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

***

Dated: 09.07.2021

APPROVED MINUTES OF THE 13th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD DURING JULY 1-2, 2021

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

Time: 10:30 AM onwards

DAY 1 - 1st JULY, 2021 (THURSDAY)

(i) Opening Remarks by the Chairman

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

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

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

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

(iii) Confirmation of the Minutes of the 12th Meeting of the EAC (Industry-3 Sector) held during June 17-18, 2021 at MoEFCC through VC.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC (Industry-3 Sector) members on the minutes of its **12th Meeting of the EAC (Industry-3) held on June 17-18, 2021** conducted through Video Conferencing (VC), and as such two requests has been received for modifications, in the minutes of the project/activities, **confirmed the same with following typographical corrections.**

Correction in the minutes of the meeting

(a) Agenda No. 12.3 of the EAC Meeting held on June 17-18, 2021

Manufacturing Pesticides at Village Kolimajra & Samalheri, P.O. Lalru, Tal. Dera Bassi, Dist.: SAS Nagar, Punjab by M/s Punjab Chemicals and Crop Protection Ltd(Unit-II) - Consideration of Environmental Clearance

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

The proposal for environmental clearance to the project for manufacturing pesticides at Village Kolimajra & Samalheri, PO Lalru, Taluka Dera Bassi, District SAS Nagar, Punjab by M/s Punjab Chemicals and Crop Protection Ltd(Unit-II) was recommended by the EAC (Industry-3) in its meeting held on 17-18 June, 2021.

Subsequent to the recommendations of the EAC, the project proponent vide letter dated 26th June, 2021 has pointed out typographical error in the fresh water quantity stipulated in the condition i.e.95 cum/day instead of 140 cum/day.

The Committee noted that the fresh water requirement estimated for the project is 140 cum/day, which is in line with the submissions of the PP, presentation and EIA report. The Committee noted the error happened is typographical and **recommended** to correct the fresh water quantity as 140 cum/day. All other terms and conditions remain unchanged.

(b) Agenda No. 12.6 of the EAC Meeting held on June 17-18, 2021

Setting up of Active Pharmaceutical Ingredients (API's) manufacturing unit of capacity 4470 TPA by M/s IPCA Laboratories Limited at Village Hingni, Taluka Seloo, District Wardha, Maharashtra- Environmental Clearance- reg.

[Proposal No. IA/MH/IND2/206120/2021, F.No. J-11011/141/2021-IA-II(I)]

The proposal was earlier considered by EAC (Industry-3) in its meeting held on 17-18 June, 2021 and **recommended** for environmental clearance. The project proponent has requested for correction in minutes vide their letter dated 28.06.2021 stating that there was typographical error in the Annexure-I submitted by the project proponent/Consultant. The details of the correction sought is as under:

S. No.	Recorded in minutes dated 17-18 June, 2021	Revision sought
1	The proposed project cost is about Rs.5.53 crores. Total capital cost earmarked towards …	The proposed project cost is about **Rs.553 crores**. Total capital cost earmarked towards …
2	Industry will develop greenbelt in an area of 2694.3 sqm. which is 33.3% out of the total project area	Industry has already developed greenbelt in an area of **106076.88 sqm. which is 35.26% out of the total project area.** In addition to this 5300 Nos of trees will be planted in green belt at a distance of 2 m x 2.5 m to achieve 2000 Nos of trees/ Ha.

		To strengthen the Green belt the additional plantation will be done towards the protected forest by using Miyawaki plantation technique using indigenous species. This additional plantation will work as buffer area between Factory site and Forest area. Around 5000 Nos of Tree species will be planted within 1 year. Miyawaki technique results in dense plantation at a faster rate and has better capacity to absorb pollutants.

The Committee, after detailed deliberation, **recommended** the above proposed **corrections as they were typographical in nature** and reiterated its stand for recommendation of environmental clearance as per minutes of the meeting held on 17-18 June, 2021.

The Committee, warned the Consultant [M/s Goldfinch Engineering Systems Private Limited] that such typographical error should not happen in future while submitting the summary of the project and read the documents before submission to the Committee.

The EAC confirmed the minutes with above typographical corrections.

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

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

Consideration of Environmental Clearance

Agenda No. 13.1

Expansion in Nirma Chemical complex by M/s Nirma Limited, located at Village Kalatalav, Taluka Bhavnagar, District- Bhavnagar, Gujarat-Consideration of Environmental & CRZ Clearances

[Proposal No.: IA/GJ/IND3/215076/2014; File No. J-11011/369/2014-IA-II(I)]

The Project Proponent and the accredited Consultant M/s Kadam Environmental Consultants made a detailed presentation on the salient features of the project and informed that:

The proposal is for Environmental & CRZ Clearance to the project for Expansion in Nirma Chemical Complex located at Village Kalatalav, Taluka & District Bhavnagar, Gujarat by M/s Nirma Limited.

The details of products and capacity as under:

Product Group

S. No.	Products/By-Products	Category	Unit	Capacity		
				Existing	Proposed	Total
1	Soda Ash	4 (e)	TPD	2,800	1,500	4,300
2	Caustic Soda	4 (d)	TPD	750	250	1,000
3	Captive Co-generation Power Plant	1(d)	MW	197.18	152.82	350
	Chlorine & Hydrogen Derivatives	5(f)	TPD	1157	0	1157
4	Toilet Soap Plant	EC not required	TPD	1346.32	0	1346.32
5	Bromine		TPD	20	0	20

Detailed Product List

S. No.	Products/By-Products	Unit	Capacity		
			Existing	Proposed	Total
1	**Soda Ash Plant - 4 (e)**				
A	Light Soda Ash	TPD	2,800	1,500	4,300
B	Dense Soda Ash*	TPD	1,800	600	2,400
C	Refined Sodium Bicarbonate (RBC) - Non-EC Product	TPD	400	0	400
D	Pure Water	M^3/D	6,720	0	6,720
E	Vacuum Salt - Non-EC Product	TPD	2,400	0	2,400
2	**Caustic Soda Plant - 4 (d)**				
A	Product				
	Caustic Soda (100%)	TPD	750	250	1,000
	Hydrochloric Acid (100%)	TPD	280	220	500
B	By-Products				
	Chlorine Gas (100%)	TPD	665.2	220.8	886
	Hydrogen (100%)	TPD	18.75	6.25	25
	Sodium Hypo Chlorite (100%)	TPD	12	3	15
3	**Cogeneration Plant - 1(d)**				
	Power	MW	197.18	152.82	350
4	**Toilet Soap Plant -** EC not required				
	Toilet Soap	TPD	200	0	200
	Detergent Powder	TPD	414.66	0	414.66
	Detergent Cake	TPD	414.66	0	414.66
	Fatty Acid	TPD	150	0	150
	Glycerin	TPD	167	0	167
5	**Chlorine & Hydrogen Derivatives - 5(f)**				
A	Hydrogen Peroxide (100%)	TPD	84	0	84
B	Epichlorohydrin (ECH)	TPD	150	0	150
C	Glycerin	TPD	160	0	160
D	Mono Chloro Acetic Acid (MCAA)	TPD	120	0	120

	By-Products				
	Hydrochloric Acid (100%)	TPD	48	0	48
	Mother Liquor of MCAA	TPD	30	0	30
	Sodium Hypo Chlorite (100%)	TPD	10	0	10
	Product				
E	Tricolor Acetyl Chloride (TCAC)	TPD	10	0	10
	By-Product				
	Hydrochloric Acid (100%)	TPD	9	0	9
	Sodium Hypo Chlorite (100%)	TPD	1	0	1
	Sodium Bisulfite Solution (100%)	TPD	3	0	3
F	Calcium Chloride (100%)	TPD	152	0	152
	Calcium Chloride Granules	TPD	160	0	160
	By-Product				
	CO_2 Gas	TPD	60	0	60
	Solid CO_2 (Dry Ice) & / or Liquid CO_2	TPD	60	0	60
G	Phosphoric Acid (61.5% P_2O_5)** - *EC not required*	TPD	100	0	100
6	**Bromine Plant** - EC not required				
	Bromine	TPD	20	0	20

*Note: * Dense Soda Ash is conversion of Light Soda Ash. It is a part of total light soda ash product capacity. Therefore, light soda ash of 4300 TPD capacity will be installed and sold as either light soda ash OR dense soda ash upto 2,400 TPD or a combination thereof.*

*** Only Phosphoric Acid Plant is commissioned.*

The project/activities are covered under Category 'A' of item 5(f) 'Synthetic Organic Chemicals Industry', 4(d) 'Chlor-Alkali Industry', 4 (e) 'Soda ash Industry' and 1(d) 'Thermal Power Plants' of the Schedule to the Environment Impact Assessment Notification, 2006, and requires appraisal at Central Level by the Expert Appraisal Committee (EAC) in the Ministry.

The project proposal was considered by the Expert Appraisal Committee (Industry-2) in its 33rd Meeting held during 23rd January, 2018 and recommended Terms of References (ToRs) for the Project. The ToR has been issued by Ministry vide letter No. J-11011/560/2017-IA-II(I) dated 5th April, 2018. Subsequently, ToR amendment proposal was considered by the EAC (Industry-2) in its 39th Meeting held during 26th July, 2018 and amendment in ToR has been issued by the Ministry vide letter dated 18th December, 2018.

Public Hearing for the project has been conducted by the Gujarat Pollution Control Board on 12th October, 2020 after rescheduling it from 15th April, 2020 due to nationwide COVID-19 pandemic, which was presided over by the District Collector. Since, project is existing from more than 20 years, public has welcomed the proposed project. No environmental issues about the project were pointed out. The main suggestions of public during the public hearing are for more CSR work of company in animal husbandry, local employment for villagers mainly SC & ST, strengthen drinking water supply, provision of streetlights, greenbelt development in village roads etc. area. Satisfactory clarification/response/commitments were

given by Nirma to address all the issues raised during public hearing and in written replies for the written queries. No litigation pending against the proposal.

The Ministry had issued ECs earlier vide letter No. J-11011/456/2007-IA-II(I) dated 24.06.2008 for Membrane Cell Based Caustic Soda Plant (240 TPD) along with Lignite/Coal Based Captive Power Plant (23 MW) and Pure Water Plant (2.240 m3/day), vide letter No. J-11011/423/2010-IA-II(I) dated 08.08.2014 for expansion of Soda Ash Plant, Caustic Soda Plant & CPP and vide letter No. J-11011/369/2014-IA-II(I) dated 10.03.2017 for expansion of Synthetic Organic unit, Soda Ash Plant, Caustic Soda Plant and CPP in favor of M/s Nirma Limited.

The project proponent had earlier obtained CRZ Clearances vide Letters no. Env-1099-1740-P1 dated 19.08.2000 & Env-10-1099-1371-P dated 21.07.2010 from DoEF for Laying of Treated effluent disposal pipeline for Soda Ash Plant, vide Letters no. J-16011/25/2003-IA-III dated 11.08.2004 from MoEF and Env-10-2003-54-P dated 24.09.2004 from DoEF for development of Salt works and Disposal of Bittern.

Site visit was carried out by RO-MoEF&CC, Bhopal (West Zone) to verify conditions as stipulated in previous environmental clearances on 15th July, 2018. Certified Monitoring & Compliance report was received from Regional Office of MoEF&CC, Bhopal vide letter F. No: 5-12/2017(ENV)/531 dated 4th Oct, 2018.

The proposed project involves activities fallowing under CRZ areas i.e. Alternate sea water intake station, New Disposal Point for effluent disposal and new Disposal Point for Once through Cooling Water for which GCZMA recommendation has been obtained vide Letter no. ENV-10-2020-47-E dated 25.02.2021.Due to proposed project @ 0.25 ha mangroves area will be affected and for the same compensatory mangroves afforestation in 5 ha in consultation with Forest Department will be carried out within one year from the commencement of the project. The project proponent has developed mangroves plantation in 153 Ha. area at Bhavnagar Creek, Sonarai Creek and Vadgam in consultation with Forest Department.

The total land area of the complex is 22,49,458 sqm., out of which 4,00,824 m^2 will be used for proposed expansion. Industry has developed greenbelt in an area of 30%, which will be increased to 33% of total plot area within six months leading to 1,50,000 trees standing at the plant premises at all times. The estimated project cost is Rs. 1,320 crores, apart from existing investment of Rs. 3,110 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 63.5 Lakhs and the recurring cost (operation and maintenance) will be about Rs 15.97 Lakhs per annum. The project will lead to employment for 1,730 persons directly and 2,200 persons indirectly after expansion. Industry proposes to allocate Rs 3.3 Crores towards Corporate Environment Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. within 10 km from the project site. Keri river flows at a distance of 2.8 Km in SW direction. Malcolm channel is at 8 km in E direction, Bhavnagar Creek is at 3 km in SE direction and Sonarai Creek is at 8 km in E direction from the project site.

Ambient air quality monitoring was carried out at 9 locations during October, 2017 to January, 2018 and the baseline data indicates the average ranges of concentrations as: PM_{10} (83 – 88 µg/m^3), $PM_{2.5}$ (21 – 29 µg/m^3), SO_2 (8.5 – 12.2 µg/m^3), NO_x (7.1 – 11.8 µg/m^3), Cl_2 (1.8 – 3.6 µg/m^3), CO (1.08 – 1.32 mg/m^3), HC (1,186 – 1,316 µg/m^3), HCl (<1.0 µg/m^3), Hg (<1.0 µg/m^3) and NH_3 (<10 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 4.31 µg/m^3 for PM_{10}, 25.7 µg/m^3 for SO2, 13.92 µg/m^3 for NO_X, 0.1 µg/m^3 for HCl, 0.045 µg/m^3 for Cl2, 1.53 µg/m^3 for NH_3, 0.00292 mg/m^3 for CO, 4.83 µg/m^3 for HC. In addition, supplementary baseline was carried out during April-May, 2021 to validate the above data and the average ranges of concentrations are: PM_{10} (85 – 92 µg/m^3), $PM_{2.5}$ (21 – 33 µg/m^3), SO_2 (8.9 – 14.3 µg/m^3), NO_x (6.81 – 12.8 µg/m^3), Cl_2 (1.7 – 3.4 µg/m^3), CO (1.15 – 1.59 mg/m^3), HC (1,260 – 1,785 µg/m^3), HCl (<1.0 µg/m^3), Hg (<1.0 µg/m^3) and NH_3 (<10 µg/m^3). The ambient air quality is comparable to the earlier monitored baseline. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement will be met from sea water. Total water demand will increase from 20,06,592 KLD to 23,70,745 KLD for which fresh sea water drawl will increase from 14,06,000 KLD to 17,66,000 KLD. Further industry commits to ensure that at all times, 30% of total water requirement will be recycled.

The effluent discharge at Malcolm channel (Soda ash Plant, Chlorine & Hydrogen Derivatives, Calcium Chloride, Phosphoric Acid, proposed bittern from salt work effluents) shall be 60000 KLD. The effluent discharge at Bhavnagar creek (existing bittern from Salt work) shall be 6000 KLD. There shall be disposal of 2,23,000 KLD permanently and 8,22,844 KLD during monsoon/emergency of once through cooling tower effluent at Bhavnagar creek.

Power requirement after expansion will be 350 MW including existing 197.18 MW and will be met from Captive Cogeneration Plant. Existing unit has 5 DG sets of 6,000 kVA capacity, additionally 2 DG sets of 3,850 kVA capacity will be installed as standby during power failure. Stack height of 30 m will be provided as per CPCB norms to the proposed DG sets.

Existing unit has permission for 1500 TPH Coal/Petcoke/Lignite fired boilers, out of which 1,010 TPH Coal/Petcoke/Lignite fired boilers are in operation. Balance existing capacity of 490 TPH along with proposed 510 TPH Coal/Petcoke/Lignite fired boilers will be installed. ESPs with a stack of height of 121 m will be installed for controlling the particulate emissions within the statutory limits for the proposed boilers.

