

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

Dated: 23.02.2022

**MINUTES OF THE 26th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3SECTOR)
MEETING HELD ON FEBRUARY 16-17, 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: FEBRUARY 16, 2022 [WEDNESDAY]

(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 25th Meeting of the EAC (Industry-3 Sector) held during January 27-28, 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 **25th Meeting of the EAC (Industry-3 Sector) held during January 27-28, 2022** conducted through Video Conferencing (VC), and during the processing of the files in the agenda item 25.10 [M/s Dipin Chemicals Pvt. Ltd.], it has been observed that, in the instant case, there has been a typographical error in the minutes. The project proponent had already submitted information prior to the EAC meeting vide its letter dated 28.01.2022 that no construction or operation has commenced at the project site. The EAC deliberated and corrected the minutes and now it may be read as, "*Note: PP has given undertaken that this is the green field project and no construction activity has been initiated. PP will do activity after grant of EC and CTO*".

The EAC also noted that no other request has been received for modifications/factual

correction, in the minutes of the 25th EAC meeting for the project/activities, and **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. 26.1

Expansion of Agrochemicals Manufacturing Unit (From 30 TPD to 70.1 TPD) and inclusion of Bio-based agrochemicals and Captive Cogeneration Power Plant 6 MW at Sy. No. 177, Arinama Akkivalasa village, Etcherla mandal, Srikakulam district, Andhra Pradesh by M/s. NACL Industries Limited-Consideration of Environmental Clearance

[Proposal No. IA/AP/IND3/232281/2020; File No. J-11011/75/2007-IA II (I)]

The Project Proponent and the accredited Consultant M/s. Team Labs and Consultants, [Accreditation Number QCI/NABET/ENV/ACO/22/2198, valid till 04.04.2022], made a detailed presentation on the salient features of the project and informed that:

The proposal is for consideration of environmental clearance (EC) to the project for Expansion of Agrochemicals Manufacturing Unit (From 30 TPD to 70.1 TPD) and inclusion of Bio-based agrochemicals and Captive Cogeneration Power Plant 6 MW at Sy. No. 177, Arinama Akkivalasa village Etcherla mandal, Srikakulam district, Andhra Pradesh by M/s. NACL Industries Limited.

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

S. No.	Name of Product	CAS No	Existing Capacity permitted as per CTO (TPD)	Proposed (TPD)	Total Proposed Capacity after Expansion (TPD)
1	Cloquintocet Mexyl	99607-70-2	0.5	---	0.5
2	Triazinone / Thiocarbohydrazide/ Dichloro Pinacolone /Pinacolone	2231-57-4	2	8	10
3	2,3 Di chloro Pyridine	2402-77-9	0.5	---	0.5
4	Profenofos	41198-08-7	15		15
5	Thiamethoxam	153719-23-	1.5	-0.5	1

		4			
6	Fipronil	120068-37-3	0.5	0.5	1
7	Imidachloprid	138261-41-3	0.5	---	0.5
8	Acetamiprid	135410-20-7	---	0.5	0.5
9	Lambda Cyhalothirin	91465-08-6	1.5	-0.5	1
10	Bifenthrin	82657-04-3	3	-2	1
11	Cypermethrin	52315-07-8	1	-0.5	0.5
12	Carbendazim	10605-21-7	0.5	---	0.5
13	Pymetrozine	123312-89-0	---	0.5	0.5
14	Telfluthrin	79538-32-2	2	-1.5	0.5
15	Pyriproxyfen	95737-68-1	---	1	1
16	Emamactin Benzoate	155569-91-8	---	1	1
17	Diafenthiuron	80060-09-9	1	---	1
18	Propiconazole / Bromoketal (Intermediate)	60207-90-1	7.5	-4.5	3
19	Tricyclazole	41814-78-2	6	-3.5	2.5
20	Fenbuconazole	114369-43-6	---	1	1
21	Myclobutanil	88671-89-0	0.3	0.7	1
22	Thifluzomide	130000-40-7	0.8	---	0.8
23	Hexaconazole	79983-71-4	0.2	0.8	1
24	Tebuconazole / Oxirane (Intermediate)	107534-96-3	2	-1	1
25	Difenconazole	119446-68-3	0.2	0.3	0.5
26	Epoxiconazole	135319-73-2	0.5	---	0.5
27	Cyproconazole	94361-06-5	0.5	---	0.5
28	Thiophanate-methyl	23564-05-8	1.75	-0.75	1
29	Azoxystrobin	131860-33-8	1	---	1
30	Trifloxystrobin	141517-21-7	0.15	0.85	1
31	Pendimethalin	40487-42-1	1	0.5	1.5
32	Pretilachlor	51218-49-6	4.7	-0.7	4
33	Metribuzin	21087-64-9	1.25	0.35	1.6
34	Dimethomorph	110488-70-5		2	2
35	Clodinofof-Propargyl	105512-06-	1.2	-0.2	1

		9			
36	Bispyribec Sodium	125401-92-5	0.5	0.5	1
37	Bensulfuron Methyl	83055-99-6	---	1	1
38	Glufosinate Ammonium	77182-82-2	1	---	1
39	Quizalofop-p-ethyl	100646-51-3	1.25	-0.25	1
40	Tribenuron Methyl	101200-48-0	1	-0.5	0.5
41	Clethodim	99129-21-2	1	---	1
42	Pinoxulam	219714-96-2	---	1	1
43	S-Metolachlor	87392-12-9	1	---	1
44	Verbinone	1196-01-6	0.15	0.05	0.2
45	(Z)-hezatec – 11-en-1-yl acetate	34010-21-4	0.15	0.05	0.2
46	(Z)-hezatec – 9-enal	56219-04-6	0.15	0.05	0.2
47	(8E,10E) – Dodoca-8, 10-dyen-1-ol	76600-88-9	0.15	0.05	0.2
48	7Z,11Z hexadeca dienyl acetate	53042-81-2	0.15	0.05	0.2
49	7E, 9Z dodoca dienyl acetate	54364-62-4	0.15	0.05	0.2
50	8Z Dodecynyl acetate	28079-04-1	0.15	0.05	0.2
51	(Z)-Octadeca – 13 – enyl acetate	60037-58-3	0.15	0.05	0.2
52	R&D Products		0.05	0.05	0.1
53	MMT (*)	135302-13-5	0.5	---	---
54	1, 2 PDL (*)	5343-92-0	3	---	---
55	Atrazine (*)	1912-24-9	5.5	---	---
56	DIPPT (*)	135252-10-7	1.3	---	---
	Total				70.1

II: Bio Based Agro Chemicals

S. No.	Name of Product	Capacity (TPD)		
		Existing/ Permitted as per CTO	Proposed	After expansion
1	Pseudomonas Fluorosense+ Bacillus Subtilis	---	0.17	0.17
2	Trichoderma Harzianum+Verticillium chlamydosporium	---	0.17	0.17
3	Ampelomyces quisqualis+BeauveriaBassiana	---	0.17	0.17

4	Beauveria bassiana+ Metarhizium anisopliae	---	0.17	0.17
5	Beauveria bassiana	---	0.17	0.17
6	Metarhizium anisopliae	---	0.17	0.17
7	Verticillium lecanii+Beauveria Bassiana	---	0.17	0.17
8	Hirsutella thompsonii+Beauveria Bassiana	---	0.17	0.17
9	Hirsutella thompsonii	---	0.17	0.17
	Total	NIL	1.53	1.53
III.	Captive Co-generation power plant			6 MW

Table: Agrochemicals Formulations

S. No.	Name of Product	Unit	Capacity
1	Granules	MT/year	20000
2	Liquids	Kl/Year	25000
3	Powders	MT/year	5000
	Total		50000

List of By-Products – After Expansion

S. No.	By-Product	Quantity (Kg/day)
1	Hydrochloric Acid (30%)	2470
	Sodium Hydrosulphide (NaSH) solution	1300
2	Sodium Bromide	1070
3	Potassium Chloride	183.5
	Potassium Bicarbonate	246.4
4	Ethanol	116.5
5	Dil. HCl (25%) from Scrubbers	5228.5
6	HBr (25%) from Scrubbers	1359.7

All Products are listed at S. No. 5(b) "Pesticides industry and pesticide specific intermediates" of Schedule of Environment Impact Assessment (EIA) Notification, 2006 under category 'A' and are requires appraises at Central Level by Expert Appraisal Committee (EAC).

The Project proponent reported the chronology of unit is as follows:

Date	Details of EC/CTO	Remarks
30.07.2007	Environmental Clearance from MoEF for production capacity of 30 TPD in the name of M/s. Nagarjuna Agrichem Ltd.	J-11011/75/2007-IA. II (I)
30.06.2009	Consent for operation (CFO) from APPCB in the name of M/s. Nagarjuna Agrichem Ltd.	APPCB/VSP/VZN/53/HO/ 2009-877

26.08.2011	Consent for operation (CFO) for Change in Product Mix in the name of M/s. Nagarjuna Agrichem Ltd.	APPCB/VSP/VZN/53/HO/ 2011-1542
17.06.2015	Consent for operation (CFO) for Change in Product Mix in the name of M/s. Nagarjuna Agrichem Ltd.	APPCB/VSP/VZN/53/HO/ 2015-1783
28.03.2018	Consent for Establishment for name change from Nagarjuna Agrichem Ltd to NACL Industries Ltd.	APPCB/VSP/VZN/53/CFE/ HO/ 2010
23.08.2018	Consent for operation (CFO) for Change in Product Mix in the name of M/s. NACL Industries Ltd.	APPCB/VSP/VZN/53/HO/ 2018
01.04.2019	Consent for Establishment for Change in Product Mix in the name of M/s. NACL Industries Ltd.	APPCB/VSP/VZN/53/CFE/HO/2010
04.10.2019	Consent for operation (CFO) for Change in Product Mix in the name of M/s. NACL Industries Ltd	APPCB/VSP/VZN/53/HO/ 2019
12.03.2021	Renewal of Consent for operation (CFO) for Change in Product Mix in the name of M/s. NACL Industries Ltd	APPCB/VSP/VZN/53/HO/ 2021
08.10.2021	Consent for operation (CFO) for Change in Product Mix in the name of M/s. NACL Industries Ltd.	APPCB/VSP/VZN/53/CFO/HO/2021-Valid till 28.02.2025

The PP reported that the TOR was granted by the Ministry on 24.06.2020. The Public hearing for the proposed expansion project was conducted by the Andhra Pradesh Pollution Control Board on 25.08.2021, which was presided by Additional District Magistrate, Srikakulam. The main issues raised during the public hearing were related to employment, CER funds for village development, water pollution, implementation of pollution control measures, odour nuisance and air pollution.

The PP reported that the Ministry has granted earlier EC on 30.07.2007 to M/s. Nagarjuna Agrichem Ltd. Further the EC was transferred to M/s. NACL Industries Ltd. The Integrated Regional Office, MoEFCC, vide letter no. IRO/VIJ/EPE/03-01/2021, dated 12.03.2021, submitted the certified compliance report. The report, inter-alia, mentioned some non-compliances, accordingly the PP submitted the Action Taken Report (ATR), vide letter dated 27.04.2021 to the Integrated Regional Office, MoEFCC. Further, Integrated Regional Office, MoEFCC, vide letter no. IRO/VIJ/EPA/MISC/111-01/2021, dated 13.12.2021, has again submitted the certified compliance report. The EAC deliberated and advised the PP to submit the comparative list of EC conditions, vis-à-vis, compliance and non-compliance points and their Action Taken Report for further deliberations.

The PP reported that the existing land area is of 100 acres and no additional land will be acquired for proposed expansion. Industry is already developed greenbelt in an area of 34% of the project area. The estimated project cost for proposed expansion is Rs. 65.0 crores. Total

capital cost earmarked towards environmental pollution control measures is Rs. 21.98 crores. Total Employment will be 200 persons as direct and 60 persons indirect. Industry proposes to allocate Rs. 74 lakhs towards CER.

The PP reported that there are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, Reserve forests etc. within 10 Km distance. The Narayan Sagaram tank is at a distance of 1.6 km in SW direction of plant site, Peddagedda seasonal stream is at a distance of 4.2 km in SW direction. Chittigedda a seasonal stream is at a distance of 4.7 km in SW direction.

The Ambient air quality monitoring was carried out at eight locations during October to December 2020. The submitted baseline data indicates that ranges of concentrations of PM10 (36-50 $\mu\text{g}/\text{m}^3$), PM2.5 (15-24 $\mu\text{g}/\text{m}^3$), SO₂ (7-13 $\mu\text{g}/\text{m}^3$) and NO₂ (8-16 $\mu\text{g}/\text{m}^3$) respectively. The AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion would be 0.14 $\mu\text{g}/\text{m}^3$, 0.55 $\mu\text{g}/\text{m}^3$, and 0.67 $\mu\text{g}/\text{m}^3$ with respect to PM10, SOX and NOX. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The total water requirement after proposed expansion is 2285 m³/day out of which 1125 m³/day will be fresh water and 1160 m³/day is recycled. Water requirement will be met from ground water/surface water (Nagavali river). Total effluent of 1372 m³/day will be treated through "Zero Liquid Discharge" based effluent treatment system. The treated wastewater is reused for process, washings, scrubber's circulation and cooling towers make-up.

The Power requirement will be met by AP Transco. DG sets of capacity 2 x 2000 kVA are proposed in addition to existing 1 x 1000 kVA, 2 x 500 kVA to cater to the energy requirement during load shut down period. DG sets which will be used as standby during power failure. Stack (height 10 m) will be provided as per CPCB norms to the proposed DG set of 2 x 2000 kVA in addition to existing DG sets stack (height 7 m for 1000 kVA and 6.5m for 2 x 500 KVA) which will be used as standby during power failure.

The Existing unit has 1 x 16 TPH, 1 x 10 coal fired boilers and 1 x 6 TPH furnace oil fired boilers. Additionally, 1 x 50 TPH coal fired boiler and 1 x 10 lakh k.cal/hr and 1 x 6 lakh k.cal/hr furnace oil fired thermic fluid heaters will be installed as part of expansion. Existing boilers will be kept as standby after expansion. Electro Static Precipitators with a stack with height of 60 m will be installed for controlling the particulate emissions within statutory limit of 115 mg/Nm³ for the proposed boiler.

Details of Process emissions generation and its management: Process emissions contain ammonia, carbon dioxide, hydrogen, hydrogen bromide, bromine, chlorine, sulfur dioxide and hydrogen chloride. Ammonia, hydrogen chloride, hydrogen bromide is sent to scrubber in series. Sodium chloride from HCl scrubbing, sodium bromide from hydrogen bromide scrubbing, ammonium chloride from ammonia, sodium sulphate from sulfur dioxide scrubbing is sent to ETP. The other gas expected in the process is carbon dioxide is let out into atmosphere following a standard operating procedure, while hydrogen gas is let out into atmosphere through a water column.

Details of Solid waste/ Hazardous waste generation and its management: Solid wastes are generated from process, solvent distillation, wastewater treatment and utilities. The effluent treatment system generates stripper distillate, ATFD salts and ETP sludge. The process operations generate process residue and recycling operation of distillation generates solvent residue and spent mixed solvents. The utilities i.e., coal fired boiler generates ash while DG sets generate waste oil and used batteries. The stripper distillate, process residue and solvent residue are sent to cement plants for co-incineration based on acceptability. If these wastes are not suitable for co-incineration, the same is sent to TSDF facility at Visakhapatnam. The evaporation salts and ETP sludge are sent to TSDF at Visakhapatnam. Waste oil and used batteries from the DG sets are sent to authorized recyclers. The other solid wastes expected from the unit are containers, empty drums which are returned to the product seller or sold to authorize buyers after detoxification

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 made detailed deliberations on the proposal. The PP could not explain the life cycle analysis study in case of pesticides project, though it is a part of instruction issued by the EAC. There may be adverse impact of agrochemical on microbiota of flora and fauna. The Committee also deliberated on the water balance, action plan and budget allocation for green belt development, monitoring parameters related to pesticides etc. The EAC deliberated the certified compliance report and advised the PP to submit the comparative list of EC conditions, vis-à-vis, non-compliances points, raised during monitoring and their Action Taken Report for further deliberations.

The Committee also noted that the Action Plan on the issues raised during Public Hearing is not adequate. PP needs to submit the detailed action plan with budgetary provisions and timelines on the issues raised during PH.

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

- (i). The Integrated Regional Office, MoEFCC, vide letter dated 12.03.2021 and 13.12.2021, has submitted the certified compliance report. The report, inter-alia, mentioned some non-compliances. The EAC deliberated and advised the PP to submit the comparative list of EC conditions, vis-à-vis, non-compliances points as raised by IRO and their Action Taken Report for further deliberations before the EAC;
- (ii). The Committee noted that the Action Plan on the issues raised during Public Hearing is not adequate. PP needs to submit the detailed action plan with

budgetary provisions and timelines on the issues raised during PH;

- (iii). The PP could not explain the life cycle analysis study though it was a part of instructions issued by the EAC in agenda. PP needs to submit details reflecting specific adverse and harmful impacts of agrochemical on microbiota of flora and fauna. PP needs to submit all the details on the subject;
- (iv). The PP shall revise the water balance and the same may be resubmitted on Parivesh portal;
- (v). The PP should revise greenbelt plan (with ~2500 trees/ha) along with timelines, species and budgetary allocations;
- (vi). The PP needs to submit the analysis report of effluents/emissions along with pollution control equipment's and their efficiency;
- (vii). The PP needs to submit a list of products with production capacity (existing, expansion and total) and their EC/CTO details;
- (viii). The PP needs to explore the possibility to use of bio fuel in place of coal; and
- (ix). PP needs to submit the details of onsite/offsite emergency plan and mitigation measures to be proposed during implementation of the project.

