to 16 TPH x 2 no's and Multi cyclone separator followed bag filter to 8 TPH x 1 no. with a stack of height of 40 m to 16 TPH boilers & 30 m to 8 TPH boiler will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers. Thermopac of capacity 10 lac Kcal/Hr. X 2 no's (One working, one standby). Imported Coal/Bio Briquette/HSD fired will be installed along with Multi cyclone separator followed bag filter with stack height of 30 m as a mitigation measure.

Details of Process emissions generation and its management:

S. No.	Source	Emissions	APC	Media	Disposal
1	Process	HCl/HBr/ Acid Mist	Scrubber	Alkali	ETP
2	Process	NH_3	Scrubber	Water	ETP
3	Process	HCl	Scrubber	Alkali	ETP
4	Process	HCl	Scrubber	Alkali	ETP
5	Process	HCl	Scrubber	Alkali	ETP
6	Process	HCl	Scrubber	Alkali	ETP
7	Process	HCl	Scrubber	Alkali	ETP
8	Process	HCl	Scrubber	Alkali	ETP

Emission from utility

S No	Equipment	Fuel	Full Load Operation	Concentration	Emission	Quantum
1	Boiler 16 TPH – 2 Nos.	Imported Coal/ Bio Briquette	138 TPD	S: 0.5%	SO_2	1380 Kg/day
2	Boiler 8 TPH – 1 no.	Imported Coal/ Bio Briquette	31 TPD	S: 0.5%	SO_2	310 Kg/day
3	Thermopac 10 Lackcal/hr. x 2 Nos. (One working, one standby)	Imported Coal/ Bio Briquette/ HSD	13.8 TPD/ 5600 Lit/D	S: 0.5% / S: 0.25%	SO_2	138 Kg/day 22.4 Kg/day
4	D G sets 1500 KVA x 3 nos.	HSD	975 Lit/hr.	S: 0.25%	SO_2	93.6 kg/day

Note: As per suggestions by the EAC (Industry 3) Bio Briquette with quantity of 200 TPD will be used as alternative fuel for Boilers & Thermopack.

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

Sr. No.	Category No.	Waste	Unit	Total Quantity	Disposal
1	26.3	Spent Acid	MT/A	13540.8	Cement Plant or authorised recycler/ CHWTSDF
2	28.6	Spent Caustic Solution	MT/A	1790	Cement Plant or authorised recycler/ CHWTSDF
3	28.6	Spent Solvent	MT/A	958.0	Sale to authorized party/ pre/coprocessing/ CHWTSDF
4	28.1	Process Residue & Waste	MT/A	1160.0	pre/coprocessing/CHWTSDF
5	5.1	Used Oil/ Spent oil	MT/A	10	Sale to authorized party/ CHWTSDF
6	28.3	Spent Carbon (Process)	MT/A	771.0	pre/coprocessing/ CHWTSDF
7	26.6	Spent Process mother liquor	MT/A	6331	Authorised recycler /pre/coprocessing/ CHWTSDF
8	33.1	Empty barrels/ containers/ Liners/ used PPEs contaminated with hazardous waste	MT/A	250	Sale to authorized party / CHWTSDF
9	28.5	Date expired Products (0.5% of total production capacity)	MT/A	25	pre / coprocessing /CHWTSDF
10	28.4	Off specification products (0.5% of total production capacity)	MT/A	25	pre/coprocessing/ CHWTSDF
11	33.2	Contaminated cotton Rugs and other cleaning material	MT/A	10	CHWTSDF
12	36.2	Spent Filter media	MT/A	10	CHWTSDF
13	35.2	Spent iron exchange Resin	MT/A	2	pre/coprocessing/CHWTSDF

14	28.2	Spent catalyst	MT/A	79.0	Sent for regeneration to Authorised party/CHWTSDF
15	36.1	Distillation residue	MT/A	2060	pre/coprocessing/CHWTSDF
16	35.3	ETP Sludge	MT/A	2000.0	CHWTSDF/ pre/coprocessing
17	35.3	Spent Carbon (ETP)	MT/A	135.0	pre/coprocessing/CHWTSDF
18	35.3	MEE Salts	MT/A	26470.0	CHWTSDF
19	35.3	Spent Solvents (from Stripper)	MT/A	1620.0	pre/coprocessing/ CHWTSDF

Non-Hazardous Waste Generation and management

Sr. No.	Description	Total (MT/A)	Disposal
1	MS Barrels	600	Sale to authorized parties
2	Plastic Liners	300	Reuse/sale to authorized party
3	PVC Waste	420	Reuse/sale to authorized party
4	Steel Scrap	12000	Reuse/sale to authorized party
5	Glass Bottle Waste	240	Reuse/sale to authorized party
6	Rubber Pipe/ PVC Pipe	144	Sale to authorized parties
7	Garbage	1860	Used as Manure
8	Plastic Drums	600	Sale to authorized parties
9	Fiber Drums	600	Sale to authorized parties
10	Wooden Scrap	300	Sale to authorized parties
11	Corrugated Box	1440	Sale to authorized parties
12	Electrical Wires	48	Sale to authorized parties
13	Aluminium Scrap	24	Sale to authorized parties
14	Copper Scrap	6	Sale to authorized parties
15	Waste Paper	1140	Sale to authorized parties
16	Filter Cloth	420	Sale to authorized parties
17	Polythene Mix Class	420	Sale to authorized parties
18	Boiler Coal Ash	5850	Sale to Brick / cement manufacturer
19	Canteen Waste	900	Used as Manure
20	HDPE Bags	660	Sale to authorized parties

21	STP Sludge	2.75	Use as manure for Gardening

Other waste Generation and management

Sr. No.	Description	Total (MT/A)	Disposal
1.	E-Waste	2	Sale to authorized dismantlers/ Recyclers
2.	Battery waste	5	Returned to battery manufacturer through authorized dealer on buy back procurement
3.	Biomedical Waste	0.2	Disposal at Authorized Biomedical waste disposal site

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

	Kg/Day															
	Effluent Water								Solid Waste						Air Emission	
Water Input (A)	Effluent Water (B)	Inorganics in Effluent (C)	Organics in Effluent (D)	TDS (E)	COD (F)	HTDS Effluent (G)	LTDS Effluent (H)	**Total Effluent (I=G+H)**	Inorganic Solid waste	Organic Solid Waste	Spent Carbon	Spent Catalyst	Distillation Residue	Empty barrels/ containers/ Liners/ used PPEs	Process Emission	Fugitive Emission
1708000*	557000	66700	14860	66700	29719	230960	407483	638443	133877	26694	2697	235	6131	744	4713	2132
Note: *Water input quantity is for Manufacturing Activity only. Besides that water consumption for domestic purpose will be 40000 kg/day																

Deliberations by the EAC:

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

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

The Committee was further informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load and 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 revised action plan and revised budget allocation for green belt development. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested use of coal having ash content as committed only during the rainy season when the Biomass Briquettes may not be available. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested increase in the use percentage of recycled water and effective mitigation of VOCs. The committee deliberated the reply submitted by the PP with respect to the queries raised in the 9th EAC and found the reply to be satisfactory.

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

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

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

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

(i). Project Proponent submitted the National Board of Wildlife (NBWL) application on Parivesh Portal vide proposal no. FP/MH/IND/5848/2021 on April 10, 2021. The Unit shall only operate after taking necessary NBWL clearance from the Standing Committee for National Board of Wildlife.

(ii). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(iii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

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

(v). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.

(vi). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.

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

(viii). Total fresh water requirement, sourced from Bor Dam & CGWA, shall not exceed 1099 m^3/day. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(ix). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

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

(xi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be

transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises (if applicable).

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

(xiii). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

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

(xv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xvi). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

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

Consideration of Amendment/Modification in Environmental Clearance

Agenda No. 12.7

Proposed Pesticide Technical, Pesticide Intermediates Manufacturing Plant of M/s Sandhya Organic Chemical Pvt. Ltd. (Unit-2), located at Plot no. 1249 & 1250, GIDC Sarigam- 396155, Taluka- Umbergaon, District- Valsad, State- Gujarat- Consideration of amendment in Environment Clearance

[Proposal No. IA/GJ/IND3/209019/2021, File No. IA-J-11011/342/2019-IA-II(I)]

The proposal is for Amendment in the Environmental Clearance granted by the Ministry vide letter dated 15th October, 2020 for the project of Proposed Pesticide Technical, Pesticide Intermediates (1600 MT/Month) Manufacturing Plant at Plot No: 1249 & 1250 G.I.D.C. Sarigam, Taluka: Umbergaon, Dist: Valsad (Gujarat) For M/s. Sandhya Organic Chemical Pvt Ltd, (Unit-2)

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

No	Para of ToR/EC issued by MoEF&CC	Details as per the ToR/EC	To be revised/ read as	Justification/ reasons
1.	**Point No:8**	➢ Total wastewater generation will be 227.2 KL/day (Industrial: 217.2 KL/day + Domestic: 10.0 KL/day). Concentrated Wastewater Stream 199.0 KL/Day will be treated at Fenton Treatment System & through candle filter it is forwarded to Solvent Stripper System, then, 189.0 KL/ Day effluent from Stripper Column shall be forwarded to MEE. ➢ Dilute Stream 13.2 KL/ Day (From Washing, Blow-down of Boiler & Cooling Tower): This is rich in TDS & low of COD so this effluent will be treated in ETP (Primary treatment) and sent to RO. 9.0 KL / Day.	➢ Total wastewater generation will be 227.2 KL/day. (Industrial: 217.2 KL/day + Domestic: 10.0 KL/day). ➢ Total waste water generation from process will be 199 KL/Day in which **27.58 KL/Day** effluent will be Direct reused in process. Remaining process effluent will be segregated into two streams: Stream-I High TDS & COD	As per the earlier Environmental Clearance vide letter no. IA-J-11011/342/2019–IA II (I) 15th October, 2020 for proposed pesticide technical, pesticide intermediates (1600 MT/Month) manufacturing plant, unit had proposed Zero Liquid Discharge scheme for Wastewater Treatment, because at that time, committee did not permit any discharge into Common Facility. Also, we did not get Membership Certificate for Effluent discharge into CETP (Sarigam Clean Initiative). Now We have got Membership Certificate from CETP (Sarigam

		➢ RO Permeate will be recycled into Boiler & Cooling Tower. 4.2 KL / Day. RO Reject will be forwarded to MEE for further treatment. Total 193.2 KL/Day (189.0 KL/ Day from Process + 4.2 KL/ Day from RO Reject) treated in MEE where MEE Condensate 193.2 KL/ Day will be sent to SBT based Bio Reactors Treatment System & then recycled into industrial purposes. Scrubbing media- 5.0 KL/Day is mainly in Solution form respective gases i.e. 30% HCl, 20% Sodium Sulphite, 35% HBr Solution etc. which shall be Sale to registered End Users under Rule- 9 of HOWM, 2016. ➢ **10.0 KL/Day of Domestic wastewater will be disposed through Septic Tank & Soak Pit.** Industry will be based on ZLD (Zero Liquid Discharge) unit	Stream (105.42 KL/Day) and Stream II – Low TDS & COD Stream (66 KL/ Day). ➢ **Stream I – High TDS & COD Stream** 105.42 KL/Day (process) will be treated at Fenton treatment System & through candle filter it is forwarded to MEE. ➢ **Stream II – Low TDS & COD Stream** 66 KL/ Day (From process) will be treated in ETP (Primary treatment) and then sent to RO. ➢ **Stream III – Dilute Steam** 13.2 KL/ Day (From Washing, Blow-down of Boiler & Cooling Tower) effluent will be sent to RO. ➢ Total 79.2 KL/day (Low TDS & COD Stream + Dilute Steam) effluent will be treat into RO. 15.58 KL/Day RO Reject will sent to MEE & 63.62 KL/Day RO	Clean Initiative) and it is also economical and technically viable for our Project. Therefore, we have applied for EC Amendment: Change in Mode of Discharge. In ZLD System, there is common ETP System, but as our unit will have various pesticide intermediates & pesticide finished Products in terms of synthetic pyrethroids, organophosphorus compounds, Neo Nicotinoids etc. together & effluent treatment facility would be common, there are high chances of cross contaminations if we re-cycle & reuse treated wastewater in Process. Now unit has segregated effluent in Stream-I High TDS & COD Stream, Stream II – Low TDS & COD Stream and Stream III –Dilute Stream and explore the reuse water quantity.
3.	**Point No. 15 Condition No. (ii)**	As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture.		To achieve GPCB discharge Norms for COD i.e. as 250 mg/l is bit difficult as its Pesticide Unit. But since CETP inlet norms for COD is 1000 mg/l, we would be comfortable to achieve CETP norms for treated wastewater by installation of certain necessary systems.

			permeate will be reused in industrial purpose. ➢ Total 121 KL/day (High TDS & COD Stream + RO reject) effluent will be treated in MEE. ➢ **100 KL/Day MEE Condensate will be sent to SBT (Soil Bio Technology) and then disposed to CETP (Sarigam Clean Initiative) for further treatment.** ➢ 5 KL/Day Scrubbing water will be sold to authorized end user registered under Rule-9. ➢ 42 KL/Day steam condensate from boiler will be reused back in boiler. ➢ **59.0 KLD from Process water will be reused.** ➢ **10.0 KL/Day of Domestic wastewater will be Treated in STP & Reuse in Gardening and Flushing.**	There is Adequate Availability of Water in this Area and therefore there is no concern regarding supply of water. Economic Viability w.r.t Cost is main concern for ZLD. Design of ZLD plants is an immense challenge as it varies in different Industries for efficient operation and successful results. In current scenario, committee permits for discharge of treated effluent to CETP so we have applied for permission of discharge to CETP Sarigam Clean Initiative (100 KL/day). Unit will not achieve complete Zero Liquid Discharge but approx. **88.99 %** of total waste water generation (227.2 KL/day) will be reused within premises **(202.2 KL/day).** We kindly request to consider our project Details for Change the mode of discharge from ZLD to CETP Discharge.

