

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

Dated: 12.10.2021

**MINUTES OF THE 18th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3
SECTOR) MEETING HELD ON OCTOBER 5-6, 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: 5th OCTOBER, 2021 (MONDAY)

(i) Opening Remarks by the Chairman, EAC

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

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

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

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

(iii) Confirmation of the Minutes of the 17th Meeting of the EAC (Industry-3 Sector) held during September 20, 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 **17th Meeting of the EAC (Industry-3 Sector) held on September 20, 2021** conducted through Video Conferencing (VC), and as such no request has been received for modifications, in the minutes of the project/activities, **confirmed the same.**

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

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

Consideration of Environmental Clearance Proposals

Agenda No. 18.1

Proposed Expansion of Synthetic/Natural Organic Aromatic Plant by M/s Eence Aromatics (P) Limited, located at 2/98-A, Vellipalayam road, Mettupalayam Taluk, Coimbatore District, Tamil Nadu – Consideration of Environmental Clearance – regarding

[Proposal No. IA/TN/IND3/216616/2019; File No. 11011/142/2008-IA. II(I)]

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

The proposal is for environmental clearance for the expansion of Synthetic /Natural Organic Aromatic Plant from 5.975 TPM to 16.089 TPM (13 products to 15 products) within the premises of operating unit in an area of 3.78 ha at Chikadasampalayam Village, Mettupalayam Taluk, Coimbatore District, Tamil Nadu by M/s Eence Aromatics (P) Limited.

The details of products and capacity as under:

S. No.	Products	Existing Quantity in TPM	Proposed Quantity in TPM	Total Quantity in TPM
1	Ambrettolide	2.000	3.000	5.000
2	Iso Butyl Quinoline	1.500	1.500	3.000
3	Floral Concretes	0.200	---	---
4	Floral Absolutes	0.100	---	---
5	Enamber	0.750	2.250	3.000
6	Vetiverol	0.200	0	0.200
7	Vetiveryl Acetate	0.200	0	0.200
8	Undecavertol	0.400	---	---
9	Enascone	0.150	---	---
10	Spice Extraction Concrete	0.100	---	---
11	Spice Extraction Absolute	0.050	---	---
12	Spice Oil (Black Pepper & Ginger)	0.200	---	---
13	Enafran	0.125	0	0.125
14	Ethyl Safranate	---	0.400	0.400
15	Essential Oil	---	0.016	0.016
16	Nootkatone	---	0.066	0.066

17	Trans-Trans-2-4- Decadienal	---	0.166	0.166
18	Trans- 2-Dodecenal	---	0.166	0.166
19	Water Melon Ketone	---	2.500	2.500
20	Concretes	---	0.167	0.167
21	Absolutes	---	0.083	0.083
22	Jasmonyl	---	1.000	1.000

Note:

* In proposed expansion undecavertol and enascone will not be produced.

* Floral concretes and absolutes, spice extraction concretes and absolutes and spice oil (Black Pepper & Ginger) will be categorized under a common name as concretes and absolutes

S. No.	Activity	Cost breakup of Expansion Project Amount Allotted Rs in lakhs
1	Total Cost	800
2	EMP Cost	160
3	Recurring cost	47
4	CER Cost	20
5	Land	109
6	P. H. Commitment	5.0
7	Green belt	3.0
8	Conservation plan	8.0

The Project is covered under the category 'A' of item 5(f)-Synthetic organic chemicals industry of the Schedule to the Environment Impact Assessment (EIA) Notification, 2006 and its subsequent amendments.

The Standard ToR has been issued by the Ministry vide letter dated 11.06.2019. The Earlier EC was granted by MoEF&CC for expansion of Synthetic/natural aromatic manufacturing unit at Chickadasampalayam village, Mettupalayam Taluk, Coimbatore district, Tamil Nadu vide letter no: J-11011/142/2008-IA-II (I), dated 16.09.2009. CTO obtained from TNPCB vide Proceedings No. T11/TNPCB/F.0883CBN/RL/CBN/ A&W/2017 dated:06/07/2017 valid upto 31.03.2022. Certified compliance report for the existing EC conditions has been obtained from RO, MoEF&CC, Chennai vide Letter No. F.No.EP/12.1/2019-20/2/TN/426 dated 22.04.2021.

Public hearing for the proposed expansion project has been conducted by the State Pollution Control Board under the Chairmanship of the District Collector on 03.02.2021. No major issues were raised during the public hearing except the Panchayat president raised fund for their respective Panchayat. Already a budget of 5.0 lakhs has been allotted for Chikadasampalayam village.

The plant is located in an area of 3.78 ha. No additional installations involved. The proposed project involves omission of some of the products and addition of new products. No additional land acquisition is involved. The capital cost of existing project is about Rs.1.5 crores. The additional cost due to proposed project is about Rs.8.0 crores. The total cost of the project including existing and proposed will be about Rs.9.5 crores. Total capital cost earmarked

towards environmental pollution control measures is about Rs.1.6 crores and the Recurring cost (operation and maintenance) will be about Rs.0.47 crores. Total employment will be 130 persons (Existing: 108 Nos, Proposed:22 Nos) as direct & indirect after expansion. Industry proposes to allocate Rs.20 lakhs towards CER. Under the existing CSR, PP has spent Rs.120.17 lakhs towards various welfare activities.

The Nilgiri Biosphere is at a distance of 2.1 km and elephant corridor (Kallar-Hulical Drug RF) is 3.5 km from the project site. The Wildlife Conservation Plan for Sch-I species has been prepared with the budget of 8.0 lakhs and submitted to the Chief Wildlife Warden which is under approval. The Bhavani river is flowing adjacent to the plant site in North direction.

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-a-vis the project location and the recommendations or comments of the Chief Wildlife Warden-thereon. No forest land is involved in the proposed expansion project.

Ambient air quality monitoring was carried out at 8 locations during 1st May 2019 to 31st July 2019 and the baseline data indicates the ranges of concentrations as: PM₁₀ (45.0-73.0 µg/m³), PM_{2.5} (15.4-34.9 µg/m³), SO₂ (5.2-15.0 µg/m³) and NO₂ (6.8-25.0 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 5.65µg/m³, 3.60 µg/m³ and 5.65 µg/m³ with respect to PM₁₀, SO_x and NO_x. The resultant concentrations are 78.65 µg/m³, 18.60µg/m³ and 30.65µg/m³ with respect to PM₁₀, SO₂ and NO_x are well within the National Ambient Air Quality Standards(NAAQS)

The total water requirement of the existing plant is about 48.0 KLD. The fresh water requirement for the expansion activity will be about 35.44 KLD. The total water requirement for project will be about 39.65 KLD. Source of water will be from Bhavani river. There will be reduction in the freshwater consumption in the proposed expansion activity.

Total effluent generation from the plant will be about 19.31 KLD (Industrial +Domestic). The effluent generated from the process of natural aroma product (concretes, absolutes and essential oils) will be treated in the proposed SBT-Bioreactor where the concentrated water is treated through patented media and collected at the bottom of the bioreactor which will be used for plant activity.

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

Details of Process emissions generation and its management: The process emission will be controlled by adopting the closed leak proof system and the vapors are dipped into the lye solution before letting into the atmosphere. The efficient condenser cooling system will also be

followed in the proposed expansion.

The solvents such as Methanol, Toluene, Hexane, Ethanol will be recovered with high efficiency and again it will be used in the plant process. Spent acid recovered in the nitration process will be used in ETP for neutralization. Some of the solvents such as glycerin, distillation lites will be sold to authorized recyclers.

Solid waste/ Hazardous waste generation and its management:

S. No.	Sch. No. as per HW Rules	Solid Waste	Existing (TPM)	After Expansion (TPM)	Method of Disposal
Non-Hazardous Waste					
1	--	Floral/Spice Waste	73.8	79.13	Used as a manure in agricultural land
2	--	Wax	0.085	0.107	Sold to local suppliers
3	--	Firewood Ash	4.65	4.452	Used in agricultural land
Hazardous Waste					
1	20.3	Distillation residues from various process	4.8	15.68	Stored temporarily in HDPE bags, barrels and send to secured landfill facility
2	34.4	Chemical sludge and residue from ETP	7.75	53.35	
3	5.1	Waste Oil from maintenance (Litres)	0.25	0.80	Stored in HDPE/MS barrels and sent to SPCB authorized recycle dealers

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.

After detailed deliberations, the EAC has observed many deficiencies in the proposal. PP was advised to revise the application with justification along with the following information:

- (i) The Committee noted that the chemical manufacturing company was established in 1978 prior to the EIA Notification 1994 and earlier environmental clearance for expansion of the manufacturing unit was obtained vide letter No. J-11011/142/2008-IA.II(I) dated 16th September, 2009, for a production capacity 5.975 TPM. The committee further took note the baseline monitoring study has been carried out from 1st May, 2019 to 31st July, 2019, which is considered as monsoon season as per IMD data and hence the Committee desired that the baseline monitoring study for one more month (non-monsoon season) shall be carried out and submitted to this Ministry. Consultant accepted his mistake for wrong baseline data monitoring.

- (ii) The Committee took note that the project site is located at a distance of 2.1 km from the Nilgiri Biosphere and 3.5 km away from the elephant corridor (Kallar-Hulical Drug RF). The Committee was informed that the Wildlife Conservation Plan for Sch-I species is submitted to the Chief Wildlife Warden and under progress. The Committee took serious note that the project site remains same as that of the EC granted in 2009 and Wildlife Conservation Plan for Sch-I species was then not prepared in 2009 as informed by the Project Proponent and NBWL clearance was not obtained at that point in time. The Committee desired for justification from the project proponent in this regard.
- (iii) The Committed noted that the fresh water is being sourced from Bhavani river and the EIA/EMP report does not comprise of any mitigation plan for the same. The Committee also noted that there was non-compliance of the conditions stipulated in the EC granted in 2009. The Committee desired that the Project Proponent shall submit an action taken report on the non-compliances observed during meeting also submit an action plan for hazardous substance management and issues raised during the public consultation.
- (iv) The Committee took note that a solar evaporation pond was provided in the waste water treatment scheme which is not permissible as per the extant norms and is existing as per 2009 clearance. Accordingly, the Committee desired that the waste water treatment scheme shall be revised and submitted to the EAC.
- (v) Details of Onsite emergency plan as per provisions of the MSIHC Rules needs to be submitted.
- (vi) EAC also noted that water mass balance and chemical balance seems wrong. PP needs to revise the same.
- (vii) The action plan along with budgetary provisions and timelines on the issues raised during PH needs to be submitted.

Accordingly, the proposal was **returned in the present** form for submission of the revised proposal incorporating the observation of the EAC.

Agenda No.18.2

Setting up of Pesticides Technical and its Intermediates Manufacturing Unit with production capacity of 9001.8 TPA alongwith 4 MW Coal Based Captive Power Plant (CPP), located at Plot Nos. 137 to 149 and 151 to 157 of Kadachur Industrial Area, Kadachur Village, Taluk & District Yadgir, Karnataka by M/s Bheema Fine Chemicals Private Limited - Consideration of Environmental Clearance

[Proposal No. IA/KA/IND3/196631/2021; File No. IA-J-11011/49/2021-IA-II(I)]

The project proponent and the accredited consultant M/s. KKB Envirocare Consultants 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 Pesticides Technical and its Intermediates Manufacturing Unit along with R&D Products of capacity 9001.8 TPA and 4 MW Coal Based Captive Power Plant (CPP), located at Plot Nos. 137 to 149 and 151 to 157 of Kadechur Industrial Area, Kadechur Village, Taluk & District Yadgir, Karnataka by M/s Bheema Fine Chemicals Private Limited.

