

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

Dated: 04.02.2022

MINUTES OF THE 25th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON JANUARY 27-28, 2022

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

Time: 10:30 AM onwards

DAY-1 : JANUARY 27, 2022 [THURSDAY]

(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 and draft record of discussion very scientifically, 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 24th Meeting of the EAC (Industry-3 Sector) held during January 12-13, 2022 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 **24th Meeting of the EAC (Industry-3 Sector) held during January 12-13, 2022** conducted through Video Conferencing (VC), and as such no request has been received for modifications/factual correction, 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. 25.1

Proposal for Setting up of APIs and R&D for custom synthesis unit with production capacity of 341 MTPA, located at Plot No. 540/4, 540/5 & 540/10P Kadechur Industrial Area- KIADB, Kadechur village, Yadgiri Taluka and District, Karnataka by M/s. Suraj Laboratories Private Limited– Consideration of Environmental Clearance regarding.

[Proposal No. IA/KA/IND3/246199/2021; File no. IA-J-11011/4/2022-IA-II(I)]

The proposal of M/s. Suraj Laboratories Private Limited is for Setting up of APIs and R&D for custom synthesis unit with production capacity of 341 MTPA located at Plot No. 540/4, 540/5 & 540/10P Kadechur Industrial Area- KIADB, Kadechur village, Yadgiri Taluka and District, Karnataka.

The Project Proponent and the accredited Consultant M/s. Samrakshan, Bangalore [Accreditation number NABET/EIA/1922/IA0051 validity till 24.07.2022] made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the Setting up of APIs and R&D for custom synthesis unit with production capacity of 341 MTPA, located at Plot No. 540/4, 540/5 & 540/10P Kadechur Industrial Area- KIADB, Kadechur village, Yadgiri Taluka and District, Karnataka M/s. Suraj Laboratories Private Limited.

The details of products and capacity as under:

S. No.	Products Name	Quantity in MT/Annam	CAS Number
1.	Amlodipine	10	88150-42-9
2.	Aripiprazole	2	129722-12-9
3.	Clopidogrel Hydrogen Sulfate	50	120202-66-6
4.	Clozapine	7.5	5786-21-0
5.	Darunavir	10	206361-99-1
6.	Doxazocin mesylate	3	77883-43-3
7.	Etoricoxib	25	202409-33-4
8.	Glimepiride	5	93479-97-1
9.	Ketoprofen	100	22071-15-4
10.	Montelukast	15	158966-92-8
11.	Olanzapine	7.5	132539-06-1
12.	Pamabrom	2	606-04-2
13.	Rebamipide	25	90098-04-7
14.	Sotalol HCl	25	959-24-0
15.	Terbinafine HCl	50	78628-80-5
16.	Timolol Maleate	2	26921-17-5
17.	Trimebutine	2	39133-31-8
Total		341	

The project/activity is covered under Category 'B2'-API of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 (amendment on 27.03.2020, 15.10.2020 & 16.07.2021). Due to applicability of general conditions (Inter-state boundary at 2.6 km in Karnataka – Telangana State), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The public hearing for the proposed project is exempted as it is located at KIADB, Industrial area–Kadechur. The Ministry has granted environmental clearance to Kadechur Industrial Area at Kadechur village in District Yadgir, Karnataka vide letter No. 21-8/2014-IA.III, dated 14.10.2016.

The PP reported that the proposed project will be established on a land area 101171 m². The Industry will develop greenbelt in an area of 33 % i.e., 33386.43 m² out of total area of the project. The estimated project cost is Rs. 100 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 2.01 Crores and the Recurring cost (operation and maintenance) will be about Rs 0.395 Crores per annum. Total Employment will be 150 persons as direct and 350 persons indirect. Industry proposes to allocate Rs. 1 Crores at towards Corporate Environment Responsibility.

The Project Proponent reported that there are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance of the proposed project site. The Bheema River is flowing at a distance of 7.5 km in South West direction. No litigation is pending against the proposal.

The PP reported that total water requirement is 195 KLD and will be met from KIADB supply supplied from the Bheema River. Government of Karnataka has committed to provide water supply to all the industries in Kadechur Industrial area. The PP has made application for water withdrawal permission the same is expected shortly. Effluent of 116 m³/day quantity, will be treated in primary ETP within the site and sent to CETP, M/s. Mother Earth Environ Tech Private Limited and it is located within 1 Km distance from the proposed project site and domestic sewage –23 m³/day will be treated in Sewage Treatment Plant of 25 KLD capacity to be established within the premises.

Power requirement after expansion will be 2000 kVA and will be met from Karnataka State Power distribution corporation limited (KPTCL/GESCOM). It is proposed to install DG set of 2 x 350 kVA capacity. DG set will be used as stand by during power failure. Stack (height 12 m AGL) will be provided as per CPCB norms to the proposed DG sets.

The PP reported that it is proposed to install 2 x 10 TPH Briquette/coal fired boilers and 1 Lakh Kcal/hs and 2 Lakh Kcal/hr Thermic Fluid Heaters. ESP as APC equipment will be provided for boilers emission control and individual stack of height of 37 m for boiler and 30 m stack height for Thermic Fluid Heaters will be provided for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers.

Details of Process emissions generation and its management. Acid mist and VOC are from process emissions section and this will be treated in two stage six numbers scrubbers and 3 m ARL stack height.

Process Emission	Quantity of flue gas discharge (in Nm ³ /hr)A	Concentration of Acid mist emission (in mg/Nm ³) B	Total release of Acid mist (in kg/Day) [AX B]
Acid Mist	291	50	0.35

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

S. No.	Hazardous waste	Category as per HW Rules 2016	Quantity per Month	Mode of Disposal
1	Used Oil	5.1	0.02 KL	Sent to authorized recycler
2	Inorganic solid waste	28.1	6.57 Ton	Sent to Co-processing to cement industry
3	Process residue waste & organic process residue		6.31 Ton	
4	Spent carbon + Hyflow	28.3	0.31 Ton	Sent to brick manufacturers
5	Spent catalyst	28.2	0.14 Ton	Sent to manufacturer for Reactivation
6	Detoxified container	33.1	600 Nos	Sent to authorized recycler
7	Spent Solvent & Distillation distillate	20.3	12.03 Ton	Sent to authorized recyclers/ Co-processing to cement industry
			4.31 Ton	
8	ETP sludge	-	0.06 Ton	To be disposed as per HW Rules, 2016

CONSOLIDATED STATEMENT- POLLUTION LOADS DETAILS

S. No.	Parameter	Concentration (mg/l)	Pollution Load (kg/Day) [Concentration x Total Effluent generated]
1	COD	10000	1160
2	BOD	5000	580
3	TSS	2000	232
4	TDS	15000	1740

S. No.	Parameter	Unit	Before Treatment	After primary treatment	Remarks
1	pH	--	2 -10	6.0-8.5	Will be sent to CETP after
2	Oil & Grease	mg/l	100	80	

3	Total Suspended Solids	mg/l	1000-2000	900	primary treatment
4	Total Dissolved Solids	mg/l	5000-15000	-	
5	COD	mg/l	1500-10000	-	
6	BOD	mg/l	1000-5000		

Deliberations by the EAC:

The EAC, constituted under the provisions 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 PFR & EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

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

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

The Committee noted that the PFR & EMP reports are in order for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the use of briquette as fuel in the boiler, providing additional facility for low boiling solvents, 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 for three stage condensers with chilled brine solution and chilled water for efficient recovery of solvent including low boiling solvents used in the process to an extent of above 99 % recovery. PP Committed for the same.

The Committee also deliberated on the action plan and budget allocation for green belt development. The PP committed to plant 8720 numbers of trees of different species at a spacing of 2m x 2m in three-tier pattern to ensure the entire area and effective pollution abatement. The top soil excavated during the construction of the industry will be separately stored and used for greenbelt development and landscaping to conserve the soil and also the microbes. The PP also committed for allocating adequate budget for the greenbelt development. The Committee also deliberated on the issues of the rain water management, the number of industries coming up within 10 km radius of the proposed project site, the impact on the air quality due to proposed activity as well as on the flora, fauna and conservation of soil micro-organisms and advised the PP to assess the same. As suggested

by Committee, the PP committed for the same.

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, subject to compliance of terms and conditions as under, and general terms and conditions given in Annexure:-**

- (i). The PP 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 Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (iii). The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (iv). The treated effluent of 116 KLD proposed to be transported to the CETP-Mother Earth, Kadachur. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
- (v). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.
- (vi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.

- (vii). Total fresh water requirement, sourced from KIADB, shall not exceed 195 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (viii). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.
- (ix). The Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (x). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. The unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xi). The Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space provided with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valves to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xii). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.
- (xiii). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.
- (xiv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. 8720 Nos of Trees have to be planted with spacing of 2m x 2m and number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

- (xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.
- (xvi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 25.2

Expansion of Pesticide Products (From 2395 MTPM to 2730 MTPM) in the existing Unit, located at Plot No. 1, 2, 15 & 16, Opp. State Bank of India, G.I.D.C. Industrial Estate, Nandesari, District Vadodara, Gujarat by M/s GSP Crop Science Pvt. Ltd.- Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/247821/2018; File no. J-11011/403/2012-IA II (I)]

The Project Proponent and the accredited Consultant M/s. Aqua-Air Environmental Engineers Pvt. Ltd. having Accreditation no. NABET/EIA/2023/IA0062 (Valid upto October 7, 2023) made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Expansion of Pesticide Products (From 2395 MTPM to 2730 MTPM) in the existing Unit, located at Plot No. 1, 2, 15 & 16, Opp. State Bank of India, G.I.D.C. Industrial Estate, Nandesari, District Vadodara, Gujarat by M/s GSP Crop Science Pvt. Ltd.

The details of products and capacity as under:

S. No.	Name of Product	CAS No.	Capacity (MTPM)				LD ₅₀ (mg/kg)
			As per existing EC-2015	As per Valid CTO	Additional Capacity	Total after Proposed Expansion	
Plot No. 1, 15 & 16							
1	Chlorpyrifos	2921-88-2	125	125	500	500	1000
2	Thiamethoxam Technical	5188-07-8	20	30			116
3	Clothianidin Technical	210880-92-5	00	20			523
4	Tolfenpyrad Technical	129558-76-5	00				260
5	Diafenthiuron Technical	80060-09-9	50	50			2068
6	Profenophos Technical	41198-08-7	50	25			298
7	Pymetrozine	123312-	00	30			5693

	Technical	89-0					
8	Methoxyfenozide Technical	161050- 58-4	00	--			2000
9	Lambda Cyhalothrine Technical	68085-85- 8	00	--			3920
10	Bifenthrin Technical	82657-04- 3	05	--			210
11	Metribuzin Technical	21087-64- 9	50	45			245
12	Pendimethaline	40487-42- 1	125	125	325	325	1050
13	Propanil	709-98-8	40	52			360
14	Pyrazosulfuron Ethyl Technical	93697-74- 6	00	--			2000
15	Hexaconazole	79983-71- 4	20				612
16	Azoxystrobin	131860- 33-8	20	20			250
17	Cyproconazole	94361-06- 5	20	--			350
18	Thifluzamide	130000- 40-7	00	15			260
19	Trifloxystrobin	141517- 21-7	00	--			>2000
20	Pyraclastrobin	175013- 18-0	00	--	65	65	200
21	Tebuconazole	107534- 96-3	00	23			625
22	Difenconazole	119446- 68-3	00	10			1453
23	Propiconazole	60207-90- 1	00	--			1490
24	Prothioconazole	178928- 70-6	00	--			2235
25	Mepiquate Chloride 50%	24307-26- 4	00	--			464
26	Paclobutrazole	76738-62- 0	00	--	40	40	490
27	Fipronil	120068- 37-3	10	--	-10	00	354
28	Tricyclazole	41814-78- 2	25	--	-25	00	250
29	Fenpyroximate	134098- 61-6	5	--	-5	00	245
30	Triazophos	24017-47- 8	25	--	-25	00	500

31	Carboxin	5234-68-4	5	--	-5	00	430
Plot No. 2							
Plasticizers							
32	Di Ethyl Phthalate	84-66-2	--	1800 * (CTO issued before 2006)	00	1800	8600
33	Di Methyl Phthalate	131-11-3					2860
34	Tri Ethyl Citrate	77-93-0					5900
35	Di Octyl Phthalate	117-81-7					4900
36	Di Octyl Adipate	123-79-5					9100
Total (Plot No. 1, 2, 15 & 16)			595	1800	335	2730	
* Note: PP reported that the Unit has obtained CCA before 2006 Notification for Plasticizers Products, vide SPCB Order no. 24843, dated 30th Jun, 2001 to Valid upto 30st May, 2003 for Plot No. 2 [Production Capacity – 1800 MT/Month]. Unit has obtained CCA for Plasticizers before EIA Notification, 2006. Therefore, the prior EC is not required for plasticizer before 2006							

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 Expert Appraisal Committee (EAC) in the Ministry.

The Standard ToR has been issued by the Ministry vide letter No. J-11011/403/2012 -IA II (I), dated 4.2.2019 in favor of M/s. GSP Crop Science Pvt. Ltd. Public Hearing is exempted as the project is located in the GIDC industrial estate, which was notified before 2006. No litigation is pending against the proposal.

The PP reported that the Unit has obtained CCA before 2006 Notification for Plasticizers Products, vide SPCB Order no. 24843, dated 30th Jun, 2001 to Valid upto 30st May, 2003 for Plot No. 2 [Production Capacity – 1800 MT/Month]. Unit has obtained CCA for Plasticizers before EIA Notification, 2006. Therefore, the prior EC is not required for plasticizer before 2006. However, the PP reported that the Ministry had earlier issued two ECs vide dated 10.02.2009 and 08.05.2015 in favor of M/s. GSP Crop Science Pvt. Ltd. for technical pesticide. The details are as: The Unit has initially obtained first EC for Pesticide Technical vide Letter No. J-11011/592/2008, dated 10th February, 2009 for 5 Product for Plot No. 1, 15 & 16 (As per Exiting First EC–2009 Production Capacity – 283 MT/Month). Further the Unit has obtained Second EC for Pesticide Technical vide Letter No. J-11011/403/2012, dated 8th May, 2015 for 17 Product for Plot No. 1, 15 & 16. (Production Capacity – From 283 MT/Month to 595 MT/Month) {As per Exiting EC – 2015 Production Capacity – 595 MT/Month}. The Unit has also obtained CTO for Plot No. 1, 15 & 16 – Consent vide Order no. AWH – 66816 Dated 19th July, 2014 to Valid upto 18th July, 2019 for Plot No. 1, 15 & 16. {As per CTO Production Capacity – 230 MT/Month}. Unit has valid CTO for Plot No. 1, 15 & 16 – Consent vide Order no. AWH – 104706 Dated 21st October, 2019 to Valid upto 30st Jun, 2024 for Plot No. 1, 15 & 16. [Production Capacity – 595 MT/Month].

The Certified EC Compliance Report has obtained from IRO, MoEFCC Gandhinagar vide file no. 5-44/2015/(Env) 036, dated 15th February, 2021. Out of total 43 conditions, 36 conditions

are complied, 5 are partly complied, 1 not complied and 1 deemed complied. The Action Taken Report from IRO, MoEFCC Gandhinagar has been obtained vide file no. J-11/23-2021-IROG NR, dated 10th September, 2021. PP reported that out of total 43 EC conditions, 42 conditions are complied and 1 deemed complied. The Committee deliberated the action plan.

The PP reported that existing land area is 48,021 m²; no additional land will be used for proposed expansion. Industry will develop Greenbelt in an area of 35.45% i.e., Total 48,021 sq. meter land area is available at site; out of this area about 2603 sq. meter (5.42%) area is covered as greenbelt within premises; remaining 4000 sq. meter (8.33%) of Green belt is developed in GIDC area and 10,421 sq. meter (21.7%) of Green belt is developed third party area based on lease deed. Total 17,024 sq. meters (35.45%) area is covered as greenbelt. PP also reported that the existing plot do not have sufficient land area for green belt development therefore PP requested to allow to develop green belt in GIDC area. The EAC deliberated the green belt development plan and advised the PP to complete the green belt development within 6 months and the compliance report has to be submitted to IRO, MoEFCC for verification.

The estimated project cost is Rs. 179.0 Crores including existing investment of Rs.159.0 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.13.0 Crores and the Recurring cost (operation and maintenance) will be about Rs. 60.0 Crores per annum. Total Employment will be 268 persons as direct 50 persons indirect after expansion. Industry proposes to allocate of Rs. 20.0 Lakhs towards Corporate Environment Responsibility.

The PP reported that there are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Mahi River is flowing at distance of 2.06 Km in West direction.

The Ambient air quality monitoring was carried out at 10 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentrations as: PM10 (68.51 – 76.35 µg/m³), PM2.5 (40.21 – 44.89 µg/m³), SO₂ (10.14 – 17.55 µg/m³) and NO₂ (8.75 – 16.89 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.01 µg/m³, 0.03 µg/m³ and 0.01 µg/m³ with respect to PM10, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). Additional one-month Ambient air quality monitoring was carried out at 10 locations during May, 2021 and the baseline data indicates the ranges of concentrations as: PM10 (68.54 – 75.12 µg/m³), PM2.5 (38.42 – 44.51 µg/m³), SO₂ (9.05 – 16.97 µg/m³) and NO₂ (10.84 – 18.78 µg/m³) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.03 µg/m³, 0.03 µg/m³ and 0.02 µg/m³ with respect to PM10, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). The Committee deliberated the baseline data.

The PP reported that total water requirement is 1180 KLD of which fresh water requirement of 523 KLD and will be met from Nandesari Water & Utilities Ltd. Effluent of 740 m³/Day quantity will be treated through MEE and ETP facilities and then treated effluent will be sent to CETP for further treatment. Total waste water generation will be 740 KL/Day (Industrial: 700 KL/Day + Domestic: 40 KL/Day). 40 KL/day Domestic Effluent generated will be treated in STP then reuse within premises. Total 735 KL/Day (Process: 360 KL/Day + Washing: 40

KL/Day + Utility: 50 KL/Day + MEE condensate: 285 KL/Day) wastewater will be treated in effluent treatment plant, out of which 364 KL/Day treated effluent will be sent to CETP for further treatment and disposal. 371 KL/Day treated effluent sent to ETP consist of Primary, Secondary treatment followed by UF&RO and RO Permeate (277 KL/Day) reuse within premises, RO reject sent to in-house MEE.

The PP reported that the Power requirement after expansion will be 4 MW including existing kVA and will be met from Madhya Gujarat Vij Company Limited (MGVCL). Existing unit has 2 Nos. DG sets of 600 kVA capacity, additionally 500 kVA – 3 Nos. DG sets are used as standby during power failure. Stack (height 9 m) will be provided as per CPCB norms to the proposed DG sets.

The existing unit has 1 Nos. of 8.0 TPH Boiler, 1 Nos. of 10.0 TPH Boiler, 2 Nos. DG set of 600 kVA. Additionally, 1 Nos. of 10.0 TPH Boiler, 1 No. of Thermic Fluid Heater (10 Lac Kcal/Hr) and 3 Nos. DG set of 500 kVA will be installed. Existing Multi cyclone separator & bag filter, Cyclone Separator with ESP & Adequate Stack Height with a stack of height of 36 m, 36 m & 9 m and additionally, ESP + Water Scrubber, Ventury Scrubber and Adequate Stack Height with a stack of height of 36 m, 30 m & 9 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm³ for the proposed boilers.