Deliberations in the EAC:

The Committee made detailed deliberations on the proposal. The Committee noted that the amendment sought is for change in the mode of effluent disposal. The project proponent has provided a techno-economic evaluation of the treatment mechanism and informed that there shall be net 2 % difference in the project cost due to change in effluent treatment system. The Committee noted that with the proposed amendment, the project proponent initially proposed for utilization of fresh water of 279.8 KLD, which shall be now reduced to 210 KLD /day.

The Committee, after detailed deliberations, **recommended** for change in mode of disposal to CETP, as proposed by the project proponent. The Committee accordingly also recommended to amend the said conditions as under:-

a) The treated effluent of 100 KLD proposed to send to CETP of M/S Sarigam Clean Initiative, for further treatment and disposal, shall conform to the standards prescribed under the Environment (Protection) Act, 1986. The project proponent shall achieve improvement in recycle and reuse of the treated water in the unit to reduce the fresh water demand and waste disposal.

b) Domestic effluent of 10 KLD shall be treated in STP and used for greenbelt development.

The Committee also clarified that the above recommendations for change in mode of disposal is subject to following additional conditions:

(i) As committed by the project proponent, 50 % of the cost benefit obtained (ie.1 % of the total project cost) due to change in treatment mechanism shall be utilized for environmental remediation measures such as greenbelt development, solar energy etc.

(ii) There shall be no change resources such as fresh water/fuel/land requirements in submitted in EIA/EMP report.

(iii) Amendments shall be henceforth considered with respect to project cost and not on the profit.

(iv) All other terms and conditions in the EC dated 15th October, 2020 shall remain unchanged.

Consideration of Validity of Environmental Clearance

Agenda No. 12.8

Pesticides and Intermediates manufacturing unit (12000 MTPA), located at plot No. 46, Dahej Industrial area, Tal: vagra, Dist: Bharuch, Gujarat by M/S. XENON CHEM LLP- Consideration of validity of EC

[Proposal No. IA/GJ/IND3/213316/2021, File No. IA-J-11011/562/2020-IA-II(I)]

The proposal is for Extension of Validity of the Environmental Clearance granted by the Ministry vide letter No. J-11011/562/2010-IA-II (I) dated January 07, 2014 (EC Transferred on May 17,

2018) in favour of M/s. Xenon Chem LLP for Proposed Pesticides and Intermediates manufacturing unit (12000 MTPA) at Plot No. 46, Dahej Industrial Area, Tehsil: Vagra, District: Bharuch of M/s. Xenon Chem LLP.

The project proponent informed that Initially due to poor market penetration and readiness for operations, it was decided to go for production in phase wise manner. The PP could not convert all the EC products into Consent to Operate within the stipulated time due to market demand and change of owner. It was informed that looking towards the current market scenario and high demand, PP requested for extension of environmental clearance validity to complete the project work as per scope of the project. The project proponent also informed the Committee that greenbelt shall be devoted within 3 months and also provide Sewage Treatment Plant for treatment of domestic sewage.

Deliberations in the EAC

The EAC made detailed deliberations on the proposal. The Committee discussed the submission of the project proponent regarding the production in phased manner and preparedness. The Committee noted that project proponent shall be installing STP for domestic waste water treatment for greenbelt development within 3 months. The Committee noted that the EC validity was 7 years and can be extended for 3 more years as per the provisions of the EIA Notification, 2006. The validity period of the EC was deemed extended by the Ministry due to lockdown/pandemic situation for a specific period.

*The Committee after detailed deliberations **recommended** for extension of validity of the EC dated 7th January, 2014 for three years i.e. till 7th January, 2024 to complete the project work as per scope of the project. The project proponent shall install STP for domestic waste water treatment for greenbelt development within 3 months. All other terms and conditions shall remain unchanged.*

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Agenda No.12.9

Setting up of Bulk Drugs & Drug Intermediates Manufacturing Unit of capacity 30 TPM by M/s. Vazra Specialities, located at Plot Nos.: 129 & 130, Kadechur & Badiyal Industrial Area, Kadechur Village, Yadgir Taluk, Yadgir District, Karnataka - Environment Clearance

[Proposal No.: IA/KA/IND3/188213/2020, File No.: IA-J-11011/325/2020-IA-II (I)]

The project proponent and their accredited consultant M/s. Rightsource Industrial Solutions Pvt. Ltd., made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of Bulk Drugs & Drug Intermediates Manufacturing Unit of capacity 30 TPM by M/s. Vazra Specialities located at Plot Nos.: 129 & 130, Kadechur & Badiyal Industrial Area, Kadechur Village, Yadgir Taluk, Yadgir District, Karnataka.

The details of products and capacity as under:

S. No	Product	Quantity in TPM	CAS No	Therapeutic use
1	Albendazole	5.00	54965-21-8	Anthelmintic
2	Alpha Lipoic Acid	2.00	1077-28-7	Anti-aging effects
3	Ambroxol Hydrochloride	2.00	23828-92-4	Used in the treatment of respiratory diseases
4	Calcium Dobesilate	1.00	20123-80-2	Used to treat diabetic retinopathy
5	Chlorhexidine	2.00	55-56-1	Antibacterial
6	Chlorhexidine Gluconate	2.00	18472-51-0	Antimicrobial
7	Curcumin	5.00	458-37-7	Analgesics
8	Cyclohexane diacetic acid	3.00	4355-11-7	Gabapentin Intermediate
9	Cyclopentanone	2.00	120-92-3.	Fragrance ingredient in various products
10	Cyclophosphamide	2.00	50-18-0	Antineoplastic
11	Diclofenac Sodium	2.00	15307-79-6	Anti-Inflammatory
12	Favipiravir	3.00	259793-96-9	Antiviral
13	Iron Sucrose	3.00	8047-67-4	Used to treat iron deficiency
14	Iso Butyl Bromide	3.00	78-77-3	Sibutramine Intermediate
15	Ivermectin	3.00	70288-86-7	Used to treat parasite infestations
16	Magnesium Valproate	2.00	62959-43-7	Used to Prevention of migraine and Bipolar disorder
17	Montelukast Sodium	2.00	151767-02-1	Anti allergic

18	N-Bromosuccinimide	5.00	128-08-5	brominating and oxidizing agent
19	Niclosamide	5.00	50-65-7	Anthelmintic
20	Orotic Acid	2.00	65-86-1	Improves the metabolism of folic acid and vitamin B12
21	Oxyclozanide	5.00	2277-92-1	Anthelmintic
22	Para chloro meta xylenol	2.00	88-04-0	Used as an antiseptic and disinfectant
23	Para nitro Benzyl Bromide	2.00	100-11-8	Sumatriptan. Intermediate
24	Phenylephrine Hydrochloride	2.00	61-76-7	Antihypertensive
25	Pyrimenthamine	2.00	58-14-0	Antiparasitics
26	Secondary Butyl Bromide	2.00	78-76-2	Itraconazole. Intermediate
27	Sodium Valproate	2.00	1069-66-5	Used to treat migraine prophylaxis and bipolar disorder
28	Tetrabutylammonium Bromide.	2.00	1643-19-2	Phase transfer catalyst
29	Tetrahydro Curcumin	2.00	36062-04-1	Antioxidant
30	Tiemonium Methyl Sulphate	2.00	6504-57-0	Antispasmodic
31	Tranexamic Acid	1.00	1197-18-8	Anti-fibrinolytics
32	Valproic Acid	5.00	99-66-1	Anticonvulsants
33	R & D Products	1.00	-	-
	Total (Any 6 products will be manufactured at any given point of time)	**30.00**		

LIST OF BY-PRODUCTS AND ITS QUANTITIES

S. No	Product	By-product	Quantity in Kg/day
1	Albendazole	Ammonium chloride	112.30
		Sodium bromide	95.30
2	Cyclophosphamide	Triethylamine hydrochloride	171.40
3	Favipiravir	Phosphoric acid	102.00
		Potassium chloride	132.00
4	Phenylephrine Hydrochloride	Ammonium sulphate	173.40
Note: The quantity of By-products based on respective products being manufactured.			

The proposed project is coming under Category 'B' as per the Environmental Impact Assessment (EIA) Notification S.O. 1533 (E), dated 14th September, 2006 and attracts general condition i.e. the project site falls within interstate boundary i.e., Karnataka to Telangana State which is located within 5 km from the project boundary. Hence, requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The Standard ToR was issued by MoEFCC vide its letter No. IA-J-11011/325/2020-IA-II(I), dated 20.12.2020. Public hearing for the proposed project is exempted as it is located at

KIADB, Industrial area – Kadechur and this Minisry) has granted environmental clearance (EC) to Kadechur Industrial Area at Kadechur village in Yadgir district, Karnataka vide its letter No. 21-8/2014-IA.II, dated 14.10.2016. No litigation is pending against the proposal.

The proposed project will be established in a land area of 2.0 Acres (8079.40 Sqm). Industry will develop greenbelt in an area of 3036.32 Sqm which is 37.58 % out of 8079.40 Sqm of the total project area. Green Belt development will be done along the banks of NALA in three layers instead of two layers in the Kadechur Industrial area. The proposed project cost is about Rs.4.2 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.198 Lakhs and the recurring cost (operation and maintenance) will be about Rs.25 Lakhs per annum. Total Employment under proposed project will be of 60 persons. Industry proposes to allocate Rs.8.4 Lakhs for 5 years towards Corporate Environmental Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Ambient air quality monitoring was carried out at 8 locations during Winter Season (November, 2020 to January, 2021) and submitted baseline data indicates that ranges of concentrations of PM10 (43.6 – 67.2 µg/m^3), PM2.5 (16.6 - 26.9 µg/m^3), SO2 (8.7 – 18.8 µg/m^3), NOx (10.2 - 24.1 µg/m^3), CO (0.2 – 0.57 mg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be PM10, PM2.5, SO2 & NOx would be 0.299 µg/ m3, 0.192 µg/ m3, 0.68 µg/ m3 & 0.848 µg/ m3 respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NQQS).

The total water requirement is 121.53 m^3/day of which fresh water requirement of 96.39 m^3/day and will be met from KIADB water supply. Generated effluent of 31.11 m^3/day will be treated through stripper followed by MEE/ATFD, Biological Treatment Plant followed by RO plant will be based on Zero Liquid Discharge System or will be sent to CETP- Mother Earth, Kadechur.

Power requirement will be 500 kVA and will be met from Karnataka Power Corporation Limited (KPCL). The unit is proposed to install 2 X 125 kVA & 1 x 250 kVA DG Sets, Stacks (height 6 & 7 mts) will be provided as per CPCB norms to the proposed DG sets.

1 x 2.0 TPH & 1 x 3.0 TPH boilers are proposed with stacks height of 30 mtrs for each boiler. Cyclone separators followed by bag filters will be installed for the proposed boilers for controlling the particulate emissions (within statutory limit of 115 mg/ Nm^3). 1 x 2 Lakh K. Cal/ Hr Thermic fluid heater is proposed with stack height of 11 mtrs.

Details of Process emissions generation and its management.

S. No.	Gas	Quantity in Kg/Day	Treatment Method
1	Carbon dioxide	162.00	Dispersed into the atmosphere
2	Hydrogen	5.00	Diffused by using Nitrogen through Flame arrestor
3	Ammonia	58.00	Scrubbed by using chilled water media
4	Oxygen	59.00	Dispersed into the atmosphere
5	Hydrogen Bromide	183.00	Scrubbed by using C. S. Lye solution

6	Hydrogen chloride	182.00	Scrubbed by using chilled water media
7	Sulphur dioxide	167.00	Scrubbed by using C. S. Lye solution
8	Hydrogen Fluoride	15.00	Scrubbed by using C. S. Lye solution

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

S. No	Waste	Quantity	Disposal Method
Hazardous Waste Details			
1	Organic solid waste	776 Kg/Day	Will be sent to Cement Industries/ TSDF
2	Spent Carbon	52 Kg/Day	
3	Solvent Distillation Residue	235 Kg/Day	
4	Organic distillate from MEE stripper	310 Ltrs/Day	
5	Inorganic Solid Waste	209 Kg/Day	Will be sent to TSDF
6	MEE Salts	1396 Kg/Day	
7	ETP Sludge	50 Kg/Day	
8	Used Oils	100 Ltrs/Annum	Will be sent to SPCB Authorized Agencies for Reprocessing/ Recycling
9	Detoxified Containers/ Container liners	450 No's / Month	After Detoxification will be sent to SPCB authorized agencies
10	Used Lead Acid Batteries	6 No's/ Annum	Send back to suppliers for buyback of New Batteries
Solid waste details			
12	Ash from boilers	5950 Kg/Day	Will be sent to Brick Manufacturers

CONSOLIDATED STATEMENT- POLLUTION LOADS DETAILS

Water Input	Effluent Water	Inorganics in Effluent	Organics in Effluent	TDS	COD	HTDS	LTDS	Total Effluent	Organic solid waste	Inorganic solid waste	Spent Carbon	Distillation Residue	Process Emissions	Fugitive Emissions	Solvent Vapour Loss
Ltrs/Day	Ltrs/Day	Kg/Day	Kg/Day	Kg/Day	Kg/Day	Ltrs/Day	Ltrs/Day	Ltrs/Day	Kg/Day	Kg/Day	Kg/Day	Kg/Day	Kg/Day	Kg/Day	Kg/Day
11033.33	11205.24	730.28	369.00	730.28	693.74	10512.31	3089.50	13601.81	775.68	209.21	51.67	235.00	698.23	245.33	245.33

WATER & EFFLUENT DETAILS

Water Input	Effluent Water	Inorganics In Effluent	Organics In Effluent	TDS	COD	HTDS	LTDS	Total Effluent
Ltrs/ Day	Ltrs/ Day	Kg/Day	Kg/ Day	Kg/ Day	Kg/ Day	Ltrs/ Day	Ltrs/ Day	Ltrs/ Day
11033.33	11205.24	730.28	369.00	730.28	693.74	10512.31	3089.50	13601.81

Deliberations by the EAC:

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

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

The Committee noted that the EIA/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for green belt development and suggested to complete plantation in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested use of coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested increase in the use percentage of recycled water and effective mitigation of VOCs.