The details of products and capacity as under:

S. No.	Product	Quantity (Kg/day)	Total Quantity (TPA)
1.	Pymetrozine	3000	1080
2.	Dinotefuran	3000	1080
3.	Thiamethoxam	6000	2160
4.	Chlorantraniliprole	3000	1080
5.	Fipronil	2000	720
6.	Ethiprole	3000	1080
7.	Flonicamid	2000	720
8.	Flubendiamide	1000	360
9.	Diafenthiuron	6000	2160
10.	Acequinocyl	3000	1080
11.	Azoxystrobin	4000	1440
12.	Trifloxystrobin	3000	1080
13.	Prothioconazole	3000	1080
14.	Picoxystrobin	2000	720
15.	Fluxopyroxad	2000	720
16.	Cyproconazole	2000	720
17.	Pyraclostrobin	3000	1080
18.	Difenoconazole	3000	1080
19.	Sulfentrazone	3000	1080
20.	Carfentrazone-ethyl	3000	1080
21.	Pinoxaden	1000	360
22.	Topramazone	2000	720
23.	Penoxsulam	1000	360
24.	Diclosulam	1000	360
25.	Florasulam	1000	360
26.	Cloransulam	2000	720
27.	Cloquintocet-Mexyl	2000	720
28.	Triclopyrbutoxyethyl ester	6000	2160
29.	5-Amino-3-cyano-1-[2,6-dichloro-4-(trifluoromethyl) phenyl] pyrazole	2000	720
30.	2,6-Dichloroaniline	2000	720
31.	2-(Ethylsulfonyl) imidazo[1,2-a]pyridine-3-sulfonamide	1000	360
Total 5 campaign products to be manufactured at any time from the total 31 products		25000	9000

S. No.	Product	Quantity (Kg/day)	Total Quantity (TPA)
R & D Products			
1	R&D Products	5	1.8
Total Production from 5 campaign Pesticides Technical grade products & R&D products		25005	9001.8
Captive Power Plant		4MW	

List of By-Products

S. No.	By-Product	Generated from	Quantity (kg/day)	End use
1.	HCl (30%)	1. Fipronil 2. Cloransulam 3. 5-Amino-3-cyano-1-[2,6-dichloro-4 (trifluoromethyl) phenyl] pyrazole	16617	Partial reuse back in the process / partial sale to authorized third parties
2.	HCl (20%)	Cyproconazole	1250	
3.	HBr (30%)	1. Cypraconazole 2. Difenconazole 3. Topramazone	11339	
4.	Formaldehyde (40%)	5-Amino-3-cyano-1-[2,6-dichloro-4-(trifluoromethyl) phenyl] pyrazole	1559	
5.	Spent Acid	1. Sulfentrazone 2. Penoxsulam	19977	
6.	H ₂ SO ₄	Fipronil	1050	
7.	Ammonium Sulfate	Cloransulam	4800	
8.	Acetic Acid	Azoxystrobin	885	
9.	Methyl Acetate + Methyl Formate	Azoxystrobin	3065	

The project/activities are covered under category 'A' of item 5(b) 'Pesticides industry and pesticide specific intermediates' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The Standard ToR was issued by MoEFCC vide letter dated 12.02.2021. Public hearing is exempted for the proposed project as it is located at KIADB, Industrial area – Kadechur. The Ministry of Environment, Forests and Climate Change has granted environmental clearance (EC) to Kadechur Industrial Area, located at Kadechur village in Yadgir District, Karnataka vide F. No. 21-8/2014-IA. III, dated: 14.10.2016.

The proposed project will be established in a land area of 13.702 ha (137016 sqm). Industry will develop greenbelt in an area of 5.45 ha which is 39.8 % of the total project area. The proposed project cost is about Rs. 375.35 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 44 crores and the recurring cost (operation and maintenance) will be about Rs. 47 crores per annum. Total Employment under proposed project will be of 1000 persons. Industry proposed to allocate Rs. 563 lakhs towards Corporate Environment Responsibility.

Project proponent reported that there are No National parks, Wildlife Sanctuaries/ Eco sensitive areas, Biosphere Reserves, Tiger / Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Water bodies viz., Bheema River is 8.6 km in W direction, Ponds near Kadechur is 1.2 km in ENE direction & 2.9 km in E direction, Pond near Sowrashtrahalli is 3.1 km in ENE direction; Pond near Rachanhalli is 3.2 km in NW direction; Pond near Balched is 4.1 km in SSW direction; Canal (Seasonal) is 0.16 km in WNW direction; Canal near Rachanhalli is 2.5 km in NW direction; and Hindupur vagu is 5.7 km in SSE direction.

The Ambient air quality monitoring was carried out at 8 locations during December 2020 to February 2021 and the baseline data indicate that ranges of concentrations as: PM₁₀ (43-68 µg/m³), PM_{2.5} (12.2-33 µg/m³), SO₂ (6-19 µg/m³) and NO₂ (11-23 µg/m³). AAQ modeling study for point source emissions indicate that the maximum incremental GLCs after the proposed project would be 0.274 µg/m³, 2.638 µg/m³ and 3.253 µg/m³ with respect to PM₁₀, SO₂ and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 1414 KLD of which fresh water requirement is 819 KLD and will be met from Karnataka Industrial Area Development Board (KIADB) supply. Effluent of 681.9 KLD quantity will be treated through Effluent Treatment plant. The plant will be based on Zero Liquid Discharge system. Treated water of 595 KLD will be reused.

Power requirement will be 6000 kVA (CMD) will be met from Karnataka State Power Distribution Corporation Limited (KSPDCL). Major power requirement will be met from 4 MW Coal based Captive Power Plant (CPP). Industry proposed 4 nos. DG sets of 1000 kVA capacity. DG sets are used as standby, during power failure. Stack (height 11 m) will be provided as per CPCB norms to the proposed each DG set.

PP reported that 40 TPH Briquette/ Coal fired Boiler. Another proposed 12 TPH and 20 TPH Briquette/ Coal fired boilers will be standby. Electro Static Precipitator (ESP) with a stack height of 50 m will be provided for 40 TPH Briquette/ coal fired boiler. Multi-cyclone separator followed by bag filter with a stack height of 35 m & 40 m will be installed for controlling the particulate (PM) emissions within statutory limit of 115 mg/Nm³ for the proposed boilers.

Details of Proposed process emissions generation and its management is given below:

S. No.	Process Emission	Maximum Quantity on various combinations (Kg/day)	Treatment
1.	CO ₂	4912.87	• Scrubbed using CS (caustic soda) lye solution
2.	H ₂	164.81	• Diffused with Flame Arrestor
3.	HCl	4877.55	• Scrubbed using water & CS lye solution
4.	SO ₂	3996.71	• Scrubbed using CS lye solution
5.	O ₂	2.53	• Dispersed into atmosphere
6.	NH ₃	301.59	• Scrubbed using Chilled water / dilute H ₂ SO ₄ solution
7.	N ₂	785.22	• Dispersed into atmosphere
8.	Dimethylamine	288.56	• Scrubbed using water
9.	CO	0.3	• Dispersed into atmosphere

Details of solid waste/ hazardous waste generation and its management is given below:

Sl. No.	Description	Proposed* Quantity (TPD)	HW Stream	Handling Method	Disposal
1.	Organic residue from Process / Distillation Bottom Residue	23.56	29.1 of Schedule -I	HDPE Drums	Sent to SPCB Authorized Cement industries or to TSDF for Incineration
2.	Solvent recovered from Stripper	2.5 KLD	29.4 Schedule -I		
3.	Spent carbon	0.21	36.2 of Schedule -I		
4.	Inorganic & Evaporation salt (Process) (10% moisture)	63.8	29.1 of Schedule -I	HDPE Bags	Sent to SPCB Authorized Cement industries or to TSDF for land fill (based on Calorific value)
5.	Evaporation salt with moisture (Non-Process & scrubber)	3.8	35.3 of Schedule -I		
6.	ETP Sludge with moisture	1.6	35.3 of Schedule -I		
7.	Boiler ash	60	--	HDPE Bags	Sent to Brick Manufacturers
Other Hazardous Waste generation from the Plant					
8.	a) Detoxified Container / Liners drums, HDPE Carboys, Fiber Drums	5000 nos./month	33.1 of Schedule-I	Designated covered area	Disposed to SPCB Authorized agencies after complete detoxification
	b) PP Bags	2 TPM	--		

Sl. No.	Description	Proposed* Quantity (TPD)	HW Stream	Handling Method	Disposal
9.	Spent Mixed solvents (unrecovered solvents)	15 KLD	28.6 of Schedule -I	Tanks/ Drums	Sent to SPCB Authorized agencies
10.	Spent Catalyst	0.81 TPD	-	Stored in Drums	Sent to suppliers on buy back basis
11.	Waste oils & Grease	5 KL/ Annum	5.1 of Schedule -I	MS Drums	Sent to SPCB Authorized agencies for reprocessing
12.	Used Lead acid Batteries	50 nos. / annum	A1160 of Schedule-III	Stored in Covered shed	Sent to suppliers on buy-back basis.
13.	Misc. Waste (spill control waste)	Lumpsum (LS)	--	Stored in Drums	TSDf
14.	Rejects	LS	--		
15.	E- waste	LS	--	Designated covered area	Authorized re-processor or TSDf
16.	Waste papers & other types of packing scrap	LS	--		Sold to scrap vendors
17.	Canteen waste	LS	--	HDPE bags	Composted on-site and reused for greenbelt
18.	Bio Medical Waste	LS	--	Color coded containers	Sent to SPCB authorized Biomedical waste incinerator
19.	Off-spec / Shelf Life expired chemicals / Products etc.	LS	28.5 of Schedule -I	HDPE Bags	Sent to SPCB Authorized Cement industries or to TSDf for Incineration (based on Calorific value)

*Note: *Hazardous / Solid waste quantities maximum on various combinations i.e., 5 campaign products at a point of time and R&D products.*

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. PP committed to plant 12250 trees with 4 to 5 rows of plants along the boundary. 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 use the recycled water. The Committee deliberated the solvent recovery and its mitigation plan and found satisfactory. The committee also deliberated the pesticide usage and the effect of pesticide on Crops and pests.

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

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

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

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

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

- (ii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEFCC in this regard.
- (iii). No banned Chemicals/Products 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 issued in this regard.
- (iv). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.7 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (v). Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vi). As already committed by the project proponent, Zero Liquid Discharge (ZLD) shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.
- (vii). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.
- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (ix). Total fresh water requirement, sourced from Karnataka Industrial Area Development Board (KIADB), shall not exceed 819 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (x). 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.
- (xi). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (xii). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises (if applicable).

- (xiii). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space provided with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valves to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xiv). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.
- (xv). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.
- (xvi). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. PP committed to plant 12250 trees with 4 to 5 rows of plants along the boundary. All trees must be planted within first year.
- (xvii). 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.
- (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. 18.3

Proposed Project of manufacturing Technical grade pesticides unit by M/s Dhanuka Agritech Limited, located at Plot No. D-3/1/A, Dahej-III, Dahej Industrial Estate, GIDC Dahej, Tal-Vagra, Dist-Bharuch, Gujarat- Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/229633/2021; File No. IA-J-11011/272/2021-IA-II(I)]

PP, vide email dated 30.09.2021, requested to withdraw the EC application as PP want to revise the application due to change of management hence changes are anticipated in the proposed project.