Agenda No. 26.2

Setting up new AN melt plant with proposed production capacity of 425 MTPD, located in existing RCF facility at Trombay, Maharashtra by M/s Rashtriya Chemicals and Fertilizers Limited- Consideration of Environmental Clearance.

[Proposal No. IA/MH/IND3/212615/2021; File No. IA-J-11011/216/2021-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 10.05.2022], has made a detailed presentation on the salient features of the project and informed that:

The proposal is for consideration of environmental clearance (EC) to the project for Setting up new AN melt plant with proposed production capacity of 425 MTPD, located in existing RCF facility at Trombay by M/s Rashtriya Chemicals and Fertilizers Limited.

The details of products with quantities are as under:

Product Details	Existing Quantity	Proposed Quantity	Total Quantity
Ammonium Nitrate Melt (AN Melt)	NIL	425 MTPD	425 MTPD

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.

The standard ToR has been issued by Ministry vide letter No. IA-J-11011/216/2021-IA-II(I); dated 8th June 2021. The 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, Mumbai Suburban District, Maharashtra. The main issues raised during the public hearing are related to Ammonia storage, tanker movement, plantation drive, etc. The Committee deliberated the Action Plan with mitigation measures and found in order.

Details of Earlier ECs/CTO in RCF Facility: The PP reported that RCF has obtained EC for Ammonia and Suphala plant 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 IRO, MoEFCC, Nagpur, vide letter no. F.No.:5-19/1992(ENV)/ dated 23.01.2018, has given the certified compliance report of earlier EC. The IRO, MoEFCC has observed that there are three conditions (Ammonia storage, Particulate matters level, green belt) which are partially complied. RCF vide letter no. 'RCF/DGM/Comp/2018-01' dated 24.01.2018 submitted the reply with justification along with supporting documents on observations made by IRO, MoEFCC. RCF has been regularly submitting the six monthly compliance report to the IRO, MoEFCC. Maharashtra Pollution Control Board (MPCB) granted CTO for the production of Fertilizers and Industrial Chemicals at its Trombay Unit on 30.03.1989. MPCB has renewed the CTO from time to time. The MPCB vide letter dated 05.01.2022 has submitted the certified compliance status of CTO conditions. It is also informed to the EAC that the EAC has recommended the EC for Expansion of Ammonium Nitrate Melt Plant from 1.4 LMT/Annum to 1.9 LMT/Annum, in existing RCF Facility, Trombay, Maharashtra. The EC was granted by the Ministry on 17.02.2022.

The PP reported that the estimated land area required for the AN melt plant is 0.14 Ha. No additional land acquisition is required for setting-up the plant, as the proposed plant shall be constructed within the existing factory premises. The available open land in Trombay factory is 93.27 Ha and green belt cover in Trombay factory is 34.43 Ha. This area is the plantation area in the factory and excludes para grass, meadows, preserved wild vegetation for bio diversity, water bodies etc. in the Trombay factory. RCF has also developed green belt/cover in its Township located adjacent to Trombay factory. The green belt area in the township is about 23.5 Ha. Considering this, the percentage of Green Cover developed by the Unit is 62.22% (both in township & Industry). The estimated project cost is Rs. 88.50 Crore. Total cost earmarked towards environmental pollution control measures is Rs.8.0 lakhs and the Recurring cost (operation and maintenance) will be about Rs 0.18 Crore per annum. During construction phase of the proposed project, about 200 people would be engaged for carrying out constructional activities. During operation phase 41 permanent skilled manpower will be required. Industry proposes to allocate Rs. 6.87 Crores towards CER activities.

The 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. Mithi River is flowing at a distance of 3km in North direction.

The Ambient air quality monitoring was carried out at 8 locations during March to June 2021 and the baseline data indicates the ranges of concentrations as: PM10 (36-86 µg/m³), PM2.5 (16-52 µg/m³), SO2 (10.5-25.5 µg/m³) and NO2 (22.5-52.8 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.041 µg/m³ for NH3 only. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 247 KLD of will be met from Treated water generated from Sewage Treatment Plants (STPs) within the factory premises. Effluent of 212.5 KLD quantity will be treated through ETP plant having capacity of 2880 KLD.

Power requirement for the proposed project will be 2975 KW/ day. Presently, the power requirement for the Trombay unit is being met by sourcing it from M/s Tata Power Ltd. and in future, power requirement shall be met through in-house Gas Turbine Generator (GTG) which will be operational shortly. DG sets of 125 kVA capacity shall be installed as standby during power failure. Stack of sufficient height will be provided as per CPCB norms. Existing fertilizer complex has 3 number of 170 TPH (maximum two running and one standby), Natural Gas fired boiler. The tail gas from the boilers is connected to a stack having height of 80 meter. No additional Boiler will be required to install for the project.

The Project proponent will 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. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

Details of Process emissions generation and its management: Maximum incremental GLC of Ammonia will be 0.041 µg/m³ and resultant GLC will be 47.36 µg/m³ which is under prescribed limit.

Emission control measures: For reducing the traces of Ammonia gas which will be evolved in proposed AN Melt plant, water scrubbing system will be used.

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 waste water treatment	2795.5	2774.94	MT/A
Solid Waste			
c) From Process (Non Hazardous waste type)			
Chalk	15789.1	0	MT/A
Gypsum	46511.2	48140.72	MT/A

d) 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
e) Quantity Recycled or Re-utilized within the unit			
Process acidic residue, filter cake, dust	15.977	6.270	MT/A
Chemical sludge from waste water treatment	1801.49	1434	MT/A

The PP reported that during the operation phase 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 and ground 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 report 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.

Details of Existing Facility: The Committee noted RCF has obtained EC for Ammonia and Suphala plant 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 IRO, MoEFCC, Nagpur, vide letter no. F.No.:5-19/1992(ENV)/ dated 23.01.2018, has given the certified compliance report of earlier EC. The IRO, MoEFCC has observed that there are three conditions (Ammonia storage, Particulate matters level, green belt) which are partially complied. RCF vide letter no. 'RCF/DGM/Comp/2018-01' dated 24.01.2018 submitted the reply with justification along with supporting documents on observations made by IRO, MoEFCC. RCF has been regularly submitting the six monthly compliance report to the IRO, MoEFCC. Maharashtra Pollution Control Board (MPCB) granted CTO for the production of Fertilizers and Industrial Chemicals at its Trombay Unit on 30.03.1989. MPCB has renewed the CTO from time to time. The MPCB vide letter dated 05.01.2022 has submitted the certified compliance status of CTO conditions. The deliberated the compliance status and found in order. The EAC also noted that the EC proposal was also recommended in EAC meeting held on January 27-28, 2022 for Expansion of Ammonium Nitrate Melt Plant from 1.4 LMT/Annum to 1.9 LMT/Annum, in existing RCF Facility, Trombay, Maharashtra. The EC was also granted by the Ministry on 17.02.2022.

The Committee also deliberated the action plan on the issues raised during public hearing and the accreditation certificate of the consultant. 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 proponent also informed that for the instant proposal, no additional fuel will be required and no new boiler is needed, the fuel will be used from existing boiler.

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 center 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). Total water requirement will be 247 KLD which will be met from Treated water generated from Sewage Treatment Plants (STPs) within the factory premises. The Effluent of 212.5 KLD quantity proposed to treat through ETP.
- (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). 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.
- (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 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 area of RCF facility, mainly along the plant periphery and other designated area in the premises. 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 ECs condition granted.
- (xiii). The activities and the action plan of the issues raised during public hearing 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. The compliances report shall be submitted to IRO, MoEFCC Nagpur.
- (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. 26.3

Setting up of Pesticides Manufacturing Unit of production capacity 3950.00 TPM along with formulations production capacity of 1725.00 TPM, located at Plot No. C/151, GIDC Sayakha, Taluka: Vagra, District: Bharuch, Gujarat by M/s. Finor Piplaj Chemicals Limited-Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/237124/2021; File No. IA-J-11011/460/2021-IA-II(I)]

The Project Proponent and the accredited Consultant [M/s. Shree Green Consultants having accreditation number NABET/EIA/2124/IA0072 valid till 24.2.2024] has made a detailed presentation on the salient features of the project and informed that:

The proposal is for consideration of the environmental clearance to the project for Setting up of Pesticides Manufacturing Unit of production capacity 3950.00 TPM along with formulations production capacity 1725.00 TPM, located at Plot No. C/151, GIDC Sayakha, Taluka: Vagra, District: Bharuch, Gujarat by M/s. Finor Piplaj Chemicals Limited.

The details of products and capacity are as under:

S. No.	Name of the Product	Chemical Name	CAS No	Producti on Capacity (TPM)	End Use
Technical products					
A	Construction chemicals				
1	Finor PCE WR 7050	Polycarboxylate ether polymer	27599-56-0	750	Cement dispersant
2	Finor PCE 1510 SR	Polycarboxylate ether polymer	27599-56-0		
3	Finor CP 5552	Polycarboxylate ether polymer	27599-56-0		
4	Finor CP 6001	Polycarboxylate ether polymer	27599-56-0		
5	Finor CP 6502	Polycarboxylate ether polymer	27599-56-0		
6	Finor Calcium Formate	Calcium formate	544-17-2		Concrete Setting Accelerator
B	Biocides				
7	Finor CWT 3030	Combination of 5-Chloro-2-methyl-4-isothiazolin-3-one (CMIT), methylisothiazolone (MIT)	55965-84-9	235	Preservative in Water Treatment, Paper Chemicals
8	Finor CWT 3014	Combination of 5-Chloro-2-methyl-4-isothiazolin-3-one (CMIT), methylisothiazolone(MIT)	55965-84-9		
9	Finor DC 50	Polguanidine urea ammonium chloride	-		
10	FinorQuat 450	Bezalkonium chloride	8001-54-5		
11	Finor DTC 40	Sodium dimethyl dithiocarbamate	128-04-1		

S. No.	Name of the Product	Chemical Name	CAS No	Production Capacity (TPM)	End Use
12	Finor CWT 3050	Methylene Bis-Thioyanate	6317-18-6		
13	Finor CWT 3070	2,2-dibromo-3-nitrilopropionamide	10222-01-2		
C	Corrosion inhibitors				
14	Rodinbase 60	Hydrochloric acid inhibitor	-	250	Acid Inhibitor
D	Deformers				
15	Fin Defoam 50	Mineral oil defoamer	-	750	Deformers
16	Fin Defoam 18	Silicone defoamer	-		
17	Finor DF 130 P	Silicone defoamer	-		
18	Finor HP 1051	Silicone defoamer	-		
19	Finor HP 1082	Silicone defoamer	-		
20	Finor HP 1083	Silicone defoamer	-		
21	Finor HP 1084	Silicone defoamer	-		
E	Paper chemicals				
22	Finor DS 900	Alkyl ketene dimer emulsion	144245-85-2	350	Paper sizing
23	Finor Size SS 30	Styrene acrylate emulsion	25767-47-9		
24	Finofix 40	Polydadmac	26590-05-6		Coagulation
25	Finor DS 120	Acrylic copolymer	9003-06-9		Paper Making-Strength Improvement
F	Phosphonates				
26	Finor CWT 4010	Amino Trimethylene Phosphonic Acid	6419-19-8	750	Water Treatment Dispersants
27	Finor CWT 4020	Heptasodium salt of diethylenetriaminepenta (methylene phosphonic acid)	15827-60-8		
28	Finor CWT 4030	2-Phosphonobutane-	337971-36-1		

S. No.	Name of the Product	Chemical Name	CAS No	Production Capacity (TPM)	End Use
		1, 2, 4 Tricarboxylic Acid			
29	Finor CWT 4040	Hexamethylenedia mine tetra (methylene phosphonic acid), hexapotassium salt	38820-59-6		
G	Polymers				
30	Finor WT 1000	Polyacrylic acid	9033-79-8	565	Antiscalants
31	Finor WT 2000	Copolymer of Acrylic acid/2-Acrylamido Methyl Propane Sulphonic Acid	178037-04-2		
32	Finor WT 3100	Acrylic terpolymer	40623-75-4		
33	Finor WT 5000	Acrylic terpolymer	-		
34	Finor PM 200	Polymaleic acid	26099-09-2		
35	Finor AD 850	Sodium polyacrylate	9003-04-7		Dispersant
H	Water treatment chemicals				
36	Finofloc A 1115	Polyacrylamide	-	200	Flocculants for effluent treatment
37	Finofloc A 1120	Polyacrylamide	-		
38	Finofloc A 1130	Polyacrylamide	-		
I	Textile chemicals				
39	FinorQuat 50	Benzalkonium chloride	8001-54-5	100	Preservative
40	FinorQuat 80	Benzalkonium chloride	8001-54-5		
41	Finor DC 501	Guanidine, cyano-, polymer with ammonium chloride ((NH ₄)Cl) and formaldehyde	55295-98-2		Coagulation

S. No.	Name of the Product	Chemical Name	CAS No	Production Capacity (TPM)	End Use
42	Finor BW 6	Sodium polyacrylate	9003-04-7		Chelating agent
Total Production (Technical Products)				3950	
Non EC Formulation products					
1	Finor CWT 350	-	-	142	Preservative in Water Treatment, Paper Chemicals
2	Finor CWT 3020	-	-		
3	Finor MBT 254	-	-		
4	Finor DIC 04	-	-		
5	Finor MBT liquid (SC)	-	-		
6	Finor CWT 101 L	-	-	125	Acid Inhibitor in metal surface treatments
7	Finor CWT 103 CM	-	-		
8	Finorsize SS 30 K	-	-	399	Paper sizing
9	FinorBluemate 880	-	-		Prevention of microbial growth in process water
10	FinorBluemate 413	-	-		
11	Finor CWT 350 P	-	-		
12	FinorBluemate 414	-	-		
13	Finofloc A 321	-	-	37	Flocculants for effluent treatment
14	Finofloc K 3400 R	-	-		
15	Finor CWT 105	-	-	375	Sequestering agents
16	Finor CWT 107	-	-		
17	Finor CWT 301	-	-		For microbial control of process waters
18	Finor CWT 3001	-	-		
19	Finor CWT 305	-	-		

S. No.	Name of the Product	Chemical Name	CAS No	Production Capacity (TPM)	End Use		
20	Finor CWT 307	-	-				
21	Finor CWT 3010	-	-				
22	Finor CWT BD	-	-			Cleaning additives	
23	Finor CWT 1002	-	-				
24	Finor BW 7	-	-			Dispersants/Chelating agents	
25	Finor BW 46 UNI	-	-				
26	Finor CWT 747 A	-	-				
27	Finor 9420	-	-			Antiscalant	
28	Finor FW 300	-	-			Dispersant	
29	Finofix SL 1017	-	-			Coagulation in effluent treatment	
30	Finor CWT 103	-	-			647	Plasticizer in Paint and paper industry
31	Finor CWT 302	-	-				Microbial Control in Paints and Coatings
32	Finor CWT 304	-	-				
33	Finor CWT 703	-	-				
34	Finor CWT 309	-	-				
35	Rustokem D2	-	-				
36	Finor BW 10	-	-	Bleaching agent			
37	Finor BW 100	-	-	Reducing agent			
38	Finor BW 32	-	-	Industrial cleaning chemicals			
39	Finor CWT H	-	-				
40	Finoklene 1	-	-				
41	Finor CWT 201	-	-				
42	Finor BW10 LD	-	-				

S. No.	Name of the Product	Chemical Name	CAS No	Production Capacity (TPM)	End Use	
43	Finor BW 8750	-	-			
44	Finor CWT 3010 P	-	-		Microbial control in paints and coatings	
45	Finofix 30	-	-		Coagulation in effluent treatment	
46	Finor CWT 5156 Z	-	-		Corrosion Control	
47	Finofix 100 SS	-	-		Coagulation in effluent treatment	
48	Finor CWT AS 4200 M	-	-		Dispersant/ chelating agents	
49	Finor CWT 747 M	-	-			
50	Finor BW 32 R	-	-		Lubricant	
51	Fin Disperse 100	-	-		Adhesive in metal surface treatment	
52	Finor Curing Compound	-	-		Concrete surface treatment	
Total Production (Formulation Products)					1725	

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

The Standard ToR has been issued by the Ministry, vide letter No IA-J-11011/460/2021-IA-II(I), dated 16th November, 2021. Public Hearing is exempted as the project is located in the notified GIDC Sayakha Industrial Estate. The PP reported that no litigation is pending against the proposal.