Details of Process emissions generation and its management:

S. No.	Stack attached to	Stack Height (meter)	Type of Fuel	APCM	Pollutants	Permissible Limit
Existing: GPCB ID: 33326; Plot No. 1, 15 & 16, GIDC Estate, Nandesari-391340, Dist. Vadodara. (As per CC&A Order No. – AWH-104706, Valid up to 30/06/2024)						
1	Boiler-1 (8 TPH)	36	Imported Coal 850 Kg/Hr. OR Saw Dust 1250 Kg/ Hr.	Multi cyclone separator & Bag Filter	PM SO ₂ NO _x	150 mg/Nm ³ 100 ppm 50 ppm
2	Boiler-2 (10 TPH)	36		Cyclone separator with ESP		
3	D.G. Set (600 KVA – 2 Nos.) -Stand By	9	HSD 220 Liter/Hr.	Adequate Stack height		
Existing: GPCB ID: 22054: Plot No. 2, GIDC Nandesari, Taluka Vadodara, Dist. Vadodara. (As per CC&A Order No. – AWH-88603, Valid up to 30/06/2022)						
4	Boiler * (GT-2598) (GT- 3603)	33	FO 325 Liter/Hr.	--	PM SO ₂ NO _x	150 mg/Nm ³ 100 ppm 50 ppm

Additional						
5	Boiler-3 (10 TPH)	36	Imported Coal 1700 Kg/Hr.	ESP + Water Scrubber	PM SO ₂ NO _x	150 mg/Nm ³ 100 ppm 50 ppm
6	Thermic Fluid Heater (10 Lakh Kcal/Hr.)	30	LDO 10 KL/Hr.	Ventury Scrubber		
7	D.G. Set (500 KVA – 3 Nos.) -Stand By	9	HSD 195 Liter/Hr.	Adequate Stack Height		
Total Proposed						
1	Boiler-1 (8 TPH)	36	Imported Coal 850 Kg/Hr. OR Saw Dust 1250 Kg/Hr.	Multi cyclone separator & Bag Filter	PM SO ₂ NO _x	150 mg/Nm ³ 100 ppm 50 ppm
2	Boiler-2 (10 TPH)	36		Cyclone separator with ESP		
3	Boiler-3 (10 TPH)	36	Imported Coal 1700 Kg/Hr.	ESP + Water Scrubber		
4	D.G. Set (600 KVA – 2 Nos.) - Stand By	9	HSD 220 Liter/Hr.	Adequate Stack height		
5	D.G. Set (500 KVA – 3 Nos.) -Stand By	9	HSD 195 Liter/Hr.			
6	Thermic Fluid Heater (10 Lakh Kcal/Hr.)	30	LDO 10 KL/Hr.	Ventury Scrubber		
Note: * Boiler (GT-2598) & (GT- 3603) of Plot No. 2, (PCB ID: 22054) will be discontinued after proposed expansion.						

Table: Process Stack

S. No.	Stack Attached To	Stack Height	Air Pollution Control System	Parameter	Permissible Limit
Existing					
1	Chlorpyrifos	15 m	Two Stage Water Scrubber	HCl	20 mg/Nm ³
2	Profenophos	15 m	Two Stage Water Scrubber	HBr	5 mg/Nm ³
3	Hexaconazole	15 m	Two Stage Alkali Scrubber	SO ₂	40 mg/Nm ³
4	Thiamethoxam	15 m	Two Stage Water Scrubber	HCl	20 mg/Nm ³

5	Diafenthuron	15 m	Two Stage Alkali Scrubber	NH3	175 mg/Nm ³
6	Finpronil *	15 m	Two Stage Water Scrubber	HBr	5 mg/Nm ³
Additional					
There will be no any additional process gas emission from the manufacturing activities as well as any other ancillary industrial operations after proposed expansion.					
Total Proposed					
1	Chlorpyrifos	15 m	Two Stage Water Scrubber	HCl	20 mg/Nm ³
2	Profenophos	15 m	Two Stage Water Scrubber	HBr	5 mg/Nm ³
3	Hexaconazole	15 m	Two Stage Alkali Scrubber	SO2	40 mg/Nm ³
4	Thiamethoxam	15 m	Two Stage Water Scrubber	HCl	20 mg/Nm ³
5	Diafenthuron	15 m	Two Stage Alkali Scrubber	NH3	175 mg/Nm ³
Note: *Process Vent Sr. No. 6 Finpronil Will Be Discontinued After Proposed Expansion.					

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

S. No.	Waste Details	Waste Category	Quantity MT/Annum			Mode of Disposal
			Existing	Proposed	Total After Proposed Expansion	
1.	ETP Sludge	29.1	3605.4	720	4325.4	Collection, Storage, Transportation and Disposal at Common TSDF site of M/s. Nandesari Environment Control LTD (NECL) or any common TSDF site.
2.	Residue containing Toxic metals/organic /Process waste	29.2	240	300	540	Collection, Storage, Transportation and Disposal at Common CHWIF facility or co-processing at M/s. Nandesari Environment Control LTD (NECL) or common incineration facility or co-processing facility to any Cement Industry.
3.	Distillation Residue	20.3	240	360	600	Collection, Storage, Transportation and Disposal at Common Incineration Site or co-processing at M/s. NECL, Nandesari or co-processing facility to any Cement Industry.
4.	Spent Catalyst	35.2	56.4	63.6	120	Collection, Storage, Transportation and Disposal at Common Incineration Site or co-processing at M/s. NECL, Nandesari or co-processing facility to any Cement Industry.

5.	Used Oil	5.1	17.04 KL	17.04 KL	34.08 KL	Collection, Storage, Transportation And Selling to authorized re-refiners.
6.	Discarded liners/Bags /Carboy/ Drums	33.3	1559	1559	3118	Collection, Storage, Transportation And Selling to authorized recyclers.
7.	Salt from MEE	29.1	810	2220	3030	Collection, Storage, Transportation and Disposal at Common TSDf site of M/s. Nandesari Environment Control LTD (NECL) or any common TSDf site.
8	Spent HCl (30%)	29.6	408	408	816	Collection, Storage, Transportation & Sell to end users having Rule-9 permission under HOW-2016.
9.	HBr	B06	240	720	3120	
	KBr			720		
	K ₂ CO ₃			720		
	K ₂ SO ₄			720		
10.	Liquid Ammonia	A10	168	168	336	
11.	NaBr	B06	412.8	1987.2	2400	
12.	Spent Sulphuric Acid (45%)	29.6	2250	2250	4500	
13	Spent Carbon	35.3	66	0.0	66	Collection, Storage, Transportation and Disposal at common CHWIF facility of M/s. Nandesari Environment Control LTD (NECL) or common incineration facility or co-processing facility.

Deliberations in the EAC:

The EAC, constituted under the provisions 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 the EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

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

The Committee noted that the EIA/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 deliberated on the compliance report of the existing EC conditions and found satisfactory as all the conditions were reported complied except Green Belt development. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio.

The Committee deliberated on the action plan and budget allocation for green belt development. The Unit reported to the EAC that the Greenbelt will be develop in an area of 35.45% i.e. [5.42% area as greenbelt within premises; remaining 8.33% of Green belt be developed in GIDC area and 21.7% of Green belt be developed in lease deed area. EAC deliberated the green belt development plan and advised the PP to complete the green belt development within 6 months and the compliance report has to be submitted to IRO, MoEFCC for verification. The Committee suggested PP to opt mitigative measures to control particulate matter (PM) emission due to proposed project.

The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. 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 also deliberated on the pesticide usage and the effect of pesticide on Crops and pests. The committee also deliberated on the water balance data and found it satisfactory. The Committee also deliberated the onsite/offsite emergency plan and various mitigation measures to be proposed during implementation of the project.

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

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 submission of agreement copy of GIDC for the development of green belt and compliance of terms and conditions as under, and general terms and conditions in Annexure: -**

- (i). The PP 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 shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
- (iv). The treated effluent of 740 m³/day proposed to discharge to the CETP. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal
- (v). The continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (vi). The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (vii). The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (ix). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (x). Necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents.
- (xi). The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xii). The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology.
- (xiii). Total fresh water requirement shall not exceed 1180 KLD, proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.

- (xiv). The Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (xv). The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.
- (xvi). The green belt of at least 5-10 m width shall be developed in nearly 35.45 % of the total project area, mainly along the plant periphery/adjacent areas/GIDC area. 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 has to be increased accordingly. The plant species can be selected that will give better carbon sequestration and plantation shall be completed within six months and the compliance report has to be submitted to IRO, MoEFCC for verification.
- (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.
- (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. 25.3

Expansion for Synthetic Organic Chemicals (Resins) Manufacturing Unit with Production Capacity of 1000 MTPM, located at Survey No 286 P-1, Village- Dadashreenagar, Morbi Maliya (Kandla Road) District- Morbi, Gujarat by M/s Sarvottam Decor Pvt. Ltd- Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/212102/2021; File No. IA-J-11011/203/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. T. R. Associates having accreditation number NABET/EIA/1922/RA0142 valid till 9.10.2022 made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for expansion of Synthetic Organic Chemicals (Resins) Manufacturing Unit with Production Capacity of 1000 MTPM located at Survey No 286 P-1, Village- Dadashreenagar, Morbi Maliya (Kandla Road) District-Morbi, Gujarat by M/s Sarvottam Decor Pvt. Ltd

The details of products and capacity as under:

S. No.	Name of the Product	Production Capacity (MT/Month)	CAS Number
1	Phenol Formaldehyde Resin	400	9003-35-4
2	Melamine Formaldehyde Resin	300	9011-05-6
3	Urea Formaldehyde Resin	300	9003-08-1
Total Production Capacity		1000	--

The project/activities are covered under category 'A' of item 5(f) synthetic organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification and requires appraisal at Central Level by Expert Appraisal Committee (EAC).

The ToR has been issued by the Ministry, vide letter No. IA-J-11011/203/2021-IA-II(I), dated 21st May, 2021. Public Hearing for the proposed project has been conducted by the Gujarat Pollution Control Board on 27.10.2021, which was presided over by the District Magistrate. The main issues raised during the public hearing are related to hazardous effect on surrounding water bodies and the fisheries. The EAC noted that various public concern was also raised against the project during PH.

The PP informed to the EAC that that the Unit has completed installation of plant and machineries for laminate sheet production, for which prior EC is not required as per provisions of the EIA Notification, 2006. Now, Unit is in process to obtain the CTO from Gujarat State Pollution Control Board for laminated sheet. The Unit has obtained CTE from Gujarat State Pollution Control Board, vide letter no GPCB/CCA/MOR-3034/ID-82261, dated 30.6.2021 for laminated sheet.

The PP reported that existing land area is 1.3557 ha; no additional land will be used for proposed Resins. Industry will develop greenbelt in an area of 33.0 % i.e., 4475 m² out of total area (1.3557 ha) of the project. The estimated project cost is Rs. 55.6 lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs. 5.6 lakhs and the Recurring cost (operation and maintenance) will be about Rs. 28.38 lakhs per annum. Total Employment will be 20 persons. Industry proposes to allocate Rs.1.11 Lakhs towards Corporate Environment Responsibility (CER).

The PP reported that there are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Macchu River is flowing at a distance 4.40 km in SW direction and Canal at a distance of 2.63 km away in SE direction.

The Ambient air quality monitoring was carried out at 8 locations during December 2020 to February 2021 and additional one-month monitoring was carried out in October 2021 to validate the baseline data and October 2021 baseline data indicates the ranges of concentrations as: PM₁₀ (77.54 µg/m³ to 88.14 µg/m³), PM_{2.5} (46.08 µg/m³ to 53.25 µg/m³), SO₂ (18.68 µg/m³ to 23.64 µg/m³) and NO₂ (32.78 µg/m³ to 37.53 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.7 µg/m³, 0.04 µg/m³ and 0.002 µg/m³ with respect to

PM10, SO₂ and NO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The PP reported that Total water requirement for Resin Project will be 22.11 KLD (Fresh – 19.3 KLD+ reuse – 2.81 KLD) which will be met from Bore Well. Effluent of 3.52 m³/day quantity will be treated through Effluent Treatment Plant. The plant will be based on Zero Liquid Discharge System.

Power requirement will be 250 kVA and will be met from Paschim Gujarat Vij Company Ltd. (PGVCL). 250 kVA D. G. Set [Fuel: HSD (160 Lit./hr.)] will be provided and used only in case of power failure. Stack (11 meter) will be provided as per CPCB norms to the DG set.

The Unit will provide one steam boiler of 4 TPH [Fuel: Indonesian coal (4 Ton/day) / Briquettes (5.49Ton/day)]. Multi cyclone Dust Collector followed by Bag filter followed by Water Scrubber with stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers

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 EAC made detailed deliberations on the proposal. The Committee noted that water balance data was not calculated properly and also surface water quality showed by PP reveals that DO level is very low. PP/Consultant could not explain the reason behind this data. The Committee noted that various public complaint raised during the public hearing regarding contamination of nearby water bodies and other related issues. The committee also noted that the Conservation plan of Schedule –I species was not satisfactory and suggested PP to increase the budget allocation for Conservation plan of Schedule –I species.

The Committee was informed that the PP had submitted only additional one month AAQ data in Form-2 and EAC is of the view that PP/Consultant has to fill the correct form while uploading the EC application on Parivesh Portal. The EAC was also informed that unit has already obtained CTE from GPCB for manufacturing of laminated sheets. Currently the Unit is in the process of installation of laminate sheet's Plant & machineries, installation is under process then unit will apply for CTO (Consent to Operate) for laminated sheet production.

The Committee after, detailed deliberation, **deferred** the proposal and desired for certain requisite information/inputs listed below :

- (i). The PP should revise water balance as suggested by the EAC;
- (ii). The PP should submit data of BOD, COD, DO etc. of the near water body as in many places the surface water quality having high COD and low DO; PP needs to recheck the surface water analysis data and resubmit the report after verification;
- (iii). Revised Conservation plan of Schedule-I species needs to be submitted. The same plan need to be submitted to CWLW for approval as per instant guidelines;
- (iv). The PP need to revise the baseline data results in Form-2 and updated form 2 needs to be uploaded on the Parivesh portal as the whole process is online on Parivesh portal;
- (v). The PP needs to conduct study to check the reasons for contamination of nearby water bodies and detailed report needs to be submitted before the EAC;
- (vi). The PP needs to commit to use bio fuel; In this context, PP needs to be submitted the undertaken on the issue;
- (vii). The PP needs to submit the revised green belt design and its updated budget allocation and timelines;
- (viii). During the discussion on the issues raised during PH the EAC noted that one of the participants mentioned that the fishes would die and accordingly the EAC is of the view that reason needs to be identified and the PP shall analyze the upstream and downstream sample and submit the report the EAC:
- (ix). Action Plan with budgetary plan needs to be submitted in reply of Public complaint raised during the public hearing and other public complaint submitted in Gujarat Pollution Control Board.

Agenda No. 25.4

Expansion in Active Pharmaceutical Ingredients (APIs) Product of production capacity from 6.937 TPM to 45.51 TPM, located at Gat No. 200/1, P.O. Lakhmapur, Tal. Dindori, District- Nashik, Maharashtra [Total Plot Area –8193.0 sq.mt.] by M/s Besi Drugs Pvt. Ltd. – Consideration of Environmental Clearance

[Proposal No. IA/MH/IND3/246594/2021; File no. IA-J-11011/445/2021-IA-II(I)]

The project proponent and their accredited Consultant Amplenviron Pvt. Ltd. (AEPL) having Accreditation number NABET/EIA/2023/IA0061 valid till 13.8.2023 made a detailed presentation on the salient features of the project and informed that:

The proposal is for Environmental Clearance to the project for Expansion in Active Pharmaceutical Ingredients (APIs) Product of production capacity 6.937 TPM to 45.51 TPM, located at Gat No. 200/1, P.O. Lakhmapur, Tal. Dindori, Dist. Nashik, Maharashtra [Total Plot Area –8193.0 sq.mt] by M/s Besi Drugs Pvt. Ltd.

The details of products and by Products and capacity are as under:

S. No.	Name of product	CAS No.	Existing Producti on In MT/M	Propo sed Produ ction In MT/M	Total Produ ction In MT/M	Remarks	End-use of products
1	Diphenhydra mine Base	58-73-1	1.5	8.5	10	Increase in Production	Antihistamine
2	Diphenyl methane	101-81-5	2.0	0	0	To be discontinued	Raw material for Diphenhydra mine Base
3	B2 Phosphate Sodium	130-40-5	0.0625	(- 0.0625)	0	To be discontinued	
4	Ferric Ammonium Citrate	1185-57-5	3.375	0	0	To be discontinued	
5	Diphenhydra mine Hydrochlorid e	147-24-0	0	12.5	12.5	New Product	Antihistamine
6	Antimony Potassium Tartrate	28300-74-5	0	2	2	New Product	Emetic Agent
7	Diethylamine Salicylilate	4419-92-5	0	5	5	New Product	Analgesic and anti-inflammatory
8	Methyl Nicotinate	93-60-7	0	0.08	0.08	New Product	To treat muscle and joint pain.
9	Diethylcarbamazine Citrate	90-89-1	0	1.5	1.5	New Product	Anthelmintic
10	Phenyl Epinephrine Hydrochlorid e	61-76-7	0	3	3	New Product	Antiallergic
11	Chlorhexidin e Gluconate	18472-51-0	0	2.1	2.1	New Product	Antimicrobial s
12	Lignocaine Hydrochlorid e	73-78-9	0	1	1	New Product	local anesthetics.
13	Dimenhydrin ate	523-87-5	0	5	5	New Product	Antihistamine
14	Mefenamic Acid	61-68-7	0	3.33	3.33	New Product	anti-inflammatory
	Total		6.937	44.01	45.51	-	-

Note: PP reported that they are adding some new products and also discontinued some old products.

By-Products:

S. No.	Bi products	Existing capacity MTM	Proposed MTM	Total capacity MTM	Remarks
1	Sodium Bromide	1.25	(+10.93)	12.18	Increase in quantity
2	Sodium Sulphate	0	2.53	2.53	New By- Product
3	Sodium Chloride	0	0.85	0.85	New By- Product
4	Benzyl Bromide	0	2.55	2.55	New By- Product
5	Sodium Carbonate	0	1.71	1.71	New By- Product
6	HBr	0	6.50	6.50	New By- Product
7	Dihydroxysuccinate	0	1.50	1.50	New By- Product
Total		1.25	26.57	27.81	-

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 (amendment on 27.03.2020, 15.10.2020 & 16.07.2021). The project proponent also informed that initially they applied the EC application at SEIAA, Maharashtra. The proposal was considered by the SEAC in its 207th meeting held on 11-14th October, 2021, inter-alia, observed that the proposed project is located outside the notified industrial area and as per the classification the project located outside the notified industrial areas are classified as Category "A" and shall be dealt by the EAC, MoEFCC. Further SEIAA, Maharashtra, in its 233rd meeting held in November 29, 2021, also, reiterate the same decision of SEAC. Accordingly, the PP has applied the EC application at Central Level at MoEFCC in December 2021. Due to 'small unit' criteria as mentioned in the schedule-1 of EIA Notification, 2006, as the water consumption is 53.56 KLD i.e., >25 m³/day (small unit criteria as mentioned in the schedule-1 of EIA Notification, 2006) and the Unit is not located in Industrial Estate, the project is appraised at EAC level.

The PP reported that this is the existing Unit and operated since 1990 and since then PP has not enhanced the production capacity and no change in the product profile. The EC is not required for API products in 1990, hence the Unit is operating with valid CTO obtained from SPCB since 1990. The Certified Compliance Report of existing CTO was obtained from the Maharashtra State Pollution Control Board, vide letter no MPCB/SRON/140/2021, dated 01.11.2021. The PP reported that most of the conditions are compiled reported in the CCR. The EAC deliberated the certified compliance report of CTO and found in order. As informed by the PP no litigation is pending against the proposal.

The proposed project will be established in a land area of 8,193.00 m². Industry will develop greenbelt in an area of 2705.08 m² (33%) out of total area of the project. The estimated project cost is Rs. 5.26 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 1.035 Crores and the Recurring cost (operation and maintenance) will be about Rs 44.5 Lakhs / Annum. Total manpower requirement will be 25 nos. Including

skilled and unskilled Category. Industry proposes to allocate Rs. 5.26 Lakhs at towards Corporate Environment Responsibility.

The PP reported that there are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. PP reported that Total water requirement will be 53.56 CMD and will be met Surface water supplied by Lakhmapur Grampanchayat. Proposed treatment capacity after expansion is 20 CMD. It is a ZLD unit, Stripper MEE with ATFD along with two stage RO system is proposed to achieve ZLD.

Power requirement after expansion will be 187 KVA and will be met from MSEDCL (Maharashtra State Electricity Distribution Company Limited). It is proposed to install 2 No. of set proposed of 75 kVA and 125 kVA. It is proposed to install Boiler capacity - 1 Non IBR Boilers of 0.8 Kgs /Hrs. and 1 nos. THF of 2,00,000 Kcal diesel fired/LPG fired, 2 DG sets of 75 KVA and 125 KVA.