The EAC also warned to the Consultant [M/s Shree Green Consultants] / PP not to submit the immature proposal and read the various provisions of the EIA Notification, 2006 before submitting the application on Parivesh Portal.

After detailed deliberations, the EAC has accepted the request of PP for withdrawal of application and accordingly EAC **returned** the proposal in present form.

Agenda No. 18.4

Expansion and Change in Product Mix by M/s Sanskar Chemicals and Drugs Private Limited, located at Survey No. 457/3A, 451/3C, 457/4A, 457/4C (part) Ammor Village, 12/5 (Part) Chettithangal Village Walajah Taluk, Vellore District, Tamil Nadu - Reconsideration for Environmental Clearance - reg.

[Proposal No. IA/TN/IND3/203950/2018; File No. J-11011/361/2018-IA.II(I)]

The Project Proponent M/s. Sanskar Chemicals and Drugs Pvt. Ltd. and the accredited EIA Consultant M/s. Hubert Enviro Care System (P) Ltd, Chennai have submitted the salient features of the proposed project and informed that:

The proposal is for environmental clearance to the project for Expansion and Change in Product Mix located at S.F. No. 457/3A, 457/3C, 457/4A, 457/4C, 457/4C (Part) Ammoor Village, 12/5 (Part) Chettithangal Village, Walajah Taluk, Vellore District and Tamil Nadu State by M/s. Sanskar Chemicals and Drugs Pvt Ltd.

The details of products and capacity as under:

S. No	Products	Quantity (MT/Month)		Total quantity after expansion
		Existing Products*	Proposed Products	
1.	Poly Allamine Hydrochloride	20	Retained	20

2.	Isopropanol Hydrochloride	40	Retained	40
3.	Non ferric alum	90	Dropped	0
4.	Basic chromium Sulphate	90	Dropped	0
5.	Spent caustic lye solution	10	Dropped	0
6.	Linagliptin	-	0.15	0.15
7.	Vildagliptin	-	1.5	1.5
8.	Tritylomesartanmedoximal	-	2	2
9.	Allyl Isopropyl acetyl urea	-	5	5
10.	Diacerine	-	0.2	0.2
11.	Sitagliptin	-	1	1
12.	Lexoprofen	-	2	2
13.	Isopropyl bromide	-	10	10
14.	Allylbromide	-	6	6
15.	Hydrogen Bromide	-	25	25
	Total	250	52.85	112.85
	By products			
1	Spent Sulphuric acid	81	Retained	81
2	Gypsum	60	dropped	-
	Total	141	-	81

Deliberations by the EAC:

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

The Committee was informed that the Ministry had issued a Notification vide S.O. 804 (E) dated 14th March, 2017 for appraisal of the projects for the grant of terms of reference/ Environmental Clearance, that 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.

It was further informed to the Committee that the proposal was earlier considered by the EAC (Industry-2 Sector) in its meeting held during 20-22 October, 2020 and December 29-30, 2020 EAC (Industry-3 Sector). The EAC during deliberations noted that the project had been involved in the production of organic compounds without prior EC since 2010, hence it is a violation case. The Committee has been informed that there is no window available now for consideration of such proposals. The Committee observed that the PP has been operating the unit with valid CTO from the State PCB and as such, this type of violation shall happen due to lack of knowledge and also due to absence of proper directions from the SPCB. The Committee was of the view that such proposals coming for EC shall be considered on merit on case to case basis, after taking proper action under the E(P) Act, 1986, and as per the rules/guidelines framed under the Ministry's Notification S.O.804 (E) dated 14th March, 2017. The Committee, at the first instance opined that the matter may be examined by the Ministry and the proposal shall be considered by the EAC based on the decisions taken.

Further, the Committee was informed the Committee that the Ministry has issued Standard Operating procedure (SOP), vide order No. 22-21/2020-IA.III dated 07.07.2021, for identification and handling of violation cases under EIA Notification, 2006 in compliance to the Hon'ble NGT order in OA No.34 of 2020(WZ). However, the SOP was stayed by the Hon'ble High Court of Madras judicature at Madurai in the WP No. 11757 of 2021.

Further, the Committee was also informed that the Hon'ble NGT order dated 03.06.2021 in the Dastak NGO vs Syncochem Organics 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, was also stayed by the Hon'ble Supreme Court.

After, detailed deliberations by the EAC, the Committee is of the view that at present there is no provision to consider the violation cases. Accordingly, the proposal was returned in the present form. The EAC has also recommended that the Action Take Report from SPCB may be obtained on credible action against the PP under section 15 & 19 of the Environment (Protection) Act, 1986.

Agenda No. 18.5

Proposed amendment in existing EC letter for addition of new plot for M/s Acetochem Pvt. Ltd. Plot No. 90/A & 91/A, GIDC Pandesara, District Surat, Gujarat –Consideration of Amendment in EC

[Proposal No. IA/GJ/IND3/228661/2021; File No. J-11011/274/2009-IA.II(I)]

The proposal is for amendment in the Existing Environmental Clearance granted by the Ministry vide letter no. J-11011/274/2009- IA II (I) dated July 7, 2009 for the Project of Pesticides

Industry and Pesticide Specific Intermediates (excluding formulations) (pesticides and dyes manufacturing unit) having capacity of 217 TPM located at Plot No. 90/A, GIDC Pandesara, District - Surat, Gujarat in favour of M/s Acetochem Pvt. Ltd.

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

Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons
2	<p>The Ministry of Environment and Forests has examined your application. It is noted that M/s. Acetochem Pvt. Ltd. have proposed for expansion of pesticide intermediates and dyes intermediates manufacturing unit for enhancement of production capacity from 125 MTPM to 217 MTPM. The unit is located at GIDC estate, Pandesara in Dist. Surat in Gujarat. No eco-sensitive areas are located within 10 km radius of the plant. The proposed expansion will be within the existing unit having land area of 2484 m². Total cost of the project is Rs. 3.87 Crore.</p>	<p>Location/Address of the unit (M/s. Acetochem Pvt. Ltd.) shall be read/written as Plot No. 90/A & 91/A, GIDC Estate Pandesara, District – Surat, Gujarat, India.</p> <p>Total manufacturing capacity of the unit will remain same 217 MTPM as per existing granted EC letter (no. J-11011/274/2009- IA II (I) dated July 7, 2009). There will be no change in product list or its manufacturing capacity. Amendment is for addition of new plot only.</p> <p>Total area of the manufacturing unit after proposed EC amendment will be 4344 m² (Existing 2484 m² of Plot No. 90/A + Additional 1860 m² of Plot No. 91/A).</p> <p>Total cost of the project after proposed EC amendment will be ₹ 19.08 Crores (₹ 3.87 Crores Existing + ₹</p>	<p>The main reason for this proposed amendment is Safety of the plant.</p> <p>The existing manufacturing facility is very old, congested, and inconvenient for daily operations. The facility was started in the year 1976. Many of the equipment in the facility are more than 25 years old which needs to be replaced.</p> <p>In addition to this, some plant structures are also more than 40 years old which requires refurbishment. Unit is very well concern about safety of the plant and its people. Considering this, now unit proposes to add a new plot adjacent to existing plot so that, unit will have sufficient area for manufacturing, storage of raw materials as well as ease of the movement of the vehicles.</p> <p>Unit has proposed to install a new structure with new equipment and modified pipeline network for better and safe working environment.</p>

Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons
		15.21 Crores Additional).	

Deliberations in the EAC:

The Committee took note that the instant proposal involves addition of new plot of area 1860 sq.m. and reorganization/modernization of the unit within the existing and proposed plot for the safety concerns. The Committee also took note that some of the plant structures which are more than 40 years old are being refurbished in the proposed amendment. The Committee is of the view that the instant proposal does not qualify for the amendment in the existing EC dated 7th July, 2009 and shall be considered as a modernization proposal as per provisions of the para 7(ii) of the EIA Notification, 2006. The Committee decided that the proposal shall be applied against the modernization in the Parivesh Portal with all the required documents for further consideration.

The EAC also warned to the Consultant not to submit the immature proposal and read the various provisions of the EIA Notification, 2006 before submitting the application on Parivesh Portal.

Accordingly, the proposal was **returned** in the present form.

Agenda No. 18.6

Amendment in Environmental Clearance for retaining permission for water discharge of 447 KLD to NCT facility and for the disposal of 29 KLD of HTDS effluent to the common mee facility at Beil/Acptcl at the existing unit by M/s Hikal Limited, located at plot Nos: 629, 630-B, GIDC Estate, Panoli, Taluka Ankleshwar, District Bharuch, Gujarat–Consideration of Amendment in EC

[Proposal No. IA/GJ/IND3/228656/2021; File No. J-11011/98/2008-IA.II(I)]

The proposal is for amendment in the Environment Clearance granted by the Ministry vide letter IA-J-11011/98/2008-IA II(I) dated 9th May, 2019 for expansion of pharma products and Agro-chemicals located at Plot Nos, 629, 630-B, GIDC Estate, Panoli, Taluka: Ankleshwar, District: Bharuch (Gujarat) in favor of M/s. Hikal Limited.

PP reported that as per the earlier Environmental Clearance obtained in 2019, EAC had recommended to achieve 100% Zero Liquid Discharge scheme for wastewater treatment. The Unit is into the production of highly complex pesticide streams, having a common effluent treatment facility poses a high risk of cross contamination if, we recycle & reuse the treated wastewater in process.

As per the proposed amendment, the total effluent will be bifurcated in the following manner:

- Total Effluent 3857 KLD
 - (a) 447 KLD to ETP to NCT
 - (b) 82 KLD Domestic waste water to STP
 - (c) 2981 KLD In-house Effluent Treatment scheme
 - (d) 29 KLD to ACPTCL/BEIL
 - (e) 318 KLD (Boiler + Cooling)
- The unit may not be able to achieve complete Zero Liquid Discharge but it is committed that approx. 83 % of total waste water generation (3198 KL/day) will be reused within premises.
- The permission for disposal of effluent at NCT and BEIL has been already obtained.