The PP reported that land area 5755.472 m² will be used for proposed project. Industry will develop greenbelt in an area of 33 % i.e. 1931.472 m² out of total area 5755.472 m² of the project. The estimated project cost is Rs. 8.0 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.1.55 Crores and the Recurring cost (operation and maintenance) will be about Rs.0.18 Crores per Annum. Total Employment will be of 100 persons. Industry proposes to allocate Rs.16 lakhs towards CER.

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 River Narmada is flowing at a distance of 9.8 km in South direction.

The ambient air quality monitoring was carried out at 8 locations during October to December 2021 and the baseline data indicated the ranges of concentrations as: PM₁₀ (43.5–76.8 µg/m³), PM_{2.5} (15.7 – 54.9 µg/m³), SO₂ (11.9-44.9 µg/m³) and NO_x (14.6-49.6 µg/m³). The AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.748 µg/m³, 0.664 µg/m³ and 0.238 µg/m³ with respect to PM₁₀, SO_x and NO_x respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS). The Committee deliberated AAQ monitoring data and its modeling study and found satisfactory.

The total water requirement will be 150 m³/day of which fresh water requirement of 150 m³/day will be met from Sayakha GIDC water Supply. Effluent of 23.60 m³/day quantity will be given primary treatment in proposed in house ETP and primary treated water will then be sent to the Sayakha CETP facility for further treatment. Domestic waste water generated in the plant will be treated in the ETP along with industrial effluent.

The PP reported that the Power requirement for proposed project will be 200 kVA and will be met from Daksin Gujarat Vij Company Limited (DGVCL). One D.G set (100 kVA) will be used as standby during power failure. Stack height 11 meter will be provided as per CPCB norms to the proposed DG sets.

The PP reported that two Nos. of Non-IBR Baby Boiler (0.6 TPH each) & 1 No. of TFH (1 Lac Kcal/hr) will be installed. Adequate stack height will be provided for controlling particulate emission. Details of utility required are given as below:

S. No.	Particulars	Fuel	Stack height (m)	Emission Norms	APCM
1	Non-IBR Baby Boiler (2 nos.) (0.6 TPH)	Natural gas or LDO	20 m	PM <150 mg/Nm ³ SO ₂ < 100 ppm NO _x < 50 ppm	Adequate Stack Height
2	Thermic Fluid Heater (1 Lac Kcal/hr)	Natural gas or LDO	18 m	PM <150 mg/Nm ³ SO ₂ < 100 ppm NO _x < 50 ppm	Adequate Stack Height
3	D. G. Set (100 kVA)	Diesel	11 m	PM <150 mg/Nm ³ SO ₂ < 100 ppm NO _x < 50 ppm	Adequate Stack Height

Note: D.G set will be used for only emergency purpose.

The Project proponent will comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

Details of Process emissions generation and its management:

S. No.	Plant	Stack Attached to (Specified Reactor name)	Stack Height in meter	APCM	Parameters	Permissible limit
1.	Reactor-1	Finor CWT 3070	15	Two stage Alkali scrubber	HBr	5 mg/Nm ³
2.	Reactor-2	Finor CWT 4010/Finor CWT 4020	15	Two stage Alkali scrubber	HCl SO ₂	20 mg/Nm ³ 40 mg/Nm ³

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

Sr. No.	Type of Waste	Source	Schedule and Category as per HW Rules 2016	Quantity TPA	Mode of Disposal
1	ETP sludge	ETP Plant	I -35.3	6	Collection, Storage, Transportation and final disposal at common TSDF site
2.	Discarded containers / drums / Barrels	Storage Facility	I- 33.1	120	Collection, Storage, Decontamination, Transportation, by sent to authorized vendor.
3.	Spent Oil/Used Oil	Process Unit	I- 5.1	0.2	Collection, Storage, Transportation, disposal by selling to GPCB authorized & registered recyclers or reuse as lubricants in Plant machinery within unit.
4.	Date-expired and off-specification Products / RMs	From Specialty chemicals products and Raw materials	I -28.5	50	Collection, Storage, Transportation, Disposal by incineration at common incineration facility or Co-Processing for cement industries or disposal at common TSDF site.
5.	Date-expired and off-specification pesticides	From Biocide products and Raw materials	I -29.3	4	Collection, Storage, Transportation, Disposal by incineration at common

					incineration facility or Co-Processing for cement industries or disposal at common TSDF site.
6.	Bromate, (Hypo-Bromates)	Manufacturing process	II-B6	0.5	Aq. & solid Sodium Bromide sol./ Aq. NaBr Sol. Recovery: Collection, Disposal, Recovery, Storage, Transportation, Disposal by reused within a plant as raw material.
7.	Spent HCl	Manufacturing process	I-20.2	533	Collection, Disposal, Recovery, Storage, Transportation, Disposal by sell out to authorized users who is having authorization with valid CCA and rule 9 permission to receive this waste or reused within a plant as raw material.

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 order and compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee 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 deliberated on the action plan and budget allocation for green belt development and noted that as committed by the PP the green belt development shall be completed within one year. 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 Rain Water harvesting plan, modified onsite and offsite emergency plan, life cycle assessment and socio economic study submitted

by PP and found satisfactory.

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

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

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

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

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). 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.
- (iii). This EC is subject to obtaining necessary clearances/approvals from the Government/Regulatory Authorities. Project Proponent shall not start the Unit without necessary clearances under various Acts/Rules.
- (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). 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). 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.
- (vii). The treated effluent of 23.60 KLD 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.
- (viii). 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 150 KLD will be met from Sayakha GIDC water Supply. 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 and as committed by PP shall plant 482 number of trees in first year itself and subsequent years the green belt shall be monitored. 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.

Agenda No. 26.4

Modernization and Expansion of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer with proposed production capacity of 36,500 KLA, located at IFFCO Phulpur, P.O. Ghiyanagar, Phulpur, District-Prayagraj, Uttar Pradesh by M/s Indian Farmers Fertilizer Cooperative Limited (IFFCO)- Consideration of Environmental Clearance

[Proposal No. IA/UP/IND3/254152/2005; File No. J-11011/150/2006-IA II(I)]

The project proponent and the accredited consultant [M/s. EQMS India Pvt. Ltd. having accreditation number NABET/EIA/1922/RA0197 valid till 23.11.2022] has made a detailed presentation on the salient features of the project and informed that:

The proposal is for consideration of the environmental clearance for the Modernization and Expansion of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer with proposed production capacity of 36,500 KLA, located at IFFCO Phulpur, P.O. Ghiyanagar, Phulpur, District-Prayagraj, Uttar Pradesh by M/s Indian Farmers Fertilizer Cooperative Limited (IFFCO).

The details of existing and expansion products and their capacity, as under:

S. No.	Product	Unit	As per EC dated 14.07.2006	As per No Increase in Pollution certificate granted from UPPCB	After Modernization & Expansion	Remarks
1.	Urea	MTPD	5145	5790	5790	

						No Change
2.	Ammonia	MTPD	2955	3300	3300	
3.	Captive Power	MW	53.5	53.5	53.5	
4.	Nano-Urea/ Nano-Sulphur / Nano-Micronutrients	KL/ Annunm	0	0	36,500	Additional Product

The project is covered under the category 'A' of item 5(a) - chemical fertilizer of the Schedule to the Environment Impact Assessment (EIA) Notification, 2006 and its subsequent amendments.

The PP reported that IFFCO, Phulpur Unit has proposed Modernization and Expansion in the existing plant to produce Nano-Urea/Nano-Sulphur/Nano-Micronutrients of capacity 36,500 KL/year. The proposal includes installation of manufacturing unit of Nano Fertilizer and Bottling unit besides Auxiliary facilities. The plant will be established over area of 11.30 acres in existing premises.

The Ministry had granted earlier EC to the existing project vide letter no. J-11011/150/2006-IA II (I) dated 14.07.2006 for Capacity enhancement/de-bottlenecking and LNG conversion of IFFCO Phulpur Complex in favour of M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO). PP reported that over a time, plant has adopted many conservation measures to increase the efficiency of plant and reduce the pollution load and energy. The existing plant is operating on full load with less resources. Considering the S.O. 980 (E) dated 02.03.2021 notification of MoEF&CC, plant has obtained Certificate/Approval under no increase in pollution load for expansion in the production of Urea and Ammonia by 12.5% and 11.7% respectively from the UPPCB vide letter no. H64208/C-2/Gen-599/2021 dated 09.08.2021. The PP reported that the Consent to Operate was issued by UPPCB, vide letter dated 04.01.2022 which is valid upto 31.12.2023.

The IRO, MoEFCC, Lucknow has inspected the Unit on December 3-4, 2021 and observed some non-compliances w.r.t. management coal and fly ash, storm drain, bore wells, and rain harvesting pit. Accordingly, the M/s IFFCO, vide letter dated 07.01.2022, has submitted the Action Taken Report along with documentary proof. Based on the information submitted by the PP, the IRO, MoEFCC, Lucknow has issued the certified compliance report of earlier EC conditions, vide their letter dated 27.01.2022. The Committee deliberated the Action Taken Report and certified compliance report of earlier EC conditions and found in order.

The Standard TOR was granted by the Ministry on 18.11.2021, for Modernization and Expansion of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer, Phulpur Unit. Public Hearing for the proposed project was conducted by the State Pollution Control Board on 04.01.2022. The PH was presided by the Additional District Magistrate. The Main issues raised

during the public hearing are related to employment generation, subsidy on product and product bottle size. The EAC deliberated the action plan on the issues raised during PH and found in order.

The PP reported that the existing land area is 776.52 acres (excluding CORDET) and expansion is proposed within the existing land area. Industry has already developed greenbelt in an area of 268.67 acres which will increase to 272.95 acres i.e., 35.2% after expansion. The estimated project cost for expansion including EMP cost is Rs. 195 Crores. The capital cost earmarked towards environmental pollution control measures in expansion is Rs. 3.09 Crores and recurring cost (Operation and maintenance) for proposed project will be about Rs. 0.17 Crores per annum

The PP reported that there is no Wildlife Sanctuary, National Parks, Biosphere Reserves, Tiger/Elephant Reserves, etc. are present within 10 km distance from the project site. Four water bodies are present in 10 Km radius of project site i.e., Sharda Sahayak Khand (adjacent to West Boundary), Shahapur Minor (0.40 Km, E), Drain (0.5 Km, S) and Varuna River (7.38 Km, NE).

The PP reported that the Ambient air quality monitoring was carried out during October to December, 2020 and the baseline data indicates the ranges of mean concentrations as: PM10 (41.1-91.4 $\mu\text{g}/\text{m}^3$), PM2.5 (18.1-39.4 $\mu\text{g}/\text{m}^3$), SO₂ (5.2-12.5 $\mu\text{g}/\text{m}^3$), NO₂ (8.3-24.7 $\mu\text{g}/\text{m}^3$) and NH₃ (< 20 $\mu\text{g}/\text{m}^3$). All parameter concentrations are within the National Ambient Air Quality Standards (NAAQS).

The PP reported that the after proposed modernization and expansion, the freshwater requirement of plant will be 35290 KLD. Water will be available from existing borewells. There is no generation of effluent from manufacturing process of Nano-fertilizer. However, there will be generation of additional 1 KLD wastewater from washing of Vessels/Reactor, etc. and operation of cooling tower in the plant along with 9 KLD domestic sewage generated. It has been proposed to install ETP cum neutralization tank for industrial effluent and 10 KLD of STP for domestic effluent. Treated water shall be reused in the internal Horticulture proposed to be provided in the Nano Plant boundary. Total Industrial and Domestic wastewater shall be 7243 KLD and 2490 KLD, respectively.

The total Power requirement after expansion & modernization shall be limited within the existing sanctioned quantity i.e., 53.5 MW. Same is being met by Captive power and Grid Supply. The electrical power generated in CPP is used to fulfill the requirement of entire plant. Plant has 2 nos. of steam turbine driven through Turbo generator viz. TG-1 (Rating 15.625 MVA), TG-2 (Rating-22.5 MVA) and one Gas Turbine Generator (GTG) (Rating-28.125 MVA) in captive power plant. In cases of emergency, a provision has also been made to draw power from UPPCL Grid for which contract demand is 6000 KVA. Existing unit has two no. of DG Sets of Capacity 2700 KVA as standby during power failure. Stack Height of 30 m is provided as per CPCB norms.

Existing unit has Natural gas & Coal based 3x125 TPH steam boiler with 100 m stack and 1 x 60 TPH HRSG with 30 m stack. No additional Boiler is proposed. Particulate emission is within the statutory limit given by CPCB & UPPCB

The Project proponent will 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. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

Details of Process emissions generation and its management

S. No.	Stack Attached	Fuel Used	Stack Height	Diameter	APCM	Expected Pollutants	Emission Norms
Existing Process Stacks / Vents							
1	Primary Reformer- I	Natural Gas	33 m	3.6 m	Low NOx Burner	NOx, SO2	NOx < 400 mg/Nm ³
2	Primary Reformer- II	Natural Gas	30 m	2.9 m	Low NOx Burner	NOx, SO2	NOx < 400 mg/Nm ³
3	Prilling Tower-I	-	96 m	22 m	-	PM, NH3	PM<150 mg/Nm ³
4	Prilling Tower-II	-	104 m	26 m	-	PM, NH3	PM<50 mg/Nm ³
Note: No additional Stack is proposed in expansion and there shall be no gaseous emission from Nano Fertilizer Plant.							

Details of Solid Hazardous Waste Management: The PP reported that there will not be any Hazardous and Solid waste generation from proposed Nano Fertiliser plant during its operation. However, there will be generation of Hazardous and other solid waste from associated activities like bottling plant, Offsite facilities etc. which will be disposed as per the applicable law. There is generation of different kind of Industrial hazardous wastes from There is generation of different kind of Industrial hazardous wastes from existing production process and other activities. Industrial hazardous wastes such as spent lube oil, spent catalyst are sold to recyclers. Other solid wastes are segregated in salable and non-salable waste. All waste is disposed as per The Hazardous & Other Waste (Management and Transboundary Movement) Amendment Rules, 2021. Similar practices will be followed after expansion also.

S. No	Name of Waste	Source of Generation	Category No. (As per HW Rules 2016)	Quantity (MTPA)			Mode of Treatment & Disposal Method
				Existing	Proposed	After Expansion	
1	Discarded Containers/Bags /Liners	Storage & Handling of Raw Materials	Sch- I/33.3	-	1500 Nos/year	1500 Nos/year	All the discarded drums / containers / bags shall be collected and stored in Scrap yard. From

							scrapyard, these shall be sold to authorized recycler.
2	Used/Spent Oil	Used/Spent Oil	Sch-I/5.1	204.8 KLPA	0.8 KLPA	205.6 KLPA	Used/spent oil shall be collected, stored at well identified scrapyard and then will be disposed by selling to Registered recycler.
3	ETP Sludge	In-house ETP	Sch-I/34.3	-	0.06	0.06	The sludge generated from the Effluent collection pits will be collected, dried and stored within the plant premises in HDPE bags and then disposed-off to TSDF Site through registered transporter
Process Waste							
4	Spent Catalyst	Process	Sch –I/18.1	197.6 MTPA	-	197.6 MTPA	Collected and stored in MS drum / HDPE drums, Sold to UPPCB/CPCB approved registered recyclers.
5	Plastic Waste**	Bottling plant of Nano Fertilizer	-	-	0.6 MTPA	0.6 MTPA	Recyclable waste will be sold off to different authorized Recyclers.
6	Fly Ash	Boiler	-	45000	0.0	45000	Sent to Brick/Cement Manufacturer.

The Project Proponent has also informed the benefits of proposed Nano-Fertilizer Plant, as described below:

- (i) Nanotechnology is an emerging field with potential to provide Efficient Nutrient Management as compared to existing fertilizer management practices. With the use of Nanotechnology, the consumption of chemical fertilizer will be reduced.
- (ii) Nano Urea reduces fertilizer consumption compared to Conventional Urea. 1No. 500 ml Nano Urea Bottle is equivalent to 45 Kg Urea (1 bag).
- (iii) Nano Urea provides Better Nutrient & Increases Production. It also has a Cost

Advantage over Conventional Urea.

- (iv) It is Environment Friendly and Non-Toxic to Flora & Fauna, Humans.
- (v) No source of air emission/effluent generation/hazardous waste generation is involved in the production process. As a matter of fact, the Nano-fertilizer plant will pose an example of Environmental Sustainability and profitability for both farmers and government.
- (vi) It will maintain stability in Domestic market for Fertilizer.
- (vii) It will reduce the import possibility of Urea fertilizers to some extent and contribute to National saving.
- (viii) Nano Fertilizer application improves soil health and reduces the demand of conventional fertilizer like Urea on farmer's field for achieving optimum or targeted crop yields.
- (ix) Nano fertilizers enhance the seed germination.
- (x) It helps in growth of plant height, leaf area and numbers of leaves per plant.
- (xi) Nano fertilizer enhances the chlorophyll production as well as rate of the photosynthesis which result in more production.
- (xii) All these factors result in more yield and better-quality parameters derived from usage of Nano-fertilizers as compared to conventional fertilizer usage.
- (xiii) It is possible to increase the production of the crop by about 15 to 20 percent.

