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

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Dated: 01.11.2021

MINUTES OF THE 19th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3 SECTOR) MEETING HELD ON OCTOBER 25-26, 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: 25th OCTOBER, 2021 (MONDAY)

(i) Opening Remarks by the Chairman, EAC

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

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

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

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

(iii) Confirmation of the Minutes of the 18th Meeting of the EAC (Industry-3 Sector) held during October 5-6, 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 **18th Meeting of the EAC (Industry-3 Sector) held on October 5-6, 2021** conducted through Video Conferencing (VC), and as such no request has been received for modifications, in the minutes of the project/activities, **confirmed the same.**

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

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

Consideration of Environmental Clearance Proposals

Agenda No. 19.1

Modernization and Expansion of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer, Aonla Unit under IFFCO Township, District- Bareilly, Uttar Pradesh by M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO)- Consideration of Environmental Clearance.

[Proposal No. IA/UP/IND3/228538/2021; File No. J-11011/430/2005-IA. II(I)]

The Project Proponent and the accredited Consultant M/s. EQMS India Pvt. Ltd. has attended the EAC meeting and informed the salient features of the project that:

The proposal is for environmental clearance under para 7(ii) of EIA Notification, 2006 for the project "Modernization and Expansion of Existing Fertilizer Plant for Manufacturing of Nano Fertilizer, Aonla Unit" at IFFCO Aonla, Paul Pothen Nagar, P.O. IFFCO Township, District-Bareilly, Uttar Pradesh- 243403 by M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO).

The details of products and capacity as under:

S. No.	Product	Unit	As per EC dated 13.03.2006	As per CTO dated 06.03.2020	As per No Increase in Pollution certificate granted from UPPCB dated 18.06.2021	After Proposed Modernization & Expansion	Impact
1.	Urea	MTPA	19,80,000	6000 TPD (19,80,000 MTPA (considering 330 Days)	23,26,500	23,26,500	No Change
2.	Ammonia	MTPA	11,38,500	11,38,500	13,20,000	13,20,000	
3.	Captive Power	MW	50 MW	50 MW	50 MW	50 MW	
4.	Nano-Urea Nano-Sulphur / Nano-	KL/ Annum	0	0	0	27,375	Additional Product

	Micronutrients						

Proposed Expenditure

S. No.	Activity	Amount allocated in Expansion	Remark
1.	Total Cost	Rs. 190 Crores	Cost of Proposed Expansion
2.	EMP Cost	Rs. 309 Lacs	EMP of Nano Urea plant, no additional cost proposed in existing operating plant.
3.	Recurring Cost	Rs. 17 Lacs	For proposed Expansion
4.	CSR/CER Cost	Rs. 200 Lacs	Considering 4 years plan
4.	Land	0	No additional land requirement
5.	Public Hearing commitment	As per provisions of the EIA Notification 2006	-
6.	Green Belt	Rs. 40 Lacs	Additional Green Belt
7.	Wild life Conservation Plan	Rs. 8.6 Lacs	-

The Ministry had granted EC earlier vide letter no. J-11011/430/2005-IA-II(I) dated 03.03.2006 under the provisions of the EIA Notification, 1994 to the existing project "Capacity enhancement/De-bottlenecking of existing Aonla Ammonia-Urea Complex" in favour of M/s Indian Farmers Fertiliser Cooperative Limited (IFFCO).

PP reported that the existing land area is 515.16 Ha and expansion is proposed within the existing land area. Over a time, plant has adopted many conservation measures to increase the efficiency of plant and reduce the pollution load and energy. The existing plant is operating on full load with less resources. Considering the S.O. 980 (E) dated 02.03.2021 notification of MoEF&CC, plant has obtained NOC/Approval under no increase in pollution load for expansion in the production of Urea and Ammonia by 17.5% and 15.9% respectively from UPPCB vide letter dated 18.06.2021. Now, IFFCO, Aonla Unit has proposed modernization and expansion in the existing plant to produce Nano-Urea/Nano-Sulphur/Nano-Micronutrients of capacity 27,375 KL/year. The proposal includes installation of manufacturing unit of Nano Fertilizer and bottling unit besides auxiliary facilities. The plant will be established over area of 2.904 ha in existing premises.

The estimated project cost for expansion including EMP cost is Rs.190 Crores. The capital cost earmarked towards environmental pollution control measures in expansion is Rs.3.09 Crores and recurring cost (Operation and maintenance) for proposed project will be about Rs.0.17 Crores per annum. Total additional Employment will be 200 persons as direct and indirect after expansion. Industry proposed to allocate Rs. 2 crores towards Corporate Environment Responsibility. Industry has already developed greenbelt in an area of 183 Ha which will increase to 183.8 Ha i.e., 35.68% after expansion.

There is no Wildlife sanctuary and no reserve forests within 10 km distance from the project site. No, national parks, Biosphere Reserves, Tiger/Elephant Reserves, etc. is present within 10 km distance from the project site. Four Reserved Forest are present at East, South & West Boundary of plant. The Aril River is the nearest river flowing at 0.51 km (W) from the project site.

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 and 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 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.

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

The EAC, after detailed deliberations, observed that the instant project does not qualify to be considered under para 7(ii) with exemption of public hearing, as the proposed expansion involves generation of additional pollution load viz. hazardous waste generation, etc.

The Committee is of the view that the instant proposal for expansion vis-à-vis setting up of nano urea plant requires the preparation of detailed EIA/EMP Report and public consultation as per the provisions of the EIA Notification, 2006. PP shall also comply all the conditions mentioned in the EC as well as the observation made by the IRO MoEFCC in its CCR report 16.09.2021.

The Committee also noted that previous EC was granted under the provisions of the EIA Notification, 1994. Further, the project is not located in the industrial area therefore, public consultation including public hearing is mandatory for the instant project. The Committee

advised the PP to submit the application as per provisions of the EIA Notification, 2006 and prepare a detailed EIA/EMP Report along with Public Hearing/Consultation.

Based on the deliberations, the representatives of M/s Indian Farmers Fertiliser Cooperative