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

Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/reasons
Condition No.6 (Para 2 of 3)	Industrial effluent of 3857 cum/day will be treated through stripper column, MEE & ATFD (for high COD) and ETP& RO (for Low COD). Treated effluent of 3085 cum/day will be reused in the process / cooling tower/boiler. There will be no discharge of treated /untreated wastewater from the unit, and thus ensuring zero liquid discharge.	<ul style="list-style-type: none"> ➤ Total wastewater generation will be 3857 KLD (Industrial 3775 KLD+ Domestic 82 KLD). ➤ Total wastewater generation from industrial is 3775 KLD in which 318 KLD (Boiler 213 KLD + Cooling 105 KLD) will be reused in for the process utility in the plant after pretreatment. ➤ Remaining 3457 KLD industrial effluent will be segregated in to 2 streams: Stream I- High TDS and COD stream (3010 KLD) and stream 	<p>As per the earlier Environmental Clearance vide letter no. IA-J-11011/98/2008-IA II(I) dated 9th May, 2019, our unit had proposed 100% Zero Liquid Discharge scheme for wastewater treatment. Now, PP have applied for EC Amendment for change in disposal mode considering the economical and technically viability of our project.</p> <p>In the ZLD system previously adopted, there was a common in-house ETP facility, but as our unit is into the production of highly complex pesticide steams, having a common effluent treatment facility poses a high risk of cross contamination if, we recycle & reuse the treated wastewater in process.</p> <p>Also, through the techno-feasibility study conducted we have identified that about 29 KLD (effluent generated from Lactum) of the HTDS effluent produced, has an exorbitantly high amount of COD.</p>

Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/reasons
		<p>II - Low TDS and COD stream (447 KLD).</p> <p>Stream I-High COD stream</p> <ul style="list-style-type: none"> ➤ Out of the 3010 KLD of effluent, 29 KLD will be directly sent in to the common MEE facility at BEIL/ACPTCL. ➤ Remaining 2981 KLD will be treated in in-house treatment facility through ETP+RO+HPRO or MEE+Stripper+ ATFD with further reuse. ➤ Total 2801 KLD of RO permeate will be reused for process. ➤ RO Reject will be sent to MEE for further treatment. ➤ 180 MT concentrated salt from MEE will be sent to TSDF site. <p>Stream II-Low COD stream</p> <ul style="list-style-type: none"> ➤ 447 KLD after primary, secondary and tertiary treatment shall be sent to NCT. 	<p>This proved to have a high potential for MEE tube damage if treated in the in-house MEE facility.</p> <p>The HTDS effluent stream generated also showed the possibility of corrosion in MEE components due to the highly complex nature of the pesticides stream.</p> <p>Hence, we had a discussion with the common MEE service providers who can ensure efficient dilution or pretreatment of the highly complex stream before treatment in their Common Multi Effect Evaporator (CMEE) and the final disposal. We have obtained permission from BEIL/ACPTCL for the disposal of 29 KLD of highly concentrated effluent. As per the proposed amendment, Approx. 83 % of total waste water generation (3198 KL/day) will be reused within premises.</p>

Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/reasons
		<p>Domestic Effluent</p> <p>➤ Domestic effluent of 82 KLD shall be treated in the in-house STP. The treated effluent shall be reused for gardening purpose.</p>	
Point No.3	The details of Products are as under: *	The details of Products are as under:	<p>Our unit is manufacturing products categorized under- 5(b) 'Pesticides industry and pesticide specific intermediates' and '5(f)' 'Synthetic organic chemicals' as per EC granted in 2019. Also as per Product mix CCA Amendment No: AWH-112328 issue vide Letter No: GPCB/ANK/CCA-231(14)/ID-15177/591908 dated 08/06/2021. with reference to the minutes of the Technical Committee meeting held on 01/03/2021 the quantity of 3 products namely Cyclinilprole (IKI 3106), IKF with HPP and BIT have been reduced along with the addition of 2 new products i.e. 5-MPDC and Benzophenaf. This alteration has been done without change in the total production quantity.</p> <p>It is required, that we get permission to manufacture the products in groups. The demand for molecules in the market varies on a regular basis and in an unpredictable manner in the pharma and agro sector. Hence, obtaining permission for group wise production is more feasible and economically viable to survive the market in the</p>

Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/reasons
			agrochemical and pesticides sector.

Product List as per Existing EC

S. No.	Products	Existing	Proposed	Total
		Capacity (TPA)		
Pharma Products				
1	Gemester	100	300	400
2	Bupropion-HCl ((1-Propanone, 1-(3-chlorophenyl)-2-((1,1-dimethylethyl) amino) hydrochloride)	100	300	400
3	Lactum	1800	2200	4000
4	HPP-529 (Ethyl 2 oxo pyro butanoate)	150	450	600
5	HPP-453 (Decoquinat)	150	450	600
6	HPP-799 (Ethyl 2 oxo pyro acetate)	60	540	600
7	HPP-913 (CBZ Amide)	100	-100	0
8	Leavi (Levetiractam)	100	-100	0
9	PBA HCl	50	-50	0
10	Gabapentin (Neurontin 1-(Aminomethyl)_cyclohexaneacetic acid	300	700	1000
11	HBS - Hydrozobenzene sulfonamide	0	300	300
12	Diketon	0	200	200
13	S Ester	0	855	855
14	Pregablin (Lyrica S-3-(Aminomethyl)-5-methylhexanoic acid	0	500	500
15	Gemfibrozil (2,2-Dimethyl-5-(2,5-dimethylphenoxy) pentanoic acid	0	400	400
16	Bupropion	0	300	300
17	Celecoxib	0	300	300
18	Quetiapine	0	300	300
19	Sitagliptin	0	300	300
20	Dabigatran	0	300	300
21	Canagliflozin	0	200	200
22	Dabagliflozin	0	200	200
23	Vildagliptin	0	300	300
24	Quetiapine 2/4	0	300	300
	Sub Total (A)	2,910	9,445	12,355
Crop Products				
1	Quinlphos (TECH)	100	-100	0
2	Ethion (TECH)	50	-50	0
3	Trizophos	50	-50	0

S. No.	Products	Existing	Proposed	Total
		Capacity (TPA)		
4	Karphos	100	-100	0
5	Temphos	200	300	500
6	3-5 DFA	100	-100	0
7	AF -02 (4 acetoxy 6 tert butyl 8 fluoro 2, 3 dimethylequinoline) with intermediate	100	50	150
8	Isoxazole (RTY)	100	-100	0
9	Karphos with Isoxazole (RTY)	0	300	300
10	Thiacloprid	0	1000	1000
11	Clothianidin	0	1000	1000
12	Trifloxystrobin (HPP 261)	0	2000	2000
13	Prothioconazole	0	1500	1500
14	Cyclniprole	0	500	500
15	IKF with HPP	0	300	300
16	BIT –Benzoisothiazol	0	3500	3500
17	MPDC DME	0	2000	2000
18	5- MPDC (MPDC -CA)	0	1500	1500
19	Benzophenaf (HPP-255)	0	300	300
	Sub Total (B)	800	13,750	14,550
	Grand Total	3,710	23,195	26,905

Product List as per amendment required

S. No.	Group of Products	Products List	Group Wise Total Qty. of Products
1	Group-A (API Intermediate)	Gemester	7955
2		Bupropion-HCl (BUP-1)	
3		Lactum	
4		HPP-529 (Ethyl 2 oxo pyro butanoate)	
5		HPP-453 (Decoquinatate)	
6		HPP-799 (Ethyl 2 oxo pyro acetate)	
7		HBS	
8		Diketon	
9		S Ester	
1	Group-B (API's)	Gabapentin	4400
2		Pregablin	
3		Gemfibrozil	
4		Bupropion	
5		Celecoxib	
6		Quetiapine	
7		Sitagliptin	
8		Dabigatran	

S. No.	Group of Products	Products List	Group Wise Total Qty. of Products
9		Canagliflozin	
10		Dabagliflozin	
11		Vildagliptin	
12		Quetiapine 2/4	
		SUB TOTAL (A)	12355
1	Group-C (Crop Intermediate)	TEMPHOS	14550
2		Karphos with RTY	
3		Thiacloprid	
4		Clothianidin	
5		Trifloxystrobin (TFS - HPP 261)	
6		Prothioconazole	
7		Cyclniprole (IKI 3106)	
8		IKF with HPP	
9		BIT	
10		MPDC DME	
11		5 MPDC (MPDC CA)	
12		HPP-255	
13		AF - 02 with intermediate	
14		Probenazole	
15		NBS (HTP-521)	
		SUB TOTAL (B)	14550
		GRAND TOTAL	26905

Deliberations in the EAC:

The Committee was informed that the earlier clearance granted to the instant project vide letter dated 9th May, 2019 stipulated a specific condition stating that there will be no discharge of treated/untreated waste water from the unit and thus ensuring zero liquid discharge. The Committee took note that the project proponent had now requested for discharge of about 447 KLD to NCT and 29 KLD to ACPTCL/BEIL, which is about 17% of the total waste water generation. The Committee was not convinced with the justification provided for not achieving the complete ZLD. The Committee desired that the Project Proponent should provide the adequate justification for the proposed amendment.

In respect to the amendment requested in change in product mix without change in total production quantity and increase in pollution load, the Committee suggested that the instant amendment comes under the purview of State Pollution Control Board and the project proponent may approach to SPCB accordingly.

After detailed deliberations by the EAC, the proposal was **deferred** for consideration at a later stage upon receipt of the adequate justification/information from the PP.

Agenda No. 18.7

Proposed project for Manufacturing of Insecticides (Veterinary Animal Health & Household Use) by M/s Synergia Sciences Pvt. Ltd. Located 337, Kerala, Nalsarovar Road, Taluka Bavla, Gujarat - Consideration of Amendment in EC

[Proposal No. IA/GJ/IND3/222368/2021; File No. IA-J-11011/197/2019-IA-II(I)]

The proposal is for amendment in the Environmental Clearance granted by the Ministry vide letter F. No. IA-J-11011/197/2019-IA II(I) dated 01/12/2020 for the project for manufacturing of various Insecticides for veterinary animal health & household use (757.2 TPA) located at Plot No. 18, Survey No. 300, Village Indrad, Taluka Kadi, District Mehsana, Gujarat in favour of M/s Synergia Sciences Pvt. Ltd.

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

S. No.	Reference of EC issued by MoEF&CC	Details as per the EC	To be revised / read as	Justification / Reasons
1.	Specific Condition A (ii) at Page 2 of 7	As already committed by the project proponent, zero liquid discharge shall be ensured and no waste/treated water shall be discharge outside the premises. Treated effluent shall be reused in the process/utilizes. Treated industrial effluent shall not be used for gardening/greenbelt development/horticulture.	During initial phase of the project till the primary treated high concentration effluent with RO Reject effluent reaches 15.0 KLD, it will be sent for Common Spray Drying at Chhatral Enviro Management System Pvt. Ltd. (CEMSPL) . As the project gradually advances and high concentration effluent generation increases beyond 15 KLD, unit will switch over to in-house MEE treatment system and will achieve Zero Liquid Discharge.	<ul style="list-style-type: none"> ○ It is not technically feasible and economically viable to achieve zero liquid discharge within plant premise during initial phase till the effluent quantity reaches 15 KLD. ○ Unit operating cost for spray drying is more economical compared to treatment in in-house system. summary of techno-economic feasibility of the effluent treatment system ○ The detailed evaluation of CAPEX and OPEX of effluent treatment prepared by M/s. Project plus Consultants LLP ○ Membership certificate of CEMPSL and CTE and CC&A of CEMPSL from Gujarat Pollution

				Control Board (GPCB) is obtained
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Deliberations in the EAC:

The Committee was informed that the earlier clearance granted to the instant project vide letter dated 1st December, 2020 stipulated a specific condition stating that there will be no discharge of treated/untreated waste water from the unit and thus ensuring zero liquid discharge. The Committee was informed by the project proponent that during initial phase of the project till the primary treated high concentration effluent with RO Reject effluent reaches 15.0 KLD, it will be sent for Common Spray Drying at Chhatral Enviro Management System Pvt. Ltd. (CEMSPL). As the project gradually advances and high concentration effluent generation increases beyond 15 KLD, unit will switch over to in-house MEE treatment system and will achieve Zero Liquid Discharge.

The Committee desired to know the timeline by which the unit would achieve ZLD. The Committee further decided that the project proponent shall submit the revised waste water treatment scheme to that extent.

After detailed deliberations by the EAC, the proposal was **deferred** for consideration at a later stage upon receipt of the adequate justification/information from PP.

Agenda No.18.8

Setting up of Pharmaceutical Bulk Drug & Intermediates Unit with proposed capacity of 445.62 TPA, located at 3/435, Kala Kuan, Housing Board, Alwar, Rajasthan by M/s Actavia Pharmaceuticals Pvt. Ltd. - Consideration of Environmental Clearance

[Proposal No. IA/RJ/IND3/229864/2021; File No. 11011/402/2021-IA-II (I)]

The Project Proponent and the accredited Consultant M/s Perfact Enviro 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 Pharmaceutical Bulk Drug & intermediates Unit by M/s Actavia Pharmaceuticals Pvt. Ltd., located at 3/435, Kala Kuan, Housing Board, Alwar, Rajasthan.