Details of Flue Gas Stacks

S. No.	Stack Attached to	Existing/ Proposed	Fuel & its Consumption	Stack Height (m)	Stack Top Dia(m)	APCM	Pollutants
Soda Ash Plant							
1	Boiler - A, B, C & D (100 TPH Each)	Existing	Lignite-71 MT/hr &/or Coal-50 MT/hr &/or Pet coke-50 MT/hr	100 (Common Stack)	5.04	ESP to each boiler	PM, SO_2, NO_X
2	DG Set (1000	Existing	HSD-8.6 Litres/Min	24 (each)	0.2	_	PM, SO_2, NO_X

	KVA) 2 No.						
3	DG Set (2000 KVA)	**Proposed**	HSD- 400 KL/Month	30	0.32	_	PM, SO_2, NO_X
Caustic Soda & Co-generation Plant							
1	Boiler - E (200 TPH)	Existing	Lignite-55 MT/hr &/or Coal-55 MT/hr &/or Pet coke-25 MT/hr &/or LDO (for starting of CFBC boiler)- 54.8 KL/Year	121 (Common Stack)	4.5	ESP	PM, SO_2, NO_X
2	As per EC 2014 Boiler - F (200 TPH) – Not Installed Yet	Existing	Lignite-55 MT/hr &/or Coal-55 MT/hr &/or LDO (for starting of CFBC boiler)- 54.8 KL/Year			ESP	PM, SO_2, NO_X
3	As per EC 2017 Boiler - G & H (350 TPH each) – Installed One boiler having capacity 410 TPH	Existing	Lignite-135 MT/hr &/or Coal-15 MT/hr &/or Pet coke-70 MT/hr LDO (for starting of CFBC boiler)- 100 KL/Year	121 (Common Stack)	13.4	ESP	PM, SO_2, NO_X
4	DG Set (1,000 KVA)	Existing	HSD-144 KL/Month	30	0.32	--	PM, SO_2, NO_X
5	DG Set (1,500 KVA)	Existing	HSD-440 KL/Month	30	0.32	_	PM, SO_2, NO_X
6	DG Set (1,500 KVA)	Existing				_	PM, SO_2, NO_X
7	DG Set (1,850 KVA)	**Proposed**	HSD-340 KL/Month	30	0.32	--	PM, SO_2, NO_X

8	Boiler-I & J (410 TPH + 130 TPH)*	**Proposed**	Lignite-245 MT/hr &/or Coal-240 MT/hr &/or Pet coke-93 MT/hr LDO (for starting of CFBC boiler)-163 KL/Year	121 (Common Stack)	13.4	ESP	PM, SO_2, NO_X
Toilet Soap Plant							
1	Thermic Fluid Heaters-10,00,000 Kcal/hr (3 Nos.)	Existing	FO-360 kg/hr	45	0.4	--	PM, SO_2, NO_X
Chlorine & Hydrogen Derivatives							
1	Furnace (Calcium Chloride)	Existing	Coal-75 TPD	27	0.315	Bag Filter	PM, SO_2, NO_X
Note: * Capacity of proposed boilers may vary however total proposed capacity of steam generation will remain same as 540 TPH.							

Details of Process Stacks/Vents

Sr. No.	Vent Attached to	Existing / Proposed	Stack Height(m)	Stack Dia.(m)	Air Pollution Control System	Pollutant
1	**Soda Ash Plant – Existing & Proposed**					
	Lime Kilns (A to H) – 8 nos.	Existing	68 (Common Stack)	0.8	4 scrubbers and 3 ESP in Series	PM, SO_2, NO_x
	Ammonia Recovery System (A to E) – 5 No.	Existing	56 (Common Stack)	0.75	Brine Scrubbers (5 nos.)	Ammonia
	Lime Grinding System (A to E) – 5 nos.	Existing	60 (each)	0.65	Bag Filter	PM
	Calcinations Vessel (A to D) – 4 nos.	Existing	29 (each)	0.7	Water Scrubber	PM
	Densification 1	Existing	40	1.37	Water Scrubber	PM
	Densification 2	Existing	51	1.37	Water Scrubber	PM
	Densification 3	Existing	51	1.37	Water Scrubber	PM
	Drier Exhaust Air (RBC Plant)	Existing	28	1.01	Cyclone and Bag Filter	PM

	De-dusting system (RBC Plant)	Existing	54	0.43	Bag filter	PM
	Lime Kilns (I to L) – 4 nos.	**Proposed**	68 (Common Stack)	0.8	Two scrubbers and two ESP in Series	PM, SO_2, NO_x
	Ammonia Recovery System (F & G) – 2 nos.	**Proposed**	56 (Each)	0.75	Brine Scrubbers (2 nos.)	Ammonia
	Lime Grinding System (F) – 1 nos.	**Proposed**	60	0.65	Bag Filter	PM
	Calcinations Vessel (E & F) – 2 nos.	**Proposed**	29 (Each)	0.7	Water Scrubber	PM
	Densification 4	**Proposed**	51	1.37	Water Scrubber	PM
2	**Caustic Soda and CPP - Existing & Proposed**					
	HCl Synthesis Unit – 1	Existing	30	0.1	Water Scrubbers	HCl & Cl_2
	HCl Synthesis Unit – 2	Existing	30	0.1	Water Scrubbers	HCl & Cl_2
	HCl Synthesis Unit – 3	Existing	30	0.1	Water Scrubbers	HCl & Cl_2
	HCl Synthesis Unit – 4	Existing	30	0.1	Water Scrubbers	HCl & Cl_2
	HCl Synthesis Unit – 5	**Proposed**	30	0.1	Water Scrubbers	HCl & Cl_2
	Waste Gas Dechlorination System – 1	Existing	30	0.3	18% NaOH Scrubber	Cl_2
	Waste Gas Dechlorination System – 2	Existing	30	0.3	18% NaOH Scrubber	Cl_2
	Waste Gas Dechlorination System – 3	Existing	30	0.3	18% NaOH Scrubber	Cl_2
	Hydrogen unit with Flame arrestor and steam snuffing – 1	Existing	30	--	--	--
	Hydrogen unit with Flame arrestor and steam snuffing – 2	Existing	30	--	--	--
	Hydrogen unit with Flame arrestor and steam snuffing – 3	Existing	30	--	--	--
	Hydrogen unit with Flame arrestor and steam snuffing – 4	Existing	30	--	--	--
	Hydrogen from seal pot	Existing	30	--	--	--

	vent near hydrogen holder					
	Hydrogen from safety valves of hydrogen compressor and truck filling manifold – 6	Existing	30	--	--	--
3.	**Bromine Plant**					
	De-bromination System	Existing	30	0.3	Alkali Scrubber	Bromine
4.	**Chlorine & Hydrogen Derivatives**					
	Leaching Plant (Phosphoric Acid)	Existing	30	0.75	Water scrubber + Caustic Scrubber	Cl_2, Fluorine
	Purification Plant (Phosphoric Acid)	Existing	30	0.65	Water scrubber	Cl_2, Fluorine
	Granulation Plant (Calcium Chloride)	Existing	27	1.00	Water scrubber	HCl, Cl_2

Process emissions like PM, SO_2, NO_x, Ammonia, HCl & Cl_2 will be generated from various additional 11 point sources (process vents/stacks). It will be managed by installing APCMs like various scrubbers with ESP, Brine scrubber, Bag filters & Water scrubbers. Industry will install CFBC boilers with efficient APCMs, i.e. ESP, adequate Stack height & Limestone dosing system. The industry will explore other possible fuel sources for its boiler and general operations besides coal, lignite and pet coke.

Solid waste/ Hazardous waste generation and its management is as shown below:

Hazardous Waste:

S. No	Hazardous Waste	Category	Quantity (MTPA)			Storage method	Mode of Disposal
			Existing	Proposed	Total After Expansion		
1	**Soda Ash Plant**						
	Used Oil	5.1	11	5	16	Kept in containers & placed in dedicated storage area	Recycled as lubricant & Sold to Registered Recyclers
	Spent ion exchange resins	35.2	1.464	0.78	2.24	Stored in containers and placed in dedicated storage area	Sold to authorized recyclers or sent to SEPPL/NECL for Incineratio

							n.
	Discarded containers/ Barrels/empty drums/empty bags	33.1	3.5	2	5.5	On-site storage area	Sold to authorized recyclers
2	**Caustic Soda Plant**						
	Used Oil	5.1	30	10	40	Kept in containers & placed in dedicated storage area	Recycled as lubricant & Sold to Registered Recyclers
	Spent ion exchange resins	35.2	2.56	1	3.56	Stored in containers and placed in dedicated storage area	Sold to authorized recyclers or sent to SEPPL/NECL for Incineration.
	Discarded containers/ Barrels/empty drums/empty bags	33.1	4.5	1.5	6	On-site storage area	Sold to authorized recyclers
	Inorganic Acid (Spent Sulphuric Acid – 80%)	II/B-15	6,520	2,173	8,693	On-site storage area	Reused as raw material for Nirma Ltd. Moraiya and other end users.
3	**Toilet Soap Plant**						
	Used Oil	5.1	0.45	0	0.45	Kept in containers & placed in dedicated storage area	Recycled as lubricant & Sold to Registered Recyclers
	ETP sludge	35.3	48	0	48	ETP area within the site	Disposed to TSDF
	Organic Oxygen Compounds	C28-II	72	0	72	Stored in containers near source	Sold to M/s. Ultratech

	(Glycerine foot)					of generation	Cement for Co-incineration in cement kiln/ SEPPL/NECL for Incineration.
	Inorganic Acid (Spent Sulphuric Acid – 80%)	II/B-15	24,000	0	24,000	On-site storage area	Reused in Nirma Ltd. Moraiya and other end users.
4	**Chlorine & Hydrogen Derivatives**						
	Used Oil	5.1	5.5	0	5.5	Kept in containers & placed in dedicated storage area	Recycled as lubricant & Sold to Registered Recyclers
	Spent activated carbon	35.3/I	85	0	85	On-site storage area	Disposed at CHWIF
	Neutralised cake/Gypsum Cake	35.3	2600	0	2600	On-site storage area	Disposal at TSDF

Non Hazardous Waste:

S. No.	Solid Waste	Quantity (TPD)			Storage Method	Mode of Disposal
		Existing	Proposed	After Expansion		
1	Brine Sludge	37	16	53	Within site	Used in road construction, salt works bund preparation
2	Fly ash/ Bottom ash	2,185	1,693	3,878	Closed silos	Cement manufacturing, Brick manufacturing, bund preparation, road making etc.
3	Settling Pond Sludge	880	482	1,362	Within site	Used in road construction, salt works bund

						preparation
4	Lime stone rejects /under size	700	375	1,075	Within site	Used in boilers for desulphurization

Deliberations in the EAC:

The EAC, constituted under the provision of the EIA Notification, 2006 comprising Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired format along with EIA/EMP reports prepared and submitted by the Consultant accredited by the QCI/ NABET on behalf of the Project Proponent. The EAC noted that the project involving EC & CRZ clearance requires appraisal by the sectoral EAC after obtaining comments on the CRZ angle from the concerned sector of the Ministry.

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/Marine EIA/EMP report. 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/Marine EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental status and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee noted that the unit will install efficient APCMs, i.e. ESP, adequate Stack height & Limestone dosing system for controlling the process emissions. The Committee suggested that the PP shall undertake all the possible mitigation measures and latest techniques to reduce the impact of boilers and cogeneration power plant. The Committee also deliberated on the activities/action plans and found them addressing issues raised in the public hearing. The Committee suggested that the storage of toxic/explosive raw materials shall be in bare minimum quantity and inventory. The Committee deliberated on the greenbelt development in the unit complex and suggested PP to develop greenbelt in 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. The Committee suggested to develop 2500 trees/hectare covering greenbelt around the periphery of the plant/complex. The Committee suggested that the project proponent shall complete the mangrove development plan in letter and spirit.

The Committee noted that the Ministry had issued EC earlier vide letter dated 24th June, 2008, 8th August, 2014 and 10th March, 2017 for the existing projects in the complex. The Committee also noted that the project proponent had obtained CRZ Clearances earlier vide letters dated 14th October, 1988; 19th August, 2000; 24th September, 2004 and 21st July, 2010 (amendment) from the Forest and Environment Department, Government of Gujarat and vide letters dated 11th August, 2004 from the Ministry for the project/activities in the CRZ area. The certified Compliance Report of existing ECs forwarded by the Ministry's IRO, Bhopal vide letter dated 4th October, 2018 after conducting site visit on 15th July, 2018 was

found to be satisfactory. The Committee also deliberated on the latest six monthly compliance report submitted by the project proponent and found to be satisfactory

The Committee noted that the Forest and Environment Department, Government of Gujarat vide letter dated 25th February, 2021 has recommended for CRZ clearance to the project for 'Seawater intake and treated effluent discharge pipelines for the proposed expansion in Nirma Chemical complex at Village Kalatalav, Taluka and District Bhavnagar', based on the decisions taken in the 54th meeting of the Gujarat Coastal Zone Management Authority held on 27th January, 2020, as per the provisions contained in the CRZ Notification, 2011. The comments of the concerned sector in the Ministry has also been obtained on the CRZ angle. The Member Secretary, EAC (CRZ) was also attended the meeting and provided comments.

The Committee opined that the project proponent shall explore utilization of cleaner fuels like natural gas/briquettes in the unit. The Committee suggested that hydrogen produced from the unit may be consumed as fuel in the concerned utility. Training shall be provided to employees and nearby villages on management and mitigation of possible accidents and risks. The Committee pointed out that the effluent of caustic soda shall not be allowed to mix with the soda ash effluent. The Committee recommended that atleast 30% of the effluent generated shall be recycled and reused in the unit.

The Committee noted that, in response to the Committee's observations, the project proponent informed that the unit will explore other possible fuel sources for its boiler and general operations besides coal, lignite and pet coke, greenbelt development to the tune of 150000 trees in the complex, increase of waste water treatment from 25 to 30 %, provision for street lights in Kalatav village and comply with all conditions in the GCZMA letter dated 25th February, 2021. The Committee found the additional information submitted by the project proponent to be satisfactory and addressing to the concerns of the Committee.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006 and the CRZ Notification, 2011, 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 and CRZ clearance.

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

The environmental and CRZ 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 and CRZ clearance, subject to the compliance of terms and conditions**

as under, and general terms and conditions given in the 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/Marine EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Construction in CRZ area shall be strictly in accordance with the provisions of the CRZ Notification, 2011 and as amended from time to time.

(iii). No groundwater shall be extracted to meet the water requirements during the construction phase of the project, within CRZ area.

(iv). Excavated materials during the construction shall not be dumped in water bodies or adjacent areas. The CRZ site shall be restored to its near original condition after completion of construction.

(v). The treated effluent discharge into the creek shall strictly confirm to the environment standards prescribed by the CPCB/SPCB from time to time.

(vi). All other necessary permissions from different Government Department/agencies shall be obtained by M/s Nirma Limited before commencing the project/activities.

(vii). All conditions/recommendations stipulated by the Gujarat Coastal Zone Management Authority (GCZMA) vide letter No. ENV-10-2020-47-E dated 25/02/2021, shall strictly be complied with.

(viii). The treated effluent of 60 MLD proposed to discharge to the Malcolm channel, and 229000 KLD to Bhavnagar creek and 8,22,844 KLD during monsoon/emergency through pipeline, shall conform to the standards prescribed under the Environment (Protection) Act, 1986. As committed, the project proponent shall increase recycling and reusing of treated water from 25% to 30% in the unit to reduce the fresh water demand and waste disposal. The discharge of treated effluent shall be restricted to the quantity permitted in the GCZMA letter dated 25th February, 2021.

(ix). The project proponent shall prepare 100% fly ash and bottom ash utilization plan and implemented in stipulated time period. The PP shall comply Ministry's Notification dated 22nd April, 2021 regarding fly ash utilization from first year of commissioning. Bottom ash shall be explored to utilized as a resource not as a waste.

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

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

(xii). Occupational health centre for surveillance of the workers' 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.

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

(xiv). The unit shall make 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. Action plan proposed shall be implemented in letter and spirit.

(xv). 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 action plan submitted for controlling the particulate emissions in the complex shall be satisfactorily implemented.

(xvii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled up to 97.0 % with effective chillers/modern technology.

(xviii). Total seawater withdrawal shall not exceed 17,66,000 cum/day. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

(xx). The 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.

(xxi). The green belt of at least 5-10 m width shall be developed/strengthened over nearly 33% of the total project area, mainly along the plant periphery/adjacent areas. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing. 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. The action plan proposed in this regard shall be implemented within 6 months.

(xxii). As committed, at least Rs 25 lakhs shall be allocated for conservation of Schedule I species in consultation with the Forest and Wildlife Department. The implementation report shall be submitted to the IRO, MoEFCC.

(xxiii). The activities and the action plan proposed by the project proponent to address the socio-economic/public concern and issues raised during public hearing 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.

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

Agenda No.13.2

Setting up of advanced Intermediates for Pharma Industry, API, Fine chemicals, Agro Actives and Specialty Chemicals Manufacturing unit of capacity 13965 TPA located at Plot no. SZ 14 & 15, MIDC Butibori, Nagpur, Maharashtra by M/s Inventys Research Company Private Limited, - Consideration of Environmental Clearance

[Proposal No.: IA/MH/IND2/75698/2018; F.No. IA-J-11011/219/2018-IA-II(I)]

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

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of Advanced Intermediates for Pharma Industry, API, Fine chemicals, Agro Actives and Specialty Chemicals Manufacturing unit of capacity 13965 TPA located at Plot no. SZ 14 & 15, MIDC Butibori, Nagpur, Maharashtra by M/s Inventys Research Company Private Limited.