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

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

The environmental clearance granted to the project/activity is strictly under the provisions of the EIA Notification 2006 and its subsequent amendments. It does not tantamount/construe to approvals/consent/permissions etc. required to be obtained or standards/conditions to be followed under any other Acts/ Rules/ Subordinate legislations, etc., as may be applicable to the project. The project proponent shall obtain necessary permission

as mandated under the Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(iii). 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.

(iv). The treated effluent of 31.11 m^3/day proposed to discharge to the CETP- Mother Earth, Kadechur or Unit will be based on Zero Liquid Discharge System. 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.

(v). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.

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

(vii). Total fresh water requirement, sourced from KIADB, shall not exceed 96.39 m^3/day. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(viii). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

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

(x). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web

camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises (if applicable).

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

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

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

(xiv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

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

Agenda No.12.10

Setting up of Active Pharmaceutical Ingredients (API's) manufacturing unit of capacity 40 TPM at Plot No. 44, Kadechur Industrial area, Yadagir Taluk & District, Karnataka by M/s Sai Nikhil Pharma - Environmental Clearance

[Proposal No. IA/KA/IND2/205005/2021, File No. IA-J-11011/206/2021-IA-II(I)]

The project proponent and the accredited consultant M/s AM Enviro Engineers, made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of Active Pharmaceutical Ingredients (API) manufacturing unit at Plot No. 44, Kadechur Industrial area, Yadagir Taluk & District, Karnataka by M/s Sai Nikhil Pharma.

The details of products and capacity as under:

Sl. No	Product	Qty in TPM	CAS Number	Therapeutic Use
1	Atorvastatin Calcium	4	134523-03-8	To manage cholesterol
2	Clopidogrel Bisulphate	5	120202-66-6	Cardiovascular
3	Domperidone	5	57808-66-9	Anti-sickness
4	Donepezil HCl	2	120011-70-3	To treat dementia
5	Fexofenadine HCl	5	153439-40-8	Anti allergy
6	Itraconazole	5	84625-61-6	Anti fungus
7	Losartan Potassium	5	124750-99-8	Antihypertensive
8	Luliconazole	3	187164-19-8	To treat tinea pedis
9	Montelukast sodium	4	151767-02-1	Anti-allergic & Asthma
10	Olmesartan	3	144689-63-4	To treat high blood pressure
11	Omeprazole	10	73590-58-6	Indigestion and heartburn and acid reflux
12	Ondansetron HCl Dihydrate	4	103639-04-9	To prevent nausea and vomiting
13	Rosuvastatin Calcium	4	147098-20-2	To manage cholesterol
14	Sacubitril	2	149709-62-6	Chronic heart failure and reduced ejection fraction
15	Sitagliptin Phosphate	2	654671-77-9	To control high blood sugar
16	Sparfloxacin	3	110871-86-8	Antibiotic
17	Telmisartan	5	144701-48-4	Anti hypertensive

18	Topiramate	10	97240-79-4	To prevent migraine headaches
19	Vildagliptin	2	274901-16-5	Antidiabetic
20	Voriconazole	2	137234-62-9	Anti fungus
	R & D	0.1		
	Total	**85 TPM**		
	Total (6 products)	**40 TPM**		

LIST OF BY-PRODUCTS AND ITS QUANTITIES

S. No	Product	By-Product	Qty in kg/day
1	Losartan Potassium	Trityl alcohol	101.36
2	Donepezil Hydrochloride	Methoxy ethanol	8.71
		Dimethyl sulfide	3.48
3	Rosuvastatin Calcium	Triphenyl phosphine oxide	100.04
4	Telmisartan	Sodium phosphate	150.56
5	Topiramate	Pyridine hydrochloride	130.96
Note: The quantity of By-products based on respective products being manufactured.			

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and its amendments dated 27.03.2020 and 15.10.2020. Due to applicability of general conditions (interstate boundary within 5 km), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposed project will be established in a land area of 2 Acres (8093.1 Sqm). Industry will develop greenbelt in an area of 2755.5 Sqm which is 34% out of the total project area. The proposed project cost is about Rs.6.8 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.87 Lakhs and the recurring cost (operation and maintenance) will be about Rs.16.5 lakhs per annum. Total Employment under proposed project will be of 50 persons. In accordance with O.M. F. No. 22-65/2017-IA.III dated 30th September 2020 issued by MoEF&CC by suppressing the CER notification dated 1st May 2018, Government of India, the industry is willing to allocate amount of Rs.7 Lakhs in 5 years.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Kadechur lake is at a distance of 1.5 km in the North-East direction.

Total water requirement is 123.4 KLD, out of which fresh water requirement of 77.8 KLD will be met from KIADB. Generated effluent of 62.6 KLD will be treated through Common Effluent Treatment Plant CETP, Kadechur. The treated water from CETP will be reused for utility purposes includes cooling tower (34.6 KLD) and gardening (11 KLD).

Power requirement of project will be 500 kVA and will be met from GESCOM. The unit is proposed to install 1X250 kVA of DG Set with stack height of 4 m will be provided as per CPCB

norms. The unit has proposed to install 1X4TPH Briquettes/Coal fired boiler with stack of height 30 m. Multi Cyclone separator will be installed for the boiler for controlling the particulate emissions (within statutory limit of 115 mg/ Nm^3).

Details of Process emissions generation and its management:

S. No	Gas	Quantity in Kg/Day	Treatment Method	Disposal Method after treatment
1	Hydrogen chloride	114.64	Scrubbed by using water media	Generated Dil. HCl will be reused within the industry
2	Ammonia	98.9		Generated NH_4OH will be reused within the industry
3	Sulfur dioxide	125.51	Scrubbed by using C.S. Lye solution	Residues from the reaction will be sent to TSDF
4	Hydrogen Bromide	23.4		
5	Oxygen	13.88	Dispersed into atmosphere	-
6	Carbon dioxide	302.94		
7	Nitrogen	17.2		
8	Hydrogen	28.45	Dispersed into atmosphere through flame arrester	-

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

S. No	Category of the HW	Hazardous Waste	Quantity	Disposal Method
Hazardous waste generation from plant				
1	5.1	Waste oils & Grease/ Used Mineral oil	0.2 KL/Annum	Agencies authorized by KSPCB
2	5.2	Oil Soaked Cotton	2 Kgs/month	KSPCB authorized Vendor
3	20.3	Distillation Residue	507 kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing
4	28.1	Process Residues & Waste	2832 kg/day	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
5	28.2	Spent Catalyst	12 Kgs/day	Store in secured manner and hand over to authorized recycler
6	28.3	Spent Carbon + Hyflow	154 Kgs/Day	Store in secured manner and hand over to authorized cement industry for Co-processing

7	28.4	Off Specification Products	1 TPM	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
8	28.5	Date expired products	500 Kgs/Month	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
9	33.1	Detoxified-Container & Container Liners of Hazardous Chemicals and Wastes	250 No's/Month	After complete detoxification, shall be disposed to the outside agencies.
10	33.2	Contaminated cotton rags or other cleaning materials	25Kgs/month	Store in secured manner and hand over to KSPCB Authorized Vendor
11	A1160	Used Lead Acid batteries	2No's/Annum	Returned back to dealer/ Supplier
Other & Miscellaneous Solid Wastes				
12	--	Coal ash	1120 kgs/day	Sent to Brick Manufacturers
13		Briquette ash	2860 kgs/day	Sent to Fertilizer industries
14	--	Residue from scrubber	277 kgs/day	Shall be stored in secured manner & handed over to TSDF.
15	--	Used PPE	5 Kgs/ Month	Sent to authorized vendor
16	--	E- Waste	150 Kgs/ Annum	Authorized recyclers
17	--	Plastic Waste	200 Kgs/ Annum	Authorized recyclers
18	--	Metal Scrap	3 TPA	Sale to outside agencies/ recyclers
19	--	Used Filters (HEPA filters, Oil Filters etc.)	25 Nos /year	Sent to TSDF
20	--	Used / Discarded RO Membranes	0.2 TPA	Sent to TSDF

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

Kg per day													
EFFLUENT WATER								SOLID WASTE					
Water input	Water in Effluent	Organics in effluents	TDS	COD	HTDS	LTDS	Total Effluent	Organic	In Organic	Spent carbon	Spent Catalyst	Process Emission	Distillation residue
33003.9	33649.4	691.12	1463.81	1365.73	32338.2	2454.07	34792.3	2364.94	466.21	154.22	12.01	540.3	507

HAZARDOUS SOLID WASTE DETAILS

Organic solid waste	Inorganic solid waste	Spent Carbon	Distillation Residue
Kg/day	Kg/day	Kg/day	Kg/day
2364.94	466.21	154.22	507

EMISSION DETAILS

Kg/day							
HCl	CO_2	H_2	NH_3	SO_2	O_2	N_2	HBr
114.64	302.94	28.45	98.9	125.51	13.88	17.2	23.4

Deliberations by the EAC:

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

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

The Committee was further informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load and 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 action plan and budget allocation for green belt development and suggested to complete plantation in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested use of coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested increase in the use percentage of recycled water and effective mitigation of VOCs. Revised water balance and CER commitment found satisfactory by the EAC.

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

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

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

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(iii). 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.

(iv). The treated effluent of 62.6 KLD proposed to discharge to the CETP Kadechur. The project proponent shall explore possibilities for recycling and reusing of treated water in

the unit to reduce the fresh water demand and waste disposal. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.

(v). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.

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

(vii). Total fresh water requirement, sourced from KIADB, shall not exceed 77.8 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(viii). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

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

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

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

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

(xiii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch

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

(xiv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

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

Agenda No.12.11

Setting up of Active Pharmaceutical Ingredients (API) manufacturing unit of capacity 86 TPM with R&D and Validation Products at Plot No's. 67, 68, 69, 70, 71, 76, 77, 78, 79 & 80, Kadechur Industrial area, Yadagir Taluk & District, Karnataka by M/s Fleming Laboratories Limited- Environmental Clearance – reg.

[Proposal No. IA/KA/IND2/205005/2021, File No. IA-J-11011/206/2021-IA-II(I)]

The project proponent and the accredited consultant M/s AM Enviro Engineers, made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of Active Pharmaceutical Ingredients (API) manufacturing unit of capacity 86 TPM with R&D and Validation Products at Plot No's. 67, 68, 69, 70, 71, 76, 77, 78, 79 & 80, Kadechur Industrial area, Yadagir Taluk & District, Karnataka by M/s Fleming Laboratories Limited.

The details of products and capacity as under:

Sl. No	Product	Qty in TPM	CAS Number	Therapeutic Use
Active Pharma Ingredients - Synthetic Route				
1	Carisoprodol	23	78-44-4	Pain Relief
2	Dapsone	6	80-08-0	Antifungal
3	Diltiazem HCl Pharma	11	33286-22-5	Anti Hypertension
4	Favipiravir	0.5	259793-96-9	Antiviral

5	Lurasidone HCl	0.6	367514-88-3	Antipsychotic
6	Oxcarbazepine	11	28721-07-5	Anti-Epileptic
7	Sugammadex Sodium	1	343306-79-6	Anaesthesia
8	Ticagrelor	6	274693-27-5	Antiplatelet
9	Topiramate	7	97240-79-4	Anticonvulsants
10	Trimetazidine DiHCl	13	13171-25-0	Anti-Anginal
11	Vildagliptin	12	274901-16-5	Antidiabetic
	Total	**91.1**		
	Total - Worst Case 7 Products	**83**		
	R&D and Validation Products	0.2		
Active Pharma Ingredients - Biotechnology				
12	Fusidic Acid	0.5	6990-06-3	Antibiotic
13	Glutathione	3	70-18-8	Detoxifying Agent
14	Mupirosine	0.5	12650-69-0	Antibiotic
	Total	**4**		
	Total - Worst Case One Product	**3**		
	Grand total	**95.1**		
	TOTAL (8 Products)	**86 TPM**		

LIST OF BY-PRODUCTS AND ITS QUANTITIES

S. No	Product	By-Product	Qty in kg/day
1	Dapsone	Spent HCl (20%)	2500
2	Ticagrelor	Di isopropyl ethylamine HCl	79.3
Note: The quantity of By-products based on respective products being manufactured.			