Details of Process emissions generation and its management: Existing – 1 Nos X 2000 CFM capacity scrubber, Proposed – 2 nos. X 2000 CFM capacity Scrubber and high efficiency chiller.

Details of Solid waste & Hazardous waste generation and its management

Table- Non-Hazardous Solid Waste

S. No.	WASTE	QUANTITY	Unit
1	Canteen Waste	0.20	MTM
2	Packaging Waste	0.30	MTM
3.	Office waste	0.25	MTM
4.	Broken Glass	0.01	MTM
5.	Electronic Waste	0.01	MTM
6.	Corrugated Box	0.10	MTM
7.	Mild still	0.500	MTM
8.	SS Scrap.	0.500	MTM
9.	Canteen Waste	0.20	MTM
10.	Packaging Waste	0.30	MTM

Table: Details of Hazardous Waste Generation

CAT. As per	TYPE OF WASTE	SOURCE	QTY.	METHOD OF
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HW Rules 2016				DISPOSAL
35.3 Sch – I	ETP Sludge	Primary & Secondary Treatment	0.25 TPM	CHWTSDF
5.1 Sch – I	Used Lubricants	Plant & Machineries	0.3 KL/M	Authorized Vendor
33.1 Sch – I	Used Containers (Metal & Plastic)	Raw Material Storage	250(Nos/M)	Authorized Vendor
	HDPE/ LDTE/ Gunny Bags	Raw Material Storage	300 (Nos/M)	Authorized Vendor
37.3 Sch – I	MEE Evaporator Residue	Evaporation Process	1.31 TPM	CHWTSDF
36.1 Sch-I	Distillation Residue	Solvent Distillation	0.003 TPM	CHWTSDF
28.6 Sch – I	Organic Distillate	Recovered Mix solvent from chillers	0.38 KL/M	Authorized Vendor
28.3 Sch-1	Spent Carbon	Process	0.13 TPM	CHWTSDF
28.6 Sch-1	Spent solvents	Process	11.56 KL/M	Authorized Vendor
28.4 Sch-1	Off- Specification Product	In Case of Batch failure	0.50 TPM	CHWTSDF
28.5 Sch-1	Date expired Product	In case of product damage or expiry	0.50 TPM	CHWTSDF

Deliberations in 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 PFR & EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent.

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

The EAC noted that the project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 (as amendment on 27.03.2020, 15.10.2020 & 16.07.2021). EAC also noted that the PP initially applied the EC application at SEIAA,

Maharashtra. The proposal was considered by the SEAC in its 207th meeting held on 11-14th October, 2021, inter-alia, observed that the proposed project is located outside the notified industrial area and as per the classification the project located outside the notified industrial areas are classified as Category "A" and shall be dealt by the EAC, MoEF&CC. Further SEIAA, Maharashtra, in its 233rd meeting held in November 29, 2021, also, reiterate the stand of SEAC. Accordingly, the PP has applied the EC application at Central Level at MoEFCC in December 2021. The EAC noted that the Due to 'small unit' criteria as mentioned in the schedule-1 of EIA Notification, 2006, as the water consumption is 53.56 KLD i.e., >25 m³/day (small unit criteria as mentioned in the schedule-1 of EIA Notification, 2006) and the Unit is not located in Industrial Estate, the project is appraised at EAC level. The EAC accordingly considered the application at the Central Level.

The EAC also noted that this is the existing Unit and operated since 1990 and since then PP has not enhanced the production capacity and no change in the product profile, as reported by the PP. The EC is not required for API products in 1990, hence the Unit is/was operating with valid CTO obtained from SPCB since 1990. The Certified Compliance Report of existing CTO was obtained from the Maharashtra State Pollution Control Board, vide letter dated 01.11.2021. The EAC deliberated the certified compliance report of CTO and found in order.

The Committee noted that the PFR/EMP reports are in order, reflecting the present environmental status and the projected scenario for all the environmental components. 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. EAC deliberated the green belt development plan and advised the PP to complete the green belt development within 6 months and the compliance report has to be submitted to IRO, MoEFCC for its verification. The Committee suggested PP to opt mitigative measures to control particulate matter emission due to proposed project.

The Committee deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. 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 also deliberated on the water balance data and found it satisfactory. The Committee also deliberated the onsite/offsite emergency plan and various mitigation measures to be proposed during implementation of the project.

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 PP shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (iii). The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (iv). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no treated/untreated wastewater 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.
- (v). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.
- (vi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (vii). Total fresh water requirement, sourced from Surface water supplied by Lakhmapur Grampanchayat, shall not exceed 53.56 CMD Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (viii). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.
- (ix). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (x). The continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For ZLD, the unit shall install web

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

- (xi). The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space provided with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valves to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xii). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.
- (xiii). The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.
- (xiv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within six months.
- (xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.
- (xvi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Re-Consideration of Environmental Clearance Proposal

Agenda No. 25.5

Expansion of APIs, Bulk Drugs and Chemical Manufacturing Unit with proposed production capacity from 104.13 TPM to 190.83 TPM, located at SP-3, 10 & 11 RIICO Industrial Area, Village-Keshwana Rajpoot, Kotputli, District- Jaipur, Rajasthan by M/s Otsuka Chemical India Pvt. Ltd- Consideration of Environmental Clearance

[Proposal no. IA/RJ/IND2/89107/2015; File No. IA-J-11011/241/2012-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. EQMS India Pvt. Ltd with accreditation number NABET/EIA/1922/RA0197 dated 23.11.2022 made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Expansion of APIs, Bulk Drugs and Chemical Manufacturing Unit with proposed production capacity from 104.13 TPM to 190.83 TPM located at SP-3, 10 & 11 RIICO Industrial Area, Village-Keshwana Rajpoot, Kotputli, District- Jaipur, Rajasthan - by M/s Otsuka Chemical India Pvt. Ltd.

The proposal was earlier placed before the EAC in its meeting held during 15-16 December, 2021 wherein EAC sought certain requisite information/inputs. Information desired by the EAC and response submitted by the project proponent is as under:

S. No.	Queries Raised by EAC	Reply by PP	Observation of EAC
1.	Year wise Production details with respect to CTO/EC Since Inception of the Unit in tabular form along with the details of the industry and start of production supported by relevant documents, to verify the violation, if any, done by the PP.	Year Wise production details with respect to CTO/EC is submitted and PP reported that there is no violation case.	The EAC deliberated the matter and found the reply to be satisfactory.
2.	EAC noted that PP has not uploaded EC dated 10.12.2015 on Parivesh Portal (in form 2) therefore PP shall submit all the documents on Parivesh portal as the whole process is online for EC process.	All Environmental Clearance letter issued to plant till date is submitted/uploaded on Parivesh portal.	The EAC deliberated the matter and found the reply to be satisfactory.
3.	This is existing Unit and PP has applied only now for the approval of the conservation plan for the Schedule-I species. Please justify the reasons and its compliance status.	PP reported that PP was not aware about the conservation plan of Indian Peafowl. Thus, it was not prepared and submitted to the Department for approval. However, now as suggested by environmental consultant, PP have	The EAC deliberated the matter and found the reply to be satisfactory.

		prepared the Conservation plan and same has been submitted to the Chief Wildlife Warden for approval. Same is under process. Conservation Plan is submitted.	
4.	The details of Schedule-I species in the study area, anticipated impact of the project and its conservation plan needs to be submitted. PP shall also justify the Indian Peafowl is categorized as Least Concerned in the IUCN. PP shall revise the plan accordingly.	The listed fauna found in study area has been cross-checked with Red Data Book of Indian Animals (Zoological Survey of India). There is no endangered or Schedule-I faunal species present in the study area except <i>Pavocristatus</i> which is a Schedule-I species. However, same has not been reported in the nearby area of the plant location as plant is situated in the well-developed Industrial area. Same has been reported in far villages. Thus, impact due to project is negligible. Moreover, conservation plan has been prepared as per guideline and submitted to the Chief Wildlife Warden. Same is submitted.	The EAC deliberated the matter and found the reply to be satisfactory.
5.	The action plan for controlling the fugitive emissions from the unit considering the unit proposed in the over exploited area needs to be submitted.	Action Plan for controlling the fugitive emissions from the unit is submitted.	The EAC deliberated the matter and found the reply to be satisfactory.
6.	The EAC noted that there is sufficient space available in the Unit. However, the PP has not developed adequate green belt. The density of trees is not adequate. PP needs to plant more trees immediately with dense three tier plantation. PP shall plant the tree with high carbon sequestration species in the greenbelt development program.	PP reported that 33% i.e., 29,040 sq.m. area of total plot area have been developed as green belt. Otsuka has proposed to plant approx. 2500 trees/ha. As per the calculation, about 7250 trees shall be planted under greenbelt. Otsuka has already planted about 2548 trees and additional 4702 trees shall be planted in the existing greenbelt area. Details about green belt are submitted/uploaded on Parivesh portal.	The EAC deliberated the matter and found the reply to be satisfactory.
7.	The EAC noted that the Unit is operating without Prior Permission of CGWA since 2017. The unit is located in over-	PP reported that the Renewed CGWA Permission for the project has been issued vide NOC No CGWA/NOC/IND/REN/1/2021/6549	The EAC deliberated the matter and found the

	<p>exploited area. The PP shall submit the Copy of NOC from CGWB for existing water use and compliance of the same.</p>	<p>valid till 09.05.2023. NOC letter is submitted. Earlier CGWA approval vide letter no. 21-4(47)/WR/CGWA/2006-773 dated 11.05.2015 was issued to us which got expired on 10.05.2017. However, request for renewal was submitted to the CGWB before expiry of NOC i.e. on 27.04.2017 (before expiry). Thereafter, due to Hon'ble NGT order, renewal was put on hold and renewal for NOC was not granted to PP. Recently CGWA has issued the NOC to PP without any penalty. Same is already uploaded on Parivesh portal.</p>	<p>reply to be satisfactory.</p>
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The details of products and capacity are as under:

S. No.	Product Intermediates & CAS Number	CAS Number	Existing Capacities as per EC dated 19.07.2019 # & 10.12.2015	Proposed	After Expansion
1.	GCLE	79350-37-1	58.3 TPM (700 MTPA)	66.7 TPM (800 MTPA)	125 TPM (1500 MTPA)
2.	Iohexol	66108-95-0	20.83 TPM (250 MTPA)	0	20.83 TPM (250 MTPA)
3.	BMH	214417-91-1	0	20 MTPM (240 MTPA)	20 MTPM (240 MTPA)
4.	ADA-2	1671-87-0			
5.	Cefexime	79350-37-1	22.5 TPM (270 MTPA)	0	22.5 TPM (270 MTPA)
6.	CefditorenPivoxil	117467-28-4			
7.	Cefdinir	91832-40-5			
8.	Cefprozil	121123-17-9			
9.	ACLE	113479-65-5			
10.	Ceftaroline	400827-46-5			
11.	Ceftibuten	118081-34-8			
12.	CefpodoximeProxetil	87239-81-4			
13.	CefcapenePivoxil	147816-24-8			
14.	Cefuroxime Axetil	64544-07-6			
15.	Tazobactum Sodium	89786-04-9			
16.	Sulbactum Sodium	69388-84-7			
17.	SulbactumPivoxil	69388-84-7			
18.	R&D Products	-	2.5 TPM (30 MTPA)	0	2.5 TPM (30 MTPA)
	Total		104.13 TPM	86.7 TPM	190.83 TPM

			(1250 MPTA)	(1040 MTPA)	(2290 MTPA)
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The project/activities are covered under Category 'A' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006. Due to applicability of general condition (Interstate boundary Rajasthan-Haryana State Boundary is at 2.38 km from the project location), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The PP reported that the Ministry had issued EC earlier vide letter no. J-11011/241/2012-IA II(I) dated 10.12.2015 and 19.07.2019 in favor of M/s Otsuka Chemicals (India) Pvt. Ltd. Construction/installation as per 2015 EC letter has been completed however, construction/installation for 2019 EC has not been started

The PP reported that the Ministry has granted TOR on 30.05.2017. Public hearing is exempted since the proposed project is located within notified Industrial Area. It was informed that no litigation is pending against the proposal.

The PP has submitted that the existing land area is 8.8 Ha and expansion is proposed within the existing land area. Industry has already developed greenbelt in an area of 33% i.e., 2.904 ha out of total area of the project. The estimated project cost is Rs. 468 crores (Existing: 433 crores & proposed: 35 crores). Total capital cost earmarked towards environmental pollution control measures is Rs. 17.53 Crores (Existing: Rs. 10.48 Crores & Proposed: Rs. 7.17 Crores) and the Recurring cost (operation and maintenance) will be about Rs. 9.56 Crore /annum. Total Employment will be 700 persons after expansion. Industry proposed to allocate Rs. 35.0 Lakhs towards Corporate Environment Responsibility.

The PP reported that there is no Wildlife sanctuary and no reserve forests within 10 km distance from the project site. No, national parks, Biosphere Reserves, Tiger/Elephant Reserves, etc. is present within 10 km distance from the project site. Dry Sahibi River is flowing at 4.43 km (SE) from the project site.

Ambient air quality monitoring was carried out during earlier EIA study at 8 locations during December, 2020 to February, 2021 and the baseline data indicates the ranges of mean concentrations as: PM10 (55.14-89.07 µg/m³), PM2.5 (34.22-52.62 µg/m³), SO₂ (5.02-9.86 µg/m³) and NO₂ (9.68-24.62 µg/m³) NH₃ (12.14-28.11 µg/m³). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). The Committee deliberated the baseline data.

The PP reported that after proposed expansion, the total water requirement of the industry will be 1172 KLD out of which freshwater requirement will be limited to 800 KLD and rest will be met through recycling of the treated effluent. Fresh water requirement is being sourced by ground water. After expansion, the industrial and domestic wastewater generation will increase to 309.2 KLD and 18 KLD respectively. The treated water {372 KLD (including steam of 51.7 KLD provided in MEE)} from all treatment schemes will be recycled back to industrial usage. The treated water will be used for process, cooling tower makeup, gardening, ash cooling and misc. work. The unit will maintain the Zero liquid discharge. In aspect of the wastewater management, Plant have a well-developed wastewater management system to meet the desired limits and norms of pollution control board, with

existing facility of ETP, MEE-I, MEE-II, MVRE & ATFD & Incinerator. In the proposed expansion, new STP of 30 KLD for treatment of domestic wastewater and enhancement of MEE-II from 51 KLD to 164 KLD with additional ATFD has been proposed. Also, one new incinerator is also proposed in the plant.

The Power requirement after expansion will be 10 MVA including existing 7 MVA and will be met from Jaipur Vidyut Vitran Nigam Limited (JVVNL). Existing unit has DG sets of 5x1500 KVA capacity used as standby during power failure. No additional DG set is proposed. Stack (30 m) have been provided as per CPCB norms to the DG sets.

The Existing unit has 1x18 TPH & 1 x 10 TPH Coal fired boiler. Additionally, 1x12 TPH coal fired boiler will be installed. Multi cyclone separator and Bag filters with stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit for the proposed boiler.

Details of Process emissions generation and its management:

S. No	Stack	Stack Height (m)	Dia (m)	Velocity (m/s)	Temp. (°C)	Flow (m ³ /hr)	Type of Pollutant	Air Pollution Control System (APCS)
Existing								
1.	SC-305 (E Process)	7.25	0.5	0.294	50	194	VOC- Benzene, Toluene, Xylene	Process emission are scrubbed in caustic / water/acid scrubber before venting through stack
2.	SC-306 (E Process)							
3.	SC-308 (S Process)							
4.	SC-309 (S Process)							
5.	SC-310 (C Process)							
6.	SC-311 (C Process)							
7.	SC-313 (SR Process)							
8.	SC-314 (HCL)							
9.	SC-315 (Chlorine)							
10.	SC-316 (BS Recovery)							
11.	SC-981							
12.	SC-982							
13.	DG Sets- 5 x 1500 KVA	30	0.4	11.5	330	-	NO _x , SO ₂ , PM _{2.5} , PM ₁₀ , CO.	Acoustic chamber provided

Proposed								
14.	SC-1308	7.25	0.5	0.294	50	194	VOC- Benzene, Toluene, Xylene	Process emission scrubbed in caustic / water/acid scrubber before venting through stack
15.	SC-3110							
16.	SC-1401	6.87	0.45	0.25	110	-		

Details of Solid waste and Hazardous waste generation and its management: The hazardous waste generated in the factory is listed in Schedule 1 of The Hazardous & Other Waste (Management and Transboundary Movement) Amendment Rules, 2016. The Authorization is granted for the collection, generation, reception storage, treatment of hazardous waste. The hazardous waste is being incinerated in the incinerator to the extent possible. Non incinerated hazardous waste along with incinerator ash are disposed of to TSDF site M/s Ramky Enviro Engineers Ltd., Gudli, Udaipur through RPCB registered transporter (M/s Aman transporter company, Gurgaon) while other solid wastes are segregated in salable and non-salable waste. The generated hazardous waste is stored in designated Hazardous waste storage room up to maximum of 90 days. All waste is disposed as per The Hazardous & Other Waste (Management and Transboundary Movement) Amendment Rules, 2016. Type, source, mode of storage, treatment and disposal of hazardous waste is shown in Table

Table: Details of Solid Hazardous Waste Management:

S. No	Type of waste	Cat. As per HW Rules 2016	Capacity (MT/Annum)			Facility
			Existing	Proposed	After Expansion	
Hazardous Waste						
1	Chemical Sludge from wastewater Treatment (ETP sludge)	35.3	75	125	200	Collection, Storage, Transportation and disposal at authorized TSDF.
2	Concentration & evaporation Residue.	37.3	1050	1950	3000	Collection, Storage, Transportation and disposal at authorized TSDF.
3	Spent Solvents	5.1	875	735	1610	Incinerated in inhouse incinerator
4	Discarded Containers/barrel/liners/contaminated with wastes/chemicals	33.1	0	500 No./annum	500 No./annum	Collection, Storage, Transportation and

						disposal by selling to registered recyclers.
5	Used filter cloth and filter material	35.1	0	2	2	Collection, Storage, Transportation and disposal at authorized TSDF.
6	Used/spent oil	5.1	1500 litre/A	500 litre/A	2000 litre/A	To authorized recycler.
7	Flue gas cleaning residue (Ash from Incinerator)	35.1	2	1	3	Collection, Storage, Transportation and disposal at authorized TSDF.
8	Carton/liners contaminated with hazardous chemicals & waste	33.1	0	5	5	Collection, Storage, Transportation and disposal at authorized TSDF.
Non-Hazardous/Industrial Waste						
9	Ash from coal Based boiler	-	1300	1100	2400	To cement manufacturer
10	Empty barrels (used for non-hazardous material)	-	200 No./annum	300 No/annum	500 no/annum	Collection, Storage, Transportation, Decontamination & Disposal by selling to registered recycler.
11	Scrap metals	-	20	10	30	Collection, Storage, Transportation & Disposal by selling to authorized recyclers.

Deliberations in the EAC:

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

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

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

The Committee noted that the EIA/EMP reports is in compliance of the TOR and reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. 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 also deliberated on the water balance data and found it satisfactory. The Committee also deliberated the onsite/offsite emergency plan and various mitigation measures to be proposed during implementation of the project.

The Committee suggested to use Biomass Briquettes as fuel, as committed also by the PP. The PP committed that PNG will be used once the connection/supply for PNG is available with Unit. The Committee advised that PP shall contact with gas distribution company for installation of PNG/Gas connection on priority and try to replace form PNG within 1 year. 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 deliberated the Green belt development plan submitted by PP. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considering 2m x 2m ratio and suggested to complete plantation with-in six months. The Committee deliberated the requisite information submitted by PP related to Year Wise Production details with respect to CTO/EC since Inception of the Unit, CGWA permission, Greenbelt, action plan for controlling the fugitive emissions, Conservation plan for Schedule-I species are found to be satisfactory.