The details of products and capacity as under:

S. No.	Product	CAS Number	Production Quantity TPA
Intermediate Agro			
1	3-(prop-2-en-1-yloxy)-1-benzothiazole 1,1-dioxide	27605-76-1	1,000
2	2-(3,4-Dimethyl-1-H-pyrazol-1-yl)butanedioic acid	940-877-5	3,000
3	Decanenitrile	1975-78-6	500
4	2-Isopropyl-6-methyl-4-pyrimidinol	2814-20-2	200
5	2-Phenyl Indole	948-65-2	10
6	Methyl(2E)-3-(6-chloro-4-oxo-	InChI=1S/C12H8ClN	200

	4h-3,1-benzoxazin-2-yl) prop-2-enoate	O4/c1-17-11(15)5-4-10-14-9-3-2-7(13)6-8(9)12(16)18-10/h2-6H,1H3/b5-4+	
7	4-Methoxy-6-methyl-1,3,5-triazin-2-amine	1668-54-8	50
8	3,4 DiMethylPyrazole	2820-37-3	1,000
9	O,O-diethyl O-(5-phenyl-1,2-oxazol-3-yl) phosphorothioate	18854-01-8	300
10	3-methyl-N-{2-methyl-1-[2-methyl-4-(propan-2-yloxy)phenyl]-1-oxopropan-2-yl}thiophene-2-carboxamide	875915-78-9	100
11	3-(trifluoromethyl)aniline	98-16-8	100
12	2,3,4,5-Tetrafluorobenzoic Acid	1201-31-6	100
Intermediate Pharma, Intermediate Agro, Specialty Chemical			
13	3-Chloroaniline	108-42-9	500
14	2-Amino-5-chlorobenzoic acid	635-21-2	100
APIs, Intermediate Pharma,Specialty Chemical			
15	Sucrose octakis(hyrogen sulfate) aluminum complex	54182-58-0	300
16	6-Chloro-2-hexanone	10226-30-9	500
17	3-ethyl-4-methyl-1,5-dihydro-2-h-pyrrol-2-one	766-36-9	20
18	1-Chloro-2-phenoxybenzene	2689-07-8	300
19	2-propylpentanoic acid	99-66-1	300
20	Sodium 2-propylpentanoate	1069-66-5	100
21	Sodium hydrogen bis(2-propylvalerate) oligomer	99-66-1	100
22	1-Chloro-2-methoxynaphthalene	13101-92-3	1,000
23	1-(isoprylamino)-3-(1-naphthyloxy)-2-propanol hydrochloride	525-66-6	30
24	2-Bromo-6-methoxynaphthalene	5111-65-9	1,000
25	4-Amino salicylic acid	65-49-6	50
26	2-(diethylamino)2-6,acetoxylidide hydrochloride	6108-05-0	50
27	1-bromo-3-chloropropane	109-70-6	100
28	Benzyldimethyl[2-[2-[p-(1,1,3,3-tetramethylbutyl)phenoxy]ethoxy]ethyl]ammonium chloride	121-54-0	300

29	5-tert-Butyl-m-Xylene	98-19-1	300
30	2-Chlorothiophene-5-carboxylic acid	24065-33-6	100
31	2-hydroxy-5-{(E)-[4-(pyridin-2-ylsulfamoyl)phenyl]diazenyl}benzoic acid	599-79-1	100
32	5-[4'-(Bromomethyl)-1,1'-biphenyl-2-yl]-1-triphenylmethyl-1-H-Tetraz ole]	124750-51-2	500
33	3 (Trifluoromethyl) pyrazine-2-carboxylate	1253196-13-2	100
34	2,4,5-Trifluoro-3-methoxybenzyoyl chloride	122811-66-2	100
35	5-Phenyl-1,2-oxazol-3-ol	939-05-9	200
other-Products			
36	Sodium chloride (Nacl) (Generated from 1-Chloro-2-phenoxybenzene &Benzethonium Chloride)	7647-14-5	223
37	Sodium bromide (NaBr) (Generated from 2-propylpentanoic, 3-methyl-N-{2-methyl-1-[2-methyl-4-(propan-2-yloxy)phenyl]-1-oxopropan-2-yl}thiophene-2-carboxamide acid & 2-Phenylidole)	7647-15-6	566
38	Ammonium bromide (NH4Br) (Generated from 3-(trifluoromethyl) aniline)	12124-97-9	65
39	Toluene (Generated from 3-Chloroaniline)	108-88-3	372
40	Sodium sulfate (Na_2SO_4) (Generated from 3-ethyl-4-methyl-1,5-dihydro-2-h-pyrrol-2-one)	7757-82-6	29
	Total		**13965**

The proposed projects are listed at S.N. 5(b) & 5(f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A'. Hence, requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The Standard ToR was issued by MoEFCC vide dated 05.08.2020. Public hearing for the proposed project is exempted as it is located at MIDC Butibori. No litigation is pending against the proposal.

The proposed project will be established in a land area of 69002.00 sqm. Industry will

develop greenbelt in an area of 33.3 % i.e., 23021.00 m^2 of the total project area. The proposed project cost is about Rs.110 crores. Total capital cost earmarked towards environmental pollution control measures is Rs.16.55 Cr. (including CER cost of 1.65 Crores) and the Recurring cost (operation and maintenance) will be about Rs.24.96 Cr. per annum. Total Employment under proposed project will be of 250 persons during operational phase and 180 persons during construction phase. Industry proposes to allocate Rs.1.65 Cr. towards Corporate Environmental Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/ Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance. Venna River is flowing at a distance of 3.5 Km is in East direction, Kanholibara River at a distance of 4.0 Km is in South direction. Water bodies like Vadgaon Lake is located at distance of 9.5 Km.

Ambient air quality monitoring was carried out at 8 locations during December 2018 to February 2019 and the baseline data indicates the ranges of concentrations as: PM_{10} (30.8-60.7 µg/m^3), $PM_{2.5}$ (25.4- 47.6 µg/m^3), SO_2 (12.1-29.4 µg/m^3) and NO_2 (30.4-62.8 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.45 µg/m^3, 0.97 µg/m^3 8.65 µg/m^3 and 6.52 µg/m^3 with respect to $PM_{10,}$ $PM_{2.5}$, SO_X and NO_X.

Total water requirement is 1581m^3/day of which fresh water requirement will be 1465 m^3/day will be met from MIDC Butibori. Effluent of 779 CMD quantity will be treated through MEE, Primary, Secondary and tertiary Treatment (Total effluent 814 CMD: 779+ 35 live steam condensate from MEE). Out of total treated effluent 100 CMD treated industrial waste water will be recycled and reused for the green belt development in place of fresh water. Hence total effluent going to CETP will be 714 CMD. High COD & TDS stream from process (181 CMD) will be treated by Multiple Effect Evaporator (MEE). Treated effluent from MEE (Condensate 181 CMD + 35 CMD Live steam Condensate) will be mixed with low TDS stream from Washings and Utility blowdowns (598 CMD). This mixed waste water will be treated in ETP comprising of primary, secondary & tertiary treatment system. 100 CMD treated industrial waste water will be recycled and reused for the green belt development in place of fresh water. Remaining treated waste water will be discharged to CETP (714 CMD).

The waste water generated from domestic activity (16CMD) will be treated in proposed STP of 20 CMD capacity. Treated effluent will be recycled and reused for gardening during no monsoon season and for flushing and cooling tower during monsoon season.

Power requirement for the project will be 10000 kW (Connected load) &7579 kW (Operating load) and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). 4no's of DG sets having capacity1500 kVA will be used as standby during power failure. Stack (height30 m above enclosure to each DG Sets) will be provided as per CPCB norms to the proposed DG sets.

Boiler of capacity 30TPH x 1no's Briquette/Coal fired boilers will be installed. Multi cyclone dust collector followed bag filter with a stack of height of 50 m will be installed for controlling the particulate and SO_2 emissions within the statutory limit for the proposed boilers. We hereby give commitment that we will use briquette as fuel for boiler and coal will be used in

case of non-availability of briquette only. Undertaking for the same is submitted.

Details of Process emissions generation and its management:

Parameter	Process Scrubber					
Scrubbing media	Water/ Aqueous media	NaOH	Water	NaOH	Activated Charcoal	Water
Packing type	Pall Ring 1.5"Dia	Pall Ring 1.5"Dia	Pall Ring 1.5"Dia	Pall Ring 1.5"Dia	Pall Ring 1.5"Dia	Pall Ring 1.5"Dia
APC equipment	Stack	Stack	Stack	Stack	Stack	Stack
Temp	40 ^{O}C	50 ^{O}C	50 ^{O}C	50 ^{O}C	70 ^{O}C	50 ^{O}C
Diameter	200 mm	200 mm	200 mm	200 mm	200 mm	200 mm
MOC	PPFRP	PPFRP	PPFRP	PPFRP	PPFRP	PPFRP
Shape	Round	Round	Round	Round	Round	Round
Height	8m	8m	15m	8m	8m	12m
Duty	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous
Type of Pollutant	HCL Gas	SO_2	Ammonia	HCl/SO_2	Solvents	Ammonia

Parameter	Process Scrubber					
Scrubbing media	Water/ Aqueous media	NaOH	NaOH	Activated Charcoal	Water/ Aqueous media	NaOH
Packing type	Pall Ring 1.5"Dia	Pall Ring 1.5"Dia	Pall Ring 1.5"Dia	Pall Ring 1.5"Dia	Pall Ring 1.5"Dia	Pall Ring 1.5"Dia
APC equipment	Stack	Stack	Stack	Stack	Stack	Stack
Temp	40 ^{O}C	50 ^{O}C	50 ^{O}C	70 ^{O}C	40 ^{O}C	50 ^{O}C
Diameter	200 mm	200 mm	200 mm	200 mm	200 mm	200 mm
MOC	PPFRP	PPFRP	PPFRP	PPFRP	PPFRP	PPFRP
Shape	Round	Round	Round	Round	Round	Round
Height	12m	12m	10m	8m	8m	8m
Duty	Continuous	Continuous	Continuous	Continuous	Continuous	Continuous
Type of Pollutant	HBr	HCl/SO_2	HCl/SO_2	Solvents	HCl Gas	SO_2

Parameter	Process Scrubber				
Scrubbing media	Water/ Aqueous media	NaOH	As applicable	Activated Charcoal	As applicable
Packing type	Pall Ring 1.5"Dia	Pall Ring 1.5"Dia	Pall Ring 1.5"Dia	Pall Ring 1.5"Dia	Pall Ring 1.5"Dia

APC equipment	Stack	Stack	Stack	Stack	Stack
Temp	40 ^{O}C	50 ^{O}C	50 ^{O}C	70 ^{O}C	50 ^{O}C
Diameter	200 mm	200 mm	200 mm	200 mm	200 mm
MOC	PPFRP	PPFRP	PPFRP	PPFRP	PPFRP
Shape	Round	Round	Round	Round	Round
Height	8m	8m	8m	10m	8m
Duty	Continuous	Continuous	Continuous	Continuous	Continuous
Type of Pollutant	HCl Gas	SO_2	Various Gases	Solvents	Various Gases

Emission from utility:

S. No.	**Source**	**Capacity**	**Type of Fuel**	**Utilization**	**Quantity**	**Air Pollution Control Equipment's**
1	Boiler	30 TPH	Briquette	Regular	3.67 ton/hr	Multicyclone Followed by Bag Filter & Stack of 50 m
			Imported Coal		3 ton/hr	

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

S. No.	**Waste Name**	**Unit**	**Category**	**Quantity**	**Disposal Method**
Hazardous Waste					
1	Chemical Sludge from ETP	T/A	35.3	153	CHWTSDF
2	MEE solids	T/A	35.3	13100	
3	Spent Carbon from ETP	T/A	35.3	121	
4	Spent Carbon from Process	T/A	28.3	1.0	
5	Distillation residue	T/A	20.3	2160	
6	Mixed solvents (from Stripper)	T/A	20.2	850	Sale to MPCB authorized recycler/ CHWTSDF
7	Discarded drums and containers	Nos./A	33.1	2500	MPCB authorized party for reuse/ CHWTSDF
8	PPE/plastic waste/liners/Filters and Filter Materials	T/A	36.2	3	CHWTSDF
Other Wastes					

S. No.	Waste Name	Unit	Category	Quantity	Disposal Method
1	E-waste	T/A	-	0.5	Sale to MPCB authorized party
2	Battery Waste	T/A	-	0.5	Sale to MPCB authorized party
3	Biomedical Waste	T/A	-	0.2	Disposal at authorized biomedical waste disposal site

Non-Hazardous Waste Generation and management

Sr. No.	Waste Name	Unit	Quantity	Disposal Method
Non-Hazardous Waste				
1	Briquette/ Coal Ash	T/A	485.0/ 3650.0	Sale to brick manufacturer
2	Waste paper, Sweeping material, Etc.	T/A	1.0	Scrap sale
3	Pallet	T/A	2.5	Scrap sale
4	STP sludge	T/A	1.25	Use as Manure in Green belt

Deliberations by the EAC:

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

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

The Committee noted that the EIA/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for green belt development and suggested to complete plantation in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested use of coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also suggested that the storage of

toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested increase in the use percentage of recycled water and effective mitigation of VOCs.

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

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

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

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

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

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 97.0 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

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

(iv). The treated effluent of 714 CMD proposed to discharge to the CETP. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

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

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

(vii). Total fresh water requirement, sourced from MIDC Butibori, shall not exceed 1465 m^3/day. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

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

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

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

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

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

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

be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

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

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

Agenda No. 13.3

Pesticides & pesticide specific intermediates (4850 MT/month) manufacturing plant by M/s Nandolia Organic Chemicals Pvt. Ltd., located at Plot No. C1/101 & 102, Saykha Industrial Estate, Vagra, Bharuch, Gujarat.- Consideration of EC

[Proposal No.: IA/GJ/IND2/74191/2018; File No. IA-J-11011/136/2018-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Aqua-Air Environmental Engineers Pvt. Ltd. made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Setting up Pesticides & Pesticide Specific Intermediates Manufacturing Plant of capacity 4850 TPM by M/s Nandolia Organic Chemicals Pvt. Ltd. at Plot No. C-101 & 102, Saykha Industrial Estate, Taluka Vagra, District Bharuch, Gujarat.

The details products are as under:

S. No.	PRODUCTS	QTY. (TPM)	CAS NO.	LD_{50} mg/Kg
	GROUP I	1500		
1	Mancozeb		07-01-18	5000
2	Propineb		12071-83-9	8500
3	Maneb		12427-38-2	3000
4	Zineb		12122-67-7	1850
5	Thiram		137-26-8	1350
6	Ziram		137-30-4	1400
	GROUP II	150		
7	Hexaconazole		79983-71-4	6071
8	Tebuconazole		107534-96-3	1700
9	Difenoconazole		119446-68-3	1453
10	Propiconazole		60207-90-1	1517
11	Tricyclazole		41814-78-2	2000
12	Metalaxyl		57837-19-1	3100

13	Carbendazim		10605-21-7	6400
	GROUP III	200		
14	Metribuzin		21087-64-9	1100
15	Pendimethalin		40487-42-1	1050
16	Atrazine		1912-24-9	2200
17	Clodinafop		105512-06-9	1392
18	Pretilachlor		51218-49-6	2200
	GROUP IV	100		
19	Glufosinate		77182-82-2	1620
	GROUP V	500		
20	Acephate		30560-19-1	700
21	Methamidophos		10265-92-6	7.5
22	Profenofos		41198-08-7	1610
23	Buprofezin		69327-76-0	2198
24	Imidacloprid		138261-41-3	5000
25	Acetamiprid		135410-20-7	2000
26	Thiamethoxam		153719-23-4	1563
	GROUP VI	200		
27	Cypermethrin		52315-07-8	1600
28	Permethrin		52645-53-1	2000
	GROUP VII	200		
29	Cypermethric Acid Chloride		52314-67-7	NA
	GROUP-VIII	1000		
30	P-Cresol		106-44-5	207
	GROUP IX			
	Nitrochlorobenzene	1000		
31	O-Nitrochlorobenzene		88-73-3	251
32	M-Nitrochlorobenzene		121-73-3	400
33	P-Nitrochlorobenzene		100-00-5	812
34	2,4 Dinitrochlorobenzene		97-00-7	1070
	Nitro Anilines			
35	O-Nitro Aniline		88-74-4	1600
36	M-Nitro Aniline		99-09-2	535
37	P-Nitro Aniline		100-01-6	750
38	2,4 Dinitro Aniline		97-02-9	285
	Anisidines			
39	O-Anisidine		90-04-0	2000
40	M-Anisidine		536-90-3	526
41	P-Anisidine		104-94-9	1320
	Total (A)	**4850**		

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

Standard ToR has been issued by Ministry vide letter dated 18th May, 2018. Public Hearing for the proposed project is exempted, as unit is located within Notified Industrial Estate of Saykha. No Litigation is Pending against the proposal.

The land area available for the project is 19,500 m^2. Industry will develop Greenbelt in an area of 33% i.e., 6435 m2 out of total area of the project. The estimated project cost is Rs. 30.0 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 5 Crores and the Recurring cost (operation and maintenance) will be about Rs. 20 Crores per annum. Total Employment will be 150 persons as direct & indirect for project. Industry proposes to allocate Rs 60 Lakhs (approx.) in next 2 years towards Corporate Environment Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors, rivers etc. lies within 10 km distance from the project site.