Deliberations by the EAC:

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

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

The Committee noted that the EIA/EMP reports 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 deliberated on chemical accident that took place in the Unit earlier. The PP has done the root cause analysis of the accident, EAC deliberated the same and advised

the PP to implement the various provisions of 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. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

The EAC suggested to PP to explore the possibility for the usage of Natural gas. The Committee deliberated the Greenbelt design and budget allocation for EMP, water balance, the, Conservation plan for Schedule-I species, storage of nano-urea bottle are found to be 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 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 continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server. For online continuous monitoring of effluent,

the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises.

- (iv). The storage of toxic/hazardous raw material shall be bare minimum with respect to quantity and inventory. Quantity and days of storage shall be submitted to the Regional Office of Ministry and SPCB along with the compliance report.
- (v). 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). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (vii). The unit shall make the arrangement for protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms.
- (viii). Necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents. The Project proponent shall implement the onsite/offsite emergency plan/mock drill etc. and mitigation measures as prescribed under the rules and guidelines issued in the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996.
- (ix). The solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (x). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology.
- (xi). Total fresh water requirement shall not exceed 35290 KLD Prior permissions in this regard shall be obtained from the concerned regulatory authority.
- (xii). 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.
- (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 nearly 36% of the total project area mainly along the plant periphery/adjacent areas, as committed by the PP. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly (2500 trees/hectare). The plant species can be selected that will give better carbon sequestration and plantation shall be completed within six months.
- (xv). As committed by the PP, the project proponent shall explore the usage of natural gas/bio briquettes.
- (xvi). The activities and the action plan of the issues raised during public hearing 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. The compliances report shall be submitted to IRO, MoEFCC Lucknow.
- (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. 26.5

Setting up of API Manufacturing Unit located at Plot No. F-38, MIDC-Chincholi, Taluka: Mohol, District: Solapur, Maharashtra by M/s Dasha Pharmaceuticals Pvt. Ltd - Consideration of Environmental Clearance

[Proposal No. IA/MH/IND3/248288/2021; File No. IA-J-11011/540/2021-IA-II(I)]

The Project Proponent and the accredited Consultant [Ms Equinox Environments (India) Private Limited having accreditation number QCI/NABET/ENV/ACO/21/2111 validity till 10.04.2022] has made a detailed presentation on the salient features of the project and informed that:

The proposal is for consideration of environmental clearance (EC) to the project for Setting up of API Manufacturing Unit, located at Plot No. F-38, MIDC-Chincholi, Taluka: Mohol, District: Solapur, Maharashtra by M/s Dasha Pharmaceuticals Pvt. Ltd.

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

S. No.	Name of the Product	Quantity (MT/A)	CAS No.	Therapeutic category
1	Abacavir Sulphate	9	188062-50-2	Anti-retroviral
2	Allopurinol	36	315-30-0	Uric acid & Gout
3	Apixaban	7.2	503612-47-3	Anticoagulant
4	Apremilast	46.8	608141-41-9	Psoriasis and psoriatic arthritis
5	Atorvastatin Calcium	180	134523-00-5	Cardiovascular
6	Bosutinib	54	380843-75-4	Chronic myelogenous leukemia
7	Cefalexine	432	15686-71-2	Antibiotic
8	Cefdinir	540	91832-40-5	Antibiotic
9	Cefixime	180	79350-37-1	Antibiotic
10	Ciprofloxacin Hydrochloride	648	86393-32	Antibacterial
11	Clopidogrel Bisulfate	108	120202-66-6	Anti-thrombosis
12	Dabigatran	108	211915-06-9	Anticoagulant
13	Dapoxetine Hydrochloride	72	129938-20-1	Serotonin Reuptake
14	Domperidone	180	57808-66-9	Antiemetic
15	Dolutegravir	60	1051375-16-6	Antiretroviral
16	Eltrombopagolamine	54	496775-61-2	Thrombocytopenia
17	Entacapone	36	130929-57-6	Anti-Parkinson
18	Enzalutamide	54	915087-33-1	Antiandrogen
19	Escitalopram Oxalate	180	219861-08-2	Antidepressant
20	Famciclovir	36	104227-87-4	Antiviral
21	Favipiravir	72	259793-96-9	Antiviral (Enfluenza)
22	Febuxostat	234	144060-53-7	Gout treatment
23	Flurbiprofen	72	5104-49-4	Osteoarthritis
24	Fluvastatin sodium	72	93957-54-1	Anti-inflammatory
25	Gabapentin	108	60142-96-3	Anticonvulsant
26	Gemfibrozil	90	25812-30-0	Cholesterol Mgmt.
27	Ibrutinib	12	936563-96-1	Anti-leukemia
28	Ivacaftor	30.6	873054-44-5	Cystic Fibrosis
29	Labetalol	180	36894-69-6	Antihypertensive
30	Levofloxacin	108	100986-85-4	Antibacterial
31	Linagliptin	36	668270-12-0	Antidiabetic
32	Losartan Potassium	36	124750-99-8	Antihypertensive
33	Lurasidone Hydrochloride	108	367514-88-3	Antidepressant
34	Meropenem	180	119478-56-7	β -Lactam antibiotic

S. No.	Name of the Product	Quantity (MT/A)	CAS No.	Therapeutic category
35	Metformin HCl	180	1115-70-4	Antidiabetic
36	Metoprolol Tartrate	180	37350-58-6	Antihypertensive
37	Montelukast Sodium	36	158966-92-8	Asthma treatment
38	Molnupiravir - ((2R,3S,4R,5R)-3,4-dihydroxy-5-(4-(hydroxyamino)-2-oxopyrimidin-1(2H)-yl)tetrahydrofuran-2-yl)methyl isobutyrate (API)	60	2349386-89-4	Antiviral
39	Mirabegron	36	223673-61-8	Anti-muscarinic
40	Mirtazapine	151.2	61337-67-5	Antidepressant
41	Nevirapine	151.2	129618-40-2	Antiretroviral
42	Norfloxacin Tech	108	70458-96-7	Antibacterial
43	Ofloxacin	108	82419-36-1	Antibacterial
44	Olmesartan	180	144689-63-4	Antihypertensive
45	Pantoprazole Sodium	36	138786-67-1	Antacid
46	Paroxetine	54	61869-08-7	Antidepressant
47	Paxlovid -(1R,2S,5S)-N-((S)-1-amino-1-oxo-3-((S)-2-oxopyrrolidin-3-yl)propan-2-yl)-3-((S)-3,3-dimethyl-2-(2,2,2-trifluoroacetamido)-butanoyl)-6,6-dimethyl-3-azabicyclo[3.1.0]hexane-2-carboxamide	60	2628280-40-8	Antiviral
48	Prasugrel Hydrochloride	198	389574-19-0	Anticoagulant
49	Raltegravir	60	871038-72-1	Antiviral
50	Rilpivirine Hydrochloride	54	700361-47-3	Antiviral
51	Ritanovir	60	155213-67-5	Ant-retroviral
52	Rosuvastatin Calcium	288	147098-20-2	Cardiovascular
53	Sertraline HCl	90	79617-96-2	Antidepressant
54	Sitagliptin Phosphate Monohydrate	60	654671-77-9	Antidiabetic
55	Simvastatin	180	79902-63-9	Cardiovascular
56	Telmisartan	120	144701-48-4	Anti-hypertensive
57	Telaprevir	36	402957-28-2	HCV (Hepatitis C)
58	TerbinafineHCl	126	91161-71-6	Antifungal
59	Ticagrelor	36	274693-27-5	Anti-stroke
60	Topiramate	180	97240-79-4	Anti-epilepsy

S. No.	Name of the Product	Quantity (MT/A)	CAS No.	Therapeutic category
61	Valsartan	240	137862-53-4	Antihypertensive
62	VilazodoneHCl	180	163521-08-2	Antidepressant
63	R & D	7.2	NA	NA
	Total (A)	7615.2		
B	Byproducts			
1	Ethyl aceto acetate	145.2	--	--
2	Pivalic acid	127.2	--	--
3	2-mercapto benzothiazole	294	--	--
4	Tri phenyl phosphine oxide	121.2	--	--
5	Phenyl Acetic Acid	50.4	--	--
6	Tritanol (60%)	40.8	--	--
	Total (B)	778.8		
	Total (A+B)	8394		
Note: From above mentioned product list, only 15 products shall be manufactured daily, as per requirement.				

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). Due to applicability of general conditions that due to presence of GIB sanctuary within 5 Km from Project Site in MIDC, The Proposed Project Site in MIDC Chincholi is located 2.6 Km from the boundary of GIB Sanctuary. Further, ESZ for GIB is finalized vide MoEFCC's notification No. 654 dated 11/02/2020. Project Site in MIDC is located at 2.3 Km from Notified ESZ, so the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry. As informed by PP no litigation is pending against the proposal.

The PP reported that the proposed land area is 27612 m². The Unit will develop Green Belt in an area of 9,300 m² (34.2% out of total plot area). The estimated proposed establishment project cost is Rs. 40 Crores. Total capital cost earmarked towards environmental pollution control measures under establishment project is Rs. 10.61 Crores and the Recurring cost (operation and maintenance) will be about Rs. 1.03 Crores per annum. Total Employment under proposed project would be 165 persons (as direct).

The PP reported that the GIB Sanctuary is located about 2.6 Km from project site in MIDC. The ESZ Notification for GIB was issued by the MoEFCC, vide notification No. 654 dated 11/02/2020. Same is also located at 2.3 Km from project site. The PP reported that the proposed Unit is outside of the notified ESZ. The River Sina is at a distance of 6 Km on South West from the project site.

Total water requirement for establishment project will be 675 CMD. Out of which, 447 CMD will fresh water from MIDC Water supply scheme at Ujani Dam on the Bhima River while 220 CMD will be ETP treated effluent and 8 CMD will be STP treated effluent to be recycled. Industrial

Effluent of quantity 250 m³/Day will be treated in ETP to be provided separately for strong and weak streams thereby achieving Zero Discharge. Also, Domestic effluent of quantity 9 m³/Day will be treated in STP.

Power requirement of project will be 1000 KVA and will be taken from MSEDCL. DG set of 500 KVA (2 Nos.) and 1010 KVA (1 No.) capacities will be installed as standby during power failure. Stack of height 5 M ARL is provided as per CPCB norms to the DG sets. Industry will install 6 TPH Boiler (2 Nos.), a 10 TPH Boiler and Thermic Fluid Heater of 2 Lac Kcal/Hr (2 Nos.) under proposed project. MDC 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 115 mg/Nm³ for the each proposed boiler.

Details of Process emissions generation and its management:

S.No	Attached to Plant	Emission	Dia. (M)	Ht.(M)	Packing Material	Scrubbing Media	Disposal/ Recycle /Reuse
1	Block-1 (2 Nos.)	HCl / HBr	0.1	20	PP Poll Rings	Caustic	To ETP
						Caustic	
2	Block-2 (2 Nos.)	SO ₂	0.1	20			
3	Block-3 (1 Nos.)	Amines	0.1	20		Caustic	
4	Stores & Dispensing (2 No.)	--	0.1	20		Caustic	

Process Emissions Quantification & Treatment Details

S. No.	Emissions	Qty. (kg / Day)	Treatment Method
1	H ₂	15.00	Diffused by using Nitrogen through Flame Arrestor
2	O ₂	50.00	Dispersed into the Atmosphere
3	N ₂	100.00	Dispersed into the Atmosphere
4	CO ₂	100.00	Dispersed into the Atmosphere
5	SO ₂	150.00	Scrubbed by using Water Medium
6	NH ₃	150.00	Scrubbed by using Chilled Water Medium
7	HCl	100.00	Scrubbed by using C.S. Lye Solution
8	HBr	50.00	Scrubbed by using C.S. Lye Solution

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

S. No.	Description	Qty. (MT/M)	Qty. (Kg/Day)	Disposal
1	Boiler Ash	150	6000	Sale to Brick Manufacture
2	Plastic, Glass, Wooden, Metal Scrap	307	12280	Sale to Authorized recyclers
4	Battery Waste	0.08	3.2	
5	Packaging Material	12.50	500	
6	E-Waste	1.2	48	

Details of Hazardous waste generated & its management

S. No	Description	Cat	Qty. (MT/M)	Qty. (Kg/Day)	Disposal Facility
1	Used / Spent Oil	5.1	0.475	19	CHWTSDF
2	Spent Solvent	20.1	60	2400	
3	Discarded containers / barrels / liners contaminated with hazardous chemicals / wastes	33.1	8000 Nos./M	320 Nos./D	
4	Chemical Sludge from WWT	35.3	20	800	
5	MEE Salts	37.3	87.5	3500	
6	Expired/Off Specification products	28.4	10	400	
7	Spent Catalyst	28.2	7.35	294	
8	Process Residue	28.1	25	1000	
9	Distillation Residue	20.3	25	1000	
10	Spent Carbon	28.3	3.125	150	

The Project proponent will comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

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

Kg/Day			
	Effluent Water	Solid Waste	

675000	Water Input
259000	Effluents
3738	Inorganic in Effluent
928	Organics in Effluent
3738	TDS
2137.6	COD
3504	HTDS
234	LTDS
3738	Total Effluent
4894	Organic SW
4159	Inorganic SW
150	Spent Carbon
1000	Distillation/ Process Residue
715	Process Emission
25	Fugitive Emission

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 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 plan and suggested 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 LSHS/Fuel 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 deliberated on the adverse effects on human health from manufacturing product.

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

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

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

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

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). Project Proponent reported that the amount of CO₂ emissions per day is stated to be 100 Kg/day and hence it is desirable that usage of economical viable technologies for CO₂ sequestration must be explored for usage in the Industry. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (iii). 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). Occupational health center 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 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

- (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 MIDC Water supply scheme at Ujani Dam, shall not exceed 447 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (ix). As committed by the PP, coal having ash content less than 15% is to be used as fuel only during the rainy season when the LSHS/Fuel briquettes may not be available and during all other seasons only LSHS/Fuel briquettes shall be used.
- (x). Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (xi). Continuous online (24x7) monitoring system for stack emissions shall be installed for measurement of flue gas discharge and the pollutants concentration, and the data to be transmitted to the CPCB and SPCB server.
- (xii). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space provided with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valves to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xiii). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.
- (xiv). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch

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

- (xv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and 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. 26.6

Modernization of Existing Pesticides and dyes Manufacturing Unit by Addition of New Plot (Number 91/A, GIDC Pandesara) and Replacement of Existing Machineries located at Plot No. 90/A, GIDC Pandesara, District - Surat, Gujarat by M/s Acetochem Pvt. Ltd- Consideration of Environmental Clearance.

[Proposal No. IA/GJ/IND3/232832/2021; File No. J-11011/274/2009-IA-II(I)]

The Project Proponent and the accredited Consultant [M/s. ENPRO Enviro Tech and Engineers Pvt. Ltd., with Accreditation Number NABET/EIA/1922/RA0122 valid till 09.04.2022] made a detailed presentation on the salient features of the project and informed that:

The instant EC proposal was earlier considered by the EAC in its 23rd meeting held during December 29, 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 in its meeting held on December 29, 2021	Reply of PP	Observation of EAC
1.	PP should revise greenbelt plan (with ~2500 trees/ha) along with budgetary allocations and timelines.	The existing EC is obtained on total plot area of 2484 sq.m. As per requirement of 33% greenbelt area of the total plant area, it is required to	The EAC deliberated the green belt

	EAC noted that since this is an existing Unit and PP shall come after development of green belt.	<p>carry out plantation on 819 sq.m. area. Unit has already carried out greenbelt plantation activities on another plot number 91/A (Adjacent to existing plot) to comply condition of existing EC. Unit has planted more than 350 number of trees in their new plot in total area of 820 sq.m. Once unit obtain valid EC after modification proposal, total plant area will be 4344 sq.m. and as per greenbelt development guideline, unit will develop total 1433.5 sq.m. greenbelt area. So, additional 613.5 sq.m. area for greenbelt plantation will be developed in the existing plot 90/A after necessary renovation and receipt of recommendations for proposed modification.</p> <p>Proposed Plant layout covering both the plots and including total greenbelt area of 1433.5 sq.m. is submitted. Unit has proposed to spend Rs. 10.3 Lacs for development and maintenance of greenbelt within plant premises. Details of recommended trees and it's costing along with maintenance cost is submitted. It is also to note that, for existing greenbelt plantation, unit has already spent more than Rs. 3.5 lacs.</p>	development plan and found the reply of PP to be satisfactory.
2.	EAC noted that since the project relates to category 5(b) and 5(f) and PP may submit the application accordingly.	It is to note that, PP has revised form-2 which includes application in both the categories i.e. 5(b) and 5(f).	The EAC found the reply of PP to be satisfactory
3.	PP shall submit the treated effluent details for Pesticides and Dye separately. Detailed effluent management plan needs to be submitted	Characteristics of effluent generated from pesticide products and dye intermediate products are submitted. It is to note that, dedicated tanks are provided for collection of effluent generated from pesticide products and dye intermediate products. Effluent generated from pesticide	The EAC found the reply of PP to be satisfactory.

		manufacturing activities are treated into in-house MEE plant after neutralization and condensate from MEE is recycled back into plant premises. Effluent generated from dye intermediate manufacturing activities is treated into in-house ETP consisting of Primary, Secondary and Tertiary treatment units and sent to CETP of Pandesara Infrastructure Limited as per specified norms.	
4.	PP shall submit the undertaking for the banned pesticides shall not be manufactured by the project proponent.	Unit is not manufacturing any of the product which is banned under Pesticide category. Undertaking related to same is submitted.	The EAC found the reply of PP to be satisfactory.
5.	Action Plan along with timelines and budgetary allocations for compliance of the EC conditions needs to be submitted.	Action plan for non-complied conditions are provided as under. (i). A green belt development in 820 sq.m. area is already carried out by unit. Regular maintenance of the same will carried out. (ii). Regarding public notice of getting EC, unit has already intimate to Surat Municipal Corporation and to the chief officer of Sachin GIDC regarding their unit and obtained EC in 2009. (iii). Unit is utilizing Natural gas as a fuel only for which stack is provided. In addition to that, chlorine detector is installed which is connected to alarm system for detection limit.	The EAC found the reply of PP to be satisfactory.
6.	PP may submit the pest study, if any, conducted during implementation of earlier project.	At present, unit has not carried out any pest study for existing project. However, after proposed modernization, unit assures that, unit will carry out the same and submit it to the concern authority within one year.	The EAC found the reply of PP to be satisfactory and suggested that PP has to submit the

			finding of the report within one year.
7.	PP should submit hydraulic capacity and different parameter standard met by CETP.	Hydraulic capacity of CETP unit of Pandesara Infrastructure Limited is 100 MLD. Inlet norms of CETP are provided in the membership certificate obtained by unit. In addition to that, performance data for last 3 months of CETP is submitted.	The EAC found the reply of PP to be satisfactory.
8.	PP should submit the revised water balance with improvement in recycle/reuse and revise water scheme accordingly.	Unit is segregating effluent streams generated from pesticide manufacturing activity and dye intermediate manufacturing activity. It is to note that, unit has provided in-house MEE plant for treatment of concentrated effluent. This effluent after neutralization and MEE is recycled back into plant premises. Detailed water balance diagram including stream segregation is submitted.	The EAC found the reply of PP to be satisfactory

The proposal is for modernization of project under para 7(ii) of EIA Notification, 2006 to the project for “Modernization of existing Pesticides and Dyes Manufacturing Unit by addition of New Plot (Number 91/A, GIDC Pandesara) and Replacement of Existing Machineries located at Plot No. 90/A, GIDC Pandesara, District - Surat, Gujarat by M/s Acetochem Pvt. Ltd.”