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

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

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

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

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

- (i). The PP 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, MoEF&CC in this regard.
- (iii). The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (iv). The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (v). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no treated/untreated waste 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.
- (vi). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.
- (vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (viii). Total fresh water requirement, sourced from Ground water, shall not exceed 800 KLD. Prior permissions in this regard shall be obtained from the concerned regulatory authority.
- (ix). As committed by PP that PNG will be used once the connection/supply for PNG is available with Unit. The Committee advised that PP shall contact with gas distribution company for installation of PNG/Gas connection on priority and try to replace with PNG within 1 year.
- (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.

- (xix). The continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.
- (xi). The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space provided with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valves to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xii). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.
- (xiii). The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.
- (xiv). The green belt of at least 5-10 m width shall be developed in 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. All trees must be planted within one year and the implementation report shall be submitted to IRO, MoEFCC Jaipur.
- (xv). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.
- (xvi). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Consideration of TOR

Agenda No. 25.6

Setting up of Formaldehyde Manufacturing Unit, located at Plot No. B-47, B-48 & 49 UPSIDA Industrial Area, Baghpat, Uttar Pradesh- by M/s White Field Chemicals - Consideration of TOR

[Proposal No. IA/UP/IND3/250639/2022; File No. IA-J-11011/393/2021-IA-II(I)]

The project proponent and their accredited Consultant M/s. Enviro Infra Solutions Pvt. Ltd. having accreditation number NABET/EIA/1922/RA0157 valid till 13.11.2022 made a detailed presentation on the salient features of the project and informed that:

The proposal is for Term of Reference to the project for Setting up of Formaldehyde Manufacturing Unit, located at Plot No. B-47, B-48 & 49 UPSIDA Industrial Area, Baghpat, Uttar Pradesh- by M/s White Field Chemicals.

The details of products and capacity as under:

S. No.	Product Details	Existing Quantity	Proposed Quantity	Total Quantity
1.	Formaldehyde (HCHO)	-	100 MT/Day	100 MT/Day

As per the provision of "EIA Notification No. S. O. 1533 (E)" dated 14.09.2006 as amendments thereto; the proposed project is listed at S.N. 5 (f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and is appraised at Central Level by Expert Appraisal Committee (EAC) as the proposed Unit is located inside of the Industrial area. PP reported that the project is green field and no activity in the site has started. The activity will start only after taking necessary clearances under the various Acts/Rule.

PP reported that the proposed land area is 3470 sqm. Industry will develop greenbelt in an area of 750 sqm of total area of the project. The estimated project cost is Rs 257.40 Lakhs. PP reported that there are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. falling within 10 km distance from the project site. Yamuna River is flowing at a distance of 0.98 Km in East direction.

Total water requirement is 60. M3/day of which fresh water requirement of 60 m3/day will be met from Bore well. Effluent of 6 m3/day quantity will be treated through septic tank followed by soak pit. The plant will be based on Zero Liquid discharge system

Deliberations in the EAC:

The EAC deliberated on the proposal. **The Committee deliberated on the project site that 4 school/ colleges are located in the close proximity of the project site ~300 m, which affects the health of the future generations. Based on the KML file presented by the PP, the proposed Unit is green-field project but location is very sensitive as the proposed Unit is Red Category Industry.**

The Committee, after detailed deliberations, advised the PP to **explore the alternative**

site which is suitable for the development of the project and accordingly returned the proposal in its present form.

Agenda No. 25 .7

Proposal for Setting up of Formaldehyde manufacturing unit of production capacity 100 MT/day, located at Khasra No. 345, Village Seehpur, H. B. No. 176, Tehsil-Derabassi, District - Sahibzada Ajit Singh Nagar, Punjab by M/s Feel Organic - Consideration of TOR.

[Proposal No. IA/PB/IND3/251247/2022; File No. IA-J-11011/461/2021-IA-II(I)]

The project proponent and their accredited Consultant M/s Eco Laboratories and Consultants Pvt. Limited having accreditation number NABET/EIA/1821/RA0211 valid till 17.12.2023 made a detailed presentation on the salient features of the project and informed that:

The proposal of M/s Feel Organic for Setting up of Formaldehyde manufacturing unit of production capacity 100 MT/day, located at Khasra No. 345, Village Seehpur, H. B. No. 176, Tehsil- Derabassi, District - Sahibzada Ajit Singh Nagar, Punjab.

The proposal was earlier considered by the EAC (Industry-3) in its 20th EAC meeting held on 11-12 November, 2021. The requisite information desired by the Committee and Information desired by the EAC and response submitted by the project proponent is as under:

Queries Raised by EAC	Reply by PP	Observation of EAC
SPCB may be requested to provide the details of operations of the earlier products/industry, operation status of the Unit to check the violation, if any, reported by the Unit. PP shall submit all the details of CTE/CTO/EC of the earlier operations.	As per letter dated 10.1.2022 Industry was visited by officer of the Punjab Pollution control board on 16.12.2021 and no machinery of formaldehyde plant or any other plant was observed at site. Letter is submitted/uploaded on Parivesh portal.	The EAC deliberated the matter and found the reply to be satisfactory and no violation is observed.

The details of products and capacity as under:

S. No	Product Details	Existing Quantity	Proposed Quantity	Total Quantity
1.	Formaldehyde	-	100MT	100MT

As per the provision of “EIA Notification No. S. O. 1533 (E)” dated 14.09.2006 as

amendments thereto; the proposed project is listed at S.N. 5 (f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and is appraised at Central Level by Expert Appraisal Committee (EAC) as the proposed Unit is located outside of the Industrial area. PP reported that the project is green field and no activity in the site has started. The activity will start only after taking necessary clearances under the various Acts/Rule.

The PP reported the Land area is 3,353.8 m². Industry will develop greenbelt in an area of 33.7 % i.e., 1,128.77 m² out of total area of the project. The estimated project cost is Rs. 500 Lakhs including existing investment of Rs. 32 Lakhs (for land purchase). Total capital cost earmarked towards environmental pollution control measures is Rs. 69.5 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 8.0 lakhs per annum. Total Employment will be 37 persons (out of which 12 will be residing within the premises). Industry proposes to allocate Rs. 5.0 Lakhs towards CER.

The PP reported that there are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. falling within 10 km distance from the project site. PP reported that total water requirement is 79 m³/day of which fresh water requirement of 75.5 m³/day will be met from groundwater. Effluent of 13.7 KLD will be treated through ETP of capacity 15 KLD. Power requirement will be 175 KVA and will be met from Punjab State Power Corporation Limited (PSPCL). DG set of 200 KVA (1No.), will be used as standby during power failure. Stack (3m) will be provided as per CPCB norms to the proposed DG set

Deliberations in the EAC:

The EAC deliberated on the proposal. The Committee deliberated water recycling plan, green belt development plan and other uses of other pollution control devices for mitigation of air, water and noise pollution. Based on the KML file presented by the PP, the proposed Unit is green filed project and no activities on the site started and no violation case is observed.

The Committee, after detailed deliberations, recommended for issuing **Standard ToR [Annexure-I]** in addition to the **additional ToR with public hearing**, as per the provision of the EIA Notification, 2006, as the project site is not located in the notified industrial area :

- (i). The PP should conduct Public Hearing and all issues should be addressed in the EIA/EMP.
- (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). The PP should develop Greenbelt 2500 saplings/ha, accordingly the plant species selected for greenbelt should have greater ecological value and should be of great utility value to the local population with emphasis on local and native species and the species which are tolerant to air pollution. Trees have to be

planted with spacing of 2m x 2m and number of trees has to be calculated accordingly.

- (vi). The PP should submit the photograph of monitoring stations & sampling locations. The photograph should bear the date, time, latitude & longitude of the monitoring station/sampling location. In addition to this PP should submit the original test reports and certificates of the labs which will analyze the samples.
- (vii). The PP shall conduct Detailed Biological Study for a period. In case of any scheduled-I fauna found in the study area, the necessary plan along with budgetary provisions for their conservation should be prepared in consultation with State Forest and Wildlife Department and details furnished.
- (viii). The PP shall conduct a Study on ecology and fertility of soil, and a comparative study of broad categories of Microbial species present in the soil of area.
- (ix). Detailed effluent treatment scheme including segregation for units adopting "Zero Liquid Discharge"

Agenda No. 25.8

Representation of M/s Indian Polyurethane Association regarding classification of Polyurethane Manufacturing Unit for the purposes of the EIA Notification, 2006-Regarding

A representation from Indian Polyurethane Industry Association vide their letter dated 13th February, 2021 was received in the Ministry. The association has sought clarification whether "Environment Clearance (EC)" for the Polyurethane foam manufacturing Industry is required or not.

2. The association has stated that earlier there was restriction on the storage and handling of Hazardous Chemicals as per the clause 6(b) of the Schedule to the EIA notification, dated 14th September 2006. It has stated that since clause 6(b) has been omitted vide amendment number S.O 1960(E), dated 13.06.2019. now the requirement of polyurethane foam manufacturing process from EC is not needed.

The clause 6(b) of the schedule to notification dated 14th September 2006 reads as under:

"Isolated storage & handling of hazardous chemicals (As per threshold planning quantity indicated in column 3 of schedule 2 & 3 of MSIHC Rules 1989 amended 2000".

Deliberations of EAC (Industry 3 Sector) in its meeting held on 22-23 February, 2021

3. The matter has been deliberated in the EAC (Industry-3 Sector) in its meeting held on 22-23 February, 2021 in the Ministry. The Committee noted that 'manufacturing of Polyurethane foam' requires prior environmental clearance, as it is covered under item 5 (f) 'Synthetic organic chemical industry' of the schedule to the EIA Notification, 2006. However, utilization of Polyurethane foam as a raw material for further end product doesn't require EC. The Committee also observed that manufacturing Polyurethane foam involves ozone depleting substances and are also covered under Hazardous substance management rules. Based on that EAC desired that detailed deliberation on the matter requires further information related to complete process, raw material, process flow etc.

Deliberations of EAC (Industry 2 Sector) in its 39th meeting held on 17-18th August, 2021

4. It is observed that, the proposal was also considered by the EAC (Ind-2 sector) in its 39th meeting held on 17-18th August, 2021, wherein, representative of Central Pollution Control Board (CPCB) was also present. EAC Ind-2 Sector in the said 39th meeting noted that:

- Polyurethanes are a class of extremely versatile polymers. These are formed by reacting an isocyanate with an alcohol.
- Isocyanates are not ozone depleting and are not banned.

- Isocyanates are extensively used worldwide in pharma, pesticides and in several other industries.
- There is no volatile matter emitted in the process, as the entire process starting from unloading till in the process, is a closed single stage reaction needing no water or energy input. Reaction is exothermic. Only emission from the polymerization reactor is of CO₂ i.e. 50 gms per kg of polyurethanes foam. Quantity of CO₂ emitted is meagre.

The EAC (Industry-2) had opined that the project Polyurethane (PU) manufacturing units does not require Environmental Clearance and the project proponent can operate the existing/proposed facilities after obtaining requisite consents from State Pollution Control Board and other agencies as applicable.

Deliberations of EAC (Industry 3 Sector) in its 23rd meeting held on 29th December, 2021

5. The proposal was again reconsidered by the EAC (Industry-3 Sector). The Director, IA Policy, IA Division, MoEFCC was present during the EAC meeting. The representatives of the M/s Indian Polyurethane Association made a detailed presentation before the EAC in its meeting held on 29th December, 2021.

6. After detailed deliberations, the Committee has requested M/s Indian Polyurethane Industry Association to submit following information/details for further deliberations by the EAC:

- (i) Number of such type of Industries all across the country as per data available with them;
- (ii) Details of raw materials/inputs for manufacturing of PUF;
- (iii) Details of primary sources of pollution arising from such type of Industries.
- (iv) Detailed treatment process undertaken to contain effluent from the Industry.
- (v) Details end of life treatment of PUF and waste generated, if any, from the such Units etc.
- (vi) Details of handling TDI vapors in such industries.
- (vii) Details of emissions of polyol, CO, Air pollution etc. needs to be submitted.
- (viii) Details of monitoring data being collected at gate level and factory side may be submitted.
- (ix) Details of HAPs generated, if any, needs to be submitted.

Deliberations of EAC (Industry 3 Sector) in its present meeting held on 27-28 January, 2022

7. Based on submission of additional information by the Association, the proposal was re-considered by the EAC (Industry-3). The Joint Director, IA Policy, IA Division, MoEFCC was present during the EAC meeting. **The information/response submitted by The representatives of the M/s Indian Polyurethane Association is as under:**

S. No.	Queries Raised by EAC	Reply by PP

1.	Number of such type of Industries all across the country as per data available with them	<p>As per the data available with the IPUA as on date, please find below a table depicting the segment-wise break-up of units of Polyurethane Foam manufacturing industries across the country:</p> <table border="1" data-bbox="491 304 1461 715"> <thead> <tr> <th>S. No.</th> <th>Segment</th> <th>No. of Units</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td>Flexible Slabstock for furniture/bedding etc.</td> <td>310</td> </tr> <tr> <td>2.</td> <td>Flex Moulded for automotive and furniture</td> <td>110</td> </tr> <tr> <td>3.</td> <td>Rigid Foam for Insulation etc.</td> <td>415</td> </tr> <tr> <td></td> <td>Total</td> <td>835</td> </tr> </tbody> </table> <p>The figures depicted above are as per information available with IPUA</p>	S. No.	Segment	No. of Units	1.	Flexible Slabstock for furniture/bedding etc.	310	2.	Flex Moulded for automotive and furniture	110	3.	Rigid Foam for Insulation etc.	415		Total	835					
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2.	Details of raw materials/inputs for manufacturing of PUF	<p>Raw materials used in Polyurethane Manufacturing are:</p> <ul style="list-style-type: none"> • Polyols • Isocyanates • Water • Additives (like FR, Surfactants, colors etc.) • Catalyst (Blowing & gelling catalyst). <p>Typical Formulation-Flexible slab PU foam</p> <table border="1" data-bbox="491 1217 1410 1645"> <thead> <tr> <th>Component</th> <th>Parts by Weight</th> </tr> </thead> <tbody> <tr> <td>Polyol</td> <td>100</td> </tr> <tr> <td>Inorganic fillers</td> <td>0-150</td> </tr> <tr> <td>Water</td> <td>1.5-7.5</td> </tr> <tr> <td>Silicone Surfactant</td> <td>0.5-2.5</td> </tr> <tr> <td>Amine Catalyst</td> <td>0.1-1.0</td> </tr> <tr> <td>Tin Catalyst</td> <td>0.0-0.5</td> </tr> <tr> <td>Chain-Extender</td> <td>0-10</td> </tr> <tr> <td>Cross-Linker</td> <td>0-5</td> </tr> <tr> <td>Isocyanate</td> <td>25-85</td> </tr> </tbody> </table> <p>It may be pertinent to add that Kirk Othmer's Encyclopedia of Chemical Technology confirms that Polyurethanes are Polymers.</p> <p>Polyurethane foam manufacture is not a polluting process or a hazardous process and does not involve the usage of ODS products or emission of any air or water pollutants. The ODS used in the Industry is regulated by the Ozone Cell of the Ministry and all such material are banned from import and usage since December 2019.</p> <p>The polyurethane manufacturing process is based on the mixing of di-isocyanates and polyols. Isocyanates are compounds which</p>	Component	Parts by Weight	Polyol	100	Inorganic fillers	0-150	Water	1.5-7.5	Silicone Surfactant	0.5-2.5	Amine Catalyst	0.1-1.0	Tin Catalyst	0.0-0.5	Chain-Extender	0-10	Cross-Linker	0-5	Isocyanate	25-85
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		<p>readily react with the active hydrogen molecules in polyols to form urethane linkages. These linkages are the essential elements which gives polyurethanes their versatile properties. In order to make foam out of the resulting polyurethane polymer, the said polymer must be expanded and blown by the introduction of bubbles and a gas. The most convenient source of gas is the carbon dioxide produced in this process. This process of foaming is done through the condensation polymerisation route. Most polyurethanes are thermoset polymers and in a few cases are made thermoplastic based on end use application.</p> <p>The foaming process results in the formation of urethane linkages and elimination of carbon dioxide. Diffusion of the carbon dioxide into bubbles previously nucleated in the reacting medium causes expansion of the medium to make foam.</p> <p>The end application of polyurethane foam is typically seen in insulation material, shoe soles, automotive seating, furniture, and bedding. Polyurethane foam is produced using the aforesaid condensation polymerisation, by which the carbon dioxide produced is eliminated. The foam thus produced is inert, non-reactive, and non-hazardous in nature. The process itself does not produce any sludge, process waste or any other liquid discharge. Moreover, the process itself is self-sustaining insofar as it is an exothermic one, thereby negating the need for any fuel to initiate it.</p> <p>ODS is not used in the polyurethane industry, with Chlorofluorocarbon being banned in early 2000 and Hydrochlorofluorocarbon being completely banned in 2019.”</p>
3.	Details of primary sources of pollution arising from such type of Industries.	M/s Indian Polyurethane Association reiterate that there is no primary or secondary pollution arising out of the polyurethane foam manufacturing process.
4.	Detailed treatment process undertaken to contain effluent from the Industry.	M/s Indian Polyurethane Association reiterate that there is no effluent discharge in the process of polyurethane foam manufacturing and therefore there is no requirement of any treatment to be undertaken.
5.	Details end of life treatment of PUF and waste generated, if any, from the	M/s Indian Polyurethane Association confirm that the entirety of any solid foam waste generated is in the form of small pieces of such foam, which is then re-bonded into blocks or sheets and used once again as a primary product. Furthermore, considering the specific properties of polyurethane foam, which does not lose its cushioning

	such Units etc.	<p>characteristics it is always convertible to re-bonded foam and/ or used for filling cushions and pillows thus ensuring that there is no waste generated.</p> <p>The re-use of waste polyurethane foam makes it extremely cost-effective and viable for use by economically weaker sections. Moreover, the current per capita consumption of polyurethane foam in India is 1/20 th of the global average, thereby showcasing market potential for use of these products. Thus, there is near-automatic end-of-life treatment for any excess or waste foam generated. However, the Industry is open to receive any recommendations from the learned committee for sustainable and effective implementation.</p>
6.	Details of handling TDI vapors in such industries.	<p>TDI is received, stored, metered and processed in a single reaction in a closed loop. TDI has a low vapour pressure and hence there is negligible generation of vapour. There are 2 (two) simultaneous exothermic reactions, i.e., (i) Polyol with TDI; and (ii) Water with TDI. Both these reactions are completed in their entirety by highly efficient catalysts. These catalysts form an intrinsic part of the manufactured foam and remain within the foam matrix.</p> <p>Additionally, the boiling point of TDI is 251 degrees Celsius, whereas in polyurethane foam production, the maximum temperature reaches only 160 degrees Celsius. Hence, there is no opportunity for the TDI to vaporize prior to the completion of the reaction.</p> <p>Even beyond this, by way of abundant caution, all machines utilised in the polyurethane foam production process are built with activated charcoal scrubbers. Activated charcoal scrubbers are a standard method used across industries. While the process of polyurethane foam manufacturing does not result in any air pollution, the scrubbers in the machinery ensure that the highest standards of air quality are maintained. These scrubbers last for over 10 (ten) years.</p>
7.	Details of emissions of polyol, CO, Air pollution etc. needs to be submitted	<p>M/s Indian Polyurethane Association submit that there is no generation of CO (Carbon Monoxide) in the process of polyurethane foam manufacturing. Polyol, being a very viscous polymer, has low vapour pressure of < 0.01 mmHg, and thus does not vapourize at the temperature at which polyurethane production process is carried out and hence cannot be associated with any emissions. Quantities of emissions, if any, are negligible and non-detectable.</p>
8.	Details of monitoring data being collected at gate level and factory side may be	<p>M/s Indian Polyurethane Association submit that as per the conditions prescribed under the Consent to Operate (“CTO”) issued by the relevant pollution control boards, project proponents are required to monitor air quality in terms of the National Air Quality Standards issued by the Central Pollution Control Board’s notification no. B-29016/20/90/PCI-L dated November 18, 2009 (“National Air</p>

	submitted.	<p>Quality Standards”). It may be noted that no values prescribed under the CTOs are breached, and in fact, for many of the items listed, the emissions are below detectable range at all locations of the plant.</p> <p>A copy of the National Air Quality Standards dated November 18, 2009 is submitted.</p> <p>A copy of the findings on air quality of a typical factory by an NABL-accredited agency approved by the Ministry / CPCB are submitted.</p>
9.	Details of Hazardous Air Pollutants (HAPs) generated, if any, needs to be submitted	M/s Indian Polyurethane Association reiterate that there are no HAPs generated at any detectable levels at the factories / plants of polyurethane foam manufacturing industries.