Ambient air quality monitoring was carried out at 11 locations during October, 2020 to December, 2020 and the baseline data indicates the ranges of concentrations as: PM10 (71.88 - 75.82 µg/m3), PM2.5 (40.47 – 45.63 µg/m3), SO2 (10.21 - 14.42 µg/m3) and NO2 (11.31 - 16.15 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.0594 µg/m3, 0.0888 µg/m3, and 0.0312 µg/m3 with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 499 KLD of which fresh water requirement of 254 KLD will be met from GIDC Water Supply. The wastewater generation will be 576 KLD. 288 KLD of wastewater will be treated in ETP consist of Primary, Secondary & Tertiary Treatment and then disposed in to Deep Sea via CETP Saykha. 276 KLD of wastewater will be subjected to Solvent Stripper and then sent to MEE, MEE Condensate will be reused in Utility, Washing & Process. Domestic waste water (12 KLD) will be treated in STP and reused in Gardening & Flushing.

Power requirement for proposed project will be 750 KVA and will be met from DGVCL. 3 Nos. DG set of 250 KVA capacity shall be used as standby during power failure. Stack (height 10 m) will be provided as per CPCB norms to the proposed DG sets of 250 KVA which will be used as standby during power failure.

Unit shall have 2 Nos. of 6 TPH Imported Coal/Agro-waste briquette fired boiler and 2 Nos. of 40 Lakh Kcal/Hr Imported Coal/Agro-waste briquette fired Thermic Fluid Heater will be installed. Multi cyclone separator, Bag filter + Water Scrubber with a stack of height of 30 m will be installed for controlling the Particulate emissions (within statutory limit of 150 mg/Nm3) respectively.

Details of Process emissions generation and its management.

1) Flue Gas Stack

Sr. No.	Source of emission	Stack Height(m)	Fuel	APCM	Parameters	
					Pollutants	Limits
1	Boiler-1 (6 TPH)	30	Imported	Multicyclone	PM	≤ 150 mg/NM3

			Coal/Agro-waste briquette = 1.6 MT/Hr.	Separator + Bag Filter + Scrubber	SO_2	≤ 100 ppm
					NOx	≤ 50 ppm
2	Boiler-2 (6 TPH)	30		Multicyclone Separator + Bag Filter + Scrubber	PM	≤ 150 mg/NM3
					SO_2	≤ 100 ppm
					NOx	≤ 50 ppm
3	Thermic Fluid Heater-1 (40 Lakh KCal./Hr.)	30	Imported Coal/Agro-waste briquette = 2 MT/Hr.	Multicyclone Separator + Bag Filter + Scrubber	PM	≤ 150 mg/NM3
					SO_2	≤ 100 ppm
					NOx	≤ 50 ppm
4	Thermic Fluid Heater-2 (40 Lakh KCal./Hr.)	30		Multicyclone Separator + Bag Filter + Scrubber	PM	≤ 150 mg/NM3
					SO_2	≤ 100 ppm
					NOx	≤ 50 ppm
5	D G Set-1 (250 KVA)	10	Diesel = 150 Lit./Hr.	--	PM	≤ 150 mg/NM3
					SO_2	≤ 100 ppm
					NOx	≤ 50 ppm
6	D G Set-2 (250 KVA)	10		--	PM	≤ 150 mg/NM3
					SO_2	≤ 100 ppm
					NOx	≤ 50 ppm
7	D G Set-3 (250 KVA)	10		--	PM	≤ 150 mg/NM3
					SO_2	≤ 100 ppm
					NOx	≤ 50 ppm

Process Stack

Sr. No.	Source of emission	Vent Height(m)	APCM	Parameters	
				Pollutants	Limits
1	Group I Plant (Dryer)	10	Water Scrubber	PM	≤ 150 mg/NM^3
2	Group II Plant (Dryer)	10	--	PM	≤ 150 mg/NM^3
3	Group III Plant (Dryer)	10	--	PM	≤ 150 mg/NM^3
4	Group IV Plant (Dryer)	10	--	PM	≤ 150 mg/NM^3
5	Group V Plant (Dryer)	10	--	PM	≤ 150 mg/NM^3
6	Group II Plant (HCl Scrubber)	10	Water & Alkali Scrubber	HCl	≤ 20 mg/NM^3
7	Group II Plant (HBr Scrubber)	10	Water & Alkali Scrubber	HBr	≤ 30 mg/NM^3
8	Group III Plant (HCl Scrubber)	10	Water & Alkali Scrubber	HCl	≤ 20 mg/NM^3
9	Group V Plant (HCl Scrubber)	10	Water & Alkali Scrubber	HBr	≤ 30 mg/NM^3
10	Group VI Plant (HCl & SO_2 Scrubber)	10	Water & Alkali Scrubber	HCl	≤ 20 mg/NM^3
				SO_2	≤ 50 mg/NM^3
11	Group VII Plant (HCl & SO_2 Scrubber)	10	Water & Alkali Scrubber	HCl	≤ 20 mg/NM^3
				SO_2	≤ 50 mg/NM^3

Details of Solid waste/ Hazardous waste generation and its management: 13 Categories of Hazardous/Solid Wastes shall be generated from this Unit.

S. No.	Name of waste	Category as per HW Rules	Qty.(MT/ Month)	Mode of Disposal
1	Used/Spent Oil	5.1	25 Lit./Month	Collection, Storage, recycle reused in factory premises or Transportation & Disposal by sale to authorized Recyclers.
2	Used Filters/Filter Cloths & Materials	--	0.1	Collection, Storage transportation for co-processing in cement industry or incineration in common incineration facility.
3	Used Hyflow	--	2.5	
4	Solvent Distillation Residue	--	25	
5	Process Residue	29.1	50	
6	Date Expired Pesticides	29.3	25	
7	Process Residue from Cresol	19.1	20	
8	Spent Solvent	29.4	20	Collection, Storage, recovery within premises or recovery at outside facility or transportation & disposal by co-processing in cement industry or sent to common incineration facility.
9	Residual Salts from MEE	35.3	200	Collection, Storage, Transportation, Disposal at TSDF Sites.
10	Sludge from ETP	35.3	200	
11	Sludge from Scrubbers	37.1	0.1	
12	Used Containers			
	Drums	33.1	10000 Nos./Month	Collection, Storage, recycle reused in factory premises for hazardous waste packing or Decontaminated transportation back to the supplier for reuse or sold to GPCB authorized vendors.
	Bags and Liners	33.1	50000 Nos./Month	
13	Ash from Boiler	--	25	Collection, Storage, Transportation, sale to brick manufacturers.

Deliberations in the EAC:

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

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

The Committee noted that the EIA/EMP report are in compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considered 2m x 2m ratio.

The Committee suggested that natural gas/briquette shall be used as fuel in the boiler in place of coal and only during emergency coal (with Sulphur <0.5%) may be used. Ash shall be used as manure/soil conditioner. The Committee noted that the project proponent has submitted an undertaking regarding alternate fuel and greenbelt development. The Committee found the additional information to be satisfactory. The Committee suggested that there shall be 30 % increase in recycling and reuse of treated water and accordingly reduction in the fresh water requirement within a span of 5 years.

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

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

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

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

general terms and conditions in Annexure:-

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

(ii). The 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.

(iii). The treated effluent of 288 cum/day proposed to send to CETP Saykha for further treatment and disposal into deep sea, shall conform to the standards prescribed under the Environment (Protection) Act, 1986. The project proponent shall achieve improvement in recycle and reuse of the treated water in the unit to reduce the fresh water demand and waste disposal, and there shall be at least 30% reduction in the effluent discharge within five years. Treated domestic effluent shall be used for greenbelt development.

(iv). Natural gas/briquette shall be used as fuel in place of coal, and only during emergency coal with sulphur content less than 0.5% shall be used.

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

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

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

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

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

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

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

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

(xii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 97.0 % with effective chillers/modern technology.

(xiii). Total fresh water requirement shall not exceed 254 cum/day, proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

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

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

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

(xviii). As proposed, at least Rs 0.11725 Crore shall be earmarked for conservation plan and shall be implemented in coordination with State Forest & Wildlife Department/Local Village Administration.

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

Consideration of TOR Proposals (Violation Cases)

Agenda No.13.4

Capacity Expansion of Formaldehyde Manufacturing Unit in Existing Facility from 80 TPD to 250 TPD located at V.P.O. Rohad, District Jhajjar, Haryana by M/s G.B. Overseas Pvt. Ltd.- Consideration of Terms of Reference

[Proposal No.: IA/HR/IND3/204458/2021; File No. IA-J-11011/102/2021-IA-II(I)]

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

Chronology of the Project

The plant was setup with the consent to establish dated 03.09.2009 from the Haryana State Pollution Control Board (HSPCB). Subsequently, the unit has started operation after obtaining consent to operate dated 28.12.2012. HSPCB issued several show cause notices for closure and cancelling of CTO. The chronology of events is as under:

S. No.	Date	Description
1	03.09.2009	Consent to Establish obtained from HSPCB vide letter no. HSPCB/BDR/NOC/3854 dated 03.09.2009.
2	28.12.2012	Consent to Operate under Air Act, 1981 vide Letter HSPCB/BDR/Air Consent/6162 and under Water Act, 1974 vide Letter HSPCB/BDR/Water Consent/6160 dated 28.12.2012 for the year 2012-2013
3	30.03.2013	HSPCB has extended validity of Consent under Air Act 1981 and Water Act 1974 vide Letter HSPCB/BDR/2012-13/9405 dated 30.03.2013 valid up to 31.03.2016.
4	05.07.2016	The unit has obtained renewed CTO under Air Act, 1981 vide Letter 2846616JHACTOHWM3138291 and under Water Act, 1974 vide Letter 2846616JHACTO3138291 dated 05.07.2016 valid up to 31.03.2021.
5	06.08.2019	Show cause notice issued for closure under Section 5 of EPA, 1986 vide letter no. HSPCB/BDR/2019/1671-72 dated 06.08.2019.
6	08.11.2019	Show cause notice issued for cancelling of CTO vide letter no. HSPCB/BDR/2019/2846 dated 08.11.2019.
7	20.03.2020	Show cause notice issued for closure under Section 5 of EPA, 1986 for the violation of EIA Notification vide letter no. HSPCB/BDR/2020/4718-19 dated 20.03.2020.
8	02.06.2020	Show cause notice issued for closure under Section 33-A of Water Act, 1974 & under Section 31-A of Air Act, 1981 vide letter no. HSPCB/BDR/2020/113-114 dated 02.06.2020.
9	11.11.2020	Additional Chief Secretary, Environment Department, Haryana

S. No.	Date	Description
		Govt. vide their order dated 11.11.2020 allowed the units to continue their operations for a period of six months without prejudice to any legal actions taken against the violations committed by them, by the competent authorities, with the conditions that they will immediately apply for Environmental Clearance from the competent authority and provide the proof of such application within 60 days from the issuance of this communication to Environment and Climate Change Department and to Haryana State Pollution Control Board.
10	03.06.2021	The NGT order dated 03.06.2021 in Original Application No. 287/2020 (Dastak N.G.O. vs Synochem Organics Pvt. Ltd. & Ors.) concluded "Since prior EC is statutory mandate, the same must be complied. We have no doubt that the stand of the private respondents will be duly considered by the concerned regulatory authorities, including the MoEF&CC on merits and in accordance with law but till compliance of statutory mandate, the units cannot be allowed to function. For past violations, the concerned authorities are free to take appropriate action in accordance with polluter pays principle, following due process."
11	03.06.2021	The NGT order dated 03.06.2021 for the Original Application No. 840/2019 (Ayush Garg Vs. Union of India & Ors.) concluded "no further direction appears to be necessary except that the State PCB may ensure that the unit does not re-start functioning without requisite statutory clearance".

Production Capacity

Product	Existing Capacity	Proposed Expansion Capacity	Total Capacity after expansion
Formaldehyde	80 TPD	170 TPD	250 TPD

Raw Material Detail

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

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

Resource Requirement

S. No.	Particular	Detail
1	Land Requirement	Total area available is 0.629 Hectare. No additional land is required for proposed expansion. Green belt will be developed in an area of 0.2185 Hectare (Approximately

<table>
<tr><td></td><td></td><td>34.75% of total land area).</td></tr>
<tr><td>2</td><td>Water Requirement</td><td><table><tr><th>Existing</th><th>For Expansion</th><th>Total</th></tr><tr><td>96 KLD</td><td>204 KLD</td><td>300 KLD</td></tr></table>Source: Haryana Water Resources Authority</td></tr>
<tr><td>3</td><td>Power Requirement</td><td><table><tr><th>Existing</th><th>For Expansion</th><th>Total</th></tr><tr><td>489 KW</td><td>111 KW</td><td>600 KW</td></tr></table>Source: UHBVN (Uttar Haryana Bijli Vitran Nigam)
DG sets as backup: 220 KVA (existing)
500 KVA (proposed)</td></tr>
<tr><td>4</td><td>Manpower Requirement</td><td><table><tr><th>Existing</th><th>For Expansion</th><th>Total</th></tr><tr><td>10</td><td>15</td><td>25</td></tr></table></td></tr>
<tr><td>5</td><td>Boiler</td><td><table><tr><th>Existing</th><th>Proposed expansion</th><th>Total</th><th>Fuel</th></tr><tr><td>1 boiler of 600 Kg/Hr Capacity</td><td>-</td><td>1 boiler of 600 Kg/Hr Capacity</td><td>HSD Fired</td></tr></table></td></tr>
<tr><td>6</td><td>Cost of the Project</td><td><table><tr><th>Existing</th><th>Estimated cost for proposed expansion</th><th>Total</th></tr><tr><td>132 Lakhs</td><td>268 Lakhs</td><td>400 Lakhs</td></tr></table></td></tr>
</table>

National Parks or Wild Life Sanctuary

There is no Wild Life Sanctuary or National Park within 10 km radius of the Project Site hence no NBWL Clearance required. No forest land involved within the project site.

Details of Violation

S. No.	Period	Production	Remarks
1	Sep 2009 to May 2021	Formaldehyde Manufacturing (80 TPD)	Prior EC was not secured before setting up and operating the Unit, hence covered under violation as per EIA Notification 2006 and subsequent amendments

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

Deliberations by the EAC:

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

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

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

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

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

The Proposal was examined in the Ministry and EDS has been sought on Parivesh Portal. The Project Proponent, on 14th June 2021, has submitted the EDS reply on Parivesh Portal and accordingly the Proposal is placed before the present EAC meeting for its appraisal.

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

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

(i) The project proponent will be liable to pay the penalty for the period of violation, as may be determined by Ministry, arisen due to constructing and/or operating the project without prior EC. An undertaking in this regard shall be submitted by PP along with EC proposal.

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

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

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

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

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

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

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

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

Agenda No.13.5

Formaldehyde Manufacturing Unit with production capacity 200 TPD at Village Jathlana Tehsil- Radaur, Jagadhri, District- Yamuna Nagar, State- Haryana by M/s Guruji Overseas – Consideration of Terms of Reference

[Proposal No.: IA/HR/IND3/204588/2021; File No. IA-J-11011/308/2020-IA-II(I)]

The project proponent vide letter dated 30.06.2021 has requested to defer the proposal as they were unable to attend the meeting. Also, the PP want to withdraw the project due to some discrepancy in the report.

The proposal was accordingly ***returned*** in present form based on the request of PP for its revision of application.

Agenda No.13.6

Formaldehyde Manufacturing Unit with production capacity 130 TPD at Village Ghespur, Radaur, District Yamuna Nagar, Haryana by M/s Apcolite Polymers Pvt. Ltd. – Consideration of Terms of Reference

[Proposal No.: IA/HR/IND3/204454/2021; File No. IA-J-11011/103/2021-IA-II(I)]

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

The unit is established for manufacturing of 80 Ton per Day Capacity of Formaldehyde based on Consent to Establish (CTE) granted by Haryana State Pollution Control Board vide Letter HSPCB/YMN/2242 on 31.03.2010. The plant came in operation after securing Consent to Operate (CTO) vide dated 16.01.2012 and renewable of CTO vide Letter dated 13.03.2016 which is valid till 31.03.2026. In year 2018, Project proponent has enhanced its capacity to 130 TPD without obtaining prior EC and CTO.