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

S. No.	Product	Capacity, MT/Month
		Total
1.	Alpha Naphthyl Amine	60
2.	Sodium Naphthionate	40
3.	1 Naphthol 4 Sulphonic acid (N. W. Acid)	20
4.	Phenyl Alpha Naphthyl Amine (P.A.N.A.)	25
5.	Meta Xylylene O sulphonic Acid	2
6.	4 Chloro Phthalic Acid	15
7.	Tetra Chloro Phthalic anhydride	15
8.	3,5 Dichloro Aniline	40
	TOTAL	217
Note: There shall be no change in product list or production capacity. It will remain same as per existing EC.		

The project/activity is covered under category ‘A’ of item 5 (b) & 5 (f) ‘Pesticides industry and

pesticide specific intermediates' and "Dyes and Dyes intermediates" of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The PP reported that the Ministry had issued EC earlier vide letter no. J-11011/274/2009-IA-II(I); dated July 7, 2009 to the Expansion of Pesticides and dyes manufacturing unit at plot no 90/A, GIDC Pandesra, District Surat in Gujarat by M/s. Acetochem Pvt. Ltd. The Unit has obtained certified compliance report of EC conditions by IRO, MoEFCC, Gandhinagar vide letter no. J-11/30-2021-IROGNER, dated 3rd December 2021. Out of 44 (26 specific conditions + 18 general conditions) conditions stipulated under the EC, 7 conditions were found partially complied whereas 3 were not complied. The PP has submitted the Action Plan and the EAC deliberated the Action Plan and found in order. It was informed that no litigation is pending against the proposal.

The PP reported that the existing land area is 2484 m². Unit has proposed to add new Plot (no. 91/A) which has area of 1860 m². Total land area after proposed modernization will be 4344 m². Industry will develop greenbelt in an area of 33 % i.e., 1433.5 m² out of total area of the project. The estimated project cost is Rs.19.08 Crores including existing investment of Rs.3.87 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 50.46 Lakhs and the Recurring cost (operation and maintenance) will be about Rs.134.2 Lakhs per annum. Total Employment are 68 in number. Additional 20 employments will be generated due to proposed modernization. Industry proposes to allocate Rs.15.21 Lakhs towards CER.

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 water body Kankara Khadi is flowing at a distance of 2.5 km in North direction and the Tapi River at a distance of 6.2 Km in North-West Direction.

Total water requirement is 70.65 m³/day (4.65 m³/day for domestic + 66 m³/day for industrial) and entire water consumption will be met from Pandesara GIDC. Total Effluent generation will be of 29.785 m³/day (25.6 m³/day from Industrial + 4.1852 m³/day from domestic). There shall be total two stream segregation for industrial wastewater generation based on the effluent characteristics. Stream 1 (High COD – Concentrated Effluent Stream) (3.48 m³/day) shall be treated in multiple effect evaporators and condensate water shall be recycled for industrial use, the concentrated effluent shall be converted to salt and shall be reused in process or sent to TSDF. Stream 2 (Low COD – Dilute Effluent Stream) (22.12 m³/day) shall be treated in adequate effluent treatment facilities and treated dilute effluent stream shall be sent to CETP of M/s. Pandesara Infrastructure Limited (PIL).

The Power requirement after amendment will be 375 kVA will be met from Dakshin Gujarat Vij Company Limited (DGVCL). D.G. sets with capacity of 125 kVA (2 Nos.) and one 200 kVA has been installed for emergency purpose. Stack (height - 11 m (each)) is provided as per CPCB norms to each DG sets. The PP reported that unit has steam boiler (300 Kg/Hr), Thermopack 1 & 3 having capacity of 200 U & 400 U respectively. One Thermopack having capacity of 300 U. 30 m stack height has been provided to each utility as unit has proposed to use natural gas as a fuel for boiler & thermopacks.

The Project proponent will comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

Details of Process emissions generation and its management: PP reported that there is one process gas stack for SO₂ attached to Sulfonator & Drawing Vessel having two stage caustic scrubber as APCM with 12 m stack height. Second process gas stack for NH₃ attached to Aminator having Acid Scrubbing system as APCM with 11 m stack height. Third process gas stack for Nitrator (PANA Plant) for NO_x having Two stage alkali scrubber as APCM with 11 m stack height. Fourth process gas stack for HCL & Cl₂ attached to Reactor having Two stage water scrubber and caustic scrubber with 11 m stack height.

Details of Solid waste/Hazardous waste generation and its management: PP reported that the Unit is generating Iron Sludge (103.5 MT/Month), Tar Residue (1.70 MT/Month), Distillation Residue (1.40 MT/Month), ETP Sludge (17 MT/Month), Evaporated Residue (0.122 MT/Month), Used Oil (300 Liters/Year i.e., 255 MT/Year), Discarded Containers / Bags / Liners / Drums (5000 Nos/Month i.e., 480 MT/Year), Dilute Acid (203.25 MT/Month), Spent Sulphuric Acid (272.92 MT/Month), Spent Solvent (Aniline) (14.17 MT/Month), Spent Solvent (ODCB) (126.80 MT/Month), Spent Solvent (Naphthionic Acid) (10.795 MT/Month), Spent Solvent (Thio Solution) (219.56 MT/Month), Sodium Bi - Sulphate (108.08 MT/Month), Sodium Sulphate (20 MT/Month). C&D waste shall be disposed as C&D Waste Management Rules, 2016.

Deliberations by the EAC:

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

It was informed to the EAC that the para 7(ii) of the EIA Notification, 2006, inter-alia, mentions that *all applications seeking prior environmental clearance for expansion with increase in the production capacity beyond the capacity for which prior environmental clearance has been granted under this notification or with increase in either lease area or production capacity in the case of mining projects or for the modernisation of an existing unit with increase in the total production capacity beyond the threshold limit prescribed in the Schedule to this notification through change in process and or technology or involving a change in the product –mix shall be made in Form I and they shall be considered by the concerned Expert Appraisal Committee or State Level Expert Appraisal Committee within sixty days, who will decide on the due diligence necessary including preparation of Environment Impact Assessment and public consultations and the application shall be appraised accordingly for grant of environmental clearance.*

The EAC deliberated on the proposal of PP and accepted the request to consider the proposal under para 7 (ii) of the EIA Notification, 2006 under modernization project as the capacity remains unchanged and there is no requirement for obtaining fresh TOR etc. The

project proponent has prepared the Addendum to Environmental Impact Assessment Report. The Committee deliberated on the report and its mitigation measures.

The Committee, after detailed deliberations, noted that the Ministry had issued EC earlier vide letter no. J-11011/274/2009-IA-II(I); dated July 7, 2009 to the Expansion of Pesticides and dyes manufacturing unit at plot no 90/A, GIDC Pandesra, District Surat in Gujarat by M/s. Acetochem Pvt. Ltd. The Unit has obtained certified compliance report of EC conditions by IRO, MoEFCC, Gandhinagar vide letter no. J-11/30-2021-IROG NR dated 3rd December 2021. The PP has submitted the Action Plan and the EAC deliberated the Action Plan and found in order. The Committee deliberated the Certified Compliance Report and found in order.

The Committee noted that the reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for green belt development. 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 suggested the use the recycled water. The Committee deliberated the solvent recovery and its mitigation plan and found satisfactory. The committee also deliberated the pesticide usage and the effect of pesticide on crops and pests. The Committee also deliberated water balance and risk assessment. It was advised to complete the plantation as soon as possible. The committee deliberated the reply of the PP and found satisfactory.

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

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

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

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

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

- (i). The company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP and other Reports 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). No banned dyes/chemicals/pesticides shall be manufactured by the project proponent. No banned raw materials/chemicals shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
- (iv). All other conditions/safeguards/mitigation measures as stipulated in the earlier EC dated July 7, 2009 shall be strictly complied by PP.
- (v). The PP shall conduct the pest study within one year and the finding of the reports shall be communicated to the MoEFCC/ IRO, MoEFCC Gandhinagar and the outcome of the study shall be implemented.
- (vi). The Domestic effluent shall be treated in STP and the treated domestic effluent shall be used for greenbelt development and other suitable purposes within premises.
- (vii). 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.
- (viii). 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 Integrated Regional Office of Ministry and SPCB along with the compliance report.
- (ix). The treated waste water of 29.785 m³/day shall be discharged to CETP as per discharge standard notified under the provisions of the EPA Rules, 1986.
- (x). Total fresh water requirement shall not exceed 70.65 m³/day, proposed to be met from Pandesara GIDC, Necessary permission obtained in this regard shall be renewed from time to time.
- (xi). 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.
- (xii). 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.

- (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). Necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents.
- (xv). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.
- (xvi). The Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pump shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified with all safety measures. (d) Proper earthing shall be provided in all the electrical equipment wherever solvent handling is done. (e) Entire plant shall be flame proof. The solvent storage tanks shall be provided with breather valve to prevent losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.
- (xvii). The Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology.
- (xviii). The Storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (xix). The green belt of at least 5-10 m width shall be developed in nearly 33 % of the total project area, mainly along the plant periphery. 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 in first year itself.
- (xx). 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.
- (xxi). 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. 26.7

Setting up of Pesticide Manufacturing Project with Production Capacity of 9000 MT/Annum located at E-39, RIICO Industrial Area, Bagru (EXT.), Jaipur, Rajasthan- by

M/s Advance Agrolife Pvt. Ltd - Consideration of Environmental Clearance

[Proposal No. IA/RJ/IND3/240534/2021; File No. IA-J-11011/98/2021-IA-II(I)]

Project Proponent and the accredited Consultant [M/s. EQMS India Pvt. Ltd. having accreditation number NABET/EIA/1922/RA0197 valid till 23.11.2022] has made a detailed presentation on the salient features of the project and informed that:

The proposal is for consideration of the environmental clearance for Setting up of Pesticide Manufacturing Project with proposed production capacity of 9000 MT/Annum, located at E-39, RIICO Industrial Area, Bagru (EXT.), Jaipur, Rajasthan by M/s Advance Agrolife Pvt. Ltd.

The details of products and capacity as under:

Proposed Products			
S. No.	Name of Product	Proposed capacity (MT/Annum)	CAS No.
A. INSECTICIDES			
1	Bifenthrin	100	82657-04-3
2	Cypermethrin	100	52315-07-8
3	Diafenthiuron	100	80060-09-9
4	Fipronil	200	120068-37-3
5	Lambda	500	91465-08-6
6	Thiamethoxam	100	153719-23-4
7	Pymetrozine	100	123312-89-0
8	Emamectin	100	121124-29-6
9	Thiocyclam Hydrogen Oxalate	100	31895-22-4
10	Pyriproxyfen	100	95737-68-1
11	Flonicamid	100	158062-67-0
	Total Insecticides	1600	
B. HERBICIDES			
12	2,4-D Sodium Salt	1000	2702-72-9
13	2,4-D Acid	500	94-75-7
14	2,4-D Ethyl Ester	500	533-23-3
15	2,4-D Amine Salt	2000	2008-39-1
16	Bispyribac Sodium	100	125401-92-5
17	Clodinofof	500	105512-06-9
18	Glyphosate	500	1071-83-6
19	Metribuzin	100	21087-64-9
20	Pendimethalin	100	40487-42-1
21	Pretilachlor	100	51218-49-6
22	Atrazine	500	1912-24-9
23	Pyrixasulfon	100	447399-55-5
24	Pinoxaden	100	243973-20
25	Tembotrione	100	335104-84-2

	Total Herbicides	6200	
C. FUNGICIDES			
26	Azoxystrobin	100	131860-33-8
27	Captan	100	133-06-2
28	Propiconazole	100	60207-90-1
29	Tebuconazole	100	107534-96-3
30	Thirum	100	137-26-8
31	Hexaconazole	100	79983-71-4
32	Paclobutrazole	100	76738-62-0
33	Copper Oxycycloride	100	1332-40-7
34	Pyroclostrobin	100	175013-18-0
35	Thiophanate Methyl	100	23564-05-8
36	Cyazofamid	100	120116-88-3
	Total Fungicides	1100	
	Total Production	8900	
Note- No banned pesticides will be manufactured in the Unit.			

Details By Products			
S. No.	Name of By Product	Proposed capacity (MT/Annum)	CAS No.
1	HCL	50.00	7647-01-0
2	Recovered Dichloro Phenol (30%)	50.00	120-83-2
	TOTAL PRODUCTION	100	
Note: The above mentioned By Products will be sold to the customers having prior permission under rule 9 of Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2021.			

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 the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The Standard ToR has been issued by Ministry, vide letter No. J-11011/98/2021-IA-II(I) dated 10th April, 2021. Public Hearing is exempted as the project is located in the notified industrial area.

The PP reported that the total land area of the project site is 4000 m². Industry will develop greenbelt in an area of 33 % i.e., 1320 m² out of total area of the project. The estimated project cost is Rs. 40.0 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.150 Lacs and the Recurring cost (operation and maintenance) will be about Rs. 15.0 Lacs per annum. Total Employment will be 95 persons during operation phase. Industry proposes to allocate Rs. 80.0 Lakhs towards CER.

The Project proponent reported that there are no national parks, wildlife sanctuaries, Biosphere

Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site.

The Ambient air quality monitoring was carried out at 8 locations during March to May 2019 and the baseline data indicates the ranges of concentrations as: PM10 (43- 135 µg/m³), PM2.5 (16.4-55.4 µg/m³), SO₂ (5.3-15.1 µg/m³) and NO₂ (8.2 -28.2 µg/m³). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.37 µg/m³, 1.16 µg/m³, 0.512 µg/m³, 1.03 µg/m³, 0.0026 µg/m³, 0.016 µg/m³, 0.0013 µg/m³ with respect to PM10, PM2.5, NO_x, SO_x, HBr, HCl and Cl₂, respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS) except PM10. EAC deliberated the high concentration of PM10 and advise the PP to prepare the mitigation measures on the issue and justify the reason for the high concentration.

Total water requirement is 13 KLD of which freshwater requirement of 9.5 KLD will be met from bore well. Effluent of 6 KLD (Industrial Effluent- 4 KLD; Domestic Sewage- 2 KLD) quantity will be treated through ETP (5 KLD) and MEE followed by ATFD (5 KLD). Domestic sewage shall be disposed through Septic Tank. The plant will be based on Zero Liquid discharge system.

The power requirement of the plant will be 750 kVA which will be met through Jaipur Vidyut Nigam Ltd. (JVNL). DG sets of capacity 1x500 kVA (with appropriate stack height as per CPCB norms) are proposed as power backup. 1 nos. of Coal based boiler (2 TPH) will be installed. Bag Filter & Scrubber with a stack of height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 800 mg/Nm³ for the proposed boiler.