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and its amendments dated 27.03.2020 and 15.10.2020. Due to applicability of general conditions (interstate boundary within 5 km), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposed project will be established in a land area of 9.9 Acres (40065.3 Sqm). Industry will develop greenbelt in an area of 23638.5 Sqm which is 59% out of the total project area. The proposed project cost is about Rs.42 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.195 Lakhs and the recurring cost (operation and maintenance) will be about Rs.45 lakhs per annum. Total Employment under proposed project will be of 200 persons. Industry proposes to allocate Rs.15 Lakhs towards Corporate Environmental Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Kadechur lake is at a distance of 1.7 km in the North-East direction.

Total water requirement is 316.3 KLD, out of which fresh water requirement of 210.2 KLD will be met from KIADB. Generated effluent of 184.5 KLD will be treated through Common Effluent Treatment Plant CETP, Kadechur. The treated water from CETP will be reused for utility purposes includes cooling tower (76.1 KLD) and gardening (30 KLD).

Power requirement of project will be 1500 kVA and will be met from GESCOM. The unit is proposed to install 1 X 500 kVA & 1 X 1010 kVA of DG Set with stack height of 5m and 7m respectively, will be provided as per CPCB norms. The unit has proposed to install 2X4TPH Briquettes/Coal fired boiler with stack of height 30 m. Multi Cyclone separator will be installed for the boiler for controlling the particulate emissions-(within statutory limit of 115 mg/ Nm^3).

Details of Process emissions generation and its management:

S. No	Gas	Quantity in Kg/Day	Treatment Method	Disposal Method after treatment
1	Ammonia	25.77	Scrubbed by using water media	Generated NH4OH will be reused within the industry
2	Hydrogen Bromide	79.55	Scrubbed by using C.S. Lye solution	Residues from the reaction will be sent to TSDF
3	Oxygen	10.18	Dispersed into atmosphere	-
4	Carbon dioxide	360.07		
5	Nitrogen	40.7		
6	Hydrogen	186	Dispersed into atmosphere through flame arrester	-

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

S. No	Category of the HW	Hazardous Waste	Quantity	Disposal Method
Hazardous waste generation from plant				
1	5.1	Waste oils & Grease/ Used Mineral oil	0.8 KL/Annum	Agencies authorized by KSPCB
2	5.2	Oil Soaked Cotton	3 Kgs/month	KSPCB authorized Vendor
3	20.3	Distillation Residue	2960 kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing
4	28.1	Process Residues & Waste	6537 kg/day	Store in secured manner and hand over to

				authorized cement industry for Co-processing/TSDF
5	28.2	Spent Catalyst	28 Kgs/day	Store in secured manner and hand over to authorized recycler
6	28.3	Spent Carbon + Hyflow	152 Kgs/Day	Store in secured manner and hand over to authorized cement industry for Co-processing
7	28.4	Off Specification Products	2 TPM	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
8	28.5	Date expired products	1 TPM	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
9	33.1	Detoxified-Container & Container Liners of Hazardous Chemicals and Wastes	1500 No's/Month	After complete detoxification, shall be disposed to the outside agencies.
10	33.2	Contaminated cotton rags or other cleaning materials	100 Kgs/month	Store in secured manner and hand over to KSPCB Authorized Vendor
11	A1160	Used Lead Acid batteries	10 No's/yr	Returned back to dealer/ Supplier
Other & Miscellaneous Solid Wastes				
12	--	Coal ash	2240 kgs/day	Sent to Brick Manufacturers
13		Briquette ash	5720 kgs/day	Sent to Fertilizer industries
14	--	Residue from scrubber	102 Kgs/ day	Shall be stored in secured manner & handed over to TSDF.
15	--	Used PPE	15 Kgs/ Month	Sent to authorized vendor
16	--	E- Waste	200 Kgs/yr	Authorized recyclers
17	--	Plastic Waste	500 Kgs/yr	Authorized recyclers
18	--	Metal Scrap	8 TPA	Sale to outside agencies/ recyclers

19	--	Used Filters (HEPA filters, Oil Filters etc.)	80 Nos /year	Sent to TSDF
20	--	Used / Discarded RO Membranes	0.5 TPA	Sent to TSDF

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

Kg per day													
EFFLUENT WATER								**SOLID WASTE**					
Water input	Water in Effluent	Organics in effluents	TDS	COD	HTDS	LTDS	Total Effluent	Organic	In Organic	Spent carbon	Spent Catalyst	Process Emission	Distillation residue
95415	99132.3	548.9	3846.14	879.9	103501	0	103501	5160.2	1376.22	151.5	28	702.6	2960

HAZARDOUS SOLID WASTE DETAILS

Organic solid waste	**Inorganic solid waste**	**Spent Carbon**	**Distillation Residue**
Kg/day	Kg/day	Kg/day	Kg/day
5160.2	1376.22	151.5	2960

EMISSION DETAILS

Kg/day					
HBr	**CO_2**	**H_2**	**NH_3**	**N_2**	**O_2**
79.55	360.07	186	25.77	40.7	10.18

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

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

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

The Committee was further informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load and 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 action plan and budget allocation for green belt development and suggested to complete plantation in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested use of coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested increase in the use percentage of recycled water and effective mitigation of VOCs. Revised water balance found satisfactory by the EAC.

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

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

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

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(iii). 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.

(iv). The treated effluent of 184.5 KLD proposed to discharge to the CETP Kadechur. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.

(v). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.

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

(vii). Total fresh water requirement, sourced from KIADB, shall not exceed 210.2 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(viii). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

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

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

(xi). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space provided with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The

solvent storage tanks shall be provided with breather valves to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

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

(xiv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

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

Agenda No. 12.12

Addition of synthetic Organic Chemicals (Resins) - 650 MT/M by M/s JYJ Industries LLP, located at S. No. 1751, Khata No. 2097, Vadavswami - Ambavpura Road, Near GGS, At & Po - Pansar, Ta - kalol, Dist - Gandhinagar, Gujarat- Consideration of Environment Clearance

[Proposal No. IA/GJ/IND2/87105/2018, File No. IA-J-11011/394/2018-IA-II(I)]

The project proponent and the accredited consultant M/s. Bhagwati Enviro Care Pvt. Ltd. made a detailed presentation on the salient features of the project and informed that:

The proposal is for Environmental clearance to the project for manufacturing Synthetic Organic Chemicals (Resins) in existing laminated unit at Survey no. 1751, on Vadavswami- Ambavpura road, Near GGS, At & Post: Pansar, Ta: Kalol, Dist: Gandhinagar, Gujarat by M/s. JYJ Industries LLP.

The details of products and capacity as under:

No.	Product	CAS No	Quantity
Existing			
1	Decorative Laminated Sheet Paper Base/Decorative Laminated Particle Sheets/Decorative Laminated Switch Sheets	**---**	950 MT/Month
Proposed			
1	Urea formaldehyde	9011-05-6	650 MT/Month
2	Phenol formaldehyde	9003-35-4	
3	Melamine formaldehyde	9003-08-1	

The project/activities are covered under Category 'A' of item 5(f) 'Synthetic Organic Chemicals' of the Schedule to the Environment Impact Assessment Notification, 2006, and appraised at Central Level by Expert Appraisal Committee (EAC).

The ToR for the project has been issued by Ministry vide letter No. IA-J-11011/394/2018-IA-II (I); dated 04th January 2019. Public Hearing for this project has been conducted by Gujarat Pollution Control Board on 17th January 2020, which was presided by Additional District Magistrate. The main issued raised during the public hearing are related to effluent management, CER activity, Employment generation etc. No litigation is pending against the proposal.

The Ministry had not issued EC earlier to the project. (For existing unit M/s. JYJ Industries LLP have obtained CTE for manufacturing of laminated sheets @ 950 MT/Month but unit had not started production of laminated sheet).

Total land area is 8334 m^2 will be used for proposed project. Industry will develop greenbelt in an area of 33 % i.e. 2751 m^2. Out of total area of the project. The estimated project cost is Rs 4.5 Cr. Total capital cost earmarked towards environmental pollution control measures is Rs 79 Lacs and the recurring cost (operation and maintenance) will be about Rs 85.25 Lacs Per annum. Total employment will be 50 Person as direct & 30 Person indirect. Industry proposes to allocate Rs 9.0 Lacs towards Corporate Environmental Responsibility.

There are no National parks, wildlife sanctuaries, biosphere reserves, tiger/Elephant reserves, wildlife corridors etc. within 10 km distance from the project site. Pansar Lake is flowing at a distance of 2.42 km in North East direction.

Ambient air quality monitoring was carried out at 8 locations during January-February-March 2019 and the baseline data indicates the ranges of concentration as: PM10 (70.72 to 88.72 µg /m^3), PM2.5 (29.54 to 44.95 µg /m^3), SO2 (7.54 to 30.58 µg/m^3) & NO2 (11.77 to 36.93 µg/m^3). AAQ modeling study for point source emission indicated that the maximum incremental GLCs after the proposed project would be 0.53 ug/m^3, 0.2 ug/m^3, 0.3 ug/m^3 & 0.31 ug/m^3 with respect

to PM10, PM2.5, Sox and NOx. The resultant concentrations are within the national ambient air quality standards (NAAQS).

Total water requirement is 50 m3 /day. Fresh water requirement of 38.8 m3 /day will be met from Borewell. Effluent of 10 KLPD; which will be treated in Primary & tertiary Treatment plant and then after it will be evaporated in In - house Evaporator system with condense. From that, 9.7 KLD condense water will be reused in boiler & 0.3 MTPD generated Evaporation residue will be sent to TSDF site & 1.5 KLD Boiler blow down water will be reused for Ash Suppression after pH correction within premises. Thus the unit will achieve zero liquid discharge system.

Power requirement for the proposed project will be 150 KVA and will be met from Uttar Gujarat Vij Co. Ltd. One DG set capacity of 150 KVA, will be used for proposed project as standby during power failure. Stack (height 7 m) will be provided as per CPCB norms the proposed DG set.

Existing Unit has installed 3 TPH Steam Boiler & Thermic Fluid Heater (10 Lac k cal/hr) – Coal / Lignite/Agro Waste/Saw Dust or any type of coal or Natural Gas or LDO fired with a stack height of 30m (common stack). Multi Cyclone Separator, Bag filter and wet scrubber will be installed attached to Steam Boiler & Thermic Fluid Heater for controlling the particulate emission within the statutory limit of 150 mg/Nm^3 for each utility.

Sr. No.	**Source of emission With Capacity**	**Stack Height**	**Type of Fuel**	**Quantity of Fuel MT/Day**	**Type of emissions i.e. Air Pollutants**	**Air Pollution Control Measures (APCM)**
1	Steam Boiler (3TPH) (As per CTE) & Thermic fluid Heater (10 lacs Kcal/Hr) (As per CTE)	32 m (Common stack)	Coal/Lignite /Agro waste/ Saw Dust	16 MT/Day	Particular Matter SO_2 NO_X	Multi Cyclone Separator, Bag filter & wet Scrubber
			Any Type of Coal	15 MT/Day		
			Natural Gas	215 m^3/Day		
			LDO	230 Lit/Hr		
2	DG Set (150 KVA) (As per CTE)	7 m	Diesel	30 Lit./Hr	SO_2	Acoustic Enclosure

Emission generation from process- Process Emission: SPM will be emitted from Kraft Dryer & Design Dryer. Activated Carbon Dryer will be provided as air pollution control measure. The details of process gas and air Pollution Control System are shown in below table.

Sr. No.	Source of emission	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1.	Kraft Dryer (2 Nos.) (As per CTE)	SPM SOx NOx	6 (Each)	Activated Carbon Dryer
2.	Design Dryer (2 Nos.) (As per CTE)	SPM SOx NOx	6 (Each)	

Details of solid waste/ hazardous waste generation and its management

No	Type of waste	Category	Quantity Per Year (MT/Year)			Management
			As per CTE	Proposed	Total	
1	Used oil	5.1	30 Liter	0	30 Liter	Collection, Storage, and used as lubricant in plant & Machineries or sale to registered recycler.
2	Discarded Container, Drum, Liners	33.1	6.0	50	56	Collection, Storage, Reuse for packing of ETP waste or return back to raw material supplier.
3	Resin Residue	23.1	0.25	0	0.25	Collection, Storage and disposed at CHWIF.
4	Plastic Waste	--	4.8	0	4.8	Collection, Storage and sale to register recycler.

5	ETP Sludge	35.3	0	2	2	Collection, Storage, Transportation, Disposal at approved TSDF site.
6	Fly Ash	--	0	480	480	Collection, Storage, Transportation, sell to bricks manufacturing unit.

Deliberations in the EAC:

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

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

The Committee noted that the EIA/EMP report are in compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee also deliberated on the activities/action plans and found to be addressing the public hearing issues in the study area. The Committee suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio. The Committee noted that the existing unit is in operation with valid CTO from the State PCB and the project proponent submitted the compliance of the CTO conditions issued by the SPCB and was found to be satisfactory. The Committee found the additional information submitted by the project proponent to be satisfactory and addressing the concerns of the Committee.

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

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

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

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

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture. Domestic effluent after treatment shall be used for greenbelt development.

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

(iv). 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.

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

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

(vii). 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.

(viii). Necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents.

(ix). 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.

(x). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.996% with effective chillers/modern technology.

(xi). Total fresh water requirement shall not exceed 38.8 cum/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

(xii). 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.

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

(xiv). The green belt of at least 5-10 m width shall be developed in nearly 33 % of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration and plantation shall be started from first year onwards.

(xv). The activities and the action plan proposed by the project proponent to address the Public hearing and socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit.