The chronology of events is as under:

S.No.	Date	Description
1	31.03.2010	Consent to Establish obtained from HSPCB vide letter no. HSPCB/YMN/2242.
2	16.01.2012	Consent to Operate (CTO) was obtained from HSPCB under Water Act, 1974 vide HSPCB/YMN/DLC/2011/4027 for 80 TPD Capacity
3	16.01.2012	Consent to Operate (CTO) was obtained from HSPCB under Air Act, 1981 vide HSPCB/YMN/DLC/2011/4029 80 TPD Capacity
4	13.03.2016	Renewable of CTO vide Letter HSPCB/Consent/:2846616YAMCTO2630357 for 80 TPD Capacity
5	03.06.2019	Show cause notice for prosecution under section 15 of EPA, 1986, from HSPCB Regional Office, Yamuna Nagar Region vide letter no. HSPCB/YR/2019/17390
6	21.08.2019	Show cause notice for revocation of CTE and CTO issued, from HSPCB Regional Office, Yamuna Nagar Region vide letter no. HSPCB/YR/2019/1620
7	11.11.2020	Additional Chief Secretary, Environment Department, Haryana Govt. vide their order dated 11.11.2020 allowed the units to continue their operations for a period of six months without prejudice to any legal actions taken against the violations committed by them, by the competent authorities, with the conditions that they will immediately apply for Environmental Clearance from the competent authority and provide the proof of such application within 60 days from the issuance of this communication to Environment and Climate Change Department and to Haryana State Pollution Control Board.
8	08.04.2021	In 2018, Project proponent has enhanced the capacity upto 130 TPD after obtaining CTO vide HSPCB/Consent/:313096621YAMCTO11020245
9	03.06.2021	The NGT order dated 03.06.2021 in Original Application No. 287/2020 (Dastak N.G.O. vs Synochem Organics Pvt. Ltd. & Ors.) concluded “Since prior EC is statutory mandate, the same must be complied. We have no doubt that the stand of the private respondents will be duly considered by the concerned regulatory authorities, including the MoEF&CC on merits and in accordance with law but till compliance of statutory mandate, the units cannot be allowed to function. For past violations, the concerned authorities are free to take appropriate action in accordance with polluter pays principle, following due process.”
10	03.06.2021	The NGT order dated 03.06.2021 for the Original Application No. 840/2019 (Ayush Garg Vs. Union of India & Ors.) concluded “no further direction appears to be necessary except that the State PCB may ensure that the unit does not re-start functioning without requisite statutory clearance”.

Production Capacity

Product	Total Capacity
Formaldehyde	130 TPD

Raw Material Detail

The major raw material is Methanol which comes by road through tankers from Kandla Port, Gujarat & stored in underground M.S tanks.

Raw Material	Total Requirement
Methanol	65 TPD

Resource Requirement

S.No.	Particular	Detail
1	Land Requirement	Total area available is 1.10 Hectare. Green belt will be developed in an area of 0.3817 Hectare (Approximately 34.7% of total land area).
2	Water Requirement	50 KLD will be required for the proposed plant. Source: Ground Water Approving Authority: Haryana Water Resources Authority.
3	Power Requirement	Maximum power requirement for the plant is 320 KW which will be sourced from UHBVN (Uttar Haryana Bijli Vitran Nigam) DG sets as backup**:** 180 and 250 KVA
4	Boiler	1 No. of 1 TPH Capacity (HSD Fired)
5	Manpower Requirement	9 Manpower will be generated from the project
6	Cost of the Project	Total project cost is Rs. 225 Lakhs

General Information

There is no Wild Life Sanctuary or National Park within 10 km radius of the Project Site. No NBWL clearance required. No forest land involved in the project area.

Details of Violation

S.No.	Period	Production	Remarks
1	March 2010- Mar 2021	Formaldehyde Manufacturing (80 TPD)	Prior EC was not secured before setting up and operating the Unit, hence covered under violation as per EIA Notification 2006 and subsequent amendments
2	March 2021 to May 2021	Formaldehyde Manufacturing (130 TPD)	Prior EC was not secured before enhancing the capacity, hence covered under violation as per EIA Notification 2006 and subsequent amendments

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

The project proponent has submitted an undertaking for development of green belt within plant premises of 34.75% of total plot area in the next 6 months, vide their letter dated 01.07.2021

Deliberations by the EAC:

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

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

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

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

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

(v). To be duly considered by the concerned regulatory authorities including MOEFCC on merits and in accordance with law.

The Proposal was examined in the Ministry and EDS has been sought on Parivesh Portal on 17th May 2021. The Project Proponent, on 15th June 2021, has submitted the EDS reply on Parivesh Portal and accordingly the Proposal is placed before the present EAC meeting for its appraisal.

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

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

(i). The project proponent will be liable to pay the penalty for the period of violation, as may be determined by Ministry, arisen due to constructing and/or operating the project without prior EC. An undertaking in this regard shall be submitted by PP along with EC proposal.

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

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

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

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

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

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

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

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

Agenda No.13.7

Formaldehyde Manufacturing Unit with the production capacity of 45 TPD at Plot No. F-88, RIICO Industrial Area, Khushkhera, Tehsil Tijara, District Alwar, Rajasthan by M/s Neetu Solvents- – Consideration of Terms of Reference

[Proposal No.: IA/RJ/IND3/205548/2021; File No. IA-J-11011/119/2021-IA-II(I)]

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

Chronology of the Project

The plant was setup with the consent to establish dated 17/06/2015 from the Rajasthan State Pollution Control Board (RSPCB). Subsequently, the unit has obtained Consent to Operate dated 05.05.2016 for a period of validity from 30.01.2016 to 31.12.2018 for 45 TPD production. Further CTO renewed by RSPCB vide letter no. F (Tech)/Alwar (Tijara)/2710(1)/2016-2017/165-167 which is valid till 01/01/2019 to 31/12/2023 for the same capacity. RSPCB instructed the project proponent to obtain prior environment clearance from the competent authority vide F.14 (23) Policy/Plg/Vol IV/471-510 dated 19.08.2019.

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

S. No.	Date	Description
1	17.06.2015	Consent to Establish obtained from RSPCB vide letter no. F(Tech)/Alwar(Tijara)/2367(1)/2015-2016/313-314.
2	05.05.2016	CTO vide Letter F(Tech)/Alwar (Tijara)/2710(1)/2016-2017/92-93 for a period of validity from 30.01.2016 to 31.12.2018

S. No.	Date	Description
3	03.12.2018	Rajasthan State Pollution Control Board issued show cause notice for refusal of CTO under the Water and Air Act vide Letter No. RPCB/RO/BWD/1909/2038
4	19.08.2019	The Rajasthan State Pollution Control Board has issued an Order No.- F.14(23) Policy/Plg/Vol IV/471-510 to apply for EC within 60 days from the date of issue of letter
5	15.11.2019	Show cause notice issued from RSPCB again for refusal of CTO under the Water and Air Act vide Letter No. F.14(CD-622)/Tech/RPCB/CD/813
6	18.01.2021	Final show cause notice issued for refusal of CTO under the Water and Air Act vide Letter No. F.Tech/(CD-622)/RPCB/CD/566
7	09.04.2021	CTO was renewed by RSPCB vide letter no F(Tech)/Alwar (Tijara)/2710(1)/2016-2017/165-167 which is valid till 01/01/2019 to 31/12/2023
8	03.06.2021	The NGT order dated 03.06.2021 in Original Application No. 287/2020 (Dastak N.G.O. vs Synochem Organics Pvt. Ltd. & Ors.) concluded “Since prior EC is statutory mandate, the same must be complied. We have no doubt that the stand of the private respondents will be duly considered by the concerned regulatory authorities, including the MoEF&CC on merits and in accordance with law but till compliance of statutory mandate, the units cannot be allowed to function. For past violations, the concerned authorities are free to take appropriate action in accordance with polluter pays principle, following due process.”
9	03.06.2021	The NGT order dated 03.06.2021 for the Original Application No. 840/2019 (Ayush Garg Vs. Union of India & Ors.) concluded “no further direction appears to be necessary except that the State PCB may ensure that the unit does not re-start functioning without requisite statutory clearance”.

Production Capacity

M/s Neetu Solvents has an existing unit for manufacturing of Formaldehyde with the capacity of Production of 45 tons per day.

Product	Capacity
Formaldehyde	45 TPD

Raw Material Detail

Raw Material requirement for production of Formaldehyde is methanol.

Material	Requirement	Source
Methanol	22.5 TPD	Sourced from Kandla Port, Gujarat

Resource Requirement

S. No.	Particular	Detail

S. No.	Particular	Detail
1	Land Requirement	Total area available is 0.195 Hectare. Green belt will be developed in an area of 0.075 Hectare (38.46% of the total area).
2	Water Requirement	Total water requirement is 20 KLD. **Source:** Ground water (NOC has been granted from CGWA as per NOC No. CGWA/NOC/IND/ORIG/2021/10002). Validity from 01/01/2021 to 31/12/2022
3	Power Requirement	Maximum power requirement for the plant is 185 KVA **Source:** Jaipur Vidyut Vitran Nigam Limited **DG sets as backup:** 200 KVA and 250 KVA.
4	Boiler	One HSD Fired Baby Boiler (300 KG/hr capacity)
5	Manpower Requirement	15 persons will get employed.
6	Cost of the Project	The capital cost for the existing project is Rs. 391.18 Lakhs which includes land, building, plant & machinery.

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

Details of Violation

S.No.	Period	Production	Remarks
1	June 2015 to Present	Formaldehyde Manufacturing (45TPD)	Prior EC was not secured before setting up and operating the Unit, hence covered under violation as per EIA Notification 2006 and subsequent amendments.

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

The project proponent has submitted an undertaking for development of green belt within plant premises of 38.46% of total plot area in the next 6 months, vide their letter dated 01.07.2021

Deliberations by the EAC:

The Committee was informed that the Ministry had issued a Notification vide S.O. 804 (E) dated 14th March, 2017 for appraisal of projects for grant of terms of reference/ Environmental Clearance, which have started the work on site, expanded the production beyond the limit of Environmental Clearance, or changed the product mix without obtaining prior Environmental Clearance under EIA Notification, 2006. The above said notification i.e., Notification vide S.O. 804 (E) dated 14th March, 2017 was an open window for 6 months. The

projects or activities which are in violation as on date of this notification only will be eligible to apply for environmental clearance under this notification and the project proponents can apply for environmental clearance under this notification only within six months from the date of this notification.

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

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

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

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

The Proposal was examined in the Ministry and EDS has been sought on Parivesh Portal on 17th May 2021. The Project Proponent, on 16th June 2021, has submitted the EDS reply on Parivesh Portal and accordingly the Proposal is placed before the present EAC meeting for its appraisal.

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

The EAC, after detailed deliberations on the information presented by the PP, **recommended** for issuing **Standard Term of Reference [Annexure-I]** along with the

following **specific Term of Reference** for undertaking EIA and preparation of Environmental Management Plan (EMP), as below:

(i). The project proponent will be liable to pay the penalty for the period of violation, as may be determined by Ministry, arisen due to constructing and/or operating the project without prior EC. An undertaking in this regard shall be submitted by PP along with EC proposal.

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

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

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

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

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

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

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

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

Agenda No.13.8

Expansion in Formaldehyde Manufacturing unit in existing facility from 60 TPD to 150 TPD at Village Jathlana, Tehsil- Jagadhri Distt. Yamunanagar, Haryana by M/s Pahwa Plastics Pvt. Ltd. – Consideration of Terms of Reference

[Proposal No.: IA/HR/IND3/204462/2021; File No. IA-J-11011/185/2020-IA-II(I)]

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

Chronology of the Project

The plant was setup with the consent to establish dated 02.06.2016 from the Haryana State Pollution Control Board (HSPCB). Subsequently, the unit has started operation after obtaining consent to operate dated 26.03.2018. HSPCB issued show cause notices for closure and revocation of CTO. After that, the unit has obtained CTO for 150 TPD Formaldehyde manufacturing vide Letter 313096621YAMCTO10961479 dated 08.04.2021 valid up to 10.05.2021.

The chronology of events is as under:

S. No.	Date	Description
1	02.06.2016	Consent to Establish obtained from HSPCB vide letter no. 2846616YAMCTE3087415 dated 02.06.2016.
2	26.03.2018	The unit has obtained initial CTO for 60 TPD Formaldehyde manufacturing vide Letter 2846618YAMCTO3098246 dated 26.03.2018 valid up to 31.03.2022
3	03.06.2019	Show cause notice for closure under Section 5 of EPA, 1986 vide letter no. HSPCB/YR/2019/17376
4	21.08.2019	Show cause notice for revocation of CTE and CTO issued vide letter no. HSPCB/YR/2019/1616
5	11.11.2020	Additional Chief Secretary, Environment Department, Haryana Govt. vide their order dated 11.11.2020 allowed the units to continue their operations for a period of six months without prejudice to any legal actions taken against the violations committed by them, by the competent authorities, with the conditions that they will immediately apply for Environmental Clearance from the competent authority and provide the proof of such application within 60 days from the issuance of this communication to Environment and Climate Change Department and to Haryana State Pollution Control Board.
6	08.04.2021	After that, the unit has obtained CTO for 150 TPD Formaldehyde

S. No.	Date	Description
		manufacturing vide Letter 313096621YAMCTO10961479 dated 08.04.2021 valid up to 10.05.2021
7	03.06.2021	The NGT order dated 03.06.2021 in Original Application No. 287/2020 (Dastak N.G.O. vs Synochem Organics Pvt. Ltd. & Ors.) concluded "Since prior EC is statutory mandate, the same must be complied. We have no doubt that the stand of the private respondents will be duly considered by the concerned regulatory authorities, including the MoEF&CC on merits and in accordance with law but till compliance of statutory mandate, the units cannot be allowed to function. For past violations, the concerned authorities are free to take appropriate action in accordance with polluter pays principle, following due process."
8	03.06.2021	The NGT order dated 03.06.2021 for the Original Application No. 840/2019 (Ayush Garg Vs. Union of India & Ors.) concluded "no further direction appears to be necessary except that the State PCB may ensure that the unit does not re-start functioning without requisite statutory clearance".

Production Capacity

Product	Capacity
Formaldehyde	150 TPD

Raw Material Detail

The major raw material is Methanol which comes by road through tankers from Kandla Port, Gujarat & stored in underground M.S tanks. Methanol requirement is as below:

Material	Total requirement
Methanol	**75 TPD**

Resource Requirement

S.No.	Particular	Detail
1	Land Requirement	Total plot area is 0.23 hectare. Green belt will be developed in an area of 0.08 Hectare (Approximately 34.78% of total land area).
2	Water Requirement	**Quantity: 90 KLD** **Source:** Ground Water **Approving Authority:** Haryana Water Resources Authority
3	Power Requirement	**Total requirement:** 200 KW **Source:** UHBVN (Uttar Haryana Bijli Vitran Nigam) **DG sets as backup:** 180 KVA and 250 KVA
4	Boiler	**Capacity:** 1 No. 800 Kg/Hr HSD Fired
4	Manpower Requirement	**Total Manpower: 10** **Source: Local public as per capability**
5	Cost of the Project	**Total Project Cost: 113 Lakhs**

National Parks or Wild Life Sanctuary: There is no Wild Life Sanctuary or National Park within 10 km radius of the Project Site. No NBWL Clearance required. No forest land involved in the project site.

Other Highlight

Company has obtained diversion of 0.0022ha of forest land for access, from MoEF&CC.

Details of Violation

S. No.	Period	Production	Remarks
1	June 2016 to April 2021	Formaldehyde Manufacturing (60 TPD)	Prior EC was not secured before setting up and operating the Unit, hence covered under violation as per EIA Notification 2006 and subsequent amendments
2	April 2021 to May 2021	Formaldehyde Manufacturing (150 TPD)	Prior EC was not secured before enhancing the capacity, hence covered under violation as per EIA Notification 2006 and subsequent amendments

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

The project proponent has submitted an undertaking for development of green belt within plant premises of 34.78% of total plot area in the next 6 months, vide their letter dated 01.07.2021

Deliberations by the EAC:

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

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

(i). The violation proposal should be considered by the sectoral EAC on merit
(ii). Action to be taken against the alleged violation as per law
(iii). Do not wait for either the evidence of action having been started or violation

proceedings to finish before taking up the case on merit.

(iv). The EC if given after consideration on merit would be valid from the date it is given and not with retrospective effect. For the period before it, if violation is established by the Court of competent authority, the punishment/penalty as per law would be imposed.

(v). Assessment of environmental damage, if any.

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

(i). For past Violations, the concerned Authorities are free to take appropriate action in accordance with polluter pays principle, following due process.

(ii). Since having prior EC is statutory mandate, it has to be complied with by the formaldehyde producing industrial units barring which the units cannot be allowed to function.

(iii). State PCB may assess and recover compensation for illegal operation of the Units on 'Polluter Pays' principle.

(iv). State PCB to ensure that the unit does not re-start functioning without requisite Statutory Clearance.

(v). To be duly considered by the concerned regulatory authorities including MOEFCC on merits and in accordance with law.

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

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

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

(i). The project proponent will be liable to pay the penalty for the period of violation, as may be determined by Ministry, arisen due to constructing and/or operating the project without prior EC. An undertaking in this regard shall be submitted by PP along with EC proposal.

(ii). The Directions of the Hon'ble NGT shall be implemented vide its Orders dated 03.06.2021, in the matter of Dastak NGO vs Syncochem Prganics Pvt. Ltd. & ors in OA No. 287 of 2020; Vineet Nagar Vs. Central Ground Water Authority & Ors, in OA No. 298 of 2020; and Ayush Garg Vs Union of India & Ors. in OA No. 840 of 2019].

Implementation Report may be submitted by the PP at the time of submission of EIA/EMP Report.

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

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

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

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

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

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

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

***

DAY 2 - 2nd JULY, 2021 (FRIDAY)

Agenda No.13.9

Setting up of Active Pharmaceutical Ingredients (API) Manufacturing unit of capacity 0.39 MTPM at Plot No. C-121, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra by M/s Sri Hanuman Laboratories – Consideration of Environmental clearance

[Proposal No.: IA/MH/IND2/207165/2021; File No. IA-J-11011/252/2021-IA-II(I)]

The Project Proponent and the Accredited Consultant M/s.Equinox Environments (I) Pvt. Ltd. made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for Setting up of Active Pharmaceutical Ingredients (API) Manufacturing unit of capacity 0.39 MTPM, located at Plot No. C-121, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra by M/s Sri Hanuman Laboratories.