The details of products and capacity as under:

S. No.	Name of the proposed Products	CAS No.	TPM	TPA
Drug Intermediates				
1	4-Acetoxy azetidinone	76855-69-1	12.5	150
2	MAP [beta-Methyl vinyl phosphate]	90776-59-3	12.5	150
	Sub-total		25	300
Bulk Drug				
3	Meropenem	119478-56-7	4	48
4	Panipenem	87726-17-8	0.15	1.8
5	Ertapenem	153773-82-1	0.5	6
6	Biapenem	120410-24-4	0.15	1.8
7	Imipenem	74431-23-5	0.75	9
8	Tebipenem	161715-24-8	0.25	3
9	Faropenem Sodium	122547-49-3	0.33	3.96
10	Cilastatin Sodium	81129-83-1	0.33	3.96
11	Doripenem Monohydrate	148016-81-3	0.38	4.5
12	Meropenem for Injection	-	3.75	45
13	Imipenem and Cilastatin for injection	-	1.25	15
14	Doripenem Monohydrate Sterile	148016-81-3	0.3	3.6
	Sub Total		12.14	145.62
	Total		37.14	445.62

As the proposed project will be involved in manufacture of Pharmaceutical Bulk Drugs & Intermediates Unit and the project lies within the industrial area, the project comes under Item 5(f), Category B as per EIA Notification 2006 and its subsequent amendments and are appraised at State Level by Expert Appraisal, however as the tenure of Rajasthan SEIAA Committee has been expired, therefore the proposal appraised at central level by Expert Appraisal Committee (EAC).

The Standard ToR was granted vide letter dated 12.01.2021 and the project proposal was considered by the SEAC, Rajasthan in its meeting held during 02.03.2021 and recommended Additional TOR vide File no. FF1(4)/SEIAA/SEAC-Raj/Sectt/Project/Cat. 5(f)(18922) /2019 -20 dated 15.04.2021 from SEIAA, Rajasthan. Public Hearing for the proposed project is exempted as the unit lies in the notified industrial area of Matsya Industrial Area (MIA), RIICO (Rajasthan State Industrial Development & Investment Corporation Limited).

The proposed project will be established in a land area of 40,300 sqm. Industry will develop greenbelt in an area of 13299.0 sqm which is 33 % of the total project area. The proposed project cost is about Rs. 130 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 476 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 71.49 Lakhs per annum. Total Employment under proposed project will be of 500 persons. Industry proposed to allocate Rs.16 Lakhs towards Corporate Environment Responsibility.

Project Proponent reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body Bhurja Nadi is flowing at a distance of 4.48 km NW in direction. Ambient air quality monitoring was carried out at 8 locations during October -December 2020. The baseline data indicates the ranges of concentrations as: PM₁₀ (71.20-86.30 µg/m³), PM_{2.5} (30.80-42.40 µg/m³), SO₂ (13.70-17.10 µg/m³), CO (0.61-0.77 mg/m³) and NO₂ (32.29-38.86 µg/m³). The above results show that all the parameters are within the range of their respective NAAQS prescribed by CPCB. The Committee deliberated the baseline data and found in order.

The total water requirement during installation phase will be 10 KLD and during operation phase 712 KLD out of which fresh water is 540 KLD which will be sourced from Ground water and rest of the requirement will be sufficed through 152 KLD of ETP treated water & 20 KLD STP treated water.

Total Wastewater generated from the unit will be 177 KLD, out of which 21 KLD domestic waste water, 70 KLD will be high TDS waste water and 86 KLD will be high COD wastewater. Domestic waste water will be treated in STP of capacity 25 KLD. 20 KLD of STP treated water will be reused within the complex for gardening purposes. High TDS wastewater stream will be generated from DM plant; boiler blow down & cooling tower which will first undergo physico chemical treatment followed by treatment in 3 stage UF/NF RO Plant-I of capacity 75 KLD. High COD wastewater stream will be generated from process & SRU, washing & scrubber which will first treated in ETP (100 KLD capacity) where it will undergo physico chemical treatment and the supernatant is treated in Pre-Bio AOP treatment followed by biological treatment, sand filtration system, carbon filtration system. Then treated water goes through further treatment in 3 stage RO Plant-II of 90 KLD capacity. The rejects from RO plant-1 (7 KLD) and RO plant-2 (11 KLD) will be sent to the Multi Effect Evaporator of capacity 5 KLD.

The RO permeate & MEE condensate will be further polished by AOP treatment. The permeate from RO plant 1 (63 KLD) and RO plant 2 (75 KLD) and Condensate from MEE (14 KLD) will be reused within the plant for the makeup of the cooling tower. The concentrate from MEE (4 KLD) will be passed through crystallizer and the salts will be sent to TSDF Site for disposal. The Unit will be a Zero-Liquid Discharge Project.

The power requirement of the unit will be 3000 kVA which will be sourced from Rajasthan State Electricity Board (RSEB). In case of power failure, power backup will be provided through DG sets of capacities of 2x500 kVA and 2x1000 kVA that will be enclosed at surface only. Common stack (DG 2x500 kVA) & common stack (DG 2 x 1000 kVA) of maximum height of 30 m each as per CPCB norms shall be provided to control air emissions. Common Stack for 2.5 & 3 TPH boiler & common stack for 4 & 0.5 TPH boiler of 32 m each above ground level along with cyclone separators & wet scrubber shall be provided to control pollutants SO₂, NO₂, PM within the statutory limit. PP reported that for control of emissions from various processes, process controls like mechanical seals, sealed pumps shall be installed in conjunction with air pollution control devices such as water & alkali scrubbers shall be installed based on pollution load and suitability with contaminants.

Total 87.4 kg/day solid waste will be generated out of which 50 kg/day of biodegradable waste will be given to authorised vendors for disposal at municipal sites, recyclable waste of 37.4 kg/day will be given to authorized recyclers. Oily Cotton Waste of 0.66 TPA, used oil of 0.66 TPA, Spent Carbon waste of 445.5 TPA, Off Specification Production will be 297 TPA, Sludge from ETP (Primary and Secondary Sludge) & STP of 9.48 TPA, MEE Residue 346.5 TPA, Waste Residue of 0.66 TPA and discarded drums and containers of quantity 26400- 33000 per year will be sent to TSDF site for final disposal. Non-hazardous Waste of 1900 TPA of Boiler ash will be generated which will be given to brick manufacturers, 350000 empty raw material container bags per annum and 30000 discarded drums per annum will be given to registered recyclers.

Deliberations by 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 reports are in compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within NAAQ standards. 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. Accordingly, green area development plan submitted by the PP and committed to plant 3430 plant with three rows of trees and one row of shrubs. The committee suggested to use treated domestic waste for horticulture purpose.

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 to revise the water balance and to increase in the use percentage of recycled water. The committee suggested to increase solvent recovery and accordingly revised solvent recovery plan was submitted. The committee also deliberated hazardous waste management plan, energy savings measure and found satisfactory.

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). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.7% with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (iii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEFCC in this regard.

- (iv). No banned Chemicals/Products 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 issued in this regard.
- (v). An Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vi). As already committed by the project proponent, Zero Liquid Discharge (ZLD) shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.
- (vii). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.
- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (ix). Total fresh water requirement, sourced from Ground Water through, shall not exceed 540 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (x). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (xi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. 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.
- (xix). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and the number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration. PP committed to plant 3430 trees along the boundary/periphery of the Unit. 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 and public hearing issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made during public hearing shall be satisfactorily implemented.
- (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.18.9

Proposed project for “Manufacturing of Active Pharmaceutical Ingredients (API)” by M/s Ubica Lifesciences Pvt. Ltd, located at Plot No. 119, Kadechur Industrial Area, Yadgir, Karnataka, Sangareddy, Telangana- Consideration of Environmental Clearance [Proposal No. IA/KA/IND3/230987/2021; File No. IA-J-11011/399/2021-IA-II(I)]

PP vide letter dated 02.10.2021 requested to withdraw the project, as PP is willing to propose for ‘Manufacturing of Active Pharmaceutical Ingredients (API’s) and their Intermediates’. PP will be applying for Terms of Reference (TOR) for preparation of EIA/EMP report as per provisions of the EIA Notification, 2006.

The EAC also warned to the Consultant [M/s A M Enviro Engineers] / PP not to submit the immature proposal and read the various provisions of the EIA Notification, 2006 before submitting the application on Parivesh Portal.

After detailed deliberations, the EAC has accepted the request of PP and accordingly EAC **returned** the proposal in present form.

Agenda No.18.10

Setting up of Active Pharmaceutical Ingredient (API) Manufacturing Industry of capacity 802 TPA, located at Plot No. 174 & 175, Kadechur & Badiyal Industrial Area, Saidapur Hobli, Yadgiri Taluk & District, Karnataka by M/s Sunrise Industries - Consideration of Environmental Clearance

[Proposal No. IA/KA/IND3/229389/2021; File No. IA-J-11011/295/2021-IA-II(I)]

The project proponent and the accredited consultant M/s. Eco Green Enviro Services 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 Ingredient (API) Manufacturing Industry of capacity 802 TPA, located at Plot No. 174 & 175, Kadechur & Badiyal Industrial Area, Saidapur Hobli, Yadgiri Taluk & District, Karnataka by M/s Sunrise Industries

The details of products and capacity as under:

S. No.	Product Name	Quantity In TPA	CAS No	Therapeutic Use
1	Pregabalin	40.00	148553-50-8	Anticonvulsants. Analgesics and Fibromyalgia agents
2	Vildagliptin	35.00	274901-16-5	Anti Diabetic, Type-2, Diabetes mellitus
3	Olmesartan	28.00	144690-92-6	Treatment of high blood pressure.
4	Gabapentin	45.00	60142-96-3	Antiepileptic To prevent and control Seizures.
5	Itraconazole	65.00	84625-61-6	Antifungal Infections
6	Ofloxacin	12.00	82419-36-1	Anti-bacterial infections
7	Metoprolol	70.00	56718-71-9	Treatment for high blood pressure
8	Fluconazole	4.00	86404-63-9	Prevention and treat a variety of fungal And yeast infections.
9	Ketoconazole	30.00	65277-42-1	Antifungal Infections and Skin infections.
10	Fexofenadine HCL	25.00	153439-40-8	Antihistamine. To relieve allergy symptoms
11	Oxpentifylline	20.00	6493-05-6	Improve the symptoms of certain blood flow problems in the legs and arms.
12	Venlafloxin	6.00	93413-69-5	Treatment of Depression.
13	Levocetirizine HCL	5.00	130018-77-8	Used to relive runny nose, sneezing.