(xvi). As committed, at least Rs 0.02 crores shall be allocated for conservation of Schedule I species. The implementation report shall be submitted to the IRO, MoEFCC.

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

Agenda No. 12.13

Proposed expansion project for manufacturing of Various Pigments, Solvent Dyes and Inorganic products by M/s. Coastal Chem, located at Survey No. 187/p, Village: Sokhada, Tal: Khambhat, Dist. Anand, Gujarat- Consideration of Environment Clearance

[Proposal No. IA/GJ/IND3/212549/2020, File No. IA-J-11011/112/2020-IA-II(I)]

The project proponent and their accredited Consultant M/s. San Envirotech Pvt. Ltd., Ahmedabad made a detailed presentation on the salient features of the project and informed that:

The proposal is for Environmental Clearance to the project for manufacturing Various Pigments, Solvents Dyes and Inorganic Products of capacity 100 TPM at Survey No. 187/p, Village: Sokhada, Taluka: Khambhat, Dist: Anand, Gujarat by M/s. Coastal Chem.

The details of products and capacity are as under:

Sr. No.	Product Name	Quantity (MT/Month)		
		Existing	Proposed addition	Total after Expansion
Existing				
1.	Pigment (Prussiane Violet/Blue/Red)	1	-1	00
Proposed				
2.	Pigment Red 2	00	75	75
3.	Pigment Red 3			
4.	Pigment Red 4			
5.	Pigment Red 5			
6.	Pigment Red 12			
7.	Pigment Red 14			
8.	Pigment Red 48:1			
9.	Pigment Red 49			
10.	Pigment Red 52:1			
11.	Pigment Red 53			
12.	Pigment Red 57:1			
13.	Pigment Red 63:1			
14.	Pigment Red 63:2			
15.	Pigment Red 81			
16.	Pigment Red 112			
17.	Pigment Red 169			
18.	Pigment Red 172			
19.	Pigment Red 173			
20.	Pigment Blue 15:4			
21.	Pigment Violet 1			
22.	Pigment Violet 3			
23.	Pigment Violet 27			

24.	Pigment Violet 29			
25.	Solvent Red 23			
26.	Solvent Red 24			
27.	Solvent Red 111			
28.	Solvent Red 127			
29.	Solvent Red 135			
30.	Solvent Red 151			
31.	Solvent Red 160			
32.	Solvent Red 168			
33.	Solvent Red 169			
34.	Solvent Red 179			
35.	Solvent Red 197			
36.	Solvent Red 207			
37.	Solvent Red 227			
38.	Solvent Yellow 33			
39.	Solvent Yellow 114			
40.	Solvent Yellow 93			
41.	Solvent Orange 60			
42.	Solvent Blue 35			
43.	Solvent Blue 36			
44.	Solvent Violet 13			
45.	Solvent Violet 14			
46.	Solvent Green 3			
47.	Solvent Green 33			
48.	Methyl Violet Liquid			
49.	Cerise Toner			
50.	Copper Sulphate	00	25	25
51.	Copper Ferrocynide			
52.	Phosphomolybdic Acid			
53.	Aluminium Benzoate			
	Total	**1**	**99**	**100**

The project/activities are covered under Category 'A' of item 5(f) 'Synthetic Organic Chemicals' of the Schedule to the Environment Impact Assessment Notification, 2006, and appraised at Central Level by Expert Appraisal Committee (EAC).

The standard ToR has been issued by Ministry vide letter No. IA-J-11011/112/2020-IA-II (I); dated 28/07/2020. Public Hearing for the expansion project has been conducted by the Gujarat Pollution Control Board on 06.02.2021. The issues raised during public hearing are related to employment to local people. No Litigation is pending against the proposal.

The Certified Compliance Report of existing CTO is obtained from GPCB vide letter no. GPCB/CCA-AND-205/ID-17368/588075, dated 08.04.2021.

Existing land area is 4071 m^2. No additional land will be required for proposed expansion. Expansion will be done within the existing unit. Industry has already developed greenbelt in an

area of 810 m^2 and after expansion it will be 1345 m^2 (33%) of the total area of the project. The estimated project cost is Rs. 3.5 Crore including existing investment of Rs. 0.5 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 0.66 Crore and the Recurring cost (operation and maintenance) will be about Rs. 0.9 Crore per annum. Total employment will be of 25 persons. Industry proposes to allocate Rs. 3.0 Lakhs towards Corporate Social Responsibility.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. Pond of Lunej Village is at a distance of 2.9 km in W direction from project site.

Ambient air quality monitoring was carried out at 8 locations during December, 2019 to February, 2020 and the baseline data indicates the ranges of concentration as: PM_{10} (64.7 - 76.1 µg/m^3), $PM_{2.5}$ (36.4 - 46.7 µg/m^3), SO_2 (13.0 - 16.8 µg/m^3), NOx (16.8 - 19.6 µg/m^3). AAQ modeling study for point source emission indicated that the maximum incremental GLCs after the proposed project would be 1.556 µg/m^3, 0.208 µg/m^3 and 0.326 µg/m^3 with respect to PM_{10}, SO_2 and NOx. The resultant concentrations are within the national ambient air quality standards (NAAQS).

Total water requirement is 31.5 m^3/day of which fresh water requirement of 13.5 m^3/day will be met from Ground Water Source – Bore well. 18.0 m^3/day will be recycled/treated water. Total industrial effluent (25.0 KLD) will be taken into ETP, after primary treatment entire effluent passed through RO. RO permeate (18.0 KLD) will be reused within premises and RO reject (7.0 KLD) will be spray dried into in-house spray dryer. Thus, unit proposed to achieve Zero Liquid Discharge (ZLD). Sewage (1.8 KLD) will be disposed into soak pit though septic tank.

Power requirement after expansion will be 155 kVA including existing 35 kVA, which will be sourced from Madhya Gujarat Vij Company Limited (MGVCL). Unit proposed to install one D.G. Set of 125 kVA capacity for the power backup. Stack height of 11 m will be provided as per CPCB norms to the proposed DG Set.

Existing unit has Agro Waste/Briquettes fired one Boiler (0.6 TPH). Dust Collector/Multi Cyclone is installed as APCM on existing boiler. After expansion, there will be addition of one Agro Waste/Briquettes/Coal fired Boiler (1.0 TPH) and one Agro Waste/Briquettes/Coal fired Hot Air Generator (4.0 Lakhs Kcal/hr.). Cyclone and Bag filter along with common stack with stack height of 21 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 for the proposed utilities.

At present, there is no process emission generation. After expansion, 2 vents of process emission will be added – one vent of Spin Flash Dryer (300 Kg/hr.) and one vent of Agro Waste/ Briquettes/Coal fired Spray Dryer (500 liter/hr.). In built bag filter will be provided as APCM for Spin Flash Dryer. Cyclone & Water Scrubber will be provided as APCM for Spray Dryer.

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

Sr. No.	Type of Waste	Category as per HWM Rules,	Quantity			Method of Disposal
			Existing	Proposed	Total After Expansion	

		2016				
1.	ETP Sludge + Salt from Spray Dryer	35.3	Nil	10 MT/month 7.5 MT/month	10 MT/month 7.5 MT/month	Collection, Storage, Transportation, disposal at approved TSDF site.
2.	Empty Barrels/Drums Container/ Bags/Liners	33.1	200 Nos./yr. 0.30 MT/yr.	800 Nos./yr. 0.70 MT/yr.	1000 Nos./yr. 1.0 MT/yr.	Collection, Storage, Transportation, sell to Registered Recyclers.
3.	Used Oil	5.1	0.1 KL/yr.	0.4 KL/yr.	0.5 KL/yr.	Collection, Storage, Transportation, Disposal by selling to registered re-refiners or used as lubricant within premises.
Solid Waste						
1.	Fly Ash	--	2.0 MT/ month	18.0 MT/ month	20.0 MT/ month	Collection, Storage and sell to brick manufacturers.

Deliberations in the EAC:

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

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

The Committee noted that the EIA/EMP report are in compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee also deliberated on the activities/action plans and found to be addressing the public hearing issues in the study area. The Committee suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio. The Committee noted that the existing unit is in operation with valid CTO from the State PCB and the project proponent submitted the compliance of the CTO conditions issued by the SPCB and was found to be satisfactory. The Committee suggested that considering the incremental

production and expected increase of use fuel in the boiler, bag-filters shall also be installed as pollution control measurement.

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

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

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

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture. Domestic effluent after treatment shall be used for greenbelt development.

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

(iv). 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.

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

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

(vii). 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.

(viii). Necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents.

(ix). 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.

(x). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.996% with effective chillers/modern technology.

(xi). The project proponent shall install bagfilters also as pollution control measurement.

(xii). Total fresh water requirement shall not exceed 13.5 cum/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

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

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

(xv). The green belt of at least 5-10 m width shall be developed in nearly 33 % of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration and plantation shall be started from first year onwards.

(xvi). The activities and the action plan proposed by the project proponent to address the Public hearing and socio-economic issues in the study area, shall be completed as per

the schedule presented before the Committee and as described in the EMP report in letter and spirit.

(xvii). As committed, at least Rs 2.5 lakhs shall be allocated for conservation of Schedule I species. The implementation report shall be submitted to the IRO, MoEFCC.

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

Agenda No. 12.14

Expansion and addition of some new products in the category of API from 220.08 TPA to 819.145 TPA by M/s Mehta API Pvt. Ltd. at Gut No. 519, 520, 546 & 571, Village - Kumbhavali, Near MIDC Tarapur, Tehsil & District Palghar, Maharashtra- Reconsideration of Environment Clearance – reg.

[Proposal No. IA/MH/IND2/198787/2021, File No. IA-J-11011/139/2021-IA.II(I)]

The proposal was earlier considered by the EAC (Industry-3) in its meeting held on 12-13 April, 2021. The requisite information desired by the Committee and response submitted by the PP are as under:

S. No.	Requisite information desired by the Committee	Reply of PP	Remarks of the Committee.
1.	Action plan for development of greenbelt in 40 % of the project area with trees having high CO2 sequestration. Project further be considered after actions on green belt development.	Green belt will be developed and maintained by planting indigenous trees having high CO_2 sequestration to meet the criteria of 40% (10776 sq. m.) of the total plot area (26,940 sq. m.) The green belt plan and its budgetary allocation has been revised accordingly.	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.
2.	Details of Court case against the project proposal/project proponent and the current status	There are no pending litigations in any court on the project or the land on which the project is established and the proposed expansion will be setup. There was a previous litigation in Income Tax Appellate Tribunal – Mumbai between Mehta API Pvt. Ltd. Vs. Dy. CIT, Range – 4 (2) (2) vide ITA No. 3366/Mum/2017 dated 12/12/2018, the order for which was	The committee was satisfied with the reply of PP.

		passed by Income Tax Appellate Tribunal – Mumbai "D" bench dated 20/02/2019 and the case is closed well before the EC application was submitted.	
3.	Revised EMP/PFR report needs to be submitted as per provisions of the EIA Notification, 2006	The PFR along with the EMP has been revised and submitted.	The committee was satisfied with the reply of PP.
4.	EAC noted that PP has obtained earlier EC on 17.12.2006, however PP fails to comply the EC conditions, it means that PP ignored the compliances. EAC suggested that the Ministry may take necessary action against the PP for non-compliances of earlier EC conditions. Consultant aware that there are certain non-compliances, however submitted such in-adequate application before ethe EAC and wasting the time of the Committee.	As per the Certified EC Compliance report obtained from R.O, MPCB two conditions mentioned in the EC letter were discussed w.r.to EC Condition no – 5 & 6. The details are given below – **Conditions of Environmental Clearance** **1. <u>Point No. 5 of Specific condition of EC</u>** Industry shall switch over to aqueous based coating film in place use of Methylene chloride in coating operation, in a phased manner. **<u>Observations of Certified Compliance Report</u> –** Coating operations are not carried out, as informed by the industry representative, also no coating operations are included in EC letter or in consent to operate. **<u>Response from Project Proponent</u> –** Coating operations was not implemented from the date of operation of the project and it is not required in the manufacturing activity as per consent to operate and EC. Therefore the said point is not applicable.	The committee was satisfied with the reply of PP.

		2. <u>Point No. 6 of Specific condition of EC</u> Industry shall switch over to use of non-halogenated solvents in place of halogenated solvents in phased manner. **<u>Observations of Certified Compliance Report</u> -** Partly complied. **<u>Response from Project Proponent</u> –** MDC is the only halogenated solvent which is used in the manufacturing of Erythromycin base and Erythromycin stearate. We have already phased out the use of halogenated solvent by 53.95% against permissible quantity since 2009, the copy of Comparative sheet along with LMR is submitted, we will reduce additional 20% consumption of halogenated solvent in next 5 years and balance after alternative source or technology is available in the market. This is thus in compliance with the EC Condition. The compliance to the partly complied point already submitted to R.O MPCB.	
5.	Action taken report on non-complied EC conditions forwarded by the Ministry's Integrated Regional Office.	A request letter was sent to R.O MoEF & CC dated 17.4.2020 to visit our site and issue us certified compliance report against our EC letter. However, no communication was received for the same. As per MoEF & CC Circular no – J – 11013/6/2010-IA.II (Part) dated 07.12.2017 if the compliance report is not received within 1 month from MoEF & CC, the PP may approach Regional office of the concerned SPCB for requesting certified compliance report.	The committee was satisfied with the reply of PP.