8. The IPUA had placed certain aspects of the process of polyurethane manufacturing and also effect of rendering the process as beyond the scope of the requirements for Environmental Clearance (“EC”) under the EIA Notification, 2006. The key aspects covered in the representation are as follows:

(a)	Process and end product of polyurethane foam manufacture is non-polluting and non-hazardous.	The process of polyurethane foam manufacture is not a polluting or hazardous process and does not involve the usage or emission of any air or water pollutants. The resulting foam is inert, non-reactive, and non-hazardous in nature, and the process does not produce any sludge, process waste, or any other liquid /solid discharge.
(b)	No Ozone-depleting substances are used	Ozone-depleting substances are not used in the polyurethane industry, and alternate blowing agents are used so that there is no detrimental effect on the environment.
(c)	Classification under Entry 5(f) is erroneous	The classification of polyurethane foam manufacturing under Entry 5(f) of the Schedule to the EIA Notification, 2006 is erroneous as polyurethane foam cannot be considered a ‘synthetic organic chemical’. This stand is supported by the view of Dr. T. Kannan, Professor in the Department of Chemistry at Pondicherry University <i>vide</i> his opinion dated June 18, 2021.
(d)	Polyurethane foam is not a ‘synthetic organic chemical’	M/s Indian Polyurethane Association mentioned that the Technical EIA Guidance Manual for Synthetic Organic Chemicals Industry (“Manual”) designed by IL&FS Ecosmart Limited and the Ministry of Environment, Forests

		and Climate Change, Government of India bears out the case that polyurethane foam cannot be considered a 'synthetic organic chemical'.
(e)	Use of isocyanates does not render the process as a polluting one	Use of isocyanates in the process of manufacture of polyurethane foam does not render it as a polluting process, as the end product is non-polluting. Moreover, the Ministry of Environment, Forests and Climate Change was pleased to delete Entry 6(b) from the Schedule to the EIA Notification, 2006 on June 13, 2019, which had earlier made it necessary for activities involving "Isolated storage & handling of hazardous chemicals" as per a specified threshold quantity, to obtain Environmental Clearance. In any case, the scope of the EIA Notification, 2006 is to determine polluting-capacity based on the end-product of any given industry, a clear departure from the erstwhile EIA Notification, 1994 which used the size of the industry and the consequent investment required for setting it up as the basis for requirement of EC.
(f)	Consent to Establish and Consent to Operate are adequate environmental safeguards	Almost the entire industry has been operating with valid No Objection Certificates ("NOC") in the form of 'Consent to Establish' and 'Consent to Operate' issued by the appropriate State Pollution Control Boards, establishing that these Boards considered polyurethane manufacturing to not require EC for operation. Moreover, these NOCs have specific conditions prescribed relating to air and water pollution, which are monitored by the designated authorities and are able to achieve the regulation envisaged by the relevant environmental legislation and standards.
(g)	Industry 3 Sector Projects Committee suggested 5(f) classification, however required more inputs for deliberations	It may be further noted that the IPUA had, <i>vide</i> its letter dated February 13, 2021 bearing the subject " <i>Clarification required for "No Environment Clearance (EC)" for the Polyurethane foam manufacturing Industry</i> ", sought clarification from the Ministry of Environment, Forests and Climate Change on whether EC is required for the industry. This was considered by the Industry-3 Sector Projects Committee of the Expert Appraisal Committee in its 5 th Meeting held on February 22-23, 2021 which, <i>inter alia</i> , held that the manufacture of polyurethane foam requires EC as it is covered under Entry 5(f).
(h)	Industry 2 Sector Projects Committee concluded no EC	However, in response to our additional representation to the Ministry dated July 15, 2021, the Industry-2 Sector Projects Committee of the Expert Appraisal Committee in

	required	<p>its 39th Meeting held on August 17-18, 2021 came to the following conclusion:</p> <p><i>“After detailed discussions on the matters related to environmental pollution, various balances i.e., emissions, effluents from the processes involved and Ozone depleting substances, if any, EAC decided that the project Polyurethane (PU) manufacturing units does not require Environmental Clearance and the project proponent can operate the existing/ proposed facilities after obtaining requisite consents from State Pollution Control Board and other agencies as applicable.”</i> Thus, the Industry-2 Sector Projects Committee agreed with the conclusions of our representation and held that EC will not be required by the polyurethane foam manufacturing industry.</p>
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Comments of Central Pollution Control Board (CPCB):

8. The Committee noted that based on the request of the MoEFCC, the CPCB has provided the comments w.r.t. regard to the pollution potential of manufacturing process of polyurethane foam and categorization of such industry. **The comments of CPCB are as follows:**

Definition: Polyurethane, any of a class of synthetic resinous, fibrous, or elastomeric compounds belonging to the family of organic polymers made by the reaction of diisocyanates (organic compounds containing two functional groups of structure —NCO) with other di functional compounds (diols/alcoholic group compounds) such as glycols. Other materials are added to aid processing the polymer or to modify the properties of the polymer. Polyurethane employs Toluene di Isocyanate, which is an extremely hazardous chemical and these chemicals form the building blocks of polyurethane. **It is a synthetic Organic Chemical.**

Pollution Potential: The raw material is polyurethane, latex etc. Emissions of VOCs and HAPs. CH₃Cl₂ and similar compounds as blowing agents. Flame retardants chemicals are also used. Outdated raw materials and spoiled slots are discarded as HW. The process of obtaining polyurethane produces CO₂ emissions. Chemicals involved in the manufacturing of polyurethane are mainly isocyanates, amine catalysts, polyols and flame retardants. All these chemicals are not fully consumed the in synthesis. The unutilised chemical compound can cause air pollution and hazardous pollution as per CPCB categorisation report.

Categorisation of Industry: As per the CPCB direction dated March 07, 2017 issued to All SPCBs/PCCs regarding Harmonization of classification of industrial sector under Red, Orange and Green category that generates all sorts of pollution. Foam manufacturing units are classified under orange Category (with pollution index: 58) as per the CPCB direction dated March 07, 2017 issued to All SPCBs/PCCs. Water Pollution is negligible but due to other pollution potential, **CPCB has categorised the foam manufacturing industry as Orange category.**

Deliberations by the EAC:

9. The Committee made detailed deliberation on the proposal. The Committee has examined the facts and figures considered by the EAC's in its earlier meetings. The EAC has deliberated the comments of CPCB on pollution potential of manufacturing process of polyurethane foam.

The Committee noted that based on the information available on Parivesh Portal, the Ministry has been granting environmental clearance to various project proponents for manufacturing PU based in the recommendations of the Expert Committees.

The Committee observed that as per the provisions of the EIA Notification, 2006 under project or activity **5(f), synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)** requires prior environmental clearance for its operations/production. The Technical EIA Guidance Manual for Synthetic Organic Chemicals Industry ("Manual") designed by IL&FS Ecosmart Limited and the Ministry of Environment, Forests and Climate Change, Government of India has also been issued in this regard.

The Committee also noted that West Bengal PCB had issued direction to M/s Sheela Form Ltd. restricting/prohibiting the company in operation of their existing 300 TPM PU foam manufacturing unit without obtaining Environmental Clearance from the competent Authority. The Committee also noted that ToR's/EC have been issued by both the State Authorities and the Ministry to various Polyurethane form industries after the publication of the amendment dated 13th June, 2019.

The Committee observed that Organic chemistry is the scientific study of the structure, properties, and reactions of organic compounds. Organic compounds are generally any chemical compound that contains carbon. **All organic compounds contain carbon, almost always bonded to another carbon and/or hydrogen. Isocyanates and polyols (both are synthetic organic chemicals)— the materials that combine to create urethanes — are loaded with carbon. In isocyanates, the backbone consists of linear and/or aromatic hydrocarbons; even the isocyanate radical (-NCO) contains carbon. Polyols are poly-function hydroxyls: -OH radicals on hydrocarbon chains. Thus, polyurethanes are organic chemicals, as these compounds meet the definition and requirements of above classification of organic compounds.**

Polyurethane, any of a class of synthetic resinous, fibrous, or elastomeric compounds belonging to the family of organic polymers made by the reaction of di-isocyanates (organic compounds containing two functional groups of structure —NCO) with other di functional compounds such as polyols (e. g. glycols).

Polyurethane (often abbreviated PUR and PU) refers to a class of polymers composed of organic units joined by carbamate (urethane) links. This chemical variety allows for polyurethanes with very different physical properties, leading to an equally wide range of different applications. Polyurethane is a material, which exists in various forms. It can be tailored to be either rigid or flexible, and is the material of choice for a broad range of end-user applications such as: insulation of refrigerators and freezers. building insulation.

Typical Compounds used for Making PU: Characteristics of materials used in the Study [Data from suppliers (Polym. J., Vol. 36, No. 5, 2004)]

Materials	Functionality	Equivalent weight (g mol ⁻¹)	Comments
4,4'-Diphenylmethane diisocyanate	2.9	133.5	NCO content: 31.5%
Polyether Polyol	4.0	117.0	OH value:
Distilled Water	2.0	9.0	Chemical blowing agent
Cyclopentane	-	-	Physical blowing agent (boiling point=50.0°C)
Hydrofluorocarbon	-	-	Physical blowing agent (boiling point=40.2°C)
Triethylene diamine	-	-	Gelling catalyst
Pentametyldiethylene triamine	-	-	Blowing catalyst
Polysiloxane ether	-	-	Surfactant

The Committee noted that Polyurethanes (PUs) are frequently produced from the chemical reaction of polyol and isocyanate molecules in the presence of light and enzymes. Polyols and isocyanates sourced from PU contain a lot of properties that make them essential for both domestic and industrial uses. It has been established that polymers of PU are chemically sluggish and might contain hazardous materials like phosphate, glycols, and amines, which might be dangerous to the respiratory tract, skin systems, and the environment. The authors have presented a review on the chemistry and PUs. They have also highlighted the environmental impact of PUs on aquatic life, soil health, plants, and humans, along with the general chemistry, are discussed.

The Committee noted that PUs are synthetic compounds, having carbon-carbon and carbon-hydrogen bonded units in their polymeric molecule. It is a synthetic polymeric material produced using synthetic organic compounds. Other essential chemicals (catalyst, blowing agents, colorants, plasticisers, etc.) used in their manufacture are also synthetic organic chemicals. Direct environmental foot print is low, but some adverse environmental and health effects are there. Units manufacturing other common polymeric organic compounds require EC.

The Committee during deliberations, noted that environmental clearance (EC) is required for synthetic resins also. The Synthetic resin is a chemical organic compound mainly composed of atoms such as carbon, hydrogen and a little oxygen, nitrogen and sulphur etc. and after combining together the Synthetic resin is typically manufactured using a chemical polymerization process. This process then results in the creation of polymers. It requires prior EC. The EC is also required for PE, PP, PVC, Polyester, Nylon, etc. for making units.

The Committee observed that project/activities mentioned under Item 6(b) of the EIA Notification, 2006 earlier was for Isolated (Standalone) storage viz. for Chemicals, Petroleum, LPG, Ethanol, etc. and it has no relation with the manufacturing/production. The requirement of EC for manufacturing/production/operation of various project/activities are mentioned in the relevant provisions of the EIA Notification, like for 'Synthetic Organic Chemical Industry under 5 (f) category.

10. The Committee, after detailed deliberations, taking into account of the submissions by the Association, comments of CPCB, technical manufacturing process of PUF and considering the ambit of the EAC (Industry-3 sector), reiterated its earlier observations and concluded and recommended that **'Manufacturing/Production of Polyurethane Foam'** is covered under item 5 (f) **'Synthetic organic chemical industry'** of the schedule to the EIA Notification, 2006 and requires prior environmental clearance. However, the environmental foot print is low. Further, the utilization of Polyurethane foam as a raw material for use in further end product or its storage doesn't require EC. The recommendations of EAC (Industry 3 sector) may be communicated to the Policy Sector of IA Division for taking further necessary clarification/classification on the matter.

Agenda No. 25.9

Proposed Expansion of Ammonium Nitrate Melt Plant from 1.4 LMT/Annum to 1.9 LMT/Annum located at Existing RCF Facility, Trombay, Maharashtra by M/s Rashtriya Chemicals and Fertilizers (RCF)- Consideration of Environmental Clearance

[Proposal No.: IA/MH/IND3/214585/2021; File no. IA-J-11011/240/2021-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Projects & Development India limited having accreditation number QCI/NABET/EIA/ACO/21/2129 valid till 14.2.2022 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 project for Proposed Expansion of Ammonium Nitrate Melt Plant from 1.4 LMT/Annum to 1.9 LMT/Annum, located at Existing RCF Facility, Trombay, Maharashtra by M/s Rashtriya Chemicals and Fertilizers (RCF)

The details of products and by Products with quantities are as under:

Product Details	Existing Quantity	Proposed Quantity	Total Quantity
Ammonium Nitrate Melt(ANMelt)	1.4 LMT/Annum	Additional quantity of 0.5 LMT/Annum	1.9 LMT/Annum

The Project is covered under the category 'A' of item 5(a) - Chemical fertilizers of the Schedule to the Environment Impact Assessment (EIA) Notification, 2006 and its subsequent amendments and accordingly appraised at Central level by Expert Appraisal Committee.

PP reported that M/s Rashtriya Chemicals and Fertilizers (RCF) has obtained EC for Ammonia and Suphala Unit before EIA notification, 1994. The Ministry has granted earlier EC vide letter no. J11011/28/88-IA-II, dated 08.02.1990 for the rehabilitation of Suphala & Ammonia Plant. The MoEFCC IRO, Nagpur, vide letter dated 23.01.2018, has submitted the certified compliance report of earlier EC. The IRO MoEFCC has observed that there are three conditions (Ammonia storage, Particulate matters level, greenbelt) which are partially complied. In this context, PP submitted the Action Plan on Points and the same was deliberated by the EAC and found in order. EAC also observed that PP has regularly submitting the six monthly compliance report to the IRO, MoEFCC. The deliberated the compliance status and found in order.

The PP reported that the MPCB granted CTO for the production of 1.4 LMT Ammonium Nitrate Melt on 30.03.1989 and PP is operating the Unit for production of 1.4 LMT Ammonium Nitrate Melt with CTO and EC was not required in 1989. Now, PP want to enhance the capacity therefore submitted the EC application under provisions of the EIA Notification, 2006. PP also reported that MPCB renewed the CTO from time to time and Unit has never enhanced the production capacity and operated with valid CTO. The SPCB vide letter dated

05.01.2022 has submitted the certified compliance status of CTO conditions. The Committee deliberated the compliance status of CTO and found in order.

The PP reported that Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 26/11/2021 which was presided over by Addl. District Magistrate. The main issues raised during the public hearing are related to issues w.r.t. ammonia storage, safety during AN melt transport, emission, plantation drive, tanker movement. EAC deliberated the action plan and found in order.

PP reported that the Existing land area 0.02ha and will be used for proposed AN melt production enhancement project. Industry has already developed greenbelt in an area of 37 % i.e. 344348 m² out of total open available space at Trombay unit of 932738 m² area in compliance to the conditions of CTO issued by MPCB. The estimated project cost is Rs 61.75 Lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs 8.0 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 18.0 Lakhs per annum. Total Employment will be 79 persons as direct and existing manpower will be used.

PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. Total water requirement is 470 m³/day of will be met from Treated water generated from STP. Effluent of 242.24 KLD quantity will be treated through ETP plant of capacity 2880 KLD.

Power requirement after enhancement will be 533 kVA and presently met from TATA Power and in future, Gas Turbine Generator to be commissioned shortly by RCF. Existing unit has DG sets of 600 kVA capacity, additionally DG sets are used as standby during power failure. Stack (height 30 meter) provided as per CPCB norms.

Details of Process emissions generation and its management: Maximum incremental GLC of Ammonia will be 0.02 µg/m³ and resultant GLC will be 47.32 µg/m³ which is under prescribed limit.

Emission control measures: For reducing the dust and AN content in gaseous emission generated in an plant, Scrubber will be used. Scrubber will be provided to clean process air of entrained ammonium nitrated dust and droplets of ammonium nitrate solution.

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

Waste	Yr. 2019	Yr. 2020	UOM
Hazardous Waste			
a) From Process			
Used or spent oil	72.865	141.330	MT/A
Spent Catalyst	25.98	57	MT/A
Process acidic residue, filter cake, dust	22.977	16.5	MT/A
b) From pollution control Facilities			
Chemical Sludge from wastewater treatment	2795.5	2774.94	MT/A
Solid Waste			
a) From Process (Non Hazardous waste type)			

Chalk	15789.1	0	MT/A
Gypsum	46511.2	48140.72	MT/A
b) From Pollution control Facility (Non Hazardous waste type)			
Metal waste solid	1000.945	694.24	MT/A
Non Metal waste solid	331.775	243.285	MT/A
c) Quantity Recycled or Re-utilized within the unit			
Process acidic residue, filter cake, dust	15.977	6.270	MT/A
Chemical sludge from wastewater treatment	1801.49	1434	MT/A

PP reported that during the operation phase a negligible amount of waste will be generated consist of spent oil/machine oil and process waste. This would be stored and handled according to the guidelines specified under Solid & Other Wastes (Handling & Trans-boundary Movement) Rules, 2016. Some of the precautions for storage and handling of the hazardous materials includes the following:

- Dyked enclosures would be provided wherever necessary for storage of hazardous materials.
- Diesel and other fuels would be stored in separate dyke enclosures.
- On-site recycling of all waste oils and off-site recycling of solvent wastes.
- Vehicle maintenance area to be selected properly to prevent contamination of soil andground water by accidental spillage of oil and other wastes.

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

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

The Committee noted that the EIA/EMP reports is in compliance of the TOR and reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. 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 also deliberated on the water balance data and found it satisfactory. The Committee also deliberated the onsite/offsite emergency plan and various mitigation measures to be proposed during implementation of the project.

The Committee noted that the MPCB granted CTO for the production of 1.4 LMT Ammonium Nitrate Melt on 30.03.1989 and PP is operating the Unit for production of 1.4 LMT Ammonium Nitrate Melt with CTO and EC was not required in 1989. Now, PP want to enhance the capacity therefore submitted the EC application under provisions of the EIA Notification, 2006. PP also reported that MPCB renewed the CTO from time to time and Unit has never enhanced the production capacity and operated with valid CTO. The SPCB vide letter dated 05.01.2022 has submitted the certified compliance status of CTO conditions. The Committee deliberated the compliance status of CTO which is submitted by SPCB and found in order.

The Committee noted that M/s Rashtriya Chemicals and Fertilizers (RCF) has obtained EC on 08.02.1990 for Ammonia and Suphala Unit before EIA notification, 1994. The MoEFCC IRO, Nagpur, vide letter dated 23.01.2018, has submitted the certified compliance report of earlier EC. The IRO MoEFCC has observed that there are three conditions (Ammonia storage, Particulate matters level, greenbelt) which are partially compiled. In this context, PP submitted the Action Plan on Points and the same was deliberated by the EAC and found in order. EAC also observed that PP has regularly submitting the six monthly compliance report to the IRO, MoEFCC. The deliberated the compliance status and found in order.

The Committee also deliberated the action plan on the issues raised during public hearing and found in order. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considering 2m x 2m ratio and suggested to complete plantation within six months. The Committee deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. 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 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, subject to compliance of terms and conditions as under, and general terms and conditions in Annexure: -**

- (i). The PP 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, MoEF&CC in this regard.
- (iii). The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (iv). The Effluent of 242.24 KLD quantity proposed to treat through ETP. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
- (v). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.
- (vi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (vii). Total fresh water requirement, sourced from ground water, shall not exceed 470 m³/day. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (viii). The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
 - (i). The 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).
- (ix). The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space 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.