The Project proponent will comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

Details of process emissions generation and its management are given below:

S. No.	Source	Fuel Used	APCM	Stack Height (m)	Expected Pollutants	Maximum Emission (mg/Nm ³)
Process Stacks / Vents						
1	Hot Air Generator with Dust Extraction System (Dryer)	Coal	Multi Cyclone and Bag Filter	30	PM, SO ₂ &NO _x	PM< 800 SO ₂ < 600 NO _x < 300
2	2,4-D Sodium Salt Reactor for HCL	-	Water and Caustic Multistage Scrubber	30	HCl& Cl ₂	HCl< 20 Cl ₂ < 5

3	Lambda Cyhalothrin Reactor for HCL	-	Water and Caustic Multistage Scrubber	30	HCl	HCl< 20
4	Lambda Cyhalothrin Reactor for SO ₂	-	Glass Column Packed Scrubber (Caustic)	30	SO ₂	SO ₂ <10
5	Cypermethrin Reactor for HCL	-	Water and Caustic Multistage Scrubber	30	HCl	HCl< 20
6	Cypermethrin Reactor for SO ₂	-	Glass Column Packed Scrubber (Caustic)	30	SO ₂	SO ₂ <10
7	Deltamethrin Reactor for HBr	-	Glass Column Packed Scrubber (Caustic)	30	HBr	HBr<5
8	MPB Reactor for HBr	-	Glass Column Packed Scrubber (Caustic)	30	HBr	HBr<5

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

S. No	Type of waste	Category (As per HW Rules, 2016)	Quantity (Per Annum)	Source	Temporary Collection and Storage at Site	Mode of Treatment & Disposal Method
Hazardous waste						
1	MEE Salt	35.3	30 MT	MEE	Separate Yard	Treatment and disposal at TSDF, Udaipur Site
2	ETP Sludge	34.2	17 MT	ETP	Separate Yard	Treatment and disposal at TSDF, Udaipur Site
3	Spent Solvents	20.2	0.4 MT	Process	Separate Yard	Solvent Recovery System

4	Discarded Glue Containers/ Barrels/liners contaminated with hazardous wastes/ chemicals	33.1	10 Nos	Process	Separate Yard	Authorized Vendors
5	Used/spent oil	5.1	0.08 MT	Process / DG sets	Separate Yard	Authorized Vendors
Non-Hazardous/Industrial						
6	Ash from coal Based boiler	-	73 MT	Coal Based Boiler	Silos	Brick/Cement Manufacturers
7	Empty barrels (used for non-hazardous material)	-	100 Nos	Process	Separate Yards	Collection, Storage, Transportation, and given to Authorized Vendors
8	Scrap metals	-	100 kg	Process	Scrap Yard	Collection, Storage, Transportation, and given to Authorized Vendors

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 made detailed deliberations on the proposal. The Committee noted that PM10 concentration is high near the vicinity of the proposed project. PP/Consultant need to explain the reason behind this data and proper action plan on the mitigation measures. The PP could not explain the life cycle analysis study in case of pesticides project, though it is a part of instruction issued by the EAC in agenda. There may be adverse impact of agrochemical on microbiota of flora and fauna. The Committee deliberated on the action plan and budget allocation for green belt development. 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 after, detailed deliberation, **deferred** the proposal and desired for certain requisite information/inputs listed below:

- (i). The EAC noted that the existing facility is of formulation Unit and is being operated with CTO issued under Air/Water Act. The Ministry has earlier asked EDS to provide the certified compliance report of CTO from SPCB, however PP has not

submitted the CCR. EAC also noted that there is one TOR condition which is also mentioned the requirement of CCR of CTO. In this context, SPCB may be requested to provide CCR on CTO for further appraisal of the project;

- (ii). The Committee noted that PM10 concentration is high near the vicinity of the proposed project. PP/Consultant need to explain the reason behind this data and proper action plan on the mitigation measures needs to be submitted;
- (iii). The PP could not explain the life cycle analysis study though it was a part of instructions issued by the EAC in agenda. PP needs to submit details reflecting specific adverse and harmful impacts of agrochemical on microbiota of flora and fauna. PP needs to submit all the details on the subject;
- (iv). As committed, the PP needs to explore the use of bio fuel/bio briquette and PNG gas as there is already the high Particulate matter;
- (v). The EAC observed that since this is an existing Unit for formulation of pesticide and there is no adequate green belt seen in kml file. The PP needs to submit the revised green belt design and its updated budget allocation and timelines;

Agenda No. 26.8

Expansion of Synthetic Organic Chemicals (Different types of Resins) manufacturing unit of capacity 1500 MTPM, located at Survey No. 367P1, 368P3, 368P4 Village Khakhrala, Taluka & District- Morbi, Gujarat by M/s. Growmore Laminate LLP - Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/213290/2021; File No. IA-J-11011/231/2021-IA-II(I)]

The Project Proponent and the accredited Consultant [M/s. T. R. Associates having accreditation number NABET/EIA/1922/RA0142 dated 09.10.2022] has made a detailed presentation on the salient features of the project and informed that:

The proposal is for consideration of environmental clearance (EC) to the proposed project for Expansion of Synthetic Organic Chemicals (Different types of Resins) manufacturing unit of capacity 1500 MTPM, located at Survey No. 367P1, 368P3, 368P4 Village Khakhrala, Taluka & District- Morbi, Gujarat by M/s. Growmore Laminate LLP.

The details of products and capacity as under:

Sr. No.	Name of the Product	Production Capacity (MT/Month)	CAS Number
1	Phenol Formaldehyde Resin	700	9003-35-4
2	Urea Formaldehyde Resin	400	9011-05-6
3	Melamine Formaldehyde	400	9003-08-1

	Resin		
Total Production Capacity		1500	--

The project comes under Item 5(f) of the Schedule, as Category 'A', as per EIA Notification 2006 and its subsequent amendments and, therefore requires appraisal at central level by Expert Appraisal Committee (EAC) in the Ministry.

The Standard ToR was granted by the Ministry, vide letter No. IA-J-11011/231/2021-IA-II(I), dated 8th June, 2021. Public Hearing for the proposed project has been conducted by the Gujarat Pollution Control Board on 26/10/2021. The PH was presided over by the District Magistrate. The main issues raised during the public hearing are related to precautionary measures for workers & preventive measures for air emissions. The EAC deliberated the Action Plan on the issues raised during the PH and found in order.

The PP reported that this is an existing Unit and being operated for manufacturing of laminate sheet. The PP has obtained the CTO from GPCB, vide letter no. CCA no. AWH- 51183, dated 03.01.2022 and valid up to 24.12.2026 for manufacture of laminate sheet. The Laminated sheets manufacturing does not attract the provisions of the EIA notification 2006 and prior EC is not required for manufacturing of laminated sheets. Further, PP has submitted the CTO compliance report received from SPCB. The EAC deliberated the CCR on CTO and found in order.

The PP reported that total land area is 24080 m²; no additional land will be used for this Resin project. Industry will develop greenbelt in an area of 33.27 % i.e, 8011.81 m² out of total area (24080 m²) of the project. The estimated project cost is Rs. 70 lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs. 8.05 lakhs and the Recurring cost (operation and maintenance) will be about Rs. 24.72 lakh per annum. Total Employment will be 20 persons. Industry proposes to allocate Rs.1.4 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. The PP has submitted the conservation plan for Schedule-I species and noted that PP has submitted the application to the office of CWLW, State Government.

The Ambient air quality monitoring was carried out at 8 locations during December 2018 to February 2019 and additional one-month monitoring was carried out in October 2021 to validate the baseline data. December 2018 to February 2019 baseline data indicates the ranges of concentrations as: PM10 (61.2 µg/m³ to 86.42 µg/m³), PM2.5 (29.56 µg/m³ to 52.98 µg/m³), SO₂ (4.07 µg/m³ to 18.76 µg/m³) and NO₂ (8.94 µg/m³ to 29.69 µg/m³). October 2021 baseline data indicates the ranges of concentrations as: PM10 (59.97 µg/m³ to 86.42 µg/m³), PM2.5 (30.16 µg/m³ to 51.63 µg/m³), SO₂ (6.26 µg/m³ to 18.81 µg/m³) and NO₂ (12.42 µg/m³ to 31.19 µg/m³). The AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed expansion project would be 0.4 µg/m³, 0.4 µg/m³ and 0.001 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 35.97 m³/day (Fresh – 31.72 m³/day + reuse – 4.25 m³/day) which will be met from Bore Well. Effluent of 5.32 m³/day quantity will be treated through Effluent Treatment Plant. The plant will be based on Zero Liquid Discharge System

The Power requirement after expansion for proposed will be 200 kVA and will be met from Paschim Gujarat Vij Company Ltd. (PGVCL). 250 kVA D. G. Set [Fuel : HSD (50 Lit./hr.)] has been provided and used only in case of power failure. Stack (12 meter) has provided as per CPCB norms to the DG set. Industry has provided one steam boiler of 4 TPH [Fuel : Briquettes (5.49Ton/day) / Indonesian coal (4 Ton/day)]. (Indonesian coal will only be used when unavailability of briquettes). Unit will increase working hours of steam boiler for proposed resin manufacturing (working for 8 hours). Multicyclone Dust Collector followed by Bag filter followed by Alkaline Scrubber with stack height of 30 m has been installed for controlling the particulate emissions within the statutory limit.

The Project proponent will comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

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

S. No.	Description	Category as per HW Rules 2016	Quantity (MT/Annum)	Mode of Disposal
1	ETP Sludge / Evaporation Residue	35.3	65.7	Collection, storage and disposal at approved TSDF site
2	Used Oil	5.1	0.024	Collection, storage and used within premises as a lubricant / sold to registered recycler
3	Discarded Plastic Bags /Barrels	33.1	8.95	Collection, storage & sold to authorized vendor
4	Spent Carbon	35.1	1.5	Collection, storage and disposal at approved CHWIF site
5	Resin Residue	23.1	9	Collection, storage and disposal at approved CHWIF site

Deliberations by the EAC:

The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal 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 the action plan on the issues raised in the public hearing and found the reply of PP to be satisfactory.

The Committee deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The Committee suggested use Biomass Briquettes as a fuel, as committed by the PP. 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/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee deliberated the conservation plan for Schedule-I species and noted that PP has submitted the application to the office of CWLW, State Government.

The Committee deliberated on the action plan and budget allocation for green belt development and as committed by PP to plant 2600 trees on road and nearby villages, suggested to complete plantation in one year and trees shall be planted considered 2m x 2m ratio inside the plant. The Committee found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee suggested that the PP shall undertake all the possible mitigation measures and latest techniques to reduce the impact of boilers. The committee deliberated the compliance status of CTO and found that all the conditions mentioned in the CTO were complied by PP.

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 company shall comply with all the environmental protection measures and safeguards proposed in the documents submitted to the Ministry. All the recommendations made in the EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.
- (ii). The 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 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). No banned Chemicals/Products shall be manufactured by the project proponent. No banned raw materials/chemicals shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government issued in this regard.
- (v). An Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.
- (vi). As already committed by the project proponent, Zero Liquid Discharge (ZLD) shall be ensured and no waste/treated water shall be discharged outside the premises. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.
- (vii). The unit shall make the arrangement for the prevention and protection of possible fire hazards during manufacturing process in material handling. Fire-fighting system shall be as per the norms. Mock drill shall be conducted regularly.
- (viii). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees.
- (ix). Total fresh water requirement, sourced from bore well through, shall not exceed 35.97 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.
- (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 ZLD, the unit shall install web camera with night vision capability and flow meters in the channel/drain carrying effluent within the premises (if applicable).

- (xii). 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). The process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.
- (xiv). The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.
- (xv). The green belt of at least 5-10 m width shall be developed in at least 33% of the total project area, mainly along the plant periphery/ additional land. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and the number of trees has to be increased accordingly as committed by PP to plant 2600 trees on road and nearby villages shall be completed as soon as possible. The plant species can be selected that will give better carbon sequestration.
- (xvi). The activities and the action plan proposed by the project proponent to address the socio-economic and public hearing issues in the study area, shall be completed as per the schedule presented before the Committee and as described in the EMP report in letter and spirit. All the commitments made during public hearing shall be satisfactorily implemented.
- (xvii). 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.
- (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. 26.9

Amalgamation of Environmental Clearances and Expansion/Amendment of existing Urea Plants, located at GSFC Complex at Fertilizernagar, Vadodara, Gujarat by M/s Gujarat State Fertilizers & Chemicals Limited - Consideration of Environmental Clearance.

[Proposal No. IA/GJ/IND3/254550/2021; F. No. IA-J-11011/901/2007-IA-II(I)]

The project proponent and the accredited consultant [M/s. EQMS India Pvt. Ltd. having accreditation number NABET/EIA/1922/RA0197 valid till 23.11.2022] made a detailed presentation on the salient features of the project and informed that:

The proposal is for Environmental Clearance to Project for Amalgamation of Environmental Clearances and Expansion/Amendment of Plants in Existing GSFC Complex at P.O. Fertilizernagar, Tal. and District- Vadodara, Gujarat by M/s Gujarat State Fertilizers & Chemicals Limited (GSFC).

The details of product with capacity are as under

S. No.	Category as per EIA notification 2006	Products		CAS No.	Details			END-USE	Remarks
					Existing	Proposed	Total after Expansion		
					MTPA	MTPA	MTPA		
	5(a)	TGU *	TGU	57-13-6	0	124100	124100	Various uses in small scale industries	New product proposed
		Ammonium Sulphate	Ammonium Sulphate -I	7783-20-2	146000	-	488000		
			Ammonium Sulphate -II		80000				Expansion proposed

S. No.	Category as per EIA notification 2006	Products		CAS No.	Details			END-USE	Remarks
					Existing	Proposed	Total after Expansion		
					MTPA	MTPA	MTPA		
			Ammonium Sulphate -III		116000				
			Ammonium Sulphate-IV		0	146000			
	5(a)	Urea	Revamped Urea Unit (Urea- I & II)	57-13-6	367200	0	367200	Fertilizers & Synthetic Organic Chemicals	No change
		Urea Phosphate		4861-19-2	1500	0	1500		
		DAP/ASP/MAP/NPK		7783-28-0/ 66455-26-3	216000	0	216000	Fertilizers	
		Ammonia	Ammonia-III	7664-41-7	33000	0	33000		
			Ammonia-IV		450000	0	450000		
		WSF-NPK (19:19:19)			1800 MTPM	0	1800 MTPM		
		WSF-MAP/MKP/KNO3/SOP			900 MTPM	0	900 MTPM		
		Micronutrient Mixture			4.5 MTPM	0	4.5 MTPM		

S. No.	Category as per EIA notification 2006	Products		CAS No.	Details			END-USE	Remarks
					Existing	Proposed	Total after Expansion		
					MTPA	MTPA	MTPA		
		Sardar Amin Granules (SAG) through mixing process			5000	0	5000		
		Sardar Amin Liquid (SAL) through mixing process			40000 Lit/yr	0	40000 Lit/yr		
		S90WDmG-Sulphur 90 Water Dispersible Micro Granules (by mixing process)		7704-34-9	22 MTPD or 8030	0	22 MTPD or 8030		
	5(f)	Melamine	Melamine-I	108-78-1	5000	0	55000	Plastic Industries	Amendment in condition of EC of 2016 for Melamine III sought
			Melamine-II		10000				
			Melamine-III		40000				
	5 (f)	MEK Oxime		96-29-7	6500	0	6500	Organic Compound	
		Methanol		67-56-1	191625	0	191625	Solvent	
	Inorganic product	Sulphuric Acid	Sulphuric Acid-III	7664-93-9	132000	-	796500	Fertilizers	Proposed expansion

S. No.	Category as per EIA notification 2006	Products		CAS No.	Details			END-USE	Remarks
					Existing	Proposed	Total after Expansion		
					MTPA	MTPA	MTPA		
	not covered under notification	Sulphuric Acid-IV		445500				ion	
		Sulphuric Acid-V		0	219000				
	Inorganic product not covered under notification	HX Crystal	100039-54-0	1200	0	1200	Pharma, Dye & Dyestuff & Agrochem	No change	
		Phosphoric Acid	7664-38-2	54000	0	54000	Fertilizers		
		Nitric Acid (By-product of Capro-II)	7697-37-2	8300	0	8300	Fertilizers		
	Product not covered under notification	Argon	7440-37-1	320000	0	320000	Internal		
		Cryogenically grinded seed/spice through grinding only		400 or 50 kg/hr	0	400 or 50 kg/hr	Spices		
1		Phosphogypsum	10101-44-4	253260	0	253260	Soil Conditioner		
	5(e)	Nylon-6	Nylon-6-I & II	25038-54-4	69 MTPD or 24425	0	69 MTPD or 24425	Automobile, Electrical and Hardware	
			Nylon-6-III		1735 MTPM	0	1735 MTPM		