		Accordingly, the PP approached R.O MPCB and certified compliance report was issued by R.O MPCB, Thane vide no – MPCB/ROT/2020/TB/311 dated 23.06.2020. PP have also sent a request letter dated 30.04.2021 for certified compliance report to R.O MoEF & CC along with the MoM of the 9th EAC (Industry – III) meeting and also requested over phone but due to the lockdown the R.O visit is not possible. Also the response with respect to Certified compliance against EC Condition no – 5 & 6 as mentioned above at point no – 4 is already submitted to R.O, MPCB.	

The Project Proponent and their accredited Consultant M/s Sadekar Enviro Engineers Pvt. Ltd., made a detailed presentation on the salient features of the project and informed that**:**

The proposal is for environmental clearance to the project for expansion and addition of some new products in the category of API by M/s Mehta API Pvt. Ltd. at Gut No. 519, 520, 546 & 571, Village - Kumbhavali, Near MIDC Tarapur, Tehsil & District Palghar, Maharashtra.

The details of products and capacity as under:

Sr. No.	**Therapeutic category**	**Product**		**Existing Quantity MT/A**	**Proposed additional MT/A**	**Total Quantity MT/A**	**Total quantity after expansion MT/A**
1	Antibacterial	Erythromycin & Salt	Erythromycin base	61.80	38.20	100.00	650.00
			Erythromycin Stearate				
			Erythromycin Estolate				
			Erythromycin Ethyl Succinate				
		Chloramphenicol & Salt	Chloramphenicol	64.80	-14.80	50.00	
			Chloramphenic				

Sr. No.	Therapeutic category	Product	Existing Quantity MT/A	Proposed additional MT/A	Total Quantity MT/A	Total quantity after expansion MT/A
		ol Palmitate				
		Azithromycin Dihydrate	19.80	380.20	400.00	
		Solithromycin	Nil	100.00	100.00	
2	Cardiovascular	Bisoprolol Fumarate	Nil	3.00	3.00	6.155
		Esmolol Hydrochloride	0.48	0.52	1.00	
		Landilol Hydrochloride	Nil	0.10	0.10	
		Prochloperazine maleate	3.00	-2.00	1.00	
		Prochloperazine mesylate	0.24	-0.19	0.05	
		Aprepitant	Nil	1.00	1.00	
	Cardiovascular- Pulmonary Arterial Hypertension	Macitentan	Nil	0.005	0.005	
3	Antidiabetic	Linagliptin	Nil	2.00	2.00	2.00
4	Antithrombic & Antianginal, Anticoagulant	Anagrilide HCL	Nil	0.03	0.03	124.03
		Apixaban		2.00	2.00	
		Edoxaban		2.00	2.00	
		Dabigatran		100.00	100.00	
		Rivaroxaban		20.00	20.00	
5	Antidepressant & antipsychotic	Tofacitinib	Nil	0.50	0.50	0.80
		Agomelatine		0.30	0.30	
6	Urinary system related	Cinacalcet HCL	Nil	3.00	3.00	23.00
		Mirabegron		20.00	20.00	
7	Others	Bazedoxifene Acetate	Nil	2.00	2.00	13.00
		Tapentadol		10.00	10.00	
		3-(3-Trifluoromethylphenyl) Propanol		1.00	1.00	
8	Psoriatic Arthritis and Psoriasis	Apremilast	Nil	0.10	0.10	0.10
9	CNS - Multiple Sclerosis	Terifluonamide	Nil	0.05	0.05	0.05
10	Hereditary Tyrosinemia Type 1	Nitisinone	Nil	0.01	0.01	0.01
11	Chlorohexidine Gluconate Solution		19.8	-19.8	0	0
12	Calamine IP		19.8	-19.8	0	0

Sr. No.	Therapeutic category	Product	Existing Quantity MT/A	Proposed additional MT/A	Total Quantity MT/A	Total quantity after expansion MT/A
13	Promethazine Theociate IP		0.96	-0.96	0	0
14	Aminophylline IP		9.6	-9.6	0	0
15	Maleic Acid BP		19.8	-19.8	0	0
Total			**220.08**	**599.065**	**819.145**	**819.145**

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

The Ministry had issued EC earlier vide letter no – J-11011/413/2005-IA II (I); dated 17th Feb, 2006 to the existing project for manufacturing bulk drugs in favour of M/s Mehta Pharmaceutical Industries. Certified EC Compliance report obtained from R.O MPCB, Thane vide no - MPCB/ROT/2020/TB/311 dated 23.06.2020.

Existing land area is 15178 m^2, additional 11762 m^2 land will be used for proposed expansion. Industry has already developed 2680 m^2 greenbelt and proposed to develop 8096 m^2 greenbelt in area of total accounting 40% i.e. 10,776 m^2 out of the total area of the project. Estimated project cost is Rs.116.79 Crores including existing investment of Rs6.79 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.420.32 Lakhs and the Recurring cost (operation and maintenance) will be about Rs.182.67 Lakhs per annum. Total Employment will be 280 persons as direct & 20 persons indirect after expansion. Industry proposes to allocate Rs.1.1 Crores towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Banganga river is flowing at a distance of 1.2 km in south direction.

Total water requirement is 314.71 m^3/day of which fresh water requirement of 177.02 m^3/day will be met from Tarapur MIDC. Industrial Effluent of 54.12 CMD quantity will be treated through Stripper, MEE followed by ATFD and full-fledged ETP of 65 CMD comprising of primary, secondary and tertiary treatment and R.O plant. The plant will be based on Zero Liquid discharge system. 10 CMD domestic wastes will be treated in STP.

Power requirement after expansion will be 650 kVA including existing 370 kVA and will be met from Maharashtra State Electricity Distribution Company limited (MSEDCL). Existing unit has 2 DG sets of 320 KVA and 50 KVA capacity, additionally 1 no of DG set of 480 KVA is used as standby during power failure. Stack height of 4m has been provided for the existing D.G Set and stack height of 4.5m will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 2 nos. of 0.6 TPH briquette fired boiler and 1 no. of 1 Lakh Kcal/ Hr of Thermic

fluid heater fired by LDO. Additionally, 2 nos. of boiler having capacity of 2 TPH and 4 TPH respectively, briquette fired boiler will be installed. Multi cyclone separator with bag filter with a stack of height of 30m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers.

Details of Process emissions generation and its management: Process emissions like acid mist, Chlorine and ammonia gas will be generated which will be treated in 1 nos. of wet scrubber of 150 CFM capacity is already installed. Additionally, 3 nos. of wet scrubber of 150 CFM capacity will be installed in the proposed expansion.

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

Hazardous waste details							
Sr. No.	**Description**	**Category**	**Unit**	**Existing**	**Proposed**	**Total**	**Disposal**
1	Spent Solvent	28.6	MT/M	4.5	26.5	31.0	Sale to authorized vendor
2	Chemical sludge from waste water treatment	35.3	MT/M	0.2	1.6	1.8	CHWTSDF Taloja
3	Concentration or evaporation residues	37.3	MT/M	1.0	23.4	24.4	CHWTSDF, Taloja
4	Process Residue & Wastes (Activated Carbon)	28.1	MT/M	0.075	6.425	6.5	Sale to authorized recycler / CHWTSDF, Taloja
5	Process Residue & Wastes	28.1	MT/M	0.035	5.0	5.035	CHWTSDF, Taloja
6	Empty barrels/containers	33.1	Nos./M	500	1000	1500	Sale to authorized recycler
7	Off specification products	28.4	MT/M	0.19	0.21	0.4	CHWTSDF, Taloja
8	Used / Spent oil	5.1	Lit./M	100	150	250	Authorized recycler / CHWTSDF, Taloja
9	Date expired products	28.5	MT/M	0.1	0.2	0.3	CHWTSDF, Taloja

Non-hazardous waste details						
Sr. No.	**Description**	**UOM**	**Existing**	**Proposed**	**Total**	**Method of Disposal**
1	Boiler Ash	MT/Day	0.4	6.0	6.4	Sale to brick manufacturer

2	Glass bottle	No./M	150	125	275	Sale to authorized vendors
3	STP Sludge	Kg/M	10	60	70	It will be used for green belt development as manure.

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

Kg Per Day																	
	EFFLUENT WATER								**SOLID WASTE**									
Water Input	Effluent Water	Inorganics In 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 (Activated Carbon)	Process Residue & Wastes	Empty barrels/containers	Off specification products	Used / Spent oil	Date expired products	Process emissions	Fugitive loss
314710	64120	744.2	420	744.2	1481.94	21000	43120	64120	1033.33	60	813.33	216.66	167.83	50 Nos./Da	13.33	8.33	10	78.03	826.62

HAZARDOUS SOLID WASTE DETAILS

Kg Per Day								
SOLID WASTE								
Spent Solvent	Chemical sludge from waste water treatment	Concentration or evaporation residues	Process Residue & Wastes (Activated Carbon)	Process Residue & Wastes	Empty barrels/containers	Off specification products	Used / Spent oil	Date expired products
1033.33	60	813.33	216.66	167.83	50 Nos./ Day	13.33	8.33	10

EMISSION DETAILS

Kg Per Day	
Process emissions	Fugitive emissions
78.03	826.62

Deliberations by the EAC:

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

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

The Committee was further informed that the Ministry has recently issued an Office Memorandum dated 28.01.2021 and inter-alia requested that EAC shall clearly recommend the permissible pollution load i.e. quantity and quality, including composition, of emissions, discharge and solid waste generation. In compliance of this OM, PP has submitted the pollution load and 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 action plan and budget allocation for green belt development and suggested to complete plantation in three months. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested use of coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested increase in the use percentage of recycled water and effective mitigation of VOCs. Details of court cases was deliberated found satisfactory. The committee deliberated the reply submitted by the PP with respect to the queries raised in the 9th EAC and found the reply to be satisfactory.

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

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

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

(Prevention and Control of Pollution) Act, 1981, as applicable from time to time, from the State Pollution Control Board, prior to construction & operation of the project.

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

(i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(iii). 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.

(iv). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.

(v). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.

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

(vii). Total fresh water requirement, sourced from Tarapur MIDC, shall not exceed 177.02 m^3/day. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(viii). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.

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

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

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

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

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

(xiv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within three months.

(xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.

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

Consideration of ToR Proposals

Agenda No. 12.15

Capacity Expansion for Formaldehyde Manufacturing Unit from 40 TPD to 200 TPD at Plot No. 43-44, HUDA Industrial Area, Dharuhera, Tehsil Rewari, District Rewari, Haryana by M/s Sand Chem India Ltd.-TOR

[Proposal No. IA/HR/IND3/ 205121/2021, File No. IA-J-11011/113/2021-IA-II(I)]

The project proponent and the accredited consultant M/s VARDAN ENVIRONET, made a detailed presentation on the salient features of the project and informed that:

The instant ToR proposal of M/s Sand Chem India Ltd is regarding capacity expansion of formaldehyde manufacturing unit established in Haryana without prior Environmental clearance, thus violating the norms of EIA Notification, 2006. The proposal for capacity expansion for Formaldehyde manufacturing unit from 40 TPD to 200 TPD at plot No. 43-44, HUDA Industrial Area, Dharuhera, Tehsil Rewari, District Rewari, Haryana.

The project/activity is covered under Category 'B' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006. Due to applicability of general conditions (interstate boundary within 5 km), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

PP reported that the industry was established formaldehyde manufacturing unit of capacity 40 TPD after obtaining CTE/CTO from HSPCB vide File no.–HWPCB/NOC/95/2058 dated 07/02/1995. The unit has obtained present CTO vide Letter No.- 3846619REWCTO6182172 dated 28/01/2019 and valid up to 31.03.2022.

Deliberations by the EAC:

The Committee, after detailed deliberations, has examined the CTE/CTO dated 07/02/1995 and found that the said consent does not find mention of neither the product (viz. formaldehyde) nor its production capacity. The Committee desired that CTE of 1995 is very important to ascertain whether the proposal is in violation of EIA Notification, 1994/2006 or not and desired that the **CTE/CTO shall be re-certified/verified by the Haryana State Pollution Control Board regarding its name of product and its production capacity and year of establishment of the said plant. The PP shall also submit the production detail of all products since inception of Unit.**

Accordingly, the proposal was **deferred** and will only be considered after submission of detailed information as sought by the EAC.

Agenda No. 12.16

Capacity Expansion of Formaldehyde Manufacturing Unit in Existing Facility from 80 TPD to 250 TPD, located at Sampla-Beri Road, Ismaila, 11-B, District Rohtak, Haryana by M/s Banke Bihari Overseas Pvt. Ltd. – Consideration of TOR

[Proposal No. IA/HR/IND3/ 204355/202, File No. IA-J-11011/100/2021-IA-II(I)]

The project proponent and the accredited consultant M/s VARDAN ENVIRONET, made a detailed presentation on the salient features of the project and informed that:

The proposal is for Terms of Reference (ToR) for expansion of formaldehyde manufacturing unit from 80 TPD to 250 TPD at Sampla-Beri Road, Ismaila, 11-B, District Rohtak, Haryana by M/s Banke Bihari Overseas Pvt. Ltd, operating since 2019 without prior Environmental clearance, thus violating the provisions of the EIA Notification, 2006.