14	Imatinib mesylate	3.00	220127-57-1	Anticancer. Philadelphia positive chronic myeloid leukaemia.
15	Omeprazole	10.00	73590-58-6	Treatment of heartburn (Decreasing the amount of acid made in the stomach)
16	Losartan potassium	8.00	124750-99-8	Treatment of High blood pressure (Hypertension)
17	Sertraline Hydrochloride	4.00	79559-97-0	Treatment of Depression, Obsessive compulsive disorders.
18	Acecolofenac	4.00	89796-99-6	Pain relief & inflammation such as Rheumatoid arthritis.
19	Favipiravir	7.00	259793-96-9	Emerging antiviral option in COVID-19
20	Pantoprazole Sodium	8.00	138786-67-1	Heartburn, acid reflux and gastro – oesophageal reflux disease. Prevention and treat stomach ulcers
21	Phenylephrine HCL	12.00	61-76-7	Temporary relief of stuffy nose, sinus and ear symptoms.
22	Mantelukast Sodium	5.00	158966-92-8	Prevent wheezing, difficulty breathing, chest tightness, and coughing caused by Asthma.
23	R & D Products	1.00	--	--
Total		447		

LIST OF BY-PRODUCTS AND ITS QUANTITIES

S. No	Name of the product	Name of the By-Product	Quantity in TPA
01	Omeprazole	Ammonium Sulphate	40.00
02	Sertraline	Recemic sertraline	70.00
03	Ofloxacin	Triphenylphosphine	200.00
04	Losartan potassium	Ammonium chloride	45.00
Total			355 TPA
Note: The quantity of By-products based on respective products being manufactured.			

PROPOSED API PRODUCT WITH THEIR CONSOLIDATED CAPACITY

S. No	Product	Capacity (TPA)
1	Active Pharmaceutical Ingredients (API)	446
2	By-Products	355
3	Research & Development Products	1.0
Total Capacity		802 TPA

As per the provision of EIA notification No. S.O. 1533 (E) dated 14.09.2006 as amendments

there to. The proposed project falls under category B2 as per the Notification vide number S.O. 2859 (E) dated on 16th July, 2021. Due to applicability of General Condition, i.e. interstate boundary Karnataka-Telangana state within 5 km from the project location, the project requires appraisal at Central Level by the Sectoral Expert Appraisal Committee (EAC) in the Ministry. It was informed that no litigation pending against the proposal.

The proposed project total land area is 8080.15 m². Industry will develop greenbelt in an area of 2666.5 m² which is 33% out of the total project area. The proposed project cost is about 4 Crores. Total capital cost earmarked towards environmental pollution control measures is 41 Lakhs and the recurring cost (operation and maintenance) will be about 10 Lakhs per annum. Total Employment under proposed project will be of 50 persons. Industry proposes to allocate 15 lakhs for 2 years towards Corporate Environmental Responsibility.

PP reported that there are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Bhima River is located 8.5 km (SW) from the proposed project site.

Total water requirement is 77.25 m³/day and will be met from KIADB industrial water supply. Industrial effluent generation will be 23 KLD which will be treated up to primary treatment. The partially treated effluent will be disposed to CETP line (Mother Earth, Kadachur). The plant will be based on CETP discharge system.

Power requirement of project will be 600 kVA and will be met from GESCOM. The unit has proposed to install (1 x 250 KVA) DG Set, Stack height of 6 M will be provided as per CPCB norms. The unit has proposed to install 1 x 2.5 TPH boiler and 1 x 2 lakhs Kcal/hr of thermic fluid heater are proposed Stack Height of 30 Meter respectively. Cyclone separators and bag filters will be installed separately for each of the boiler for controlling the particulate emissions (within statutory limit of 115 mg/ Nm³). LSHS/Fuel briquettes will be used instead of coal for the proposed Boiler & fired utilities.

Air pollution control/measures

S. No.	Stack attached to	Type of Fuel Used & quantity per day	Stack Height	Air pollution control equipment
1	Process Reactor-14 Nos (3 KL x 5 Nos), (3 GLR x 3 Nos), (5 KL x 4 Nos) (2 KL x 2 Nos)	--	30 m	3 Nos of alkali scrubber
2	Boiler-2.5 TPH, (1 No)	LSHS-180 kg/hr	30 m	Stack
3	Thermic Fluid Heaters-200000 Kcal/hr)	LSHS-130 kg/hr	30 m	Stack
4	DG sets 250 kva x 1 No.	HSD:50 liter/day	6 m	Acoustic enclosure & stack.

Details of Process emissions generation and its management.

S. No.	Name of the Gas	Quantity in Kg/day	Treatment Method
1	Hydrogen Chloride	98.5	Scrubbed by using chilled water media
2	Carbon Dioxide	216	Dispersed into the atmosphere
3	Hydrogen	2.6	Diffused by using through flame arrestor
4	Ammonia	3.2	Scrubbed by using chilled water media
5	Sulphur dioxide (SO ₂)	86.95	Scrubbed by using C. S. Lye Solution

DG sets Emission

S. No.	Dg sets capacity	Gas flow rate (m ³ /min)	Temp C	NO ₂ (g/sec)	SO ₂ (g/sec)	PM (g/sec)	CO (g/sec)	Velocity (m/sec)	Diameter in (m)
1.	250 kVA	43	500	0.51	0.063	0.02	0.19	15	0.192

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

S. No.	Waste Code as per HW Rules 2016	Waste Name	Quantity (MTA)	Disposal Mode
1	5.1	Used Spent Oil	5.0	KSPCB authorised recycler
2	20.3	Distillation Residues	250	KSPCB authorised CHWIF or send to pre/co-processing units (cement industries)
3	28.1	Process Residue and wastes (organic & inorganic solid waste)	300	KSPCB authorised CHWIF or send to pre/co-processing units (cement industries)
4	28.2	Spent catalyst	10	KSPCB authorised CHWIF or send to pre/co-processing units (cement industries)
5	28.3	Spent carbon	10.1	KSPCB authorised CHWIF or send to pre/co-processing units (cement industries)
6	28.6	Spent solvents	25	KSPCB authorised recycler having permission under rule-9

7	33.1	Discarded drums/bags/liners	60 Nos/day	KSPCB authorised recycler
8	33.2	Contaminated Cotton rags or other cleaning materials	1.5	KSPCB authorised TSDF
9	36.1	Solvent distillation residue	180	KSPCB authorised CHWIF or send to pre/co-processing units (cement industries)
10	37.3	Concentration or evaporation residues	215	KSPCB authorised TSDF

Non –Hazardous waste details

Sl. No.	Waste Code	Waste Name	Quantity (MTA)	Disposal Mode
1	--	Packing Materials (Paper, Plastic & Wood etc.) and stationary waste	50	Sale to Authorized Party
2	--	Insulation Material	10	Sale to Authorized Party
3	--	Metallic Scrap	50	Sale to Authorized Party
4	--	Non metallic Scrap	20	Sale to Authorized Party

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														
Water Input	EFFLUENT WATER								SOLID WASTE				Process emissions	Fugitive loss
	Effluent Water	Inorganics In Effluent	Organics In Effluent	TDS	COD	HTDS	LTDS	Total Effluent	Organic Solid waste	Inorganic Solid waste	Spent Carbon	Distillation Residue		
75000	23000	4000	1200	3400	5200	15000	8000	23000	438	388	0.5	684	320	6.0

Kg Per Day				
CO ₂	H ₂	NH ₃	HCl	SO ₂
216	2.6	3.2	98.5	86.95

Deliberations by the EAC:

The Committee, after detailed deliberations, desired for following information/inputs in respect of the following:

- (i). Revised solvent recovery/solvent management plan needs to be submitted.
- (ii). Revised Volatile organic compounds (VOCs)/Fugitive emissions control plan needs to be submitted.
- (iii). Revised water conservation plan needs to be submitted.
- (iv). Revised green belt development plan with high carbon sequestration trees needs to be submitted along with budgetary provisions.
- (v). The Project Proponent shall submit the detailed availability/facility/capacity of the treatment of waste water in the CETP and its working status from the concerned authority.
- (vi). Details of power requirement from the green energy/ solar power needs to be submitted.
- (vii). Detailed plan on Hazardous waste management.

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

Consideration of Modification in EC Proposal

Agenda No.18.11

Expansion of Fertilizer plant, located at Plot K1-K5, MIDC Industrial area, Taloja, District Raigad, Maharashtra by M/s Smartchem Technologies Limited-Consideration of Modification of EC regarding.

[Proposal No. IA/MH/IND3/231491/2021; File No. IA-J-11011/167/2016-IA II(I)]

The Project Proponent M/s Smartchem Technologies Limited made a presentation on the salient features of the project and informed that:

The Ministry has granted environmental clearance to the project for expansion of Fertiliser plant of M/s Deepak Fertilisers and Petrochemicals Corporation Limited at Plot K1-K5, MIDC Industrial area, Taloja, District Raigad, Maharashtra vide letter dated 02.09.2019. Further, the EC was transferred to M/s Smartchem Technologies Limited on 18.12.2020.

The project proponent has requested for amendment in the environmental clearance as under:

S. No.	EC condition	Amendment sought by PP and recommended by the EAC	Justification by PP
1.	Condition No. 11 (d): The green belt (GB) of 5-10 m width shall be developed in more than 33% of the total project area, mainly along the plant periphery in downward wind direction and along roadside etc. Selection of the plant species shall be as per CPCB guidelines in consultation with state forest department.	The green belt (GB) shall be developed in 31% i.e. 94122 m ² of the total project area along the plant periphery and PP also committed to develop 2.6 acres' area (i.e. 10,600 m ²) adjacent to the plots allotted by the MIDC for green belt development.	PP informed that MIDC has allotted 2 vacate plots of 2.6 acres area (8800 m ² & 1800 m ²) to M/s Smartchem Technologies Limited for Green Belt development. With development of Green Belt on this 2.6 acre PP will comply with Green Belt in the area more than 33 % of the project area. PP further submitted that they have developed green belt on degraded forest land near Dhavdi village located around 5 Km aerial distance from premises. PP has planted 22220 plants on 50 acres area. PP showed photograph of the plantation during the EAC. The Committee deliberated the issue.
2.	Condition No. 11 (l): At least 5% of the total cost of the project shall be embarked toward the enterprise social commitment (ESC) shall be used providing for laptop to school students through school management	The Committee deliberated the submission of the project proponent after detailed deliberations, recommended to utilize 0.75 % CER as stipulated in the EC dated 02.09.2019 and other 4.25% of the project in EMP related activities mentioned in EIA/EMP report and various commitments/activities made in public consultation.	PP started manufacturing multiple grade fertilizer call ammonium nitro-phosphate (ANP) (3.25 LMTPA) with its various grades in 1994 and then subsequently added NPK (6 LMTPA) with its various grades in 2017 and now PP further expanding NPK capacity by (2 LMPTA) making total multiple grade fertilizer to 11.25 LMTPA, thus this is a brown field project. The OM dated 01-May-18, mandates 0.75% of CER for all brown field projects with capital investment between 100-500

			crores. The project capital investment is only Rs.190 crore. Hence, PP request EAC to consider 0.75 % CER instead of 5 %.
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Deliberations in 11th EAC meeting earlier held in May 2021:

The Committee did not agree for reduction in the green belt area and reiterated that 33% of the total project area shall have to be allocated for green belt development and suggested to increase the density of plantation and accordingly resubmit the detailed green belt development program.

The Committee was informed that the CER of 5% was imposed in the instant case by the earlier EAC, as committed by the project proponent and even at that point of time Ministry's OM dated 01.05.2018 regarding CER was available. The Committee was further informed that there is no provision of CER as on date and accordingly, the Committee suggested that PP needs to modify the proposal with proper justification as per the recent OM dated 30.09.2020.

Deliberations in 18th EAC meeting (present meeting):

The Committee deliberated the information provided by the project proponent that MIDC has allotted 2 vacate plots of 2.6 acres area (8800 m² & 1800 m²) for greenbelt development and PP agreed to develop green belt on this 2.6 acre. Also the Committee deliberated on additional green belt developed by PP in degraded forest land near Dhavdi village. The Committee, after detailed discussion agreed to amend the condition *No. 11 (d)*: as given at SI.No.1.