S. No.	Category as per EIA notification 2006	Products		CAS No.	Details			END-USE	Remarks
					Existing	Proposed	Total after Expansion		
					MTPA	MTPA	MTPA		
2		Caprolactam	Caprolactam-I	105-60-2	20000	0	20000	Petroleum based processing	
			Caprolactam-II		50000	0	50000	Petroleum based processing	
1(d)		Co-Generation Plant	Co-generation - I (Power)		15 MWH	0	15 MWH	Captive Power	
			Co-generation - I (Steam)		130 MT/hr	0	130 MT/hr		
			Co-generation - II (Power)		25 MWH	0	25 MWH		
			Co-generation - II (Steam)		130 MT/hr	0	130 MT/hr		
			Co-generation - III (Power)		50 MWH	0	50 MWH		
			Co-generation - III (Steam)		130 MT/hr	0	130 MT/hr		

Note: *Continuation of production and thereby captive consumption of Molten Urea at Melamine-I & II plants, is subject to economic viability of respective plant from time to time. Similarly, production of Melamine and thereby captive consumption of Molten Urea also gets affected during certain technical issues in downstream section of Melamine-III plant. The

equivalent Molten Urea quantity spared during above cases shall provide opportunity for production of Tech. grade Urea – either in Prill form or Liquid form - by using existing facility of Melamine-III OGT section and Finishing- Prilling sections of Urea plants. Thus, considering various scenarios, followings are the possible product combinations of Melamine& TGU production at Melamine-1/2/3 with Tech. Grade Urea (TGU) as mentioned in Table below

Production Capacities of TGU and Melamine as per various combinations:

Plant	Product	Scenario-I	Scenario-II	Scenario-III	Scenario-IV	Scenario-V	Scenario-VI	
MEL-I	Melamine	15	0	15	0	0	15	
MEL-II	Melamine	30	30	0	0	0	30	
MEL-III	Melamine	120	120	120	120	0	0	
	TGU	0	50	100	150	340	190	
Overall Production	Melamine	MTP D	165	150	135	120	0	45
		MTP A	55000	49950	44955	39960	0	15000
	TGU	MTP D	0	50	100	150	340	190
		MTP A	0	18250	36500	54750	124100	69350

The PP reported that Expansion project will be taken as mentioned below:

- 1) Development of proposed ammonium Sulphate IV plant (under scheduled 5(a) Category A)
- 2) Proposal for introduction of new product Technical Grade Urea (under scheduled 5(a) Category A)
- 3) Integration of Melamine-III unit and Urea plant to manufacture Technical Grade Urea. (Covered under 5(a) and 5(f))
- 4) Development of proposed Sulphuric Acid V Plant (inorganic product not covered under EIA notification)

The PP requested Amendment in EC conditions as mentioned below:

S. No	Environment Clearance Detail	Condition no.	Condition as per EC	Amendment Sought	Reason/Remarks
i.	Environmental Clearance to M/s Gujarat State Fertilizers & Chemicals Limited for setting up of new melamine plant within the existing complex at P.O fertilizer Nagar Vadodara in	A1. Specific condition	Entire quantity of Intermediate product- Molten Urea shall be used for	Molten Urea (Intermediate Product of OGT section of Melamine-III) will be partly/completel	<i>Continuation of production and thereby captive consumption of Molten</i>

S. No	Environment Clearance Detail	Condition no.	Condition as per EC	Amendment Sought	Reason/ Remarks
	Category 5(f) of schedule annexed with EIA notification dated 14/09/2006 (No. SEIAA/GUJ/EC/5(f)/228/2016 dated 31 st March 2016		captive consumption of Melamine Plants only	y used for production of Technical Grade Urea or Melamine as per market demand.	<i>Urea at Melamine-I & II plants, is subject to economic viability of respective plant from time to time. Similarly, production of Melamine and thereby captive consumption of Molten Urea also affects during certain technical issues in downstream section of Melamine-III plant. The equivalent Molten Urea quantity spared during above cases shall provide opportunity for production of Tech. grade Urea – either in</i>

S. No	Environment Clearance Detail	Condition no.	Condition as per EC	Amendment Sought	Reason/ Remarks
					<i>Prill form or Liquid form - by using existing facility of Melamine-III OGT section and Finishing-Prilling sections of Urea plants.</i>

The PP requested for Amalgamation of Environmental Clearances of the project as mentioned below

- (i) Environmental Clearance granted from MoEF&CC vide letter No. J-11011/901/2007-IA(II) dated 31.07.2008.
- (ii) Environmental Clearances granted from SEIAA; Gujarat vide Letter No. SEIAA/GUJ/EC/5(E)/131/2013 dated 05.07.2013.
- (iii) Environmental Clearance granted from SEIAA; Gujarat vide Letter No. SEIAAGUJ/EC/5(f)/228/2016 dated 31.03.2016.
- (iv) Environmental Clearance granted from MoEF&CC vide letter No. J-11011/901/2007-IA-II(I) dated 06.03.2019 and amended on 08.05.2020.
- (v) Environmental Clearances granted from SEIAA; Gujarat vide Letter No. SEIAA/GUJ/EC/5(E)/684/2020 dated 09.06.2020.
- (vi) Environmental Clearance from MoEF&CC vide File No. IA-J-11011/901-2007-IA-II(I) dated 24th January, 2022 (Not yet implemented).

The ToR has been issued by the Ministry vide letter No. J-11011/901/2007-IA II (I) dated 08.05.2021. PP reported the Details of Certified Compliance Report of GSFC Complex are as below:

S. No	Certified Compliance	Dated	EC Letter	Status
1.	5-33/2019(Env)/560	08.08.2021	EC from MoEF&CC -11011/901/2007-I(A)II dated 06.03.2019 & further amendment for total water requirement dated 08.05.2020 (146000 MTPA AS-I Plant)	Complied for all conditions.

2.	5-193/2008(Env)/658	05.10.2021	EC from SEIAA, Gujarat SEIAA/GUJ/EC/5(f)/228/2016 dated 31.03.2016 (40000 MTPA Mela-III Plant) EC from MoEF&CC J-11011/901/2007-IA(II) dated 31.07.2008 (525 MTPD Methanol Plant)	Complied for all conditions.
3.	18-A-59/2020(SEAC)/559	08.08.2021	EC from SEIAA, Gujarat SEIAA/GUJ/EC/5(e)/684/2020 dated 09.06.2020 (Nylon-6 chip project)	Complied for all conditions.

The project/activities are covered under category 'A' of item 5(a) "Chemical Fertilizers", 5 (f) i.e. synthetic organic chemicals, 5(e) Petroleum products and petrochemical based processing such as production of carbon black and electrode grade (minor activity), 1(d) Co-Generation power plant and Inorganic product not covered under the Schedule to the Environment Impact Assessment Notification, 2006, the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The PP reported that existing land area of GSFC Complex is 32,80,000 m² (328 Hectares). The proposed expansion will be setup within existing premises. Industry has developed greenbelt in an area of 12,32,000 m² (123.2 Ha.) in an area of 37.56% of total plot area of project. The estimated cost of proposed project is Rs. 291.47 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.394.1 Lakhs. Total employment of the plant will be of 5612 persons (Existing: 5544 nos. Proposed 68 nos.) as direct and indirect persons after expansion. Industry proposed to allocate Rs.12 Crores towards Corporate Social Responsibility (CSR) for F.Y 2021-2022 for the entire complex.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. There are few distributaries within 10 km distance of the project site like Galiath River (4.58 km, NE), Vishwamitri River (5.71 km, E), Meni River (7.00 km, W), Parevi River (7.08 km, N), Surya River (8.04 km, E) & Mahi River (9.35 km, W). However, distributaries or rivers located nearby project site are dry riverbeds.

The Ambient air quality monitoring was carried out at 9 locations during December,2020 to February,2021 and the baseline data indicates the ranges of concentrations as: PM10 (40-96 µg/m³), PM2.5 (18-49 µg/m³), SO₂ (5-12.8 µg/m³) and NO₂ (9-20.6 µg/m³). AAQ modelling study for point source emissions indicates that maximum incremental GLCs after proposed project would be 0.633 µg/m³, 0.570 µg/m³ & 1.90 µg/m³ with respect to PM10, PM2.5 & SO₂. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement of project after expansion will be 43426.2 KLD of which, freshwater requirement of 35732.45 KLD will be met from 4 no. of French wells sourced from Mahi River. 2 no. of french wells are located at Parthampura and rest 2 no. of french wells are located at

IOCL Refinery.

The PP reported that total wastewater generation from the project will be 17257.5 KLD (Domestic Sewage: 3620.5 KLD; Industrial Effluent: 13637 KLD). Total Industrial effluent being generated from the plant will be 13637 KLD (Washing, Regeneration Wastewater: 4900.4 KLD; Cooling Tower/Boiler Blowdown: 6050 KLD and Process Effluent: 2686.6 KLD). Process effluent will be treated in Effluent Treatment Plant (ETP-I: 1200 KLD; ETP-II: 1920 KLD) and at RO treatment in M-III. 2686.6 KLD ETP treated water along with industrial effluent (4900.4 KLD of washing & regeneration wastewater along with 6050 KLD of boiler & cooling blowdown) will be discharged to common effluent channel of M/s Vadodara Enviro Channel Limited (VECL) for final discharge at sea. 219.6 KLD (8 KLD washing wastewater and 211.6 KLD Cooling Tower / DMW Unit blowdown from SA-V plant) will be reused in Phosphoric Acid plant. 3456 KLD condensate & 108 KLD RO treated water (150 KLD effluent generated from AS-IV Cooling tower blow down will be recycled to Melamine-III RO plant and from which 108 KLD RO treated water will be generated) will be reused in cooling and boiler purposes. 741.8 KLD process effluent being generated from Urea, Melamine -I/II, AS-I & II will be again directly discharged to Phosphoric Acid Plant. Total domestic wastewater from the complex will be 3620.5 KLD (Industrial Domestic Sewage: 452.1 KLD; Township Domestic Waste: 3168.4 KLD). Domestic sewage will be treated in Sewage Treatment Plant and treated water will be reused for horticultural purposes.

Power requirement after expansion will be 79.4 MW including existing power requirement of 76 MW and will be met from WindMill /Cogeneration Plant/MGVCL. GSFC has installed 152.8 MW Wind Farm in Kucchh & Saurashtra region. The existing connected load of power is 157 MW. Additional power will be supplied from co-generation plants i.e., Windmill and CPP. Existing unit has DG sets at Main s/s: 300 kW; Steam Gen: 500kW; CaproExp.: 800 kW; PA: 560 kW; Nylon-6: 450 kW; SA - IV: 500 kW; Cogen-III: 500 kW; Amm. -IV: 1000 kW; Data Centre: - 250 kVA; Methanol: 750 kVA; CQP DG :750 kVA; M-III DG: 3000 kVA; Nylon-6-II: 1250 kVA. Additionally, DG Sets of capacity 600 kVA at proposed SA-V plant to be used as standby during power failure. Maximum stack height 11.4 m will be provided as per CPCB norms to the proposed DG Set.

Details of Process emissions generation and its management:

Sr · N o	Plant	Stack attached to	Air Polluti on Contro l Device	Heig ht of stac k (m)	Diamet er (m)	Avg. Emissi on Rate (Nm ³ /hr)	Veloci ty (m/se c)	Temperat ure (°C)
1.	Methanol	Reformer (Furnace)	-	33	2.5	78368	-	-
		NG Preheater		18	0.9		-	-
2.	Ammonia - III	Reformer (Furnace)	-	30	0.85	28000	12.25	129
		NG	-	30	0.85			

Sr. No	Plant	Stack attached to	Air Pollution Control Device	Height of stack (m)	Diameter (m)	Avg. Emission Rate (Nm ³ /hr)	Velocity (m/sec)	Temperature (°C)
		Preheater						
3.	Ammonia – IV	Reforming Section-100	-	52	3.0	254053	11.50	99
		Syn. Unit-500	-	30	-	-	-	-
		CRG Unit-900	-	30	-	-	-	-
		CRG Unit-900	-	30	-	-	-	-
		Pre-desulphurization	-	-	-	-	-	-
4.	Melamine - I	Salt furnace	-	30	1.19	12000	3.58	129
5.	Melamine – II	Salt furnace	-	35	1.5	18000	3.87	99
6.	Back-up Power (DG Sets) for Melamine-III	DG Set (3000 kVA)	Adequate Stack Height	15	0.8	-	-	-
7.	Utility Boiler 4 & 5	Boiler 4 & 5	-	30	2.4	100000	8.22	130
8.	Cogeneration – I	Boiler	-	70	3.08	160000	-	-
9.	Cogeneration – II	Boiler	-	70	3.08	160000	-	-
10.	Cogeneration – III	Boiler	-	35	3.4	300000	-	-
11.	Capro – I	Waste Liquor Unit	Water scrubber	22	0.96	32000	11.85	66.00
12.	Capro – II	IWI Unit	ESP (Eff. 99.26%)	40	1.0	61450	-	-
13.	New CVL	New Boiler	-	70	3.5	96000	-	-

Sr. No	Plant	Stack attached to	Air Pollution Control Device	Height of stack (m)	Diameter (m)	Avg. Emission Rate (Nm ³ /hr)	Velocity (m/sec)	Temperature (°C)
	Boiler							
14.	Melamine – III	Salt furnace	-	30	1.2	12930	-	-
15.	DG Sets (Main s/s: 300 kW; Steam Gen: 500kW; CaproExp. : 800 kW; PA: 560 kW; Nylon-6: 450 kW; SA - IV: 500 kW; Cogen-III: 500 kW; Amm. -IV: 1000 kW; Data Centre: - 250 kVA; Methanol: 750 kVA; CQP DG :750 kVA; Nylon-6-II: 1250 kVA)	Adequate stack height provided for proper dispersion in atmosphere	Stack	-	-	-	-	-

Details of Existing Process Gas Stacks at GSFC

S. No	Plant	Stack attached to	APC Device	Diameter (m)	Stack height (m)	Avg. Emission Rate (Nm ³ /hr)	Velocity (m/sec)	Temperature (°C)
16.	Urea – I	Prilling Tower	Water Scrubber	4 x 1 (3 nos.)	38	155000	4.12	61
17.	Urea – II	Prilling Tower	Water Scrubber	1.45 x 4.36 (6 nos.)	70	520000	4.05	60
18.	Urea – Mel (Urea ECS)	Condenser oxidation Column	H ₂ SO ₄ Scrubber (Eff. 99.5%)	1.25	38	1200	-	-
19.	Melamine – I	Dryer Outlet	Filter	0.15	15	750	17.86	95
20.	Melamine – II	Dryer Outlet	Filter	0.15	17	950	18.22	98
21.	Phosphoric Acid	Rock Grinding Mill	Cyclone separator and bag filter	0.8	30	23000	13.95	58
22.	Phosphoric Acid	Digester	Fume scrubber	2.49	20	36000	12.75	35
23.	DAP/APS/MAP /NPK	Dryer & Dust Scrubber A Train & B Train	Cyclone separator & Ventury scrubber	1.43	30	65000	12.62 12.75	62 64
24.	DAP/APS/MAP /NPK	Granulator & Neutralization A Train & B Train	Fume Scrubber	1.02	25	35000	14.51 14.74	67 68

S. No	Plant	Stack attached to	APC Device	Diameter (m)	Stack height (m)	Avg. Emission Rate (Nm ³ /hr)	Velocity (m/sec)	Temperature (°C)
25.	AS-II	Dryer	Cyclone Separator	0.9	19.2	25000	12.37	54
26.	SA-III	Final Absorption Tower	Final Absorption Tower	1.22	52	33000	8.66	63
27.	SA-IV	Final Absorption Tower	Final Absorption tower	2.86	100	118000	13.71	66
28.	Capro-I	D-415-3 Tower O/L	Scrubber	0.43	25	25000	45.66	42
29.	Capro-I	D-414-3 Tower O/L	De Nox unit	1.0	25	8500	12	35
30.	Capro-II	AS Dryer	Cyclone Separator & Scrubber	1.016	30	35000	11.72	54
31.	Capro-II	AS Vent Scrubber	Scrubber	0.2	30	35	10	35
32.	New Nylon 6 Plant	Process Vessels	Scrubber	0.25	30	3200	-	-
33.	WSF & MM Plant	Crusher, Hopper, Mixers	Bag Filter	0.25	40	3000	-	-
34.	SAG	Vibro-feeder packing & handling unit	Bag Filter	0.152	12.2	4000	-	-
35.	Melamine – III	Dryer Outlet	Wet Scrubber	0.8	20	36000	-	-

S. No	Plant	Stack attached to	APC Device	Diameter (m)	Stack height (m)	Avg. Emission Rate (Nm ³ /hr)	Velocity (m/sec)	Temperature (°C)
36.		Vent Scrubber	Ammonia Scrubber	1.3	23	4000	-	-
37.		Melamine pneumatic transport system	Filter	0.3	15	1855	-	-
38.	AS-I	Dryer	Dust cyclone	0.54	21	18000	-	-
39.	S90 WDG	Dryer	Dust cyclone	0.91	18	16000	-	-