The chronology of events and the actions taken on the instant proposal are as under:

S. No.	Date(s)	Description
1	23.03.2019	Consent to Establish obtained from HSPCB vide letter no. 313096619ROHCTE6326013.
2	07.07.2019	Consent to Operate vide Letter 313096619ROHCTO6657726 for a period of validity from 03.07.2019 to 30.09.2023.
3	20.03.2020	Show cause notice for closure of the unit from HSPCB Regional Officer, Bahadurgarh vide letter no. HSPCB/BDR/2020/4720.
4	11.11.2020	Additional Chief Secretary, Environment Department, Haryana Govt. vide their order dated 11.11.2020 allowed the units to continue their operations for a period of six months without prejudice to any legal actions taken against the violations committed by them, by the competent authorities, with the conditions that they will immediately apply for Environmental Clearance from the competent authority and provide the proof of such application within 60 days from the issuance of this communication to Environment and Climate Change Department and to Haryana State Pollution Control Board.
5	19.05.2021	HSPCB has given directions to stop operation of the unit in view of expiry of relaxation granted by Haryana Govt.
6	03.06.2021	The NGT order dated 03.06.2021 in Original Application No. 287/2020 (Dastak N.G.O. vs Synochem Organics Pvt. Ltd. & Ors.) concluded “Since prior EC is statutory mandate, the same must be complied. We have no doubt that the stand of the private respondents will be duly considered by the concerned regulatory authorities, including the MoEF&CC on merits and in accordance with law but till compliance of statutory mandate, the units cannot be allowed to function. For past violations, the concerned

		authorities are free to take appropriate action in accordance with polluter pays principle, following due process.”
7	03.06.2021	The NGT order dated 03.06.2021 for the Original Application No. 840/2019 (Ayush Garg Vs. Union of India & Ors.) concluded “no further direction appears to be necessary except that the State PCB may ensure that the unit does not re-start functioning without requisite statutory clearance”.

Production Capacity

Product	Existing Capacity	Proposed Capacity	Total Capacity
Formaldehyde	80 TPD	170 TPD	250 TPD

Raw Material Detail: The major raw material is Methanol which comes in road tankers from Kandla Port, Gujarat & stored in underground M.S tanks. Methanol requirement for the existing unit is 40 TPD and after expansion, total 125 TPD will be required.

Raw Material	Existing Requirement	Proposed Requirement	Total Requirement
Methanol	40 TPD	85 TPD	125 TPD

Resource Requirement

<table>
<tr><th>S. No.</th><th>Particular</th><th>Detail</th></tr>
<tr><td>1</td><td>Land Requirement</td><td>Total area available is 0.54 Hectare. No additional land is required for proposed expansion. Green belt is developed in an area of 0.18 Hectare (Approximately 33.33% of total land area).</td></tr>
<tr><td>2</td><td>Water Requirement</td><td><table><tr><th>Existing</th><th>For Expansion</th><th>Total</th></tr><tr><td>60 KLD</td><td>430 KLD</td><td>490 KLD</td></tr></table>Source: Haryana Water Resources Authority</td></tr>
<tr><td>3</td><td>Power Requirement</td><td><table><tr><th>Existing</th><th>For Expansion</th><th>Total</th></tr><tr><td>140 KW</td><td>290 KW</td><td>430 KW</td></tr></table>Source: UHBVN (Uttar Haryana Bijli Vitran Nigam)
DG sets as backup: 250 KVA (existing), 250 KVA (proposed)</td></tr>
<tr><td>4</td><td>Manpower Requirement</td><td><table><tr><th>Existing</th><th>For Expansion</th><th>Total</th></tr><tr><td>5</td><td>7</td><td>12</td></tr></table></td></tr>
</table>

5	Cost of the Project	**Existing**	**Estimated cost for proposed expansion**	**Total**
		441 Lakhs	459 Lakhs	900 Lakhs

National Parks or Wild Life Sanctuary: There is no Wild Life Sanctuary or National Park within 10 km radius of the Project Site.

Details of Violation:

Period	Production	Remarks
Mar 2019-May 2021	Formaldehyde Manufacturing (80 TPD)	Prior EC was not taken before setting up and operating the Unit, hence covered under violation of the provisions of the EIA Notification, 2006

The said project/activity is covered under category A of item 5(f) "Synthetic Organic Chemicals" of the Schedule to the EIA Notification, 2006, and requires prior EC from Expert Appraisal Committee, MoEF&CC.

The project proponent provided further information vide their letter dated 19.06.2021 in which they have clarified the following:

1. An undertaking that greenbelt in 33.33% of the plot area will be completed in the next six months.
2. Change of land use from Town and Country Planning Department, Haryana vide Memo No. RK-972-JE (MK)-2019/12908 dated 29.05.2019.

Deliberations by the EAC:

The Member Secretary has informed to the EAC that the Ministry had issued a Notification vide S.O. 804 (E) dated 14th March, 2017 for appraisal of projects for grant of terms of reference/ Environmental Clearance, which have started the work on site, expanded the production beyond the limit of Environmental Clearance, or changed the product mix without obtaining prior Environmental Clearance under EIA Notification, 2006. The above said notification i.e., Notification vide S.O. 804 (E) dated 14th March, 2017 was an open window for 6 months. The projects or activities which are in violation as on date of this notification only will be eligible to apply for environmental clearance under this notification and the project proponents can apply for environmental clearance under this notification only within six months from the date of this notification.

The Competent Authority in the Ministry (in other proposal) has inter-alia, instructed to deal the violation cases as under:

(i). The violation proposal should be considered by the sectoral EAC on merit
(ii). Action to be taken against the alleged violation as per law

(iii). Do not wait for either the evidence of action having been started or violation proceedings to finish before taking up the case on merit.
(iv). The EC if given after consideration on merit would be valid from the date it is given and not with retrospective effect. For the period before it, if violation is established by the Court of competent authority, the punishment/penalty as per law would be imposed.
(v). Assessment of environmental damage, if any.

The Member Secretary has also appraised to the EAC that there were three recent court cases in the Hon'ble NGT [viz. Dastak NGO vs Syncochem Prganics Pvt. Ltd. & ors in OA No. 287 of 2020, Vineet Nagar Vs. Central Ground Water Authority & Ors, in OA No. 298 of 2020, and Ayush Garg Vs Union of India & Ors. in OA No. 840 of 2019], which were disposed of by Hon'ble NGT vide its Order dated 03.06.2021 with the following directions:

(i). For past Violations, the concerned Authorities are free to take appropriate action in accordance with polluter pays principle, following due process.
(ii). Since having prior EC is statutory mandate, it has to be complied with by the formaldehyde producing industrial units barring which the units cannot be allowed to function.
(iii). State PCB may assess and recover compensation for illegal operation of the Units on 'Polluter Pays' principle.
(iv). State PCB to ensure that the unit does not re-start functioning without requisite Statutory Clearance.
(v). To be duly considered by the concerned regulatory authorities including MOEFCC on merits and in accordance with law.

The Proposal was examined in the Ministry and EDS has been sought on Parivesh Portal on 17th May 2021. The Project Proponent, on 9th June 2021 has submitted the EDS reply on Parivesh Portal and accordingly the Proposal is placed before the present EAC meeting for its appraisal.

The EAC has deliberated the detailed proposal and after due diligence found the merit on the proposal and accordingly recommended for issuance of TOR with certain conditions, as cited below.

The EAC, after detailed deliberations on the information presented by the PP, **recommended** for issuing **Standard Term of Reference [Annexure-I]** along with the following **specific Term of Reference** for undertaking EIA and preparation of Environmental Management Plan (EMP), as below:

(i) The Directions of the Hon'ble NGT shall be implemented vide its Orders dated 03.06.2021, in the matter of Dastak NGO vs Syncochem Prganics Pvt. Ltd. & ors in OA No. 287 of 2020; Vineet Nagar Vs. Central Ground Water Authority & Ors, in OA No. 298 of 2020; and Ayush Garg Vs Union of India & Ors. in OA No. 840 of 2019]. Implementation Report may be submitted by the PP at the time of submission of EIA/EMP Report.

(ii) The State Government/SPCB to take action against the project proponent under the provisions of section 19 of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC.

(iii) State PCB may assess and recover compensation for illegal operation of the Units on 'Polluter Pays' principle. Implementation Report may be submitted by the SPCB at the time of submission of EIA/EMP Report by the PP.

(iv) Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment. The cost for assessment of environmental damage may be guided by the Ministry of Environment, Forest and Climate Change O.M No. 19-125/2019-IA.III, dated 05.03.2020.

(v) EMP shall be prepared comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.

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

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

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

Agenda No. 12.17

Capacity expansion of Formaldehyde Manufacturing Unit in existing facility from 40 TPD to 150 TPD at Plot No.- G1- 613 (R), RIICO Industrial Area, Khushkhera, Tehsil Tijara, District Alwar, Rajasthan by M/s D. C. Industries - TOR

[Proposal No. IA/RJ/IND3/204613/2021, File No. IA-J-11011/288/2019-IA-II(I)]

The proposal is for Terms of Reference (ToR) for expansion of formaldehyde manufacturing unit from 40 TPD to 150 TPD at Plot No.- G1- 613 (R), RIICO Industrial Area, Khushkhera, Tehsil Tijara, District Alwar, Rajasthan by M/s D. C. Industries,

operating since 2015 without prior Environmental clearance, thus violating the provisions of the EIA Notification, 2006.

The project/activity is covered under Category 'B' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006. Due to applicability of general conditions (interstate boundary within 5 km), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The chronology of events and the actions taken on the instant proposal are as under:

S. No.	Date	Description
1	12.12.2014	Consent to Establish obtained from RSPCB vide letter no. F(Tech)/Alwar(Tijara)/2024(1)/2014-15/1511-1513
2	09.04.2021	Consent to Operate vide Letter F(Tech)/Alwar(Tijara)/2024(1)/2014-2015/159-161 for a period of validity from 09.04.2021 to 31.05.2023.
3	01.11.2018	RSPCB has issued show cause notice for refusal of CTO
4	03.06.2021	The NGT order dated 03.06.2021 in Original Application No. 287/2020 (Dastak N.G.O. vs Synochem Organics Pvt. Ltd. & Ors.) concluded "Since prior EC is statutory mandate, the same must be complied. We have no doubt that the stand of the private respondents will be duly considered by the concerned regulatory authorities, including the MoEF&CC on merits and in accordance with law but till compliance of statutory mandate, the units cannot be allowed to function. For past violations, the concerned authorities are free to take appropriate action in accordance with polluter pays principle, following due process."
5	03.06.2021	The NGT order dated 03.06.2021 for the Original Application No. 840/2019 (Ayush Garg Vs. Union of India & Ors.) concluded "no further direction appears to be necessary except that the State PCB may ensure that the unit does not re-start functioning without requisite statutory clearance".

Production Capacity

Product	Existing Capacity	Proposed Capacity	Total Capacity
Formaldehyde	40 TPD	110 TPD	150 TPD

Raw Material Detail: The major raw material is Methanol which comes in road tankers from Kandla Port, Gujarat & stored in underground M.S tanks.

Raw Material	Existing Requirement	Proposed Requirement	Total Requirement
Methanol	20 TPD	50 TPD	70TPD

Resource Requirement

<table>
<tr><th>S.No.</th><th>Particular</th><th>Detail</th></tr>
<tr><td>1</td><td>Land Requirement</td><td>Total area available is 0.1889 ha. No additional land is required for proposed expansion. Green belt is developed in an area of 0.0623 Hectare (Approximately 33% of total land area).</td></tr>
<tr><td>2</td><td>Water Requirement</td><td><table><tr><th>Existing</th><th>For Expansion</th><th>Total</th></tr><tr><td>38 KLD</td><td>102 KLD</td><td>140 KLD</td></tr></table>Source: CGWA approval has been granted for 38 KLD</td></tr>
<tr><td>3</td><td>Power Requirement</td><td><table><tr><th>Existing</th><th>For Expansion</th><th>Total</th></tr><tr><td>120 KVA</td><td>202 KVA</td><td>322 KVA</td></tr></table>Source: JVVNL (Jaipur Vidyut Vitran Nigam Limited)
DG sets as backup: 125 KVA (existing)
200 KVA (proposed)</td></tr>
<tr><td>4</td><td>Manpower Requirement</td><td><table><tr><th>Existing</th><th>For Expansion</th><th>Total</th></tr><tr><td>11</td><td>3</td><td>14</td></tr></table></td></tr>
<tr><td>5</td><td>Cost of the Project</td><td><table><tr><th>Existing</th><th>Estimated cost for proposed expansion</th><th>Total</th></tr><tr><td>241 Lakhs</td><td>42 Lakhs</td><td>283 Lakhs</td></tr></table></td></tr>
</table>

National Parks or Wild Life Sanctuary: There is no Wild Life Sanctuary or National Park within 10 km radius of the Project Site.

Details of Violation

S.No.	Period	Production	Remarks
1	2019	Formaldehyde Manufacturing (40 TPD)	Prior EC was not taken before setting up and operating the Unit, hence covered under violation

Deliberations by the EAC:

The Member Secretary has informed to the EAC that the Ministry had issued a Notification vide S.O. 804 (E) dated 14th March, 2017 for appraisal of projects for grant of terms of reference/ Environmental Clearance, which have started the work on site, expanded the production beyond the limit of Environmental Clearance, or changed the product mix without

obtaining prior Environmental Clearance under EIA Notification, 2006. The above said notification i.e., Notification vide S.O. 804 (E) dated 14th March, 2017 was an open window for 6 months. The projects or activities which are in violation as on date of this notification only will be eligible to apply for environmental clearance under this notification and the project proponents can apply for environmental clearance under this notification only within six months from the date of this notification.

The Competent Authority in the Ministry (in other proposal) has inter-alia, instructed to deal the violation cases as under:

(i). The violation proposal should be considered by the sectoral EAC on merit
(ii). Action to be taken against the alleged violation as per law
(iii). Do not wait for either the evidence of action having been started or violation proceedings to finish before taking up the case on merit.
(iv). The EC if given after consideration on merit would be valid from the date it is given and not with retrospective effect. For the period before it, if violation is established by the Court of competent authority, the punishment/penalty as per law would be imposed.
(v). Assessment of environmental damage, if any.