The details of products and capacity as under:

S. No	Product	Quantity(MT/M)	CAS No.
1.	Monobenzone	0.25	103-16-2
2.	Trioxsalen	0.1	3902-71-4
3.	Olopatadine hydrochloride	0.04	140462-76-6
	Total	**0.39**	

As per the provision of "EIA Notification S.O. 1533 (E)" dated 14.09.2006 as amended vide Notification No. S.O.1223 (E) dated March, 27, 2020; the proposed project comes under Category B2. But, due to presence of GIB sanctuary within 5 Km from Project Site in MIDC, General condition is applicable to project and requires appraisal at Centre Level, MoEFCC. The proposed project site in MIDC Chincholi is located 0.35 Km from the boundary of GIB Sanctuary. Further, ESZ for GIB is finalized vide notification No. 596 dated 11/02/2020. Project site is 0.37 Km from Notified ESZ.

The proposed project will be established in a land area of 1000 m^2 in which built-up area will be 200 m^2. Industry will develop greenbelt in an area of 331 Sqm which is 33% of the total project area. The proposed project cost is about Rs.50 lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs.18.50 Lakhs and the recurring cost (operation and maintenance) will be about Rs.6.25 Lakhs per annum. Total Employment under proposed project will be of 14 persons. Industry proposes to allocate Rs.1.60 Lakh towards Corporate Environmental Responsibility.

The GIB Sanctuary is located about 0.35 Km from project site in MIDC. ESZ for GIB is

finalized vide notification No. 596 dated 11.02.2020. Same is also located at 0.37 Km from project site. River Sina is at a distance of 6 Km on South West from the project site.
Total water requirement for establishment project will be 8.5 CMD which will be taken from MIDC Water supply scheme at Ujani Dam on Bhima river. ETP treated effluent will be recycled thereby reducing fresh water demand. Effluent of 3 m^3/day will be generated and same will be segregated as strong and weak streams and treated through 2 separate ETP streams. The treated effluent will be recycled thereby achieving Zero Discharge. Domestic effluent will be treated in ETP and treated effluent will be recycled for flushing.

Power requirement after establishment of project will be taken from MSEDCL. One DG set of 50 kVA capacity will be installed as standby during power failure. Stack of height 2 m AGL is provided as per CPCB norms to the DG sets.

For steam requirement, industry will install 0.5 TPH boiler. Fuel Briquettes/Coal will be used for same. 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/Nm^3 for the proposed boiler.

Details of Process emissions generation and its management:

Process emissions in the form of acidic, alkaline and solvent vapours will be generated from the process. The emissions from the process would be taken care through 01 Nos. Scrubbers and scrubbed material will be forwarded to ETP for treatment.

Details of Scrubber with Disposal Facility

No	Attached to Process Plant	Dia. (M)	Ht. (M)	Packing Material	Mode of regeneration of the packing material	Scrubbing Media	Disposal/ Recycle/ Reuse
1	HCl, NH_3	0.6	6	PP Poll Rings	Water washing	Water/NaOH/ lye/ HCl	To ETP

Process Emissions Quantification &Treatment Details

No	Emissions	Qty. (kg / Day)	Treatment Method
1	H_2	3	Diffused by using Nitrogen through Flame Arrestor
2	O_2	15	Dispersed into the Atmosphere
3	N_2	20	Dispersed into the Atmosphere
4	CO_2	20	Dispersed into the Atmosphere
5	SO_2	7.50	Scrubbed by using Water Media
6	NH_3	8	Scrubbed by using Chilled Water Media
7	HCl	15	Scrubbed by using C.S. Lye Solution
8	HBr	4	Scrubbed by using C.S. Lye Solution
9	CH_3Cl	5	Scrubbed by using Water Media

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

S.No	Description	Quantity		Disposal
		MT/M	Kg/Day	
1	Boiler Ash	0.5	16.67	Sale to Brick manufacture
2	Plastic, Glass, Ferrous, Wooden, Metal Scrap	0.4	13.33	Sale to Authorized Recyclers
3	Packing Material	0.05	1.67	
4	Battery Waste	0.03	1	
5	E-Waste	0.02	0.67	
6	Empty Containers & Drums	20 Nos./M	0.67 Nos./D	

Details of Hazardous Waste Generated & its Management

S.No	Description	Cat.	Quantity		Disposal Facility
			MT/M	Kg/Day	
1	Used / Spent Oil	5.1	0.010	0.333	Authorized Party / Recycler / CHWTSDF
2	Distillation Residues	20.3	0.25	8.33	CHWTSDF
3	Process Residue & wastes	28.1	0.075	2.5	CHWTSDF
4	Filter Medium	36.2	1	0.033	CHWTSDF
5	Spent Carbon	28.3	0.038	1.267	CHWTSDF / Co processing / Authorized Re-processor / Recycler
6	Off-specification products	28.4	0.01	0.333	CHWTSDF / Reprocessing
7	Date-expired products	28.5	0.032	1.067	CHWTSDF
8	Spent Solvents	28.6	3.0	100	Authorized Party / Recycler / Co processing / CHWTSDF
9	Empty Barrels/ containers/liners contaminated with Hazardous Chemicals / Waste	33.1	20 Nos. / M	0.67 Nos. / D	Authorized Party / Recycler / Re-processor / CHWTSDF
10	Chemical Sludge from Waste Water Treatment	35.3	0.2	6.67	Authorized Party / CHWTSDF / Co processing
11	Sludge from wet scrubber	37.1	0.06	2.0	Authorized Party/ CHWTSDF/ Co processing

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.

Quantification of Pollutants' Load w.r.t. Effluent Generation

Pollutants / **Waste Water**	**Conc. of Pollutants generated (Mass / Volume) (mg / lit)**	**Qty. of Pollutants generated (Mass / Day) (kg / Day)**
	Stream - I (High COD & High TDS Effluent) Raw Effluent - 2 CMD	
pH	6 - 8.5	--
BOD	8000 – 10,000	10
COD	10,000 – 20,000	20
TDS	20,000 – 25,000	40
	Stream - II (Low COD & Low TDS Effluent) Raw Effluent - 2 CMD	
pH	6 – 8.5	--
BOD	2000 – 4000	5
COD	6000 – 7000	10
TDS	2000 - 2500	20

Quantification of Pollutants' Load w.r.t. Hazardous Waste Generation

Kg/Day			
Organic SW	**Inorganic SW**	**Spent Carbon**	**Distillation Residue**
62	57	1	10

Quantification of Pollutants' Load w.r.t Process Emissions

Kg/Day	
Process Emission	**Fugitive Emission**
5	2.5

Kg/Day								
H_2	**O_2**	**N_2**	**CO_2**	**SO_2**	**NH_3**	**HCl**	**HBr**	**CH_3Cl**
1	10	10	10	5	15	15	2	1

Summary of Pollution Load

Kg / Day				
	Effluent Water	**Solid Waste**		

Water Input	Effluents	Inorganics in Effluent	Organics in Effluent	TDS	COD	HTDS	LTDS	Total Effluent	Organic SW	Inorganic SW	Spent Carbon	Distillation / Process Residue	Process Emission	Fugitive Emission
5500	4000	50	40	50	40	40	10	230	62	57	1	10	10	10

Deliberations by the EAC:

The EAC, constituted under the provision of the EIA Notification, 2006 comprising of Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in the desired formats along with 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 noted that the PFR/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for green belt development and suggested to complete plantation in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested use of coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested increase in the use percentage of recycled water and effective mitigation of VOCs.

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

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

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

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

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

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 97.0 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

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

(iv). As already committed by the project proponent, Zero Liquid Discharge (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. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

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

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

(vii). Total fresh water requirement, sourced from MIDC Water supply scheme at Ujani Dam on Bhima river, shall not exceed 8.5 CMD. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

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

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

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

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

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

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

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

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

Agenda No.13.10

Setting up of Active Pharmaceutical Ingredients (API) Manufacturing unit of capacity 0.2002 MTPM, located at Plot No. F-52, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra by M/s Patil Synthtech –Consideration of Environmental clearance

[Proposal No.: IA/MH/IND2/207028/2021; File No. IA-J-11011/253/2021-IA-II(I)]

The Project Proponent and the Accredited Consultant M/s.Equinox Environments (I) Pvt. Ltd. made a detailed presentation on the salient features of the project and informed that:

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of Active Pharmaceutical Ingredients (API) Manufacturing unit of capacity 0.2002 MTPM, located at Plot No. F-52, MIDC Chincholi, Taluka Mohol, District Solapur, Maharashtra by M/s. Patil Synthtech.

The details of products and capacity as under:

No	Product	Quantity(MT/M)	CAS No.
1.	Dorzolamide HCl	0.05	130693-82-2
2.	Olopatdine HCl	0.05	140462-76-6
3.	Bimatoprost	0.0001	155206-00-1
4.	Latanprost	0.0001	130209-82-4
5.	Brimonidine Tartrate	0.1	70359-46-5
	Total	**0.2002**	

As per the provision of "EIA Notification No. S. O. 1533 (E)" dated 14.09.2006 as amended vide Notification No. S.O.1223 (E) dated March, 27, 2020; the proposed project comes under Category – B2. But, due to presence of GIB sanctuary within 5 Km from Project Site in MIDC, General condition is applicable to project and requires appraisal at Centre Level, MoEFCC, New Delhi. The Proposed Project Site in MIDC Chincholi is located 2.1 Km from the boundary of GIB Sanctuary. Further, ESZ for GIB is finalized vide notification No. 596 dated 11/02/2020. Project Site is 1.83 Km from Notified ESZ.

The proposed project will be established in a land area of 1175 m^2 in which built-up area will be 232.25 m^2. Industry will develop greenbelt in an area of 389.45 Sqm which is 33 % of the total project area. The proposed project cost is about Rs.50 lacs. Total capital cost earmarked towards environmental pollution control measures is 26.5 Lacs and the recurring cost (operation and maintenance) will be about Rs.7.25 Lacs per annum. Total Employment under proposed project will be of 14 persons. Industry proposes to allocate Rs.1.60 Lakh towards Corporate Environmental Responsibility.\

The GIB Sanctuary is located about 2.11 Km from project site in MIDC. ESZ for GIB is finalized vide notification No. 596 dated 11/02/2020. Same is also located at 1.83 Km from project site. River Sina is at a distance of 6 Km on South Westfrom the project site.

Total water requirement for establishment project will be 8.50 CMD. Fresh water will be taken from MIDC Water supply scheme at Ujani Dam on Bhima river. ETP treated effluent will be recycled thereby reducing fresh water demand. Effluent of 3.25 m^3/day will be generated and same will be segregated as strong and weak streams and treated through 2 separate ETP streams. The treated effluent will be recycled thereby achieving Zero Discharge. ETP will be provided for treating domestic effluent. Treated water will be recycled for flushing.

Power requirement of project will be taken from MSEDCL. One DG set of 50 kVA capacity will be installed as standby during power failure. Stack of height 2m AGL is provided as per CPCB norms to the DG sets.

For steam requirement, Industry will install 0.5 TPH boiler. Fuel Briquettes/Biomass will be used for same. 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/Nm^3 for the proposed boiler.

Details of Process emissions generation and its management:

Process emissions in the form of acidic, alkaline and solvent vapours will be generated from the process.The emissions from the process would be taken care through 02 Nos. Scrubbers and scrubbed material will be forwarded to ETP for treatment.

Details of Scrubber with Disposal Facility

No	Attached to Process Plant	Dia. (M)	Ht. (M)	Packing Material	Mode of regeneration of the packing material	Scrubbing Media	Disposal/ Recycle/ Reuse
1	Cl	0.6	6	Glass / HDPE	Water Washing	Water/NaOH lye	To ETP
2	H_3, Amine	0.5	3			HCl	

Process Emissions Quantification &Treatment Details

S. No	Emissions	Qty. (kg / Day)	Treatment Method
1	H_2	1	iffused by using Nitrogen through Flame Arrestor
2	O_2	10	ispersed into the Atmosphere
3	N_2	10	ispersed into the Atmosphere
4	CO_2	10	ispersed into the Atmosphere
5	SO_2	5	crubbed by using Water Media
6	NH_3	5	crubbed by using Chilled Water Media

7	HCl	15	crubbed by using C.S. Lye Solution
8	HBr	2	crubbed by using C.S. Lye Solution
9	CH_3Cl	10	crubbed by using Water Media

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

No	Description	Quantity		Disposal
		MT/M	Kg/Day	
1	Boiler Ash	1	17	Sale to Brick manufacture
2	Plastic, Glass, Ferrous, Wooden, Metal Scrap	0.5	13.3	Sale to Authorized Recyclers
3	Packing Material	0.07	1.6	
4	Battery Waste	0.05	1	
5	E-Waste	0.03	0.6	
6	Empty Containers & Drums	40 Nos.	1	

Details of Hazardous Waste Generated & its Management

S. No	Description	Cat.as per HW Rules	Quantity		Disposal Facility
			MT/M	Kg/Day	
1	Used / Spent Oil	5.1	0.010	1	Authorized Party / Recycler / CHWTSDF
2	Distillation Residues	20.3	0.450	10	CHWTSDF
3	Process Residue & wastes	28.1	0.075	2.5	CHWTSDF
4	Spent solvent	28.6	7.0	100	CHWTSDF / Co processing / Authorized Re-processor / Recycler
5	Spent Carbon	28.3	0.058	1.5	CHWTSDF / Co processing / Authorized Re-processor / Recycler
6	Off-specification products	28.4	0.03	3	CHWTSDF / Reprocessing
7	Date-expired products	28.5	0.05	1	CHWTSDF
8	Empty Barrels/ containers/liners contaminated with Hazardous Chemicals / Waste	33.1	40 Nos. / M	1 Nos. / D	Authorized Party / Recycler / Re-processor / CHWTSDF
9	Chemical Sludge from Waste Water Treatment	35.3	0.5	30	Authorized Party / CHWTSDF / Co processing
10	Sludge from wet	37.1	0.06	2	Authorized Party /

S. No	Description	Cat.as per HW Rules	Quantity		Disposal Facility
			MT/M	Kg/Day	
	scrubber				CHWTSDF / Co processing
11	Filter Medium	36.2	0.010	0.33	CHWTSDF

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.

Quantification of Pollutants' Loadw.r.t. Effluent Generation

Pollutants Waste Water	Conc. of Pollutants generated (Mass / Volume) (mg / lit)	Qty. of Pollutants generated (Mass / Day) (kg / Day)
	Stream - I (High COD & High TDS Effluent) Raw Effluent - 2 CMD	
pH	6 - 7.5	--
BOD	6000 - 9000	5
COD	10000 - 15000	10
TDS	15000 - 20000	25
	Stream - II (Low COD & Low TDS Effluent) Raw Effluent -2 CMD	
pH	7 – 8.5	--
BOD	1800 - 3500	2.5
COD	4500 - 5000	7.5
TDS	1700 - 2000	15

Quantification of Pollutants' Load wrt Hazardous Waste Generation

Kg/Day			
Organic SW	Inorganic SW	Spent Carbon	Distillation Residue
62	57	1	10

Quantification of Pollutants' Load wrt Process Emissions

Kg/Day	
Process Emission	Fugitive Emission
5	2.5

Kg/Day								
H_2	O_2	N_2	CO_2	SO_2	NH_3	HCl	HBr	CH_3Cl
1	10	10	10	5	5	15	2	1

Summary of Pollution Load

Kg / Day													
	Effluent Water								Solid Waste					
Water Input	Effluents	Inorganics in Effluent	Organics in Effluent	TDS	COD	HTDS	LTDS	Total Effluent	Organic SW	Inorganic SW	Spent Carbon	Distillation / Process Residue	Process Emission	Fugitive Emission
5500	4000	50	40	50	40	40	10	230	62	57	1	10	10	10

Deliberations by the EAC:

The EAC, constituted under the provision of the EIA Notification, 2006 comprising of Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in the desired formats along with 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 noted that the PFR/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for green belt development and suggested to complete plantation in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested use of coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested increase in the use percentage of recycled water and effective mitigation of VOCs.

The EAC deliberated on the proposal with due diligence using the process as notified

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

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

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

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

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

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 97.0 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

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

(iv). As already committed by the project proponent, Zero Liquid Discharge (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. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

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

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

(vii). Total fresh water requirement, sourced from MIDC Water supply scheme at Ujani Dam on Bhima river, shall not exceed 8.5 CMD. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

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

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

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

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

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

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

be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

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

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

Agenda No.13.11

Setting up of Active Pharmaceutical Ingredients (API) manufacturing unit of capacity 48 TPM at Plot No. 62, Kadechur Industrial Area, Yadagir Taluk & District, Karnataka by M/s Laureatz Technochem Pvt. Ltd.- Re-Consideration of Environmental Clearance.