Details of Proposed Stacks at GSFC

S. No	Plant	Stack attached to	Air Pollution Control Device	MOC	Height of stack (m)	Di. (m)	Avg. flow Rate (Nm ³ /hr)	Velocity (m/sec)	Temperature (°C)	Emission with Parameter
1	Sulphuric Acid-V Plant*	Start-up Scrubber (Caustic Scrubber)	Demister Pad	Metal Pipe with RCC structure	69	3.1	50,480 Nm ³ /hr	1.88	82 °C (inlet)	SO ₂ < 1.5 Kg/MT SA
		Final Absorption Tower	Mist Eliminator and Candle Filter					8-9	191 °C (inlet)	SO ₂ < 1.5 Kg/MT SA
		DG Sets (600)	Stack Height	--	11.4	0.1	-	4.9	68	-

		kVA)								
2	Ammonium Sulphate-IV Plant	Dryer	Dust Cyclone	SS-304	30	0.9	27,027	36 ft/sec	50 - 65 Degree C	PM < 100 mg/nm ³
3	Technical Grade Urea	Since the proposed project is amalgamation of Melamine-III and Urea plants, there will be no additional of stacks for the same.						-	-	-

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

S. No	Name of Waste	Hazardous Waste Category	Quantity			Method of Collection/ Storage	Method of Disposal
			As per Authorization from GPCB/Existing*	Proposed	Total after Expansion		
1	Chemical sludge from Wastewater treatment plant	Sch-1/35.3	40 MT/Year	---	40 MT/Year	Generated during cleaning of tank/pond, packed in HDPE bags	Collection, storage, transportation, and disposal at approved TSDF sites of M/s Nandesari Environment Control Limited (NECL)/ M/s Saurashtra Enviro Project Pvt. Ltd. (SEPPL), Kutch.
2	Used Oil	Sch-1/5.1	250 MT/Year	--	250 MT/Year	Drums/Tanks in Room	Collection, storage, transportation, and Sale to registered re-refiner
3	Discarded Containers	Sch-1/33.3	10,000 Nos./Year	--	10,000 Nos./Year	Storage Yard	Collection, storage, & decontamination within factory premises and then transportation & Sale to Vendor
4	Spent Catalyst (Acidic)	Sch-1/17.2	35 MT/Year	31.35	66.35 MT/Year	Drums in Room	Dispose at TSDF/ Sell to register recycler

S. No	Name of Waste	Hazardous Waste Category	Quantity			Method of Collection/Storage	Method of Disposal
			As per Authorization from GPCB/Existing*	Proposed	Total after Expansion		
5	Spent Catalyst (Alkaline)	Sch-1/18.1	275 MT/Year	---	275 MT/Year	Drums in Room	Collection, storage, transportation, and Sale register recycler
6	Organic Waste	Sch-1/1.4	20 MT/Year	--	20 MT/Year	Drums/Bags stored in Room	Collection, storage, transportation Dispose at NECL's /SEPPL's incineration facility
7	Sulphur Muck**	Sch-1/17.1	350 MT/Year	180	530 MT/Year	Stored in the yards	Reuse by mixing with phosphogypsum or Filler in Product.
8	Spent Resin	Sch-1/34.2	80 MT/Year	---	80 MT/Year	Bags	Collection, storage, transportation, and Disposal at CHWIF/Co-processing site
9	Insulation waste	Sch-1/24.1	75 MT/Year	---	75 MT/Year	Bags	Collection, storage, transportation, and Disposal at TSDF
10	Contaminated cotton rags & other cleaning material	Sch-1/33.2	5 MT/Year	---	5 MT/Year	Bags	Disposal at CHWIF of M/s NECL /SEPPL/DIPL/BEIL/co-processing sites
11	Carbon Residue	Sch-1/35.3	7.7 MT/year			Bags	Collection, storage, transportation, and Disposal at authorized TSDF site.
12	Molten Salt (consisting of KNO ₃ , NaNO ₃ & NaNO ₂)	Sch-1/1.1	66 MT (in 7 years)			Bags	Collection, storage, transportation, and Reuse and/or disposal at authorized TSDF Site.

S. No	Name of Waste	Hazardous Waste Category	Quantity			Method of Collection/Storage	Method of Disposal
			As per Authorization from GPCB/Existing*	Proposed	Total after Expansion		
13	High Boiling Hydrocarbon	Sch-1/18.2	8.25 MT in a span of 7 years	--	8.25 MT in a span of 7 years	Drums	Disposal at secured landfill site of Bharuch Enviro Infrastructure Ltd. (BEIL)/Common Hazardous Waste Incinerator.
Solid Waste							
1	Phosphogypsum***	-----	2,53,260 MT/Year	--	2,53,260 MT/Year	Stored in the yards	Sold to Farmers as Soil conditioner thru authorized dealers.
2	Nylon Solid Waste		100 Kg/Day		100 Kg/Day	Stored in Plant	Sold to Vendor
3	Bio-sludge from ETP*	----	50 MT/year	-	50 MT/year	Bio sludge dried on Sludge Drying Bed	Given to farmers for use as manure
4	Municipal Solid Waste*	-----	4890 kg/day (for existing complex)	49	4939 kg/day	-	Segregated and disposed as per existing protocols.
Note: *All the Hazardous wastes are stored on impervious floor having roof, boundary wall. Discarded containers are thoroughly cleaned / decontaminated before disposal. ** Ground Sulphur Muck is being reused by mixing with Phosphogypsum. *** Phosphogypsum is excluded from the Hazardous Waste Category as per amended rule 2008 and it being sold to farmers as soil conditioner.							

The Project proponent will comply with the rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. The Onsite and Offsite Emergency plan will be implemented as cited in the provisions of the Rules.

Deliberations by the EAC:

The EAC, constituted under the provision of the EIA Notification, 2006 comprising Expert Members/domain experts in various fields, examined the proposal 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 proposed mitigation measures towards Air, Water, Noise and Soil pollutions. As committed by the PP the Committee suggested use Biomass Briquettes as a fuel. 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/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The Committee deliberated on the action plan and budget allocation for green belt development and suggested to complete plantation in one year and trees shall be planted considered 2m x 2m ratio inside the plant. The Committee found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee suggested that the PP shall undertake all the possible mitigation measures and latest techniques to reduce the impact of boilers.

The Committee deliberated noted that the project has obtained the Certified Compliance Report from RO, MoEF&CC, Bhopal vide File No. 5-33/2019 (Env)/560 dated 08.08.2021; File No. 18-A-59/2020(SEAC)/559 dated 08.08.2021 and File No. 5-193/2008(Env)/658 dated 05.10.2021. The Committee deliberated on the Certified Compliance Report and found it in order.

The Committee noted that recently the Ministry was granted the EC was to M/s Gujarat State Fertilizers & Chemicals Limited vide letter dated 24th January, 2022 under para 7(ii) of the EIA Notification, 2006, wherein, the proposal was deliberated in detail. The instant proposal is for amalgamation of all the EC granted to M/s Gujarat State Fertilizers & Chemicals Limited. The committee noted that the amalgamation of EC will ease the monitoring and compliance of EC conditions.

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

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

proposal in order and recommended for grant of environmental clearance.

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 and other Reports 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 treated waste water be discharged to common effluent channel of M/s Vadodara Enviro Channel Limited (VECL) for final discharge at sea conforming to the standards prescribed under the Environment (Protection) Rules, 1986. 741.8 KLD process effluent being generated from Urea, Melamine -I/II, AS-I & II will be directly discharged to Phosphoric Acid Plant.
- (iv).Total fresh water requirement shall not exceed 35732.45 KLD will be met from 4 no. of French wells sourced from Mahi River. Necessary permission obtained in this regard shall be renewed from time to time. The fresh water demand shall be reduced by 10% using rain water harvesting system.
- (v).The Unit shall comply with all the EC conditions/Safeguards/Mitigation measures, as mentioned in the existing ECs. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.
- (vi).The PP shall implement all the recommendations made in the Charter on Corporate Responsibility for Environmental Protection (CREP) for fertilizer industries.
- (vii).The project authorities shall install efficient scrubbing system to control emission and bag filters and other modern technology for dust control in the plant.

- (viii).No banned raw materials/chemicals shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government in this regard.
- (ix).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.
- (x).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 Integrated Regional Office of Ministry and SPCB along with the compliance report.
- (xi).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.
- (xii).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.
- (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).Necessary precautions shall be taken to avoid accidents and action plan shall be implemented for avoiding accidents.
- (xv).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.
- (xvi).The volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology.
- (xvii).The storm water from the roof top shall be channelized through pipes to the storage tank constructed for harvesting of rain water in the premises and harvested water shall be used for various industrial processes in the unit. No recharge shall be permitted within the premises. Process effluent/ any wastewater shall not be allowed to mix with storm water.
- (xviii).The company shall undertake waste minimization measures as below (a) Metering and control of quantities of active ingredients to minimize waste; (b) Reuse of by-products from the process as raw materials or as raw material substitutes in other processes. (c) Use of automated filling to minimize spillage. (d) Use of Close Feed system into batch reactors. (e) Venting equipment through vapour recovery system. (f) Use of high-pressure hoses for equipment clearing to reduce wastewater generation.
- (xix).The green belt of at least 5-10 m width shall be developed in nearly 40 % of the total project area, mainly along the plant periphery. 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 started from first year onwards.

- (xx).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.
- (xxi).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.
- (xxii).The Close loop solvent recovery system with adequate condenser system shall be provided to recover solvent vapors in such a manner that recovery shall be maximum and recovered solvent shall be reused in the process within premises (i.e. there is in-house solvent recovery and in-house distillation).
- (xxiii).The Leak Detection and Repair (LDAR) program shall be prepared and implemented as per the CPCB guidelines. LDAR Logbook shall be maintained.
- (xxiv).The Unit shall explore the possibilities for environment friendly methods for disposal of Incinerable & landfillable waste before sending to CHWIFT/TSDF sites respectively.
- (xxv).All measures shall be taken to prevent soil and ground water contamination.
- (xxvi).No further expansion or modifications in the plant shall be carried out without prior approval of the Ministry of Environment, Forest and Climate Change. 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 to assess the adequacy of conditions imposed and to add additional environmental protection measures required, if any
- (xxvii).The PP shall harvest rainwater from the roof tops of the buildings and storm water drains to recharge the ground water and utilize the same for different industrial operations within the plant.
- (xxviii).The Committee deliberated the Onsite and Offsite Emergency plan and various mitigation measures to be proposed during implementation of the project and advised the PP to implement the provisions of the Rules and guidelines issued under the Manufacture, Storage and Import of Hazardous Chemicals (MSIHC) Rules, 1989, as amended time to time, and the Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996. Necessary approvals from the Chief Controller of Explosives and concerned Govt. Authorities shall be obtained before commissioning of the project. Requisite On-site and Off-site Disaster Management Plans have to be prepared and implemented.

Agenda No. 26.10

Setting up of Active Pharmaceutical Ingredients (API's) manufacturing unit of production capacity 2184 MTPA located at Plot No: F-27 MIDC Chincholi, Village Chincholi, Taluka: Mohol, District: Solapur, Maharashtra by M/s. PBL Life Care Pvt. Ltd- Consideration of Environmental Clearance

[Proposal No. IA/MH/IND3/232542/2021; File No. IA-J-11011/210/2021-IA-II(I)]

The project proponent **did not attend** the EAC meeting. The PP, vide email dated 15.02.2022, requested to postpone the proposal due to medical emergency from PP side. The Committee, after detailed deliberation, accepted the request of PP and the proposal may be further placed before the EAC based on the request of PP.

Agenda No. 26.11

Proposed Active Pharmaceutical Ingredients and Mineral Salts Formulation unit located at Plot No.81-A, SIPCOT Phase-I Industrial Complex, Village Zuzuvadi, Taluka Hosur, District Krishnagiri, Tamil Nadu by M/s Quest Healthcare Private Limited in production capacity from TPM to TPA - Corrigendum in Environmental Clearance

[Proposal No. IA/TN/IND3/253168/2022; File No. J- 11011/36/2013-IA-II (I)]

The proposal is for corrigendum in Environmental Clearance issued vide J- 11011/36/2013-IA-II (I) dated 10.07.2017 i.e. unit of production capacity from TPM to TPA for proposed Active Pharmaceutical Ingredients and Mineral Salts Formulation unit located at Plot No.81-A, SIPCOT Phase-I Industrial Complex, Village Zuzuvadi, Taluka Hosur, District Krishnagiri, Tamil Nadu by M/s Quest Healthcare Private Limited

The project proponent has requested for corrigendum 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 modified/up dated	Justification / Reasons
1.	POINT No 4 of the Said Environmental Clearance	Change in Unit of Production Quantity from TPM to TPA					TPA	EAC deliberated the issues and noted that that this is typographical error and
		S. No	PRODUCT	QTY	UNIT			
					As in EC	AMENDMENT REQUESTED AS		
		1	Mineral Salts of Gluconate,			TPA		

			Citrate, Lactate, Lactobionate, Fumerate, Orotate, Pidolate, Aspartate, Ascorbate, Glubionate, Etc	15 00	TP M			factual in nature and recomme nded for the correction in minutes.
		2	Perazindimale ate	9	TP M		TPA	
		3	GlyceroPhosp hates	30	TP M		TPA	
		4	Carbasalate Calcium	9	TP M		TPA	
		5	Iron Sucrose	36	TP M		TPA	
		6	TMS (Tiemonium Methyl Sulphate)	18	TP M		TPA	
		7	Alendronate Sodium	15	TP M		TPA	
		8	Beta Glycero Phosphate	11. 9	TP M		TPA	
		9	Phenrocoumo n	3	TP M		TPA	
		10	Strontium Ranelate	6	TP M		TPA	
		11	Calcium D Saccarate	18	TP M		TPA	
		12	Calcium Dobesylate	15	TP M		TPA	
		13	Ethamslate	6	TP M		TPA	
		14	Benfotiaine	18	TP M		TPA	
		15	Tolperisone HCL	9	TP M		TPA	
		16	Dobutamine HCL	6	TP M		TPA	
		17	Calcium Folinate	0.1	TP M		TPA	

		TOTAL	17	TP	TPA		
			10	M			
2.	POINT No 2 of the Said Environmental Clearance	<p>“The Ministry of Environment Forest and Climate Change has examined the application. It is noted that proposal is for Proposed Active Pharmaceutical Ingredients and Formulations manufacturing (total capacity – 40 MTPA) at plot 81 A, SIPCOT I, Industrial Area, village Zuzuvadi, Taluk Hosur, Krishnagiri District, Tamil Nadu by M/s Quest Healthcare Pvt Ltd. The land area for proposed project is 16,023.32 m² (3.95 Acres). Industry will develop greenbelt in an area of 35% i.e., 5608.16 m².</p>	<p>“The Ministry of Environment Forest and Climate Change has examined the application. It is noted that proposal is for Proposed Active Pharmaceutical Ingredients and Mineral Salts manufacturing (total capacity – 1710 MTPA) at plot 81 A, SIPCOT I, Industrial Area, village Zuzuvadi, Taluk Hosur, Krishnagiri District, Tamil Nadu by M/s Quest Healthcare Pvt Ltd. The land area for proposed project is 16,023.32 m² (3.95 Acres). Industry will develop greenbelt in an area of 35% i.e., 5608.16 m².</p>	EAC deliberated the issues and noted that that this is typographical error and factual in nature and recommended for the correction in minutes.			

Deliberations in the EAC

It was informed to the Committee that Environmental Clearance was issued by the Ministry vide letter no. J- 11011/36/2013-IA-II (I), dated 10.07.2017 to the instant proposal.

The EAC deliberated the issues and noted that the request of the PP is typographical error and factual in nature and **recommended** for the corrections in the EC granted to the project. The EAC, after detailed deliberations, **recommended** the above mentioned correction.

The meeting ended with thanks to the Chair.

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 Bungalow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
3.	Prof. (Dr.) S. N. Upadhyay Research Professor(Hon.), Department of Chemical Engineering & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi E-mail: snupadhyay.che@iitbhu.ac.in	Member
4.	Prof. (Dr.) 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.	Shri Sanjay Bisht Scientist 'E', Room No. 517, Office of the Director General of Meteorology, Indian Meteorological Department, Musam Bhawan, Lodhi Road, New Delhi -110003 E-mail: sanjay.bist@imd.gov.in	Member
10.	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
11.	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 26th EAC (Industry 3 Sector) meeting held during February 16-17, 2022 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir.

From : ab pandit <ab.pandit@ictmumbai.edu.in> Wed, Feb 23, 2022 04:40 PM

Subject : Re: Zero Draft Minutes of the 26th EAC (Industry 3 Sector) meeting held during February 16-17, 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>, ashoksaxena1159@gmail.com, snupadhyay che <snupadhyay.che@iitbhu.ac.in>, dwivedisuneet@rediffmail.com, suneetdwivedi@gmail.com, santoshgo@gmail.com, pkmishra che <pkmishra.che@itbhu.ac.in>, drpkm18@gmail.com, spcpri@gmail.com, tmkarne@gmail.com, Dinabandhu Gouda <dinabandhu.cpcb@nic.in>, Sanjay Bist <sanjay.bist@imd.gov.in>, vmoholkar@iitg.ac.in, Rakesh kushwaha <kushwaha-cgwb@gov.in>

Dear Dr. Lal,
Please find the attached signed MOM's .
Sorry for the delay. Have been busy since morning,
Warm Regards
Pandit

The Minutes have been approved