The Member Secretary has also appraised to the EAC that there were three recent court cases in the Hon'ble NGT [viz. Dastak NGO vs Syncochem Prganics Pvt. Ltd. & ors in OA No. 287 of 2020, Vineet Nagar Vs. Central Ground Water Authority & Ors, in OA No. 298 of 2020, and Ayush Garg Vs Union of India & Ors. in OA No. 840 of 2019], which were disposed of by Hon'ble NGT vide its Order dated 03.06.2021 with the following directions:

(i). For past Violations, the concerned Authorities are free to take appropriate action in accordance with polluter pays principle, following due process.
(ii). Since having prior EC is statutory mandate, it has to be complied with by the formaldehyde producing industrial units barring which the units cannot be allowed to function.
(iii). State PCB may assess and recover compensation for illegal operation of the Units on 'Polluter Pays' principle.
(iv). State PCB to ensure that the unit does not re-start functioning without requisite Statutory Clearance.
(v). To be duly considered by the concerned regulatory authorities including MOEFCC on merits and in accordance with law.

The Proposal was examined in the Ministry and EDS has been sought on Parivesh Portal on 17th May 2021. The Project Proponent, on 9th June 2021, has submitted the EDS reply on Parivesh Portal and accordingly the Proposal is placed before the present EAC meeting for its appraisal.

The EAC has deliberated the detailed proposal and after due diligence found the merit on the proposal and accordingly recommended for issuance of TOR with certain conditions, as cited below.

The EAC, after detailed deliberations on the information presented by the PP, **recommended** for issuing **Standard Term of Reference [Annexure-I]** along with the following **specific Term of Reference** for undertaking EIA and preparation of Environmental Management Plan (EMP), as below:

(i) The Directions of the Hon'ble NGT shall be implemented vide its Orders dated 03.06.2021, in the matter of Dastak NGO vs Syncochem Prganics Pvt. Ltd. & ors in OA No. 287 of 2020; Vineet Nagar Vs. Central Ground Water Authority & Ors, in OA No. 298 of 2020; and Ayush Garg Vs Union of India & Ors. in OA No. 840 of 2019]. Implementation Report may be submitted by the PP at the time of submission of EIA/EMP Report.

(ii) The State Government/SPCB to take action against the project proponent under the provisions of section 19 of the Environment (Protection) Act, 1986, and further no consent to operate to be issued till the project is granted EC.

(iii) Haryana PCB may assess and recover compensation for illegal operation of the Units on 'Polluter Pays' principle. Implementation Report may be submitted by the SPCB at the time of submission of EIA/EMP Report by the PP.

(iv) Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of environment. The cost for assessment of environmental damage may be guided by the Ministry of Environment, Forest and Climate Change O.M No. 19-125/2019-IA.III, dated 05.03.2020.

(v) EMP shall be prepared comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.

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

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

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

Agenda No. 12.18

Manufacturing of Formaldehyde 80 TPD in the Phase-I and 80 TPD in Phase-II at plot no F-266 (B), RIICO Industrial Area, Chopanki, Bhiwadi (Unit-II), Tehsil Tijara, District Alwar (Rajasthan) by M/s Keshav Chemical-TOR

[Proposal No. IA/RJ/IND3/214768/2021, File No. J-11011/244/2021-IA.II(I)]

The Project Proponent and the accredited Consultant M/s. Enkay Enviro Services Pvt Ltd Jaipur, made a detailed presentation on the salient features of the project and informed that:

(i). The proposal is for ToR to the project Manufacturing of Formaldehyde 80 TPD in the phase-I and 80 TPD in Phase-II at plot no F-266 (B), RIICO Industrial Area, Chopanki, Bhiwadi (Unit-II), Tehsil-Tijara; District - Alwar (Raj.) by M/s. S Keshav Chemical.

(ii). The project/activities are listed at S.N. 5 (f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and attracts general condition due to interstate boundary of Rajasthan & Haryana Interstate Boundary- 4.60 Km, ENE and appraised at Central Level by Expert Appraisal Committee (EAC)

(iii). Total land/plant area 2031 sq. m. The land has been already acquired for the project. Industry will develop greenbelt in an area of 40 % i.e 812.4 m2 out of total area of the project.

(iv). The estimated project cost is Rs 6.724 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs 100 lakhs and the Recurring cost (operation and maintenance) will be about Rs 25.0 Lakhs per annum

(v). Total Employment will be 15 persons as direct & 40 persons indirect. Industry proposes to allocate Rs 16.81 lakhs of 2.5 % towards Corporate Social Responsibility.

(vi). There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body Indori Nala and Sare Khurd Canal is flowing at a distance of 7.0 km & 3.04 km in NE direction.

(vii). Total water requirement is 139 KLD of which fresh water requirement of 109 KLD and recycled water 30 KLD will be met from Ground water and RIICO supply

(viii). No waste water generation from the process. The RO reject will be routed through MEE and MEE permeate will be used in the process. The plant will be based on Zero Liquid discharge system.

(ix). Power requirement will be 500 KW and will be met from JVVNL. DG set of 500 kVA will be installed and will be used as standby during power failure. Stack (height 10 m) will be provided as per CPCB norms to the proposed DG sets.

(x). 500 kg/hr gas / LSHS fired boiler will be installed. A stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm3 for the proposed boilers.

(xi). Details of Solid waste/ Hazardous waste generation and its management

Expected Hazardous	Quantity	Disposal mode

Waste		
Used oil	500 ltr /year	Sold to authorized recyclers
MEE salt	1 Kg/day	TSDF

The details of products and capacity as under:

Product Details	**Proposed Quantity (TPD)**		**Total (TPD)**
	Phase 1	**Phase 2**	
Formaldehyde	80	80	160

Deliberations by the EAC:

The Committee was informed that the instant proposal viz. Manufacturing of Formaldehyde 80 TPD in the phase-I and 80 TPD in Phase-II at plot no F-266 (B), RIICO Industrial Area, Chopanki, Bhiwadi (Unit-II), Tehsil-Tijara; District - Alwar (Raj.) by M/s. S Keshav Chemical is a green field project. Further, the project proponent has stated that no activity related to the proposed project has been undertaken at site and also no activity has been carried out in violation of the EIA Notification, 2006 and subsequent amendments.

The EAC, after detailed deliberations on the information presented by the PP, **recommended** for issuing **Standard Term of Reference** for undertaking EIA and preparation of Environmental Management Plan (EMP) as per **Annexure-I.**

There being no item left, the meeting ended with a vote of Thanks to the Chair.

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ANNEXURE

GENERAL EC CONDITIONS

(i) No further expansion or modifications in the plant, other than mentioned in the EIA Notification, 2006 and its amendments, shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change/SEIAA, as applicable. In case of deviations or alterations in the project proposal from those submitted to this Ministry for clearance, a fresh reference shall be made to the Ministry/SEIAA, as applicable, to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any.

(ii) The Project proponent shall strictly comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996, and Hazardous and Other Wastes (Management and Trans-Boundary Movement) Rules, 2016 and other rules notified under various Acts.

(iii) The energy source for lighting purpose shall be preferably LED based, or advanced having preference in energy conservation and environment betterment.

(iv) The overall noise levels in and around the plant area shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures etc. on all sources of noise generation. The ambient noise levels shall conform to the standards prescribed under the Environment (Protection) Act, 1986 Rules, 1989 viz. 75 dBA (day time) and 70 dBA (night time).

(v) The company shall undertake all relevant measures for improving the socio-economic conditions of the surrounding area. The activities shall be undertaken by involving local villages and administration. The company shall undertake eco-developmental measures including community welfare measures in the project area for the overall improvement of the environment.

(vi) The company shall earmark sufficient funds towards capital cost and recurring cost per annum to implement the conditions stipulated by the Ministry of Environment, Forest and Climate Change as well as the State Government along with the implementation schedule for all the conditions stipulated herein. The funds so earmarked for environment management/ pollution control measures shall not be diverted for any other purpose.

(vii) A copy of the clearance letter shall be sent by the project proponent to concerned Panchayat, Zilla Parishad/Municipal Corporation, Urban local Body and the local NGO, if any, from whom suggestions/ representations, if any, were received while processing the proposal.

(viii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six-monthly compliance status report shall be posted on the website of the company.

(ix) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.

(x) The project proponent shall inform the public that the project has been accorded environmental clearance by the Ministry and copies of the clearance letter are available with the SPCB/Committee and may also be seen at Website of the Ministry and at https://parivesh.nic.in/. This shall be advertised within seven days from the date of issue of the clearance letter, at least in two local newspapers that are widely circulated in the region of which one shall be in the vernacular language of the locality concerned and a copy of the same shall be forwarded to the concerned Regional Office of the Ministry.

(xi) The project authorities shall inform the Regional Office as well as the Ministry, the date of financial closure and final approval of the project by the concerned authorities and the date of start of the project.

(xii) This Environmental clearance is granted subject to final outcome of Hon'ble Supreme Court of India, Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

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Annexure-I

Standard TOR for 5 (f) Category

A. STANDARD TERMS OF REFERENCE

1) **Executive Summary**
2) **Introduction**
   i. Details of the EIA Consultant including NABET accreditation
   ii. Information about the project proponent
   iii. Importance and benefits of the project

3) **Project Description**
   i. Cost of project and time of completion.
   ii. Products with capacities for the proposed project.
   iii. If expansion project, details of existing products with capacities and whether adequate land is available for expansion, reference of earlier EC if any.
   iv. Details of existing products and production, if any, along with present product/production details in tabular format, to verify the compliance of the EIA Notifications.
   v. List of raw materials required and their source along with mode of transportation.
   vi. Other chemicals and materials required with quantities and storage capacities
   vii. Details of Emission, effluents, hazardous waste generation and their management.
   viii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract)
   ix. Details of boiler/gensets (including stacks/exhausts) and fuels to be used
   x. Process description along with major equipments and machineries, process flow sheet (quantitative) from raw materials to products to be provided
   xi. Hazard identification and details of proposed safety systems.
   xii. Expansion/modernization proposals:
      a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, copy of the latest CTO and status of compliance of Consent to Operate for the ongoing/existing operation of the project from SPCB shall be attached with the EIA-EMP report.
      b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4) **Site Details**

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

5) <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.
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 heath status of workers with special reference to Occupational Health and Safety.

9) Corporate Environment Policy

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

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

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

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

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

10) Corporate Environmental Responsibility (CER)

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

10) Additional studies/Measures to be considered

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

(xiv). Provide the Cost-Benefit analysis with respect to the environment due to the project.

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

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

B. SPECIFIC TERMS OF REFERENCE FOR EIASTUDIES FOR SYNTHETIC ORGANIC CHEMICALS INDUSTRY

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-II

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

S. No.	Name of Members	Designation
1.	**Prof. (Dr.) A.B. Pandit** Vice Chancellor, Institute of Chemical Technology, Mumbai, Sir JC Bose Fellow, Government of India Email: ab.pandit@ictmumbai.edu.in	Interim EAC Chairman
2.	**Dr. Ashok Kumar Saxena, IFS** Bunglow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
3.	**Prof. (Dr.) S. N. Upadhyay** Research Professor (Hon.), Department of Chemical Engineering & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi E-mail: snupadhyay.che@iitbhu.ac.in	Member
4.	**Shri Santosh Gondhalkar** 'Shree' Apartment, Flat 401, Plot No. 22, Tukaram Society, Santnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
5.	**Prof. (Dr.) Vijay S. Moholkar** Professor in Department of Chemical Engineering, Block-K (Academic complex), Room No. 111, Inidia Institute of Technology Gawahati, Gawahati – 781039 E-mail: vmoholkar@iitg.ac.in	Member
6.	**Dr. Suresh Panwar** House No.4, Gayateri Green Society, NH 58 Bypass,Kankerkhera, Meerut, Uttar Pradesh Email-spcppri@gmail.com	Member
7.	**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
8.	**Shri Tukaram M Karne** "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2, PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	Member

9.	**Shri Sanjay Bisht** Scientist 'E', Room No. 517, Office of the Director General of Meteorology, Indian Meteorological Department, Musam Bhawan, Lodhi Road, New Delhi -110003 E-mail: sanjay.bist@imd.gov.in	Member
10.	**Dr. R. B. Lal** Scientist 'E'/Additional Director Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Room No. V-304, Vayu Wing, Jor Bag Road, New Delhi-110003 Telefax: 011-24695362 E-mail: rb.lal@nic.in	Member Secretary

MoEFCC		
11.	**Dr. Saranya P.** Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Scientist 'D'
12.	**Dr. E.P. Nobi** Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Research Officer
13.	**Mr. Ritin Raj** Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Research Assistant

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Annexure-III

Approval of EAC Chairman

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

Re: Zero Draft Minutes of the 12th EAC (Industry 3 Sector) meeting held during June 17-18, 2021 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir.

From : ab pandit <ab.pandit@ictmumbai.edu.in> Thu, Jun 24, 2021 10:28 AM

Subject : Re: Zero Draft Minutes of the 12th EAC (Industry 3 Sector) meeting held during June 17-18, 2021 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir. 1 attachment

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

Dear Dr. Lal,

Please find attached the **approved minutes** with minor changes (marked in Red) in MOM for the consideration of the committee,

Thanks for an excellent work,

Warm Regards
Pandit