Further, with respect to amendment sought at SI. No. 2, the Committee took note that the project proponent submitted revised plan as part of ESC investments which includes, (i) Activities to comply commitments in public consultation; (ii) Activities to comply EC conditions, and (iii) EMP activities mentioned in EIA report.

The Committee deliberated the submission of the project proponent after detailed deliberations, recommended to utilize 0.75 % CER as stipulated in the EC dated 02.09.2019 and other 4.25% of the project in EMP related activities mentioned in EIA/EMP report and various commitments/activities made in public consultation.

*The Committee, after detailed deliberations, **recommended** for amendment in the EC as above with all other terms and conditions remain unchanged.*

Consideration of Terms of References

Agenda No.18.12

Expansion of Liquid formulations from 600 TPA to 1080 TPA, Powder formulations from 600 TPA to 700 TPA, Cation Exchange Resins from 300 TPA to 3000 TPA, Biocide from 24 TPA to 360 TPA, Dispersants from 24 TPA to 360 TPA, Flocculating Agents from 12 TPA to 240TPA and newly added Oil field chemicals 1200TPA (Manufacturing of Water & Waste Water treatment – Resins & Chemicals) by M/s Asha Resins Pvt. Ltd., located at Gat No. 227/2, Alandi Markal Road, Village Dhanore, Tahsil Khed, District Pune, Maharashtra– Consideration of Terms of References.

[Proposal No. IA/MH/IND3/230868/2021; File No. IA-J-11011/397/2021-IA II(I)]

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

The proposal is for Terms of References (TOR) to the project for expansion of Liquid formulations from 600 TPA to 1080 TPA, Powder formulations from 600 TPA to 700 TPA, Cation Exchange Resins from 300 TPA to 3000 TPA, Biocide from 24 TPA to 360 TPA, Dispersants from 24 TPA to 360 TPA, Flocculating Agents from 12 TPA to 240TPA and newly added Oil field chemicals 1200TPA (Manufacturing of Water & Waste Water treatment – Resins & Chemicals) by M/s Asha Resins Pvt. Ltd., located at Gat No. 227/2, Alandi Markal Road, Village Dhanore, Tahsil Khed, District Pune, Maharashtra.

The details of products and capacity as under:

S. No.	Product	Qty. Granted MT/Annum	Qty. Expansion MT/Annum		Total Qty. MT/Annum
			Phase-I	Phase-II	
1	<u>Liquid Formulations</u> A. Boiler Water Treatment Chemicals B. Cooling Water Treatment Chemicals C. Antiscalants D. Descaling Chemicals E. Fuel Additives F. ETP /STP Chemicals	600	240	240	1080
2	<u>Powder Formulations</u> A) Alkaline Descalants B) Fuel Additives	600	-	100	700
3	Cation Exchange Resins in different forms	300	1700	1000	3000

4	Biocides	24	216	120	360
5	Dispersants	24	216	120	360
6	Flocculating Agents	12	108	120	240
7	Oil field chemicals	-	600	600	1200
	Total	1560	3080	2300	6940

All Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and Intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates) are listed at S.N. 5(f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

PP reported that the existing land area is of 6500 m², no additional land will be used for proposed expansion. Industry will develop greenbelt in an area of 0.2180 Ha (2180 sqm.) which is 33.53% of the total project area.

The estimated project cost is Rs.15.00 Crores including existing investment of Rs. 2.50 crores. Total capital cost earmarked towards environmental management plan/pollution control measures is Rs. 3.55 crores and the Recurring cost (operation and maintenance) will be about Rs.1.235 crores per annum. Total Employment will be 56 persons after expansion as direct and 60 persons indirect after expansion. 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. within 10 km distance from the project site. River/ water body The Indrayani River is flowing at a distance of 1.5 km in SE direction.

Total water requirement is 159 m³/day (Existing 9 m³/day, proposed 150 m³/day) of which fresh water requirement is 64 m³/day. The water will be sourced from nearest local supplier and used for plant activities and domestic use.

The Power requirement after expansion will be 70 HP load and will be sourced from Maharashtra State Electricity Board (MSEB). In addition to this, one DG set having capacity 82.5 kVA will be available as standby. Existing unit has 1 TPH Solid Fuel wood/ Briquette fired boiler. Additionally, 4 & 3 TPH Solid Fuel wood/ Briquette fired boilers will be installed. Existing Stack of height 10 m is connected through multicyclone dust collectors as air pollution control (APC).

PP informed that the existing unit is Established in 1993, commercial production started in 1996 onwards i.e. before 2006 EIA Notification. However, Asha Resins Pvt. Ltd. have obtained valid consent; CTO/CTE from MPCB and renewed regularly till date. PP also informed that no change in capacity before and after EIA notification 2006, two products namely Liquid Formulations and Powder Formulations was added in consent RO-PUNE/ CONSENT/1705000199 dated 05.05.2017 manufacturing process involved for "Formulations and Powder Formulations" different Organic & Inorganic products are mixed physically (at NTP

i.e. normal temperature and pressure); synthesis; heating not involved. These products are manufactured by blending different quantities of raw materials in SS reactor with 100 % product recovery/yield. There is no Effluent generation during manufacturing of these products”. Hence Environment clearance is not required for these products. The EAC deliberated and is of the view that EC is not required for formulation of products.

Deliberations by the EAC:

The EAC deliberated on the proposal. The Committee desired that the project proponent has to comply with the CTO conditions and commitment made in the existing project. The committee deliberated water recycling plan, existing green belt development plan and other uses of other pollution control devices for mitigation of air, water and noise pollution.

The Committee, after detailed deliberations, recommended for issuing **Standard ToR [Annexure-I]** in addition to the **additional ToR** as below:

- (i) Certified compliance status of the existing CTE/CTO conditions.
- (ii) Compliance of greenbelt development.
- (iii) Action plan for utilization of modern technologies for capturing carbon emitted and developing carbon sink/carbon sequestration resources.
- (iv) Detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species.
- (v) Explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
- (vi) Trees have to be planted with spacing of 2m x 2m and number of trees have to be calculated accordingly.

Agenda No.18.13

Expansion of API Production Capacity Within Existing Bulk Drug Intermediate Unit Producing Mineral Salts and API Capacity from 60 TPA to 560 TPA by M/s Global Calcium Private Limited, located at Plot No 124 125 126 CP 173 SIPCOT and N 14 SIDCO Hosur Krishnagiri District Tamilnadu– Consideration of Terms of References

[Proposal No.: IA/TN/IND3/228150/2021; File No. J-11011/411/2006-1A II (I)]

The Project Proponent and the accredited Consultant M/s. Chennai Testing Laboratory Private Limited made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of Terms of References (TOR) to the project for Expansion of API Production Capacity Within Existing Bulk Drug Intermediate Unit Producing Mineral Salts and API Capacity from 60 TPA to 560 TPA by M/s Global Calcium Private Limited, located at Plot No 124 125 126 CP 173 SIPCOT and N 14 SIDCO Hosur Krishnagiri District Tamilnadu.

The details of products and capacity as under:

Products	Process	Quantity in TPA		
		Existing	Proposed	Total
Pharmaceutical Bulk Drug & Chemicals MINERAL SALTS Gluconates, Citrates, Lactates, Lactobionates, Fumarates, Orotates, Ascorbates, Aspartates, Pidolates, Glycinate, Calcium D Sacharate, Phosphates, Phosphites, Selenates, Stearates, Succinates, Per Oxides, etc	Conventional	1641	--	1641
	Conversion/ Conventional/ Repacking/ Outsourced	1400	--	1400
Calcium Glubionate, Calcium Borogluconate, Calcium lacto Gluconate, Gluconates, Acetates and other Mineral Salts	Spray drier	2615	--	2615
	Conversion/ Spray drier/ Repacking/ Outsourced	1215	--	1215
Bepotastine Besilate, Benfotiamine, Calcium Dobesilate, Clozapine, Citicoline, Cinitapride Hydrogen Tartrate, Carbimazole, Deferasirox, Diatrizoic Acid, Dorzolamide Hydrochloride, Desvenlafaxine Succinate, Fenpiverinium Bromide, Flupentixol And Its Salts, Calcium Folate, Ferric Isomaltoside, Ferric Maltol, Fomepizole, Fluphenazine Decanoate, Fosphenytoin Sodium, Calcium Glycerophosphate, Iron Sucrose, Iron Sorbitol Complex, Iron Poly Maltose Complex, Ivabradine Hydrochloride, Iohexol, L-Methyl Folate, Mebeverine Hydrochloride, Melitracen Hydrochloride, Minoxidil, Methotrexate, Metopimazine, Nifuroxazide, Naftifine, Nefopam Hydrochloride, Nebivolol Hydrochloride, Oxetacaine, Oxcarbazepine, Pitofenone Hydrochloride, Phenytoin/ Fosphenytoin Sodium, Phenazopyridine Hcl, Phenyramidol Hydrochloride, Pyridostigmine Bromide, Strontium Ranelate, Sucoferric Oxyhydroxide, Terbinafine Hydrochloride,	API	60	500	560

Tribenoside, Tiemonium Methylsulphate, Tolperisone Hydrochloride, Topiramate, Trimetazidine Hydrochloride, Ubiquinol (Acetate), Venlafaxine, Desvenlafaxine,				
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All Synthetic Organic Chemicals Industry (bulk drug and intermediates excluding drug formulations) are listed at S.N. 5(f) of Schedule of Environment Impact Assessment (EIA) Notification and located in Notified Industrial Estate are under Category – B as per EIA Notification 2006, amended till date, however, the Plant Site is located within 5 km radius of interstate boundary i.e. Tamil Nadu & Karnataka, and general conditions being applicable and hence considered as category 'A' and requires appraisal at Central Level by Expert Appraisal Committee (EAC).

PP reported that the Unit has already developed greenbelt in an area 0.60 ha and will develop greenbelt in an area of 0.54 ha which is 33.81% i.e., 11400 m² of the total project area. The Project Cost for Proposed Expansion is Rs.25 Crores, of which 4.5 Crores is for Environment Management Plan (EMP), and Recurring Cost for Maintenance of Pollution Control Measures is Rs.40 Lakhs per Annum. Total Employment will be 500 persons as direct & 200 persons indirect after expansion. Industry proposes to allocate Rs0.25 Crores of Project Cost towards CER.

There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site.

Power requirement after expansion will be 2.2 MW including existing 1.2 MW and will be met from Captive Generation [WIND MILL]. Existing unit has DG sets of 250 kVA, 320 kVA x 2 Nos., 380 kVA, 500 kVA x 2 Nos. capacity, additionally 1010 kVA x 2 Nos DG sets proposed as standby during power failure. Stack (height 11.5 m) will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 4+2 TPH & 4 TPH Biomass fired boiler. Additionally, 6 TPH biomass fired boiler will be installed. Multi cyclone separator/ bag filter with a stack of height of 30 m will be installed for controlling the emissions within limits as specified in GSR 96 (E) 29th January, 2018.

Deliberations by the EAC:

The EAC deliberated on the proposal. The Committee desired that the project proponent has to comply with the earlier EC conditions and commitment made in the existing project. The Committee deliberated water recycling plan, existing green belt development plan and other uses of other pollution control devices for mitigation of air, water and noise pollution.

The Committee after detailed deliberations recommended for issuing **Standard ToR [Annexure-I]** in addition to the **additional ToR** with exemption from public hearing as the project site is in the notified industrial area:

- (i) Certified compliance status of the existing EC conditions from IRO, MoEFCC.