[Proposal No. IA/KA/IND2/205621/2021, File No.J-11011/138/2021-IA.II(I)]

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

S. No.	Requisite information desired by the Committee	Reply of PP	Observation of the Committee
1	Consumption of Biomass briquettes as primary fuel for Boilers and thermic fluid heater.	Declaration letter regarding use of biomass briquettes as primary fuel	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.
2	Water supply connection from KIADB (Karnataka Industrial Area Development Board)	We have submitted the application to KIADB (Karnataka Industrial Area Development Board) to obtain the water connection to the projects and application submitted	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.
3	Revised cost of CER (Corporate Environmental Responsibility) activities	As per the Committee suggestions we have increased the cost of CER (Corporate Environmental Responsibility) activities from 5 lakhs to 7 lakhs.	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.
4	Revised Greenbelt Development Plan	As per the Committee, suggestions, number of tree	EAC deliberated the Action Plan in detail and found

		and shrubs has been increased by considering distance between 2 trees as 2 m and distance between 2 shrubs as 1 m.	the reply to be addressing the concerns of the Committee.
5	Instalment of septic tank to treat domestic sewage.	Domestic sewage of 2.1 KLD will be treated in septic tank (As per IS:2470 Part-I) and it will be passed through multigrade filter. Provisions has been made for the same and treated water will be used for gardening.	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.
6	Revised solvent details with input, Recovery and Loss	Revised solvent details with Input, Recovery and Loss has been submitted	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.

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

The proposal is for grant of environmental clearance (EC) to the proposed project for Setting up of Active Pharmaceutical Ingredients (API) manufacturing unit of capacity 48 TPM located at Plot No. 62, Kadechur Industrial Area, Yadagir Taluk & Distirct, Karnataka by M/s Laureatz Technochem Pvt. Ltd

The details of products and capacity as under:

S. No	Products	Qty. in TPM	CAS No.	Therapeutic Use
1.	Adefovir	2	142340-99-6	To treat chronic (long-term) hepatitis B infection
2.	Bortezomib	1	179324-69-7	Multiple myeloma
3.	Capecitabine	5	154361-50-9	Anti-Cancer
4.	Clopidogrel Bisulphate	5	120202-66-6	Cardiovascular
5.	Dapagliflozin	2	461432-26-8	Anti-diabetic
6.	Dapoxetine Hydrochloride	2	129938-20-1	Inhibitor
7.	Darunavir Ethanolate	3	635728-49-3	Antiviral
8.	Empagliflozin	2	864070-44-0	Anti-diabetic
9.	Etodolac	1	41340-25-4	Anti-inflammatory
10.	Etoricoxib	15	202409-33-4	Anti-inflammatory
11.	Famotidine	3	76824-35-6	To treat gastritis
12.	Imatinib Mesylate	1	152459-95-5	Anti-Cancer
13.	Irinotecan HCl	1	136-572-09-3	Topoisomerase I inhibitors
14.	Ivabradine HCl	2	148849-67-6	To treat heart disease

15.	Lenalidomide	1	191732-72-6	To treat anemia
16.	Linezolid	5	165800-03-3	Antibiotic
17.	Mesalamine	10	89-57-6	Ulcerative colitis
18.	Olmesartan Medoximil	1	144689-63-4	Anti-hypertension
19.	Pantoprazole Sodium	8	138786-67-1	To treat gastritis
20.	Piroctone Olamine	5	68890-66-4	Antifungal
21.	Ramipril	5	87333-19-5	To treat high blood pressure
22.	Risperidone	2	106266-06-2	Schizophrenia
23.	Sacubitril	2	149709-62-6	Chronic heart failure and reduced ejection fraction
24.	Sparfloxacin	5	110871-86-8	Antibiotic
25.	Tadalafil	5	171596-29-5	To treat erection problems
26.	Tamsulosin hydrochloride	1	106463-17-6	To treat Benign Prostatic Hyperplasia (BPH)
27.	Telmisartan	5	144701-48-4	Anti-hypertensive
28.	Thalidomide	1	50-35-1	To treat a skin condition and cancer
29.	Triclabendazole	3	68786-66-3	Anthelmintics
30.	Zoledronic acid	1	165800-06-6	To treat high levels of calcium
	Total (6 products)	**48**		
Note: From the above list of products, any 6 products will be manufactured at a given point of time.				

List of proposed By-Products

S. No	Product	By Product	Quantity in Kgs/Day
1	Capecitabine	Peridine Hydrochloride	59.69
2	Famotidine	Potassium chloride	53.14
3	Piroctone Olamine	Aluminium hydroxide solution	1452.5
4	Pantoprazole Sodium	Potassium Sulphate	60
		Ammonium Phosphate	35
		Sodium Acetate	110
		Ammonium Chloride	72.25
5	Telmisartan	Sodium phosphate	251

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). Due to applicability of general conditions (interstate boundary within 5 km), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposed project will be established in a land area of 2 Acres (8089.8 sqm). Industry will develop greenbelt in an area of 2694.3 sqm which is 33.3% out of the total project area. Proposed project cost is about Rs.6.6 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.80 Lakhs and the recurring cost (operation and maintenance) will be about Rs.17.5 lakhs per annum. Total Employment under proposed project will be 55 nos. Industry proposes to allocate Rs.7 Lakhs towards Corporate

Environmental Responsibility.

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

Total water requirement is 135.3 KLD, out of which fresh water requirement is 83.1 KLD and will be met from KIADB. Effluent of 67.6 KLD is generated. Industrial effluents will be treated through Common Effluent Treatment Plant CETP, Kadechur. Domestic effluent of 2.1 KLD will be passed to Septic tank followed by multi-grade filter.

Power requirement of project will be 500 kVA and will be met from GESCOM. The unit is proposed to install 1 X 250 kVA DG Set, Stack height of 4 m will be provided as per CPCB norms. The unit has proposed to install 1 X 4 TPH Briquettes/Coal fired boiler with stack of height 30 m. Multi Cyclone separator will be installed for the boiler for controlling the particulate emissions (within statutory limit of 115 mg/ Nm^3).

Details of Process emissions generation and its management:

S. No	Gas	Quantity in Kg/Day	Treatment Method	Disposal Method
1	Hydrogen chloride	609.7	Scrubbed by using water media	Generated Dil. HCl will be reused within the industry
2	Ammonia	27.5		Generated NH_4OH will be reused within the industry
3	Sulphur dioxide	80.1	Scrubbed by using C.S. Lye solution	Residues from the reaction will be sent to TSDF
4	Hydrogen Bromide	21.3		
5	Hydrogen Fluoride	3.3		
6	Hydrogen Iodide	19.9		
7	Pentane	9.2	Dispersed into atmosphere	-
8	Oxygen	104.8		
9	Carbon dioxide	259.2		
10	Hydrogen	20.2	Dispersed into atmosphere through flame arrester	-

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

S. No	Category of the HW Rules	Hazardous Waste	Quantity	Disposal Method
Hazardous waste generation from plant				
1	5.1	Waste oils & Grease/ Used	0.2 KL/Annum	Agencies authorized by KSPCB

		Mineral oil		
2	5.2	Oil Soaked Cotton	2 Kgs/month	KSPCB authorized Vendor
3	20.3	Distillation Residue	830 kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing
4	28.1	Process Residues & Waste	2764 Kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
5	28.2	Spent Catalyst	7.3 kgs/day	Store in secured manner and hand over to authorized recycler
6	28.3	Spent Carbon + Hyflow	188 Kgs/Day	Store in secured manner and hand over to authorized cement industry for Co-processing
7	28.4	Off Specification Products	1 TPM	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
8	28.5	Date expired products	500 Kgs/Month	Store in secured manner and hand over to authorized cement industry for Co-processing/ TSDF
9	33.1	Detoxified-Container & Container Liners of Hazardous Chemicals and Wastes	250 No's/Month	After complete detoxification, shall be disposed to the outside agencies.
10	33.2	Contaminated cotton rags or other cleaning materials	25 Kgs/month	Store in secured manner and hand over to KSPCB Authorized Vendor
11	A1160	Used Lead Acid batteries	2 No's/Annum	Returned back to dealer/ Supplier
Other & Miscellaneous Solid Wastes				
12	--	Coal ash	1120 kgs/day	Sent to Brick Manufacturers
13		Briquette ash	2860 kgs/day	Sent to fertilizer industries
14	--	Residues from Scrubber	143 kg/day	Shall be stored in secured manner & handed over to TSDF.
15	--	Used PPE	5 Kgs/ Month	Sent to authorized vendor
16	--	E- Waste	150 Kgs/ Annum	Authorized recyclers
17	--	Plastic Waste	200 Kgs/ Annum	Authorized recyclers

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

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

Kg per day													
EFFLUENT WATER								**SOLID WASTE**					
Water in put	Water in Effluent	Organics in effluents	TDS	COD	HTDS	LTDS	Total Effluent	Organic	In Organic	Spent carbon	Spent Catalyst	Process Emission	Distillation residue
35854.9	35805.5	749.84	2041.34	1212.24	34075.5	2642.73	36718.2	2180.89	582.66	187.73	7.33	926.08	830

Hazardous Solid Waste Details

Organic solid waste	**Inorganic solid waste**	**Spent Carbon**	**Distillation Residue**
Kg/day	Kg/day	Kg/day	Kg/day
2180.89	582.66	187.73	830

Emission Details

Kg/day									
HCl	NH_3	SO_2	HBr	HF	HI	Pentane	O_2	CO_2	H_2
609.7	27.5	80.1	21.3	3.3	19.9	9.2	104.8	259.2	20.2

Deliberations by the EAC:

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

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

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

The Committee noted that the PFR/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the revised action plan and revised budget allocation for green belt development. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested use of coal having ash content as committed only during the rainy season when the Biomass Briquettes may not be available. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested increase in the use percentage of recycled water and effective mitigation of VOCs. The committee deliberated the reply submitted by the PP with respect to the queries raised in the 9th EAC and found the reply to be satisfactory.

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

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

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

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

and general terms and conditions given in Annexure:-

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

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 97.0 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

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

(iv). The treated effluent of 67.6 KLD proposed to discharge to the CETP Kadechur. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal. Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.

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

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

(vii). Total fresh water requirement, sourced from KIADB, shall not exceed 83.1 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

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

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

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

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

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

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

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

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

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

Consideration of TOR Proposals (Violation Cases)

Agenda No.13.12

Capacity Expansion for Formaldehyde Manufacturing Unit with the existing production capacity 100 TPD to 200 TPD at Village Bhagwanpur, Kharwan Road, Tehsil Jagadhri, District Yamuna Nagar, Haryana by M/s Chemwood Industries – Consideration Terms of Reference

[Proposal No.: IA/HR/IND3/204922/2021; File No. IA-J-11011/108/2021-IA-II(I)]

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

Chronology of the Project

The plant was setup with the consent to establish dated 20th December 2018 from the Haryana State Pollution Control Board (HSPCB). The chronology of events is as under:

S.No.	Date	Description
1	20.12.2018	Consent to Establish obtained from HSPCB vide letter no. HSPCB/Consent/313282118YAMCTE5784449.
2.	10.06.2019	Show cause notice by HSPCB for closure under Section 5 of EPA, 1986 and Prosecution under section 15 vide Letter No. HSPCB/YR/2019/17420 and Letter No. HSPCB/YR/2019/17418 respectively
3.	29.06.2019	Show cause notice by HSPCB for refusal of Consent To Operate vide letter no. O19YAMCTOA/WSCN6681779
4.	13.05.2020	Show cause notice by HSPCB for closure under Water Act, 1974 & Air Act, 1981 vide letter no. HSPCB/YR/2020/5280
5.	11.11.2020	Additional Chief Secretary, Environment Department, Haryana Govt. vide their order dated 11.11.2020 allowed the units to continue their operations for a period of six months without prejudice to any legal actions taken against the violations committed by them, by the competent authorities, with the conditions that they will immediately apply for Environmental Clearance from the competent authority and provide the proof of such application within 60 days from the issuance of this communication to Environment and Climate Change Department and to Haryana State Pollution Control Board.
6.	03.06.2021	The NGT order dated 03.06.2021 in Original Application No. 287/2020 (Dastak N.G.O. vs Synochem Organics Pvt. Ltd. & Ors.) concluded “Since prior EC is statutory mandate, the same must be complied. We have no doubt that the stand of the private respondents will be duly considered by the concerned regulatory authorities, including the MoEF&CC on merits and in accordance with law but till compliance of statutory mandate, the units cannot be allowed to function. For past violations, the concerned authorities are free to take appropriate action in accordance with polluter pays principle, following due process.”
7.	03.06.2021	The NGT order dated 03.06.2021 for the Original Application No. 840/2019 (Ayush Garg Vs. Union of India & Ors.) concluded “no further direction appears to be necessary except that the State PCB may ensure that the unit does not re-start functioning without requisite statutory clearance”.

Production Capacity

Product	Existing Capacity	Proposed Capacity	Total Capacity

Formaldehyde	100 TPD	100 TPD	200 TPD

Raw Material Detail

The major raw material is Methanol which comes by road through tankers from Kandla Port, Gujarat & stored in underground M.S tanks. Methanol requirement for the existing unit is 50 TPD and after expansion, total 100 TPD will be required.

Raw Material	Existing Requirement	Proposed Requirement	Total Requirement
Methanol	50 TPD	50 TPD	100 TPD

Resource Requirement

<table>
<tr><th>S.No.</th><th>Particular</th><th>Detail</th></tr>
<tr><td>1</td><td>Land Requirement</td><td>Total area available is 0.68 Hectare. No additional land is required for proposed expansion. Green belt will be developed in an area of 0.2558 Hectare (Approximately 37.62% of total land area).</td></tr>
<tr><td>2</td><td>Water Requirement</td><td><table><tr><th>Existing</th><th>For Expansion</th><th>Total</th></tr><tr><td>200 KLD</td><td>250 KLD</td><td>450 KLD</td></tr></table>Source: Haryana Water Resources Authority</td></tr>
<tr><td>3</td><td>Power Requirement</td><td><table><tr><th>Existing</th><th>For Expansion</th><th>Total</th></tr><tr><td>250 KW</td><td>250 KW</td><td>500 KW</td></tr></table>Source: UHBVN (Uttar Haryana Bijli Vitran Nigam)
DG sets as backup: 325 KVA (existing)
650 KVA (proposed)</td></tr>
<tr><td>4</td><td>Boiler</td><td>Existing: 900 Kg/hr, HSD Fired (1 No.)
Proposed: No
Total: as per EIA Notification 2006 and subsequent amendments</td></tr>
<tr><td>5</td><td>Manpower Requirement</td><td><table><tr><th>Existing</th><th>For Expansion</th><th>Total</th></tr><tr><td>10</td><td>05</td><td>15</td></tr></table></td></tr>
<tr><td>6</td><td>Cost of the Project</td><td><table><tr><th>Existing</th><th>Estimated cost for proposed expansion</th><th>Total</th></tr><tr><td>486 Lakhs</td><td>214 Lakhs</td><td>700 Lakhs</td></tr></table></td></tr>
</table>

National Parks or Wild Life Sanctuary

There is no Wild Life Sanctuary or National Park within 10 km radius of the Project Site. No NBWL Clearance required. No forest land involved in the project site. Company has obtained

diversion of 0.00944ha of forest land for access to their factory from MoEF&CC.

Details of Violation

S.No.	Period	Production	Remarks
1	Dec 2018-May 2021	Formaldehyde Manufacturing (100 TPD)	Prior EC was not secured before setting up and operating the Unit, hence covered under violation as per EIA Notification 2006 and subsequent amendments

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

Deliberations by the EAC:

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

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

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

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

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

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

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

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

(i). The project proponent will be liable to pay the penalty for the period of violation, as may be determined by Ministry, arisen due to constructing and/or operating the project without prior EC. An undertaking in this regard shall be submitted by PP along with EC proposal.

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

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

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

(v). Assessment of ecological damage with respect to air, water, land and other

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

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

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

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

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

Agenda No.13.13

Capacity Expansion of Formaldehyde Manufacturing Unit in existing facility from 100 TPD to 200 TPD at Village Kurali, Sabapur Road, Tehsil Bilaspur, District Yamuna Nagar, Haryana by M/s Om Chem –Consideration Terms of Reference

[Proposal No.: IA/HR/IND3/204931/2021; File No. IA-J-11011/106/2021-IA-II(I)]

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

Chronology of the Project

The plant was setup with the consent to establish dated 20th December 2018 from the Haryana State Pollution Control Board (HSPCB). The chronology of events is as under:

S. No.	Date	Description
1	19.04.2018	Consent to Establish obtained from HSPCB vide letter no. 313096618YAMCTE5274201.
2.	22.02.2019	Consent to Operate obtained from HSPCB vide letter no

S. No.	Date	Description
		313096619YAMCTO6377523.
2.	03.06.2019	Show cause notice issued by HSPCB for closure under Section 5 of EPA, 1986 vide Letter No. HSPCB/YR/2019/17380 and Prosecution under section 15 vide Letter No. HSPCB/YR/2019/17386.
3.	21.08.2019	Show cause notice by HSPCB for Revocation of CTE and CTO vide letter no. HSPCB/YR/2019/1618.
4.	22.07.2020	Show cause notice by HSPCB for closure under Water Act, 1974 & under Air Act, 1981 vide letter no. HSPCB/YR/2020/5819.
5.	11.11.2020	Additional Chief Secretary, Environment Department, Haryana Govt. vide their order dated 11.11.2020 allowed the units to continue their operations for a period of six months without prejudice to any legal actions taken against the violations committed by them, by the competent authorities, with the conditions that they will immediately apply for Environmental Clearance from the competent authority and provide the proof of such application within 60 days from the issuance of this communication to Environment and Climate Change Department and to Haryana State Pollution Control Board.
6.	03.06.2021	The NGT order dated 03.06.2021 in Original Application No. 287/2020 (Dastak N.G.O. vs Synochem Organics Pvt. Ltd. & Ors.) concluded “Since prior EC is statutory mandate, the same must be complied. We have no doubt that the stand of the private respondents will be duly considered by the concerned regulatory authorities, including the MoEF&CC on merits and in accordance with law but till compliance of statutory mandate, the units cannot be allowed to function. For past violations, the concerned authorities are free to take appropriate action in accordance with polluter pays principle, following due process.”
7.	03.06.2021	The NGT order dated 03.06.2021 for the Original Application No. 840/2019 (Ayush Garg Vs. Union of India & Ors.) concluded “no further direction appears to be necessary except that the State PCB may ensure that the unit does not re-start functioning without requisite statutory clearance”.

Production Capacity

Product	Existing Capacity	Proposed Expansion Capacity	Total Capacity after Expansion
Formaldehyde	100TPD	100 TPD	200 TPD

Raw Material Detail

The major raw material is Methanol which comes by road through tankers from Kandla Port, Gujarat & stored in underground M.S tanks. Methanol requirement for the existing unit is 50 TPD and after expansion, total 100 TPD will be required.

Raw Material	Existing Requirement	Proposed	Total Requirement

		Requirement	
Methanol	50 TPD	50TPD	100 TPD

Resource Requirement

S. No.	Particular	Detail
1	Land Requirement	Total area available is 0.6430 Hectare. No additional land is required for proposed expansion. Green belt will be developed in an area of 0.2347 Hectare (Approximately 36.5% of total land area).
2	Water Requirement	**Existing**: 100KLD; **For Expansion**: 95KLD; **Total**: 195 KLD **Source:** Ground Water Approving Authority: Haryana Water Resources Authority
3	Power Requirement	**Existing**: 160KW; **For Expansion**: 90KW; **Total**: 250KW **Source:** UHBVN (Uttar Haryana Bijli Vitran Nigam) **DG sets as backup:** 325 KVA (existing) 325 KVA (proposed)
4	Boiler	**Existing:** 1 No. 600 Kg/Hr HSD Fired **Proposed: No** **Total:** 1 No. 600 Kg/Hr HSD Fired
5	Manpower Requirement	**Existing**: 10; **For Expansion**: 02; **Total**: 12
6	Cost of the Project	**Existing**: 499 Lakhs; **Estimated cost for proposed expansion**: 200Lakhs; **Total**: 699 Lakhs

National Parks or Wild Life Sanctuary

There is no Wild Life Sanctuary or National Park within 10 km radius of the Project Site. No NBWL Clearance required. No forest land involved in the project area.

Other highlights

PP has obtained diversion of 0.0058355ha of forest land for access, from MoEF&CC.

Details of Violation

S. No.	Period	Production	Remarks
1	Dec 2018-May 2021	Formaldehyde Manufacturing (100 TPD)	Prior EC was not secured before setting up and operating the Unit, hence covered under violation as per EIA Notification 2006 and subsequent amendments

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

Deliberations by the EAC:

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

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

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

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

(i). For past Violations, the concerned Authorities are free to take appropriate action in accordance with polluter pays principle, following due process.
(ii). Since having prior EC is statutory mandate, it has to be complied with by the formaldehyde producing industrial units barring which the units cannot be allowed to

function.

(iii). State PCB may assess and recover compensation for illegal operation of the Units on 'Polluter Pays' principle.

(iv). State PCB to ensure that the unit does not re-start functioning without requisite Statutory Clearance.

(v). To be duly considered by the concerned regulatory authorities including MOEFCC on merits and in accordance with law.

The Proposal was examined in the Ministry and EDS has been sought on Parivesh Portal on 17th May 2021. The Project Proponent, on 18th June 2021, has submitted the EDS reply on Parivesh Portal and accordingly the Proposal is placed before the present EAC meeting for its appraisal.

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

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

(i). The project proponent will be liable to pay the penalty for the period of violation, as may be determined by Ministry, arisen due to constructing and/or operating the project without prior EC. An undertaking in this regard shall be submitted by PP along with EC proposal.

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

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

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

(v). Assessment of ecological damage with respect to air, water, land and other environmental attributes. The collection and analysis of data shall be done by an environmental laboratory duly notified under the Environment (Protection) Act, 1986, or an environmental laboratory accredited by NABL, or a laboratory of a Council of Scientific and Industrial Research (CSIR) institution working in the field of

environment. The cost for assessment of environmental damage may be guided by the Ministry of Environment, Forest and Climate Change O.M No. 19-125/2019-IA.III, dated 05.03.2020.

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

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

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

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

Any other Item Agenda No.13.14

Proposed zero pollution paper sizing products (formulation type) manufacturing unit at Sy.No. 36/1, Adoni (V&M), Kurnool District, Andhra Pradesh by M/s Sree Padma Industries – Clarification on applicability of EC

The project proponent M/s Sree Padma Industries made a detailed presentation on the salient features of the project and informed that:

The proposal is for clarification on applicability of environmental clearance to the project for zero pollution paper sizing products (formulation type) manufacturing unit at Sy.No. 36/1, Adoni (V&M), Kurnool District, Andhra Pradesh.

The details of products and capacities are as under:

S. No.	Products	Quantity (TPM)	Quantity (TPA)	End use
1.	AKD Wax Emulsion	100	1200	Paper sizing chemicals used for Pharmaceutical & Food grade paper
2.	Akenyl Succinic Anhydride (ASA)	100	1200	
3.	Starch Based Products	100	1200	

4.	Rosin Based Products	100	1200	manufacturing
Total 4 products		400	4800	

The material balance for 1MT of various products along with origin of raw materials is as under:

1. Alkyl Kettene Dimer (Akd) product with 17% solids

INPUT			**Origin of Raw material**	**Output**		
S.No	**Raw material**	**Quantity, Kg**		**S.No**	**Product**	**Quantity, Kg**
1.	Starch	9.9	Plant seed product (corn/tapioca)	1.	AKD Wax Emulsion Solid, %: 17.0	1000
2.	AKD Wax	115	Palm Oil			
3.	CS Lye	0.2	Inorganic used as pH adjustment (0.0.2%)			
4.	Polyaluminium Chloride	115	Inorganic material			
5.	Cationic agent	1.2	Organic (Lignin from Wood Pulp)			
6.	DM Water	758.7	Water (inorganic)			
Total Input		**1000**		**Total Output**		**1000**

2. Starch based products with 20% Solids

INPUT			**Origin of Raw material**	**Output**		
S.No.	**Raw material**	**Quantity, Kg**		**S. No.**	**Product**	**Quantity, Kg**
1.	Starch	100	Plant seed product (corn/tapioca)	1.	Starch based product Solid, %: 20	1000
2.	Cationic agent	166	Organic (quaternary ammonium salt)			
3.	CS Lye	56	Inorganic used as pH adjustment (5.6%)			
4.	Other chemicals	1	Preservatives (0.1%)			

	& additives					
5.	DM water	677	Inorganic			
Total Input		**1000**		**Total Output**		**1000**

3. Rosin Based Products: Product with 40% Solids

INPUT			**Origin of Raw material**	**Output**		
S. No.	**Raw material**	**Quantity, Kg**		**S.No.**	**Product**	**Quantity, Kg**
1.	Gum Rosin	308	Pine Wood extract	1.	Rosin based product (Cat size Emulsion) Solids %: 40	1000
2.	Fumaric Acid/Malleic	15.3	Organic Reaction Product			
3.	CS Lye	1.5	Inorganic used as PH adjustment (0.15%)			
4.	Emulsifier	51	Organic Amine			
5.	Liquid Alum	177	Inorganic			
6.	DM Water	447.2	Inorganic			
Total Input		**1000**		**Total Output**		**1000**

4. Alkenyl Succinic Anhydride (ASA)

INPUT			**Origin of Raw material**	**Output**		
S.No.	**Raw material**	**Quantity, Kg**		**Sl.No.**	**Product**	**Quantity, Kg**
1.	Maleic Anhydride	307	Organic Reaction Product	1.	ASA product	1000
2.	Olefin	1252	Crude Oil			
3.	Surfactant	6	Organic **(0.6%)** as foam arrestor added in tanker during transportation to customer	2.	Excess Olefin*	565
Total Input		**1565**		**Total Output**		**1565**

The proposed water and wastewater generation with other details are as under:

Description	**Input (KLD)**		**Output (KLD)**		**Wastewater Type**
	Fresh Water	**Recycled Water**	**Evaporation /Handling Loss/In product**	**Total Wastewater**	

Process	8	--	8	0	--
Washings (Floor moppoing, nutch filters etc)	0.5	--	--	0.5	LTDS/LCOD
Boiler make up (1 TPH boiler)	1	--	0.8	0.2	Utilities (LTDS/LCOD)
Cooling Tower 300TR	9	--	8	1	
Scrubber	1	--	1*	0	--
Q.C and R&D	0.5	--	--	0.5	LTDS/LCOD
Domestic (50 nos @50 lpcd)	2.5	--	0.5	2	LTDS/LCOD
Greenbelt (0.5 acres @ 5 KL/acre	--	4	4	--	--
Total	**22.5**	**4**	**22.3**	**4.2**	Water loss in ETP ~0.2 KLD Reuse: 4 KLD for Greenbelt
	26.5		**26.5**		
Note: * 1 KLD is dilute NaOH scrubbing solution will be used in next batch product.					

Deliberations by the EAC:

The Member Secretary informed to the EAC that the instant proposal for clarification was appraised by the EAC in its meeting held during April 12-13, 2021 wherein the EAC carefully examined the proposal and deliberated the manufacturing process, details of raw material used in process, Process Flow, end use of the product etc. **The EAC after detailed deliberation opined that the instant process falls under Synthetic Organic Chemical and should require prior Environmental Clearance as per the provisions of the EIA Notification, 2006 amended time to time.**

The Member Secretary further informed to the EAC that PP want to present his case once, as they could not explain some details in the last meeting. Accordingly, with the permission of Chairman the instant proposal was placed before the EAC and PP was given another chance to explain the details to the EAC.

The Committee was informed by the project proponent that the proposed manufacturing unit shall consist of condenser, extracting unit, evaporator etc. The Committee was of the view that the instant process shall involve generation of VOC during evaporation process, generation of wastewater during water spraying process and thus involves in generation of pollutants by manufacturing the products.

The Committee, after detailed deliberations, **reiterated its stand that** instant proposal

falls under Synthetic Organic Chemical and shall require prior environmental clearance as per provision of the EIA Notification, 2006 amended from time to time.

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

***

ANNEXURE

GENERAL EC CONDITIONS

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

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

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

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

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

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

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

(viii) The project proponent shall also submit six monthly reports on the status of compliance of the stipulated Environmental Clearance conditions including results of monitored data to the respective Regional Office of MoEF&CC, the respective Zonal

Office of CPCB and SPCB. A copy of Environmental Clearance and six-monthly compliance status report shall be posted on the website of the company.

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

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

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

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

***

Annexure-I

Standard TOR for 5 (f) Category

A. STANDARD TERMS OF REFERENCE

1) Executive Summary

2) Introduction

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

3) Project Description

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

4) Site Details

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

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

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

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

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

6) Environmental Status

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

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

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

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

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

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

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

vii. Soil Characteristic as per CPCB guidelines.

viii. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.

ix. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.

x. Socio-economic status of the study area.

7) Environment Impact and Environment Management Plan

i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a

location map showing the location of project site, habitation nearby, sensitive receptors, if any.

ii. Water Quality Modelling – in case of discharge in water body

iii. Impact of the transport of the raw materials and end products on the surrounding environment shall be assessed and provided. In this regard, options for transport of raw materials and finished products and wastes (large quantities) by rail or rail-cum road transport or conveyor-cum-rail transport shall be examined.

iv. A note on treatment of wastewater from different plant operations, extent recycled and reused for different purposes shall be included. Complete scheme of effluent treatment. Characteristics of untreated and treated effluent to meet the prescribed standards of discharge under E(P) Rules.

v. Details of stack emission and action plan for control of emissions to meet standards.

vi. Measures for fugitive emission control

vii. Details of hazardous waste generation and their storage, utilization and management. Copies of MOU regarding utilization of solid and hazardous waste in cement plant shall also be included. EMP shall include the concept of waste-minimization, recycle/reuse/recover techniques, Energy conservation, and natural resource conservation.

viii. Proper utilization of fly ash shall be ensured as per Fly Ash Notification, 2009. A detailed plan of action shall be provided.

ix. Action plan for the green belt development plan in 33 % area i.e. land with not less than 1,500 trees per ha. Giving details of species, width of plantation, planning schedule etc. shall be included. The green belt shall be around the project boundary and a scheme for greening of the roads used for the project shall also be incorporated.

x. Action plan for rainwater harvesting measures at plant site shall be submitted to harvest rainwater from the roof tops and storm water drains to recharge the ground water and also to use for the various activities at the project site to conserve fresh water and reduce the water requirement from other sources.

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

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

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

8) Occupational health

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

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

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

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

9) Corporate Environment Policy

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

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

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

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

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

10) Corporate Environmental Responsibility (CER)

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

10) Additional studies/Measures to be considered

(i). Provide latest and ecofriendly technology for product manufacturing.
(ii). Emphasize on Green chemistry/Clean Manufacturing
(iii). Provide CAS No. of products along with product list.
(iv). Provide details of amount of carbon sequestered in their unit through greenbelt/other modes, in case of expansion project.
(v). Life structure and sustainability for carbon and water foot print.
(vi). Detailed pollution Load estimation.
(vii). Transportation of Hazardous substance, effluents etc shall be carriedout through authorized and GPS enable vehicles/Trucks only.
(viii). Category of Hazardous Wastes shall be mentioned in the EIA/EMP report and in presentation.
(ix). Details of greenhouse gases and emissions shall be provided.
(x). Greenbelt shall be developed in the first year of the project and wind breaks shall

be erected.

(xi). Study area map shall be overlapped with all the associated features.

(xii). Emphasize on green fuels.

(xiii). The project from NCR shall not use Coal as fuel. Further, PP shall avoid use of Coal in the CPAs and elsewhere also if alternatives are available.

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

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

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

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

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

Annexure-II

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

S. No.	Name of Members	Designation
1.	**Prof. (Dr.) A.B. Pandit** Vice Chancellor, Institute of Chemical Technology, Mumbai, Sir JC Bose Fellow, Government of India Email: ab.pandit@ictmumbai.edu.in	Interim EAC Chairman
2.	**Dr. Ashok Kumar Saxena, IFS** Bunglow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
3.	**Prof. (Dr.) S. N. Upadhyay** Research Professor (Hon.), Department of Chemical Engineering & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi E-mail: snupadhyay.che@iitbhu.ac.in	Member
4.	**Shri Santosh Gondhalkar** 'Shree' Apartment, Flat 401, Plot No. 22, Tukaram Society, Santnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
5.	**Dr. Suresh Panwar** House No.4, Gayateri Green Society, NH 58 Bypass,Kankerkhera, Meerut, Uttar Pradesh Email-spcppri@gmail.com	Member
6.	**Shri Dinabandhu Gouda** Additional Director, DH IPC-I, Room No. 309A, Third Floor, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 110032, E-mail: dinabandhu.cpcb@nic.in	Member
7.	**Shri Tukaram M Karne** "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2, PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	Member
8.	**Shri Sanjay Bisht** Scientist 'E', Room No. 517, Office of the Director General of Meteorology, Indian Meteorological Department, Musam Bhawan, Lodhi Road, New Delhi -110003 E-mail: sanjay.bist@imd.gov.in	Member

9.	**Dr. R. B. Lal** Scientist 'E'/Additional Director Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Room No. V-304, Vayu Wing, Jor Bag Road, New Delhi-110003 Telefax: 011-24695362 E-mail: rb.lal@nic.in	Member Secretary

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

***

Annexure-III

Approval of EAC Chairman

Re: Zero Draft Minutes of the 13th EAC (Industry 3 Sector) meeting held during July 1-2, 2021 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir.

From : ab pandit <ab.pandit@ictmumbai.edu.in> Thu, Jul 08, 2021 12:17 PM

Subject : Re: Zero Draft Minutes of the 13th EAC (Industry 3 Sector) meeting held during July 1-2, 2021 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir. 1 attachment

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

Dear Dr. Lal.

Please find attached the signed and approved minutes of the meeting,

Thanks and warm Regards
Pandit