- (x). 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.
- (xi). The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.
- (xii). The green belt of at least 5-10 m width shall be developed in at least 37% of the total project area, mainly along the plant periphery/ additional land as committed by the PP and mentioned in earlier CTO. 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. All trees must be planted within six months. PP shall also implement the green belt development as per earlier EC condition granted.
- (xiii). 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.
- (xiv). 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. 25.10

Setting up of Formaldehyde (200 TPD), Urea Formaldehyde Resin (10 TPD) & Phenolic Formaldehyde Resin (10 TPD) Manufacturing Unit located at Plot No. F-58 & 59 Kaharani (Bhiwadi Ext), RIICO Industrial Area, Tehsil-Tijara, Dist.-Alwar, Rajasthan by M/s Dipin Chemicals Pvt. Ltd. - Consideration of Environmental Clearance

[Proposal No.: IA/RJ/IND3/250794/2019; File no. IA-J-11011/269/2019-IA-II(I)]

The Project Proponent and the accredited Consultant M/s Vardan EnviroNet, Gurugram with accreditation number NABET/EIA/1922/RA 0166 Valid till 6.11.2022 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 project of Setting up of

Formaldehyde (200 TPD), Urea Formaldehyde Resin (10 TPD) & Phenolic Formaldehyde Resin (10 TPD) Manufacturing Unit located at Plot No. F-58 & 59 Kaharani (Bhiwadi Ext), RIICO Industrial Area, Tehsil-Tijara, Dist.-Alwar, Rajasthan- by M/s Dipin Chemicals Pvt. Ltd

The details of products and capacity as under:

S. No	Product Details	Existing Quantity	Proposed Quantity	Total Quantity
1.	Formaldehyde	0.0	200	200
2.	Urea Formaldehyde Resin	0.0	10	10
3.	Phenolic Formaldehyde Resin	0.0	10	10

Note: PP has given undertaken that this is the green field project and construction activity has initiated. PP will do activity after grant of EC and CTO.

The project/activity is covered under Category 'A' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 and its further amendment, the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry as the instant project is located outside of the notified industrial area.

The Standard ToR was issued by MoEFCC, vide letter No. IA-J-11011/269/2019-IA-II (I) dated 26th October 2019. Public Hearing for the proposed project has been conducted by the Rajasthan State Pollution Control Board on 20.11.2020 in the presence of (Additional District Collector) and the main issues raised during the public hearing are related to the benefit from the proposed project, preventive actions to be taken by the Industry to prevent the discharge of waste water/dirty water from the proposed project etc. It was also informed that no litigation is pending against the project.

The PP reported that the total land required for the project is 3900 sq. m. Total area of @40% is proposed for Greenbelt Development. The estimated project cost is Rs 6.0 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 1.46 Crore and the Recurring cost (operation and maintenance) will be about Rs. 0.26 Crore The total manpower required for the proposed project is 25. Industry proposes to allocate Rs. 0.15 Crore towards Corporate Environmental Responsibility.

The PP reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site.

The PP reported that they have changed the Consultant and the new Consultant has monitored the fresh baseline data and accordingly the Ambient air quality monitoring was carried out at 8 locations during March 2021 to May 2021 and the baseline data indicates the ranges of concentrations as: PM₁₀ (88.75 µg/m³ to 109.92 µg/m³), PM_{2.5} (50.15 µg/m³ to 65.88 µg/m³), SO₂ (33.6 µg/m³ to 40.60 µg/m³) and NO₂ (23.8 µg/m³ to 50.75 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 109.92 µg/m³, 65.88 µg/m³, 40.61 µg/m³ and 50.75 µg/m³ with respect to PM₁₀, PM 2.5, SO₂ and NO_x. Resultant concentration of PM-10 and

PM-2.5 were found slightly exceeding at Bhiwadi as well as Project site whereas resultant concentration of NO₂ and SO₂ were found within the NAAQS. PP also reported that since the project is located near a Critically Polluted Area (CPA); following additional measures are being committed to mitigate the impact on pollution, such as, (i) Installation of Baby boiler of 0.6 TPH capacity based on PNG having Stack height of 30 m will be provided; (ii) Scrubbers have been proposed for controlling process emission, fumes, trace of chemical etc.; (iii) Continuous Emission Monitoring System will be installed on the Boiler Stack; (iv) Total 40 % of plot area will be developed under green belt; In addition to above; Green Belt will be developed between Plot Boundary and Main Road having approximately 500 Sq. area. Hence total 640 trees will be planted within plant area, in-front of project site and within JVVNL Substation area; (v) All internal roads will be paved. All vehicles used in the project will be PUC ensures; (vi) Regular AAQ monitoring will be done during construction as well as during operation phase project; and Budget to address the public hearing issues is Rs. 15.0 Lakhs. This will be utilized to improve the social environment, especially education facility in the nearby area. However; PP are committed to improve the environmental infrastructure of the surrounding area and will carry out additional activities in consultation with SPCB and District administration. The EAC deliberated the Action Plan and found in order.

The PP reported that total fresh water requirement for the proposed project will be 153 KLD which will be sourced from Ground Water. NOC is obtained from CGWA vide letter CGWA/NOC/IND/ORIG/2022/14260 which is Valid till 02/12/2023 for withdrawal of ground water. Total recycled water will be used in the process. There is no discharge of trade effluent outside the factory premises. Septic tank will be provided for disposal of domestic sewage.

Total Power requirement for the project is estimated to be 500 kW. The same will be source from Jaipur Vidyut Vitaran Nigam Ltd. Two DG sets of 350 KVA Capacity has been proposed as power backup support. One boiler of 0.6 TPH (600 kg/hr) capacity based on PNG is proposed. There will be no emission from the process except emission from Boiler and DG sets operation.

Details of Solid waste and Hazardous waste generation and its management: There is waste generation from the process is envisaged such as discarded containers/barrels (0.79 T/Annum), Used Oil: 0.017 T/Annum, MEE salt: 378 T/Annum and Municipal Solid Waste: 0.40 T/Annum. Discarded container, used oil will be given to RSPCB authorized Vendor. MEE salt will be sent to nearest CHWTSDF.

Deliberations in the EAC:

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

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

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

The Committee noted that the EIA/EMP reports is in compliance of the TOR and reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. 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 that the storage of toxic/explosive raw materials shall be in bare minimum quantity and inventory.

The Committee also deliberated on the water balance data and found it satisfactory. The Committee suggested not to use bag filters and also suggested to adopt oxidation process or ozonation to removes the traces of Phenol/ Formaldehyde. The Committee also deliberated the onsite/offsite emergency plan and various mitigation measures to be proposed during implementation of the project.

The Committee also deliberated the action plan on the issues raised during public hearing and found in order. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considering 2m x 2m ratio and suggested to complete plantation within one year.

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: -**

- (ii). The PP 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.

- (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, MoEF&CC in this regard.
- (iv). The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (v). The occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vi). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no treated/untreated waste 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.
- (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 water supply, shall not exceed 153 KLD which will be met from Bore Well. Prior permissions in this regard shall be obtained from the concerned regulatory authority.
- (x). 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). The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (xii). The 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). The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space 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 PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.
- (xvi). The green belt of at least 5-10 m width shall be developed in 40 % 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. All trees must be planted within one 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.

Consideration of Amendment/Modification/Corrigendum in Environmental Clearance

Agenda No. 25.11

Expansion of Agrochemical & Agrochemical Intermediate Products from 1265 TPM to 1802 TPM at Plot No. 43/1 & 43/3, GIDC Dahej, Taluka Vagra, District Bharuch, Gujarat by M/s Tagros Chemicals India Pvt Ltd – Modification/Amendments in Environmental Clearance

[Proposal No.: IA/GJ/IND3/251478/2022; File no. F.No. J-11011/122/2016-IAII(I)]

The Project Proponent made a detailed presentation on the salient features of the project and informed that:

The proposal is for amendment/modification in the Environment Clearance granted by the Ministry vide letter IA-J-11011/122/2016-IAII(I), dated 16th September, 2021 for expansion of Agrochemical & Agrochemical intermediates products from 1265 TPM to 1802 TPM, located at plot no. 43/1 & 43/3, GIDC Dahej, Taluka: Vagra, District: Bharuch, Gujarat by M/s. Tagros Chemicals India Pvt. Ltd.

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

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/reasons by PP
1.	Point No. 6	It is noted that the total water requirement is 2353 m ³ /day, proposed to be met from GIDC Water Supply. The wastewater generation after proposed expansion will be 1474 KLD. Effluent generated shall be treated in ETP consisting of primary, secondary and tertiary treatment facility followed by MEE Unit. Total treated wastewater of 1474 KLD shall be sent to GIDC effluent pipeline for final disposal into deep sea.	It is noted that the total water requirement is 3173 KLD. Total Fresh water 2353 KLD to be met from GIDC water supply. 2550 KLD (Industrial effluent 2490 KLD + domestic effluent 60 KLD) effluent will be generated after proposed expansion. Total effluent (2550 KLD) shall be bifurcated into 3 streams namely (i) Total waste water i.e. 1765 KLD will be treated into Stripper followed by MEE & ATFD. MEE salt will be disposed into TSDF site. (ii) Total 2266 KLD (MEE Condensate 1541 KLD + Softener 60 KLD + Cooling 393 KLD + Boiler 272 KLD) will be treated in ETP consisting of primary, secondary & tertiary treatment. (iii) Domestic effluent of 60 KLD	As per the proposal for EC amendment PP had already designed the plant to operate with approximately 35% treated water. PP proposed for 65 % of the total industrial effluent generated to GIDC effluent pipeline to GIDC collection sump for final disposal into deep sea. PP admitted that their representation of water balance was incorrect during last submission. PP had already considered reuse of 35% effluent as it will be economically feasible to the company in the long run, and PP representation in EIA report was after reuse part only. The treated waste water cannot be used for Process since the recycled treated waste water will impact the impurity

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/reasons by PP
			<p>shall be treated in the in-house STP. 1474 KLD treated water out of 2245 KLD will be disposed into GIDC effluent pipeline for final disposal into deep sea. Remaining 771 KLD treated effluent will be sent to RO for further treatment.</p> <p>760 KLD RO permeate will be reused in utility. RO reject will be sent to MEE for further treatment. 60 KLD treated STP water will be used for gardening purpose.</p>	<p>profiles of the product, and the end product gets affected leading to rejection of the Finished products, no treated waste water can be used in process. But PP will continue the recycling of the lean wash water from the process, wherever possible to reduce the load to ETP.</p>
2.	Specific Conditions Point No. (iv)	<p>The treated effluent of 1474 cum/day proposed to send to GIDC effluent pipeline for final disposal into deep sea, shall conform to the standards prescribed under the Environment (Protection) Act, 1986. The project proponent shall achieve improvement in recycle and reuse of the treated water in the unit to reduce the fresh water demand and waste disposal, and there shall be at least 30% reduction in the effluent discharge within five years.</p>	<p>The treated effluent of 1474 KLD proposed to send to GIDC effluent pipeline for final disposal into deep sea, shall conform to the standards prescribed under the Environment (Protection) Act, 1986.</p>	<p>Request the committee to allow 65% of the treated water i.e. 1474 cum/day discharge to the drain for which PP has obtained provisional membership also. PP will be recycling 760 for Utility & softener and 100 % STP treated water for gardening.</p> <p>The EAC deliberated the issues and justification found in order and recommended for amendments.</p>

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/reasons by PP
3.	Specific Conditions Point No. (xiv)	Natural gas/briquette shall be used in place of coal, and only during emergency imported coal with sulphur content less than 0.5% shall be used.	Briquette/Coal & HSD shall be used as a fuel in Boiler, thermo pack & D.G Set.	<p>The unit has proposed briquettes/coal as fuel in Boiler and Thermo pack. PP has installed the Boilers and Thermopack in the year of 2013. The entire system is based on solid fuel and hence PP will be operating boiler mostly on briquettes. It will not be economically and technically feasible to shift to the natural gas. PP committed to give priority and preference to briquette as fuel and consume coal only during unavailability of briquette as fuel.</p> <p>Unit has already provided the ESP & alkali scrubber as air pollution control measure with Boiler & Thermopack.</p> <p>The unit always stick to the use of low Sulphur content (<0.5 %) coal are used in the plant.</p> <p>Last three-month analysis report of fuel gas stacks is submitted from which is very evident that all APCM is working efficiently and hence pollution generated from our unit much</p>

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/reasons by PP
				below to the norms specified by the authority. The EAC deliberated the issues and justification found in order and recommended for amendments
4.	Specific Conditions Point No. (xv)	Total fresh water requirement shall not exceed 2353 cum/day, proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority. The PP shall achieve improvement in recycle and reuse of water every year and over a period of 5 years, PP shall increase recycled quantum to 30% of total water consumption. After 5 years, only 30 % of the present fresh water requirement shall be used.	Total fresh water requirement shall not exceed 2353 KLD, proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.	Total water consumption for this product profile will be 3173 KLD. Out of this PP will be using only 2353 KLD fresh water. 820 KLD requirement will be met through treated water only. The EAC deliberated the issues and justification found in order and recommended for amendments

Deliberations in the EAC:

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

The EAC noted that, PP requested to amend the Environmental Clearance with respect total and fresh water requirement, disposal of the treated effluent; and fuel requirement for Boiler. i.e. Natural gas/briquette shall be used in place of coal, and only during emergency imported coal with Sulphur content less than 0.5% shall be used.

The EAC suggested PP to use low ash content coal and plantation shall be based on considering 2m x 2m ratio so as to cover 33% of the total land area (33937 sq.m) as green belt and increase numbers of trees accordingly, PP committed for the same.

The EAC, considering the practical issue faced by PP, after detailed technical deliberation, accepted the request of PP and **recommended** the proposal for amendment/modification in the EC, as tabulated above, with all other conditions shall remain unchanged as stipulated in the previous EC.

Agenda No. 25.12

Expansion of Synthetic Organic Chemicals manufacturing unit of capacity from 924.46 TPM to 41,974.46 TPM at Plot No. F-13, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra by M/s MVL Medisynth Pvt. Ltd. – Corrigendum in Environmental clearance

[Proposal No.: IA/MH/IND3/246284/2021; F.No. J-11011/293/2013-IA-II(I)]

The project proponent and the accredited consultant M/s.Equinox Environments (I) Pvt. Ltd., made a detailed presentation on the salient features of the project and informed that:

The proposal is for Corrigendum in the Environmental Clearance granted by the Ministry vide letter dated 03.12.2021 for the project Expansion of Synthetic Organic Chemicals Manufacturing unit located at Plot No. F-13, MIDC Chincholi, Tal.: Mohol, Dist: Solapur, Maharashtra State in favor of M/s. MVL Medisynth Pvt. Ltd.

The project proponent has requested for corrigendum in the EC with the details are as under.

Sr. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons by PP and deliberations by the EAC
1	Title of Project-Second Line, Page No. 2,	Expansion of Synthetic Organic Chemicals manufacturing unit of capacity from 924.46 TPM to 41,974.46 TPM at Plot No. F-13, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra by M/s MVL Medisynth Pvt. Ltd.	Expansion of Synthetic Organic Chemicals manufacturing unit of capacity from <u>924.46 TPA to 41,974.46 TPA</u> at Plot No. F-13, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra by M/s MVL Medisynth Pvt. Ltd.	Typo Mistake is occurred in the unit of Product capacity. Therein, TPM is written instead of TPA. In Form-1, EIA and other documents submitted online, the product unit is TPA and not TPM. In product list presented in EC letter at Table of Point 3, the unit of product is correctly mentioned as TPA. The EAC deliberated the issues and noted that that this is typographical error and factual in

Sr. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons by PP and deliberations by the EAC
				nature and recommended for the corrigendum in the EC.
2	Point 2, Page No. 2	The proposal is for grant of environmental clearance (EC) to the proposed Expansion of Synthetic Organic Chemicals manufacturing unit of capacity from 924.46 TPM to 41,974.46 TPM , at Plot No. F-13, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra by M/s MVL Medisynth Pvt. Ltd.	The proposal is for grant of environmental clearance (EC) to the proposed Expansion of Synthetic Organic Chemicals manufacturing unit of capacity from <u>924.46 TPA to 41,974.46 TPA</u> , at Plot No. F-13, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra by M/s MVL Medisynth Pvt. Ltd.	Typo Mistake is occurred in the unit of Product capacity. Therein, TPM is written instead of TPA. In Form-1, EIA and other documents submitted online, the product unit is TPA and not TPM. In product list presented in EC letter at Table of Point 3, the unit of product is correctly mentioned as TPA. The EAC deliberated the issues and noted that that this is typographical error and factual in nature and recommended for the corrigendum in the EC
3	Para no.4, Second line, Point no. 12, Page No. 8.	The EAC noted that GIB sanctuary is located about 2.43 Km from project site at Plot No. E-16, E-17, E-18, E-22 & OS-23 in Chincholi MIDC.	The EAC noted that the GIB sanctuary is located about 2.43 Km from project site at Plot No. <u>F-13</u> in Chincholi MIDC	Typo Mistake is occurred w.r.t. Plot No. Therein Plot No. E-16, E-17, E-18, E-22 & OS-23 is written instead of Plot No. F-13. The EAC deliberated the issues and noted that that this is typographical error and factual in nature and recommended for the corrigendum in the EC
4	Point no. 14, Page No.8	Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate Change hereby accords Environmental	Based on the proposal submitted by the project proponent and recommendations of the EAC (Industry-3), Ministry of Environment, Forest and Climate Change hereby accords Environmental	Typo Mistake is occurred in the unit of Product capacity. Therein, TPM is written instead of TPA. In Form-1, EIA and other documents submitted online, the product unit is TPA and not TPM. In product list presented in EC letter at Table of Point 3, the unit of product is correctly

Sr. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/ reasons by PP and deliberations by the EAC
		clearance to the project for Expansion of Synthetic Organic Chemicals manufacturing unit of capacity from 924.46 TPM to 41,974.46 TPM located at Plot No. F-13, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra by M/s MVL Medisynth Pvt. Ltd., under the provisions of the EIA Notification, 2006, and the amendments therein, subject to compliance of the terms and conditions as under:-	clearance to the project for Expansion of Synthetic Organic Chemicals manufacturing unit of capacity from <u>924.46 TPA to 41,974.46 TPA</u> located at Plot No. F-13, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra by M/s MVL Medisynth Pvt. Ltd., under the provisions of the EIA Notification, 2006, and the amendments therein, subject to compliance of the terms and conditions as under:-	mentioned as TPA. The EAC deliberated the issues and noted that that this is typographical error and factual in nature and recommended for the corrigendum in the EC

Deliberations by the EAC:

It was informed to the Committee that the instant EC proposal was recommended by the EAC in its 20th meeting held during November 11-12, 2021. The Minutes were uploaded on Parivesh Portal on 19.11.2021. Further the EC was granted by the Ministry on 03.12.2021. Based on the request of PP, the matter was re-examined and it is noted that the corrections w.r.t. details of products capacity from **TPM TO TPA** and plot number FROM **E-16, E-17, E-18, E-22 & OS-23 to F-13** are inadvertently mentioned and it is a typographical correction and factual in nature and needs to be corrected.

The EAC deliberated the issues and noted that that this is typographical error and factual in nature and recommended for the corrigendum in the EC. The EAC, after detailed deliberations, noted that the request of PP may be accepted and **recommended** the above mentioned corrigendum in the EC.

Re-Consideration of Environmental Clearance Proposals

Agenda No. 25.13

Expansion of API's manufacturing unit of production capacity from 50.425 TPM TO 60 TPM, located at RIICO Industrial Area, Village - Keshwana Rajput, Tehsil Kotputli, District Jaipur, Rajasthan by M/s Dhanuka Laboratories Ltd–Re-Consideration of Environmental Clearance.

[Proposal No. IA/RJ/IND2/184350/2020; File No. J-11011/8/2013-IA II (I)]

The Project Proponent and the accredited Consultant M/s. EQMS India Pvt. Ltd, with accreditation number NABET/EIA/1922/RA0197 dated 23.11.2022 made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Expansion of API's and Bulk Drug Manufacturing Unit of production capacity from 50.425 TPM TO 60 TPM, located at RIICO Industrial Area, Village - Keshwana Rajput, Tehsil Kotputli, District Jaipur, Rajasthan by M/s Dhanuka Laboratories Ltd.

The instant EC proposal was considered by the EAC in its 22th meeting held during December 15-16, 2021 wherein EAC deferred the proposal and desired for certain requisite information/inputs. Information desired by the EAC and response submitted by the project proponent is as under:

S. No.	Information/inputs sought by EAC	Reply of PP	Observation of EAC
1.	The PP shall comply all the non-compliances of earlier EC and CTEs/CTOs and the instant expansion proposal can only be considered by complying all the existing EC/CTO conditions and the IRO, MoEFCC, Jaipur to verify the same	<p>The project was granted Certified Compliance Report by Integrated Regional Office, MoEF&CC, Jaipur vide File No. IV/ENV/R/Ind-156/911/2015/SPL-34 to 35 dated 22.03.2021. However, there were a few not complied/partially complied conditions observed.</p> <p>In response to the partly/non-complied points, Action Taken Report with detailed clarifications was submitted to IRO, MoEF&CC, Jaipur.</p> <p>Furthermore, the project was inspected on 06.01.2022 for verification of actions taken by unit and Closure Report has also been provided by IRO, MoEF&CC, Jaipur under which the actions taken to all points have been considered and closed. Reverification/Closure Report of Certified Compliance Report has is submitted/uploaded on Parivesh portal.</p>	The EAC found the reply of PP to be satisfactory
2.	Project falls under the	The project falls under B2-API Category.	The EAC found the

	B2-API category as per provision of EIA notification 2006, but PP/consultant has mentioned Category A in Form-1. Form-I shall be revised accordingly.	However, the project is located within 5 km boundary of interstate boundary i.e., Haryana at 2.38 km (NW). Hence, the project attracts general conditions and requires to be appraised at EAC(Industry-III), MoEF&CC, New Delhi. Revised Form-1 is submitted/uploaded on Parivesh portal.	reply of PP to be satisfactory
3.	Copy of PFR document is also not opening on Parivesh Portal. Please re-upload on the Portal for further appraisal by the EAC.	Pre-Feasibility Report is submitted/uploaded on Parivesh portal.	The EAC found the reply of PP to be satisfactory
4.	Details of pollution load as per MoEF&CC circular dated 28.01.2021 needs to be submitted	Details of Pollution Load as per MoEF&CC circular dated 28.01.2021 are submitted/uploaded on Parivesh portal.	The EAC found the reply of PP to be satisfactory

The details of products and capacity are as under:

Stream	Products	CAS NO.	End Uses	Production Capacity (MT/month)			No of Products per month per set	Maximum Capacity per month on Campaign basis (MT)
				Existing	Proposed	Total After Expansion		
I	7-ACCA	53994-69-7	-	3	-3	0	2	11
	Telmesartan	144701-48-4	Hypertension	0	8	8		
	Azilsartan	147403-03-0	Hypertension	0	2	2		
	Olmesartan	144689-63-4	Blood Pressure	0	3	3		
	Valsartan	137862-53-4	Blood Pressure	0	3	3		
	Irbesartan	138402-	Blood Pressure	0	1	1		

Stream	Products	CAS NO.	End Uses	Production Capacity (MT/month)			No of Products per month per set	Maximum Capacity per month on Campaign basis (MT)
				Existing	Proposed	Total After Expansion		
		11-6						
	Losartan	114798-26-4	Blood Pressure & Heart Failure	0	3	3		
II	Cefaclor	-	-	3	-3	0		
	Cefprozil	-	-	1	-1	0		
	Cefcapene	-	-	0.225	-0.225	0		
	Ceftibuten	-	-	0.2	-0.2	0		
	Levetiracetam	102767-28-2	Epilepsy	0	8	8		
	Ipidacrine	62732-44-9	Alzheimer's Disease Toxic Cognitive Disorders	0	1	1		
	Zonisamide	68291-97-4	Epilepsy & Parkinson's Disease	0	1	1		
	Pregablin	148553-50-8	Fibromyalgia	0	3	3		
	Amisulpride	53583-79-2	Chronic Schizophrenia	0	1	1		
	Allopurinol	315-30-0	Gout & Kidney Stones.	0	4	4		
		23672-07-3	Irritable Bowel Syndrome & Gastroesophageal Reflux Disease	0	2	2	2	12

Stream	Products	CAS NO.	End Uses	Production Capacity (MT/month)			No of Products per month per set	Maximum Capacity per month on Campaign basis (MT)
				Existing	Proposed	Total After Expansion		
III	Cefuroxime Axetil	-	-	4	-4	0	2	9
	Cefditoren Pivoxil	-	-	1	-1	0		
	Cefpodoxime Proxtil	-	-	4	-4	0		
	Vildagliptin	274901-16-5	Diabetes Mellitus	0	3	3		
	Teneligliptin	1572583-29-9	Diabetes	0	2	2		
	Sitagliptin	486460-32-6	Diabetes.	0	1	1		
	Clopidogrel	113665-84-2	Stroke, Heart Attack	0	5	5		
	Gabapentin	60142-96-3	Prevent & Control Seizures	0	4	4		
	Gliclazide	21187-98-4	Diabetes	0	3	3		
IV	Cefixime	-	-	12	-12	0	2	9
	Cefdinir	-	-	1	-1	0		
	Citicoline	33818-15-4	Alzheimer Disease, Parkinson Disease, Bipolar Disorder, Lazy Eye (Memory Loss)	0	5	5		
	Benfotiamine	22457-89-	Diabetes	0	2	2		

Stream	Products	CAS NO.	End Uses	Production Capacity (MT/month)			No of Products per month per set	Maximum Capacity per month on Campaign basis (MT)
				Existing	Proposed	Total After Expansion		
		2						
	Atorvastatin	1345 23- 00-5	Lower Cholesterol	0	2	2		
	Rosuvastatin	2877 14- 41-4	Lower Cholesterol	0	2	2		
	Ticagrelor	2746 93- 27-5	Heart Attack Or Stroke	0	1	1		
	Phenylephrine	59- 42-7	Colds, Allergies, & Hay Fever	0	4	4		
	Sertraline HCl	7961 7-96- 2	Depression , Panic Attacks	2	2	2		
V	Gabapentin	-	-	4	-4	0		
	Favipiravir	2597 93- 96-9	New And Reemerging Pandemic Influenza	0	2	2		
	Lopinavir	1927 25- 17-0	Prevents Human Immunodeficiency Virus (HIV)	0	2	2		
	Ritonavir	1552 13- 67-5	Prevents Human Immunodeficiency Virus (HIV)	0	2	2		
	Remdesivir	1809 249- 37-3	To Treat People with Coronavirus Disease 2019 (COVID-19)	0	2	2	2	7

Stream	Products	CAS NO.	End Uses	Production Capacity (MT/month)			No of Products per month per set	Maximum Capacity per month on Campaign basis (MT)
				Existing	Proposed	Total After Expansion		
	Dolutagravir	1051375-16-6	HIV Medications to Help Control HIV Infection.	0	1	1		
	Ingavirin	219694-63-0	Studying The Treatment of Influenza And Common Cold.	0	1	1		
	Azathioprine	446-86-6	To Prevent Organ Rejection in People	0	2	2		
	Apixaban	503612-47-3	Strokes Or Blood Clots	0	2	2		
	Monteleukast	158966-92-8	Asthma	0	5	5		
	Dabigatran	211915-06-9	Deep Vein Thrombosis (DVT; A Blood Clot, Usually in The Leg (Blood Thinner')	0	2	2		
VI	Tapentadol	175591-09-0	Treat Moderate To Severe Acute Pain	0	1	1	2	12
	Aprimilast	608141-41-9	Arthriti	0	2	2		

Stream	Products	CAS NO.	End Uses	Production Capacity (MT/month)			No of Products per month per set	Maximum Capacity per month on Campaign basis (MT)
				Existing	Proposed	Total After Expansion		
	R&D Products	-	-	5	10	10		
	Pregabalin	-	-	3	-3	0		
	Clopidogrel	-	-	5	-5	0		
	Pirfenedone	5317 9-13- 8	Treatment of Idiopathic Pulmonary Fibrosis(IP F)	0	2	2		
	Refreximine	8062 1-81- 4	Prevent Episodes of Hepatic Encephalopathy	0	2	2		
	Doxylamine	469- 21-6	Treatment Of Insomnia	0	1	1		
	Ondansetron	9961 4-02- 5	Prevent Nausea and Vomiting Caused by Cancer Chemotherapy, Radiation Therapy, And Surgery	2	2	2		
	Total Production Capacity			50.425				60

The project/activities are covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 (amendment on 27.03.2020, 15.10.2020 & 16.07.2021). Due to

applicability of general condition (Interstate boundary Haryana- Rajasthan State is within 5 km from the project location i.e. 2.38 km in NW direction, the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry. Public hearing is exempted since the proposed project comes under notified industrial area.

The Ministry had issued EC earlier vide letter no. J-11011/8/2013-IA.II(I); dated 28.10.2015 to the existing project i.e., Bulk Drugs Manufacturing Unit (Production Capacity-50.425 TPM) in favour of M/s Dhanuka Laboratories Limited. The Certified compliance report of the exiting environmental clearance conditions has been obtained from IRO, MoEFCC vide letter No. IV/ENC/R/Ind-156/911/2015/SPL-34 to 35, dated 22.03.2021. However, there are some non-complied points were pointed out by the IRO MoEFCC. In response to the partly/non-complied points, an Action Taken Report with detailed clarifications was submitted to IRO, MoEF&CC, Jaipur. Furthermore, the project was inspected on 06.01.2022 for verification of actions taken by unit and Closure Report has also been provided by IRO, MoEF&CC, Jaipur under which the actions taken to all points have been considered and closure report of Certified Compliance Report has been submitted/uploaded on Parivesh portal. The EAC deliberated the CCR and now found in order.

The proposed project expansion will be done in a land area of 32800 m² (3.28 Hectares). Industry has already developed greenbelt in an area of 33 % of total plot area i.e., 10824 m² out of total area of the project. The estimated project cost is Rs.70 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.5 Crores and the Recurring cost (operation and maintenance) will be about Rs.60 Lakhs per annum. Total Employment will be 208 no. of persons as direct employment. There will be no change in employment after proposed expansion.

The PP reported that there are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. River Sota at a distance of 0.10 km in West Direction. It was informed that no litigation is pending against the proposal.

The PP reported that the total water requirement will be 258 KLD of which freshwater requirement of 150 KLD will be met from groundwater i.e., 1 no. of tube-well. Effluent of KLD quantity is being generated from the projects. 4 KLD of domestic sewage is being treated in Effluent Treatment Plant (Capacity- 200 KLD). 150 KLD industrial effluent is being bifurcated into streams i.e., High COD Stream & Low COD Stream and Organic Solvents. Low COD stream wastewater (78 KLD) along with blow-down stream of Boiler (4 KLD), Cooling Tower (9 KLD) and water treatments plant (4 KLD) is being treated in ETP (200 KLD) followed by RO Plant (300 KLD) to generate 108 KLD permeate that is being completely reused within the plant for gardening (8 KLD) and cooling tower (100 KLD) purposes. 46 KLD RO reject after is generated from RO out of which, 5 KLD is circulated to scrubber for reuse. 5 KLD wastewater from scrubber along with rest of RO reject (41 KLD) is being discharged to MEE (125 KLD) for further treatment. High COD stream wastewater (9 KLD) is firstly being sent through steam strippers for clean-up. Out of which, 1.0 KLD is being sent to Solvent Recovery Unit. 8 KLD water is being directed to MEE (125 KLD) & ATFD to generate 54 KLD condensate. MEE Condensate is sent to ETP for treatment. The unit is a Zero-liquid Discharge Project. There will be no increase in effluent generation as pollution is not being proposed to increase and production process will be limited to frequency basis only that

would prevent generation of excessive effluent

The power requirement after expansion will be 2500 kVA and be met from Jaipur Vidyut Vitran Nigam Limited (JVNL). Existing unit has DG sets of capacity 2x1500 kVA are being during power failure. No additional DG sets have been proposed for expansion. Stack height of 30 m has been provided as per CPCB norms. Existing unit has 2 no. of 5 TPH coal fired boiler. No additional boiler has been installed. Multi cyclone separator/ bag filter with a stack of height of 30 m has been installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm³ for the proposed boilers.

Details of Process emissions generation and its management.

Stage	Production Per month	Gaseous emission	Qty / Batch	Gaseous emission / day	Velocity M/sec	Stack Ht. (Mt)	Dia. (M M)	Efficiency (%)	Outlet conc. (mg/n m3)	Control Equipment
Stage-I	5145	HBr	72.8	72.8	4.2	22	150	99	2	Two stage ventury Scrubber using water & Caustic
Stage-IV	2000	CO2	21	21	4	22	150	99	3	Dispersed into Atm. With water scrubber
Stage-II	3000	CO2	82	82	4	22	150	99	3	Dispersed into Atm. With water scrubber
Stage-I	3000	SO2	49	49	4.2	22	150	99	3	Two stage ventury Scrubber using Caustic
		HCl	28	28	4	22	150	99	2	Two stage ventury

										Scrubber using water & Caustic
		CO2	44	44	4	22	150	99	3	Dispersed into Atm. With water scrubber
Stage-I	1305	HCl	36	36	4	22	150	99	2	Two stage ventury Scrubber using water & Caustic
		HBr	81	81	4.2	22	150	99	2	Two stage ventury Scrubber using water & Caustic
Stage-II	2955	H2	4	4	3	22	150	99	1	Dispersed in atm.using flame arrester
Stage-I	1335	H2	2	2	3	22	150	99	1	Dispersed in atm.using flame arrester
		CO2	2	2	4	22	150	99	3	Dispersed into Atm. With water scrubber
Stage-II	1000	HBr	40	40	4.2	22	150	99	2	Two stage ventury Scrubber using

										water & Caustic
Stage-III	6720	HCl	30	30	4	22	150	99	2	Two stage ventury Scrubber using water & Caustic
Stage-I	1125	H2	5	5	3	22	150	99	2	Dispersed in atm.using flame arrester
Stage-III	4350	CO2	28	28	4	22	150	99	1	Dispersed into Atm. With water scrubber
Stage-I	7725	HBr	430	430	4.2	22	150	99	2	Two stage ventury Scrubber using water & Caustic
		CO2	164	164	4	22	150	99	3	Dispersed into Atm. With water scrubber
Stage-II	4020	H2	4	4	3	22	150	99	2	Two stage ventury Scrubber using water & Caustic
Stage-I	1740	H2	10	10	3	22	150	99	1	Dispersed in atm.using flame arrester

Stage-II	2000	CO2	82	82	4	22	150	99	3	Dispersed into Atm. With water scrubber
Stage-III	2886	H2	115	115	3	22	150	99	1	Dispersed in atm. using flame arrester
Stage-VI	2925	SO2	65	65	4.2	22	150	99	2	Two stage ventury Scrubber using Caustic
		CO2	82	82	4	22	150	99	3	Dispersed into Atm. With water scrubber
Stage-V	2000	SO2	85	85	4.2	22	150	99	2	Two stage ventury Scrubber using Caustic
		CO2	158	158	4	22	150	99	3	Dispersed into Atm. With water scrubber
Stage-II	2000	CO2	82	82	4	22	150	99	3	Dispersed into Atm. With water scrubber
Stage-I	5400	CO2	5.2	5.2	4	22	150	99	3	Dispersed into

										Atm. With water scrubber
Stage-II	5000	CO2	84	84	4	22	150	99	3	Dispersed into Atm. With water scrubber
Stage-II	1170	CO2	12	12	4	22	150	99	3	Dispersed into Atm. With water scrubber
Stage-II		NH3	5	5	3.5	22	150	99	1	Dispersed into Atm. With water scrubber
Stage-III	1000	CO2	9	9	4	22	150	99	3	Dispersed into Atm. With water scrubber
		O2	6	6	4.2	22	150	99	4	Dispersed into Atm. With water scrubber
		H2	2	2	3	22	150	99	1	Dispersed in atm.using flame arrester
Stage-IV	2000	HCl	7.4	7.4	4	22	150	99	2	Two stage

										ventury Scrubber using Caustic
Stage-I	2220	N2	13	13	4	22	150	99	4	Dispersed into Atm. With water scrubber
Stage-II	2000	CO2	20	20	4	22	150	99	3	Dispersed into Atm. With water scrubber
II	8333.3	HCl	36.9	36.9	4.2	22	150	99	1	Two stage ventury Scrubber using water & Caustic
II	6117.28	Hydrogen	1	1	3	22	150	99	5	Dispersed in atm.using flame arrester
Final	2000	HCL	55	55	4.2	22	150	99	2	Two stage ventury Scrubber using water & Caustic
IV	2133	HCl	10.76	10.76	4.2	22	150	99	1	Two stage ventury Scrubber using water & Caustic
III	7003.5	HCl	107.8	107.8	4.2	22	150	99	1	Two stage ventury

										Scrubber using water & Caustic
Stage-I	1050	CO2	44.5	44.5	4	22	150	99		Dispersed into Atm. With water scrubber
Stage-II	1000	HCl	83	83	4.2	22	150	99		Two stage ventury Scrubber using water & Caustic
Stage-I	4875	HBr	12	12	4.2	22	150	99		Two stage ventury Scrubber using water & Caustic
Stage-II	5325	CO2	49	49	4	22	150	99		Dispersed into Atm. With water scrubber

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

Sr. No	Type of waste	Cat. As per HW Rules 2016	Capacity (MT/Annum)			Facility
			Existing	Proposed	After Expansion	
Hazardous Waste						
1	Distillation Residues	20.3	101.10	10	111.21	Collection, Storage, Transportation, and disposal at authorized TSDF.
2	Spent Carbon	28.3	4.74			Collection, Storage,

						Transportation, and disposal at authorized TSDF.
3	Chemical Sludge from wastewater treatment	35.3	138.70			Collection, Storage, Transportation, and disposal at authorized TSDF.
4	Ash from flue gas cleaning residues	37.2	3.65			Collection, Storage, Transportation, and disposal at authorized TSDF.
5	MEE Residue from Hold Stream	-	73.00			Collection, Storage, Transportation, and disposal at authorized TSDF.
6	Process Wastewater (LCOD)	-	28470	0.0	28470	To ETP for treatment and recycle.
7	Process wastewater (HCOD)	-	2920	365	3285	To MEE for treatment & recycle and sludge to TSDF
Non-Hazardous/Industrial Waste						
8	Empty barrels (used for non-hazardous materials)	-	5-6 barrels/day			Collected and sold to authorize recyclers after cleaning.
9	Scrap metals	-	73			Collected and sold to authorize recyclers.
10	Used / Spent oil	-	3.65 kL/annum			Collected and sold to authorize recyclers

Deliberations in the EAC:

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

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

The Committee was further informed that the Ministry has recently issued an Office

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

The Committee noted that the PFR/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the greenbelt development in the unit complex and suggested the PP to develop greenbelt on at least 33% areas around the periphery of the complex. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considering 2m x 2m ratio and suggested to complete plantation within six months.

The Committee deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The Committee suggested to use 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 noted that the Ministry had earlier issued EC on 28.10.2015 to the existing project i.e., Bulk Drugs Manufacturing Unit in favour of M/s Dhanuka Laboratories Limited. The Certified compliance report of the exiting environmental clearance conditions has been obtained from IRO, MoEFCC vide letter dated 22.03.2021 and 06.01.2022. The EAC deliberated the CCR and ATR on CCR issued by IRO, MoEFCC Jaipur and now found in order.

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, subject to compliance of terms and conditions as under, and general terms and conditions in Annexure: -**

- (i). The PP shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (iii). The Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (iv). The Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (v). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no treated/untreated waste 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.
- (vi). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.
- (vii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (viii). Total fresh water requirement, sourced from ground water, shall not exceed 258 m³/day Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (ix). Coal having ash content less than 15% is to be used as fuel only during the rainy season when the Biomass Briquettes may not be available and during all other seasons only biomass briquettes shall be used.
- (x). The Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (xi). The Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

- (xii). The Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space 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 PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and the number of trees has to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within six months.
- (xvi). The activities and the action plan proposed by the project proponent to address the socio-economic issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made shall be satisfactorily implemented.
- (xvii). A separate Environmental Management Cell (having qualified person with Environmental Science/Environmental Engineering/specialization in the project area) equipped with full-fledged laboratory facilities shall be set up to carry out the Environmental Management and Monitoring functions.

Agenda No. 25.14

Proposal for Expansion of Manufacturing of Pesticides & Agrochemical Products from 26963.3 TPA to 64974.67 TPA by M/s Punjab Chemicals and Crop Protection Ltd. (Agro-Division), located at Milestone- 18, Ambala-Kalka Road, Village P.O. Bhankharpur, Tehsil. Dera Bassi, District: *Sahibzada Ajit Singh Nagar*, Punjab- Re-Consideration of Environmental Clearance

[Proposal No. IA/PB/IND3/228214/2019; File No. J-11011/59/2001-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Eco Chem Sales & Services (ECSS), Accreditation Number NABET/EIA/2023/RA 0181, valid till 03.02.2023 made a detailed presentation on the salient features of the project and informed that:

The proposal of M/s Punjab Chemicals and Crop Protection Ltd. (Agro-Division), for Expansion of Manufacturing of Pesticides & Agrochemical Products from 26963.3 TPA to 64974.67 TPA, located at Milestone- 18, Ambala-Kalka Road, Village P.O. Bhankharpur, Tehsil. Dera Bassi, District: *Sahibzada Ajit Singh Nagar*, Punjab.

The instant EC proposal was considered by the EAC in its 19th meeting held during October 25-26, 2021 wherein EAC deferred the proposal and desired for certain requisite information/inputs. Information desired by the EAC and response submitted by the project proponent is as under:

S. No.	Information/inputs sought by EAC	Reply of PP			Observation of EAC
1.	The Committee noted that the PP has got EC on 17.06.2002 and after that there are still non-compliances of EC conditions. In this context, EAC advised that the IRO, MoEFCC may inspect the Unit for verification of ATR submitted by the PP. Without complete compliances this instant project may not be considered by the EAC	PP have received Certified of Action Taken Report for Non-Compliances from IRO MoEF&CC Chandigarh vide letter No: 5-50/2002-RO (NZ)/30 dated 17.01.2021. The Copy of Certified Action Taken Report is submitted/uploaded on Parivesh portal.			The EAC found the CCR received from IRO, MoEFCC and reply of PP to be satisfactory
2.	Details of Show Cause Notices issued by the SPCB to the project and its action taken report with respect to the same needs to be submitted	Action Taken Report for compliance of Show-Cause Notices issued by the PPCB is submitted. PP reported that PP is complying all the conditions as laid down in the CTO/EC.			The EAC found the reply of PP to be satisfactory.
3.	Details of court cases, its	Court	Compliance	Present	The EAC

	compliances status and their present status needs to be submitted.	cases/s	Status		
		NGT Court case, Karnail Singh & Ors. v. CPCB & Ors.,	Joint Committee inspected industry on dated August' 2020 and give some recommendations, the case has been forwarded to PPCB for implementation; based on this PPCB has issued show cause notice to the industry on dated 23.12.2020	Court case Disposed of by Hon'ble NGT on dated 26.02.2021	noted that the Court case is disposed of by Hon'ble NGT on 26.02.2021 and the action plan submitted by PP is to be satisfactory.
4.	Revised Green belt development plan along with budgetary allocation needs to be submitted.	Revised detailed Green belt development plan along with budgetary allocation is submitted.			The EAC found the reply of PP to be satisfactory.
5.	Revised sludge generation calculation and its mitigation measures and handling needs to be submitted.	Revised sludge generation calculation along with mitigation and handling method is submitted.			The EAC found the reply of PP to be satisfactory.
6.	Revised water balance and permission of water balance	Water will be sourced from 2 Tube wells installed within plant premises. Water permission letter is submitted.			The EAC found the reply of PP to be satisfactory.
7.	Revised risk assessment and mitigation measure plan.	The Risk Assessment Report along with mitigation plan is submitted.			The EAC found the reply of PP to be satisfactory.
8.	The EAC also warned to the Consultant [M/s. Eco Chem Sales & Services] not to submit the immature proposal and read the various provisions of the EIA Notification, 2006 before submitting the application on Parivesh Portal.	Noted & Agreed.			-

The details of products and capacity is as under:

S. No.	Product/s	Category	CAS No.	Existing quantity (TPA)	Proposed Quantity (TPA)	Total after proposed (TPA)	End-Use
CHEMICALS							
1.	Oxalic acid	Chemical	6153-56-6 / 144-62-7	10000	--	10000	Agriculture - active agent protecting plants
2.	Sodium nitrite	Chemical	7632-00-0	1800	--	1800	
3.	Diethyl Oxalate (DEO)	Chemical	95-92-1	2700	--	2700	
4.	Sodium Bisulphate (By-Product)	Chemical	7681-38-1	2631.28	4575.6	7206.9	
5.	Potassium Chloride (By-Product)	Chemical	7447-40-7	501.45	983.68	1485.13	
6.	HCl (30%) (By-Product)	Chemical	7647-01-0	1045.36	1724.57	2770	
7.	Sodium bromide soln. (By-Product)	Chemical	7647-15-6	1035.87	0	1035.87	
8.	Spent acetic acid (By-Product)	Chemical	64-19-7	1479.34	2959	4438.3	
9.	Mn(OH) ₂ Sludge (By-Product)	Chemical	1309-42-8	--	82.5	82.5	
10.	Sodium Sulphate (By-Product)	Chemical	7757-82-6	--	5421.02	5421.02	
11.	NaSH Soln. (By-Product)	Chemical	16721-80-5	--	89	89	
12.	Zn(OH) ₂ (By-Product)	Chemical	20427-58-1	--	546	546	
13.	Acifluorfen (ACF (85%)/ 2-Nitro-5-(2-Chloro-4(Trifluor methyl) Phenoxy) Benzoic acid	Chemical	50594-66-6	500	1000	1500	
14.	Acifluorfen ACF (25%)/ 2-Nitro-5-(2-Chloro-	Chemical	50594-66-6	500	1500	2000	

S. No.	Product/s	Category	CAS No.	Existing quantity (TPA)	Proposed Quantity (TPA)	Total after proposed (TPA)	End-Use
	4(Trifluor methyl) Phenoxy Benzoate Sodium						
Sub Total (A)				22193.3	18881.37	41074.67	
FINE CHEMICALS							
15.	Ethyl oxalyl chloride	Fine Chemical	4755-77-5	1080	2120	3200	
16.	Ethyl Phenyl Glyoxalate (EPGO)	Fine Chemical	1603-79-8	1080	2520	3600	
Sub Total (B)				2160.00	4640.00	6800.00	
HERBICIDES							
17.	Metamitron	Herbicide	41394-05-2	800	1900	2700	
18.	Ethofumisate	Herbicide	87290-1	250	850	1100	
19.	Diflufenican	Herbicide	83164-33-4	300	0	300	
20.	Pretilachlor	herbicide	51218-49-6	250	0	250	
21.	Lenacil	Herbicide	2164-08-1	20	20	40	
22.	Cyanazine	Herbicide	21725-46-9	20	40	60	
23.	Devrinol	Herbicide	15299-99-7	-	1200	1200	
24.	Pyrazosulfuron Ethyl (PSE)	Herbicide	93697-74-6	-	160	160	
25.	Bensulfuron Methyl (BSM)	Herbicide	83055-99-6	-	120	120	
26.	Metsulfuron Methyl (MSM)	Herbicide	74223-64-6	-	200	200	
Sub Total (C)				1640.00	4490.00	6130.00	
FUNGICIDES							
27.	Metalaxyl	Fungicide	57837-19-1	100	0	100	
28.	Metaconazole (MCZ)	Fungicide	125116-23-6	240	0	240	
29.	Dithianon	Fungicide	3347-22-6	150	0	150	
30.	Tricyclozole	Fungicide	41814-78-2	200	0	200	

S. No.	Product/s	Category	CAS No.	Existing quantity (TPA)	Proposed Quantity (TPA)	Total after proposed (TPA)	End-Use
31.	Tebuconazole	Fungicide	107534-96-3	20	-	20	
32.	Difenoconazole	Fungicide	119446-68-3	50	-	50	
33.	Mancozeb	Fungicide	8018-01-7	-	4000	4000	
34.	Maneb	Fungicide	12427-38-2	-	1500	1500	
35.	Zineb	Fungicide	12122-67-7	-	1500	1500	
36.	Ziram	Fungicide	137-30-4	-	1500	1500	
37.	Antracol	Fungicide	12071-83-9	-	1500	1500	
Sub Total (D)				760.00	10000.00	10760.00	
INSECTICIDE							
38.	Thiamethoxam	Insecticide	153719-23-4	100	0	100	
39.	Diafenthiuron	Insecticide	80060-09-9	100	-	100	
40.	Fenpyroximate	Insecticide	111812-58-9	10	-	10	
Sub Total (E)				210.00	00.00	210.00	
Total (A+B+C+D+E)				26963.3	38011.37	64974.67	

All Products are listed at S.No. 5(b) "Technical Pesticide" of Schedule of Environment Impact Assessment (EIA) Notification, 2006 under category 'A' and are requires appraisals at Central Level by Expert Appraisal Committee (EAC).

The PP reported that Ministry had issued EC earlier vide letter no. J-11011/59/2001-IA.II; dated 17th June 2002 to the existing project. Public Hearing for the proposed project has been conducted by the Punjab Pollution Control Board on 19/11/2020 at 11.00 noon. The main issues raised during the public hearing are related to air pollution due to disposal of ash and other sources, decrease in ground water level due to continuous extraction. The unit has obtained environment clearance vide letter no. J-11011/59/2001-IA.II dated 17th June, 2002 and obtained Certified EC Compliance from RO vide letter No.: F. No.: 5-50/2002-RO(NZ)/30 dated 17th January, 2022

The Existing land area is 113300 m², no additional land will be used for proposed expansion. 12566 m² land area from existing open area i.e. 56967 m² will be utilized for the proposed expansion. Industry has already developed 27923 m² greenbelt and additional 9466 m² will develop greenbelt in an area of 33.0 % i.e., 37,389 m² out of total area of the project. The

estimated project cost is Rs. 196.88 Crores including existing investment of Rs.136.88 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 24.43.57 Crores and the Recurring cost (operation and maintenance) will be about Rs. 2.17.7 Crore per annum. Total Employment will be 600 persons as direct and 100 persons indirect after expansion. Industry proposes to allocate Rs. 60 Lakhs towards Corporate Environment Responsibility.

The PP reported that there are no national parks, wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, Wildlife Corridors etc. within 10 km distance from the project site. The Ghaggar River is flowing at a distance of 2.0 km in North West direction.

The Ambient air quality monitoring was carried out at 8 locations during March 2019 to May 2019 and the baseline data indicates the ranges of concentrations as: PM10 (61.5 – 87.4 $\mu\text{g}/\text{m}^3$), PM2.5 (31.3 – 47.2 $\mu\text{g}/\text{m}^3$), SO₂ (9.6 – 17.6 $\mu\text{g}/\text{m}^3$) and NO_x(13.5- 22.2 $\mu\text{g}/\text{m}^3$). AAQ modeling study for point source emissions indicates 0.87 $\mu\text{g}/\text{m}^3$, 1.40 $\mu\text{g}/\text{m}^3$ and 1.05 $\mu\text{g}/\text{m}^3$ with respect to PM10, Sox and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 595.5 KLD of which fresh water requirement of 260 KLD will be met by two tube-wells available within plant premises. Total industrial Waste Water Generation will be 275.5 KLD, out of which 252 KLD from Process and 9 KLD from floor and container washing will be treated in upgraded ETP/MEE (Existing: 100 KLD + Proposed: 200 KLD= Total 300 KLD capacities) followed by ATFD (Existing:400 +Proposed 400 kg/hr.=Total 800 kg/hr.). Total 59 KLD of waste water i.e. blow downs from the boiler and cooling tower will be treated in the proposed RO (50 KLD). RO rejection (14.5 KLD) will be taken to MEE. 44.5 KLD of RO permeate will be recycled in utilities. Total 335.5 KLD water (i.e. 44.5 KLD RO Permeate, 20 KLD from STP treated and 271 KLD MEE/ATFD treated) will be recycled. Thus, there will be a Zero Liquid Discharge (ZLD). The organic sludge collected through oil skimmer in the primary treatment is incinerated in the incinerators (Existing: 250 kg/hr. + Proposed: 250 kg/hr. = Total 500kg/hr. capacity) Domestic waste water (20 KLD) will be treated in 40 KLD STP and treated waste water will be recycled for plantation.

Power requirement after expansion will be 4000kVA and will be met from Punjab State Power Cooperation Limited. Unit has proposed 9 nos. of D.G set (existing-6 nos. – 500 kVA each, proposed-2 nos. – 500 kVA each & proposed-1 nos. – 125 kVA capacity). D.G set is/will be used as standby during power failure. Stack (height 6.5 m for each set) will be provided as per CPCB norms to the proposed D.G set.

Existing unit has 3 nos. of rice husk fired boilers (1 no. – 6 TPH, 1 no. – 7 TPH & 1 no. – 15 TPH capacity). Additionally, 22 TPH rice husk fired boiler will be installed (Existing 6 TPH boiler will be discontinued). Multi cyclone separator followed by bag filter with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 150mg/Nm³ for the proposed boilers.

Details of Process emissions generation and its management:

The PP reported that in existing scenario, there is generation of NO_x from Oxalic Plant, which is control by scrubber & 5 meters height of vent and PM, SO₂, HCl, CO₂ from

Incinerator (250 kg/hr.), which is control by wet scrubber and 30 meters chimney height will be provided. After proposed expansion, along with the existing process emissions, there will be generation of CS₂, NH₃, from Antracol, CS₂ from Zineb, Maneb, Mancozeb, Ziram and Toluene from Devrinol Plant which will be control by scrubber and 5 meters height of vent. PM, SO₂, HCl, CO₂ from additional Incinerator of 250 kg/hr. capacity, which will be control by scrubber and 30 meters chimney height will be provided.

S. No.	Vent attached to Plant	Height (m)	Pollutants	APC Control Device
Existing				
1.	Oxalic plant	05	NO _x	Scrubber
2.	Incinerator-(250 kg/hr.)	30	PM, SO ₂ , HCl, CO ₂	Wet scrubber & stack height
Proposed				
3.	Incinerator-(250 kg/hr.)	30	PM, SO ₂ , HCl, CO ₂	Wet scrubber & stack height
4.	Antracol Plant	05	CS ₂ , NH ₃	Scrubber
5.	Zineb, Maneb plant, Mancozeb, Ziram	05	CS ₂ ,	Scrubber
6.	Devrinol	05	Toluene	Scrubber

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

S. No.	Type of Waste	Category as per HW Rules, 2016	Quantity (TPA)			Disposal
			Existing	Proposed	Total	
1.	Used oil	Sch: I/5.1	12.6 kl/annum	6.4 kl/annum	19.00 kl/annum	Generation, collection, storage, treatment and will be sold to authorized recycler
2.	Sludge from wet scrubber	Sch: I/37.1	0.6	0.9	1.5	Generation, collection, storage, transportation and disposed to TSDF, Ramky Enviro
3.	Ash from Incinerator & flue gas cleaning residue	Sch: I/37.2	2.904	3.096	6.0	Generation, collection, storage, , transportation and disposed to TSDF, Ramky Enviro
4.	MEE residue	Sch: I/35.3	639.845	810.155	1450.00	Generation, collection, storage, , transportation and disposed to TSDF, Ramky Enviro
5.	Drums / barrels	Sch: I/33.1	40 nos./	1160 nos./	1200 nos./	Generation,

			poly bags: 0.12 T/annum	poly bags: 0.12 T/annum	poly bags: 0.24 T/annum	collection, storage, , transportation and disposed to authorized recycler
6.	Sludge from STP	--	0.5	0.58 TPA	1.08 TPA	Used as a manure within own premises

Deliberations in the EAC

The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with 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 deliberated on the compliance report of the existing EC conditions and found satisfactory as all the conditions were reported complied. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio. The Committee suggested PP to opt mitigative measures to control particulate matter (PM) emission due to proposed project.

The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. 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 also deliberated on the pesticide usage and the effect of pesticide on Crops and pests. The committee also deliberated on the water balance data and found it satisfactory. The Committee also deliberated the onsite/offsite emergency plan and various mitigation measures to be proposed during implementation of the project.

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

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). This EC is subject to obtaining necessary clearances/approvals from the Government/Regulatory Authorities. Project Proponent shall not start the Unit without necessary clearances and compliances issued under various Acts/Rules.
- (ii). The PP 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.
- (iii). No banned pesticides/chemicals shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
- (iv). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (v). The Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.
- (vi). As already committed by the project proponent, Zero Liquid Discharge shall be ensured and no treated/untreated waste 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.
- (vii). The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.
- (viii). The Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

- (ix). The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (x). The Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (xi). 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.
- (xii). Action plan for mitigation measures shall be properly implemented based on the safety and risk assessment studies.
- (xiii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (xiv). The Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xv). Total fresh water requirement shall not exceed 260 KLD will be met by two tube-wells available within plant premises. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA and renewed from time to time.
- (xvi). The Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (xvii). The PP shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high pressure hoses for equipment clearing to reduce wastewater generation.
- (xviii). 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 ratio The plant species can be selected that will give better carbon sequestration.

- (xix). 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 EIA/EMP report in letter and spirit.
- (xx). 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.

The meeting ended with thanks to the Chair.

Standard TOR**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 NAQPM 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 conveyer-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 5(f) CATEGORY SYNTHETIC ORGANIC CHEMICALS INDUSTRY (DYES & DYE INTERMEDIATES; BULK DRUGS AND INTERMEDIATES EXCLUDING DRUG FORMULATIONS; SYNTHETIC RUBBERS; BASIC ORGANIC CHEMICALS, OTHER SYNTHETIC ORGANIC CHEMICALS AND CHEMICAL INTERMEDIATES)

1. Details on solvents to be used, measures for solvent recovery and for emissions control.
2. Details of process emissions from the proposed unit and its arrangement to control.
3. Ambient air quality data should include VOC, other process-specific pollutants* like 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 upload/submit six monthly reports on Parivesh Portal on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Integrated Regional Office of MoEF&CC, the respective Zonal Office of CPCB and SPCB. A copy of Environmental Clearance and six monthly compliance status report shall be posted on the website of the company.
- (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 Integrated Regional Office 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	EAC Chairman
2.	Dr. Ashok Kumar Saxena, IFS Bunglow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
3.	Prof. (Dr.) S. N. Upadhyay Research Professor(Hon.), Department of Chemical Engineering & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi E-mail: snupadhyay.che@iitbhu.ac.in	Member
4.	Prof. (Dr.) Vijay S. Moholkar Professor in Department of Chemical Engineering, Block-K (Academic complex), Room No. 111, India Institute of Technology Gawahati, Gawahati – 781039 E-mail: vmoholkar@iitg.ac.in	Member
5.	Shri Santosh Gondhalkar 'Shree' Apartment, Flat 401, Plot No. 22, Tukaram Society, Santnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
6.	Dr. Suresh Panwar House No.4, Gayateri Green Society, NH 58 Bypass, Kankerkhera, Meerut, Uttar Pradesh Email- spcpri@gmail.com	Member
7.	Shri Tukaram M Karne "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2, PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	Member
8.	Prof. (Dr.) 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

9.	Prof. (Dr.) Pradeep Kumar Mishra Department of Chemical Engineering & Technology, Indian Institute of Technology (BHU) Varanasi, Varanasi - 221005 E-mail: pkmishra.che@itbhu.ac.in / drpkm18@gmail.com	Member
10.	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
11.	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
12.	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: 011-20819346 E-mail: rb.lal@nic.in	Member Secretary

MoEFCC		
1.	Dr. Abhilasha S Mathuriya Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Scientist D
2.	Dr. Bhawana K Negi Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Technical Officer
3.	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 25th EAC (Industry 3 Sector) meeting held during January 27-28, 2022 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir.

From : ab pandit <ab.pandit@ictmumbai.edu.in> Fri, Feb 04, 2022 02:42 PM

Subject : Re: Zero Draft Minutes of the 25th EAC (Industry 3 Sector) meeting held during January 27-28, 2022 (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>

Dear Dr. Lal,

Please find attached the corrected and signed minutes. I have read the GSP crop sciences commitment very carefully and also the PU foam deliberations and have made some minor corrections.

You can upload the minutes without any hesitation,

Thanks and Warm Regards
Pandit

Minutes Approved



(Prof Aniruddha.B.Pandit)