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

Reconsideration of EC Modification Proposal

Agenda No. 18.14

CFCL Fertilizers Plant, Gadepan, Kota, Rajasthan by M/s Chambal Fertilisers and Chemicals Ltd - Amendment in Environment Clearance

[Proposal No.IA/RJ/IND3/193237/2021, File No.J-11011/664/2008-IA II(I)]

The Ministry has granted environmental clearance for amalgamation to the project viz. CFCL Fertilizers Plant, Gadepan, Kota, Rajasthan vide its letter dated 18.06.2021

The project proponent has now sought for following amendment in Environmental Clearance dated 18.06.2021 as under:

Para of approved EC	Existing EC conditions	Amendment sought									
13 (b)	The discharge from G-I and G-II plant in the Kalisindh River be permitted only during the rainy season when the precipitation value is more than 5 mm in a day, after meeting the stringent norms as prescribed. During non-monsoon season, when precipitation is less than 5 mm in day (threshold value), the discharge from G-I & G-II plant in the Kalisindh River is not permitted and shall be	<p><i>" The discharge from G-I and G-II plant in the Kalisindh River be permitted only during the rainy season when the precipitation value is more than 5 mm in a day and its succeeding 10 days (max) depending on the rainfall, after meeting the stringent norms as prescribed.</i></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>S. No.</th> <th>Rainfall in a day (mm)</th> <th>No. of succeeding days for treated effluent discharge to river after rainfall (days)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>5</td> <td>1</td> </tr> <tr> <td>2</td> <td>10</td> <td>2</td> </tr> </tbody> </table>	S. No.	Rainfall in a day (mm)	No. of succeeding days for treated effluent discharge to river after rainfall (days)	1	5	1	2	10	2
S. No.	Rainfall in a day (mm)	No. of succeeding days for treated effluent discharge to river after rainfall (days)									
1	5	1									
2	10	2									

ZLD system. The Committee further desired that the concerned State Pollution Control Board from time to time shall monitor discharge from G-I & G-II plant in the Kalisindh River and ensure strict compliance of the same and report this non-compliance, if any, to this Ministry. The State Pollution Control Board shall also ensure that the River water quality remains un-deteriorated".	3	Greater than 20 mm and less than 75	5
	4	Greater than 75 mm	10

*During non-monsoon season, when precipitation is less than 5 mm in day (threshold value), the discharge from G-I & G-II plant in the Kalisindh River is not permitted and shall be **ZLD system for river discharge. However treated effluent (other than Ammonia Urea Process effluent) meeting the Standard for land discharge, can be used for irrigation in greenbelt within CFCL's premises.***

The Committee further recommended that the concerned State Pollution Control Board from time to time shall monitor discharge from G-I & G-II plant in the Kalisindh River and ensure strict compliance of the same and report this non-compliance, if any, to this Ministry. The State Pollution Control Board shall also ensure that the river water quality remains un-deteriorated".

The Committee after detailed deliberations, **recommended** the proposed amendment as mentioned in the table above.

Agenda No. 18.15

Proposed coal to Poly-vinyl Chloride (PVC) project by M/s Adani Enterprises Limited, located near Village Vandh & Tunda, Taluka Mundra, Kachchh, Gujarat - Withdrawal of ToR dated 30.04.2021 and delist fresh ToR Proposal

[Proposal No. IA/GJ/IND3/230877/2021; File No. IA-J-11011/149/2021-IA II(I)]

It was informed that PP has submitted the application in Industry-1, Industry-2 and Industry-3 Sector for different activities being dealt in different sectors as per schedule of the EIA Notification, 2006.

It was also informed that M/s Adani Enterprises Limited has obtained Standard ToR for the project viz. setting up Coal to Poly-vinyl Chloride (PVC) plant, located at Kachchh, Gujarat vide letter dated 30.04.2021 [Online proposal No. IA/GJ/IND3/209940/2021]. Further, the PP has also applied for amendment in the ToR dated 30.04.2021 and its withdrawal of application due to change in project configuration, plant layouts and addition of additional products etc. (Online proposal No. IA/GJ/IND3/225762/2021).

PP has submitted a fresh revised ToR application vide Proposal No.

IA/GJ/IND3/230877/2021 without withdrawing the earlier ToR dated 30.04.2021. The same was placed in the Agenda. Further **PP vide letter dated 28.09.2021, has requested to delist the new ToR proposal in the upcoming EAC meeting as PP would like to withdraw/surrender the existing ToR dated 30.04.2021 granted by the Ministry.** In this context, the agenda has been updated accordingly.

The EAC warned the Consultant not to submit the incomplete proposal and read the various provisions of the EIA Notification, 2006 before submitting the application on Parivesh Portal.

After detailed deliberations, the proposal is hereby **withdrawn** based on the request of PP vide email/letter dated 28.09.2021.

The meeting ended with thanks to the Chair.

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 equipment's and machineries, process flow sheet (quantitative) from raw materials to products to be provided
- xi. Hazard identification and details of proposed safety systems.
- xii. Expansion/modernization proposals:
 - a. Copy of all the Environmental Clearance(s) including Amendments thereto obtained for the project from MOEF/SEIAA shall be attached as an Annexure. A certified copy of the latest Monitoring Report of the Integrated Regional Office of the Ministry of Environment, Forest and Climate Change as per circular dated 30th May, 2012 on the status of compliance of conditions stipulated in all the existing environmental clearances including Amendments shall be provided. In addition, copy of the latest CTO and status of compliance of Consent to Operate for the ongoing/existing operation of the project from SPCB shall be attached with the EIA-EMP report.
 - b. In case the existing project has not obtained environmental clearance, reasons for not taking EC under the provisions of the EIA Notification 1994 and/or EIA Notification 2006 shall be provided. Copies of Consent to Establish/No Objection Certificate and Consent to Operate (in case of units operating prior to EIA Notification 2006, CTE and CTO of FY 2005-2006) obtained from the SPCB shall be submitted. Further, compliance report to the conditions of consents from the SPCB shall be submitted.

4) Site Details

- i. Location of the project site covering village, Taluka/Tehsil, District and State, Justification for selecting the site, whether other sites were considered.

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

5) Forest, wildlife and CRZ related issues (if applicable):

- i. Permission and approval for the use of forest land (forestry clearance), if any, and recommendations of the State Forest Department. (if applicable)
- ii. Land-use map based on High resolution satellite imagery of the proposed site delineating the forestland (*in case of projects involving forest land more than 40 ha*)
- iii. Status of Application submitted for obtaining the stage I forestry clearance along with latest status shall be submitted.
- iv. The projects to be located within 10 km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory Corridors of Wild Animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon
- v. Wildlife Conservation Plan duly authenticated by the Chief Wildlife Warden of the State Government for conservation of Schedule I fauna, if any exists in the study area
- vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife
- vii. Recommendations and NOC from the concerned State/UT Coastal Zone Management Authority on CRZ angle

6) Environmental Status

- i. Determination of atmospheric inversion level at the project site and site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall.
 - AAQ data (except monsoon) at 8 locations for PM10, PM2.5, SO2, NOX, CO and other parameters relevant to the project shall be collected. The monitoring stations shall be based CPCB guidelines and take into account the pre-dominant wind direction, population zone and sensitive receptors including reserved forests. Study should indicate minimum, maximum value of different parameters for the period (3 months) collected. Collected data should be supported by the reference data of either CPCB or SPCB. AAQ data & GLC of pollutants from stack emissions should suggest technology/ measures- Best Practiced Technology (BPT) indicating best achieved results.
- ii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
- iii. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
- iv. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
- v. Ground water monitoring at minimum at 8 locations shall be included.
- vi. Noise levels monitoring at 8 locations within the study area.
- vii. Soil Characteristic as per CPCB guidelines.
- viii. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
- ix. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
- x. Socio-economic status of the study area.

7) Environment Impact and Environment Management Plan

- i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
- ii. Water Quality Modelling – in case of discharge in water body
- iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.

- iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.
- v. Details of stack emission and action plan for control of emissions to meet standards.
- vi. Measures for fugitive emission control
- vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.
- viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.
- ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.
- x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.
- xi. Total capital cost and recurring cost/annum for environmental pollution control measures shall be included.
- xii. Action plan for post-project environmental monitoring shall be submitted.
- xiii. Onsite and Offsite Disaster (natural and Man-made) Preparedness and Emergency Management Plan including Risk Assessment and damage control. Disaster management plan should be linked with District Disaster Management Plan.

8) Occupational health

- i. Plan and fund allocation to ensure the occupational health & safety of all contract and casual workers
- ii. Details of exposure specific health status evaluation of worker. If the workers' health is being evaluated by pre designed format, chest x rays, Audiometry, Spirometry, Vision testing (Far & Near vision, colour vision and any other ocular defect) ECG, during pre-placement and periodical examinations give the details of the same. Details regarding last month analyzed data of above mentioned parameters as per age, sex, duration of exposure and department wise.
- iii. Details of existing Occupational & Safety Hazards. What are the exposure levels of hazards and whether they are within Permissible Exposure level (PEL). If these are not within PEL, what measures the company has adopted to keep them within PEL so that health of the workers can be preserved,
- iv. Annual report of health status of workers with special reference to Occupational Health and Safety.

9) Corporate Environment Policy

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

- ii. Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions? If so, it may be detailed in the EIA.
- iii. What is the hierarchical system or Administrative order of the company to deal with the environmental issues and for ensuring compliance with the environmental clearance conditions? Details of this system may be given.
- iv. Does the company have system of reporting of non-compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism shall be detailed in the EIA report
- v. Details regarding infrastructure facilities such as sanitation, fuel, restroom etc. to be provided to the labour force during construction as well as to the casual workers including truck drivers during operation phase.

10) Corporate Environmental Responsibility (CER)

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

10) Additional studies/Measures to be considered

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

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

status of the case.

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

B. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR 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 NH₃*, chlorine*, HCl*, HBr*, H₂S*, 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.

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GENERAL EC CONDITIONS

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

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 Bungalow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
3.	Prof. (Dr.) S. N. Upadhyay Research Professor (Hon.), Department of Chemical Engineering & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi E-mail: snupadhyay.che@iitbhu.ac.in	Member
4.	Shri Santosh Gondhalkar 'Shree' Apartment, Flat 401, Plot No. 22, Tukaram Society, Santnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
5.	Dr. Suresh Panwar House No.4, Gayateri Green Society, NH 58 Bypass, Kankerkhera, Meerut, Uttar Pradesh Email- spcpri@gmail.com	Member
6.	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
7.	Shri Tukaram M Karne "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2, PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	Member
8.	Shri 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

9.	Prof. (Dr.) Suneet Dwivedi, Professor in K Banerjee Centre of Atmospheric and Ocean Studies, University of Allahabad, Allahabad - 02 Uttar Pradesh E-mail: dwivedisuneet@rediffmail.com /suneetdwivedi@gmail.com	Member
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.	Mr. Ritin Raj Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Research Assistant

Approval of EAC Chairman

Email

Additional Director MoEFCC Dr R B LAL

Re: Zero Draft Minutes of the 18th EAC (Industry 3 Sector) meeting held during October 5-6, 2021 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir.

From : ab pandit <ab.pandit@ictmumbai.edu.in> Tue, Oct 12, 2021 02:46 PM

Subject : Re: Zero Draft Minutes of the 18th EAC (Industry 3 Sector) meeting held during October 5-6, 2021 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir. 1 attachment

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

Dear Dr. Lal,

Please find attached the approved and the duly signed meeting,

Thanks and Warm Regards
Pandit

Minutes have been approved



(Prof Aniruddha B Pandit), 12th October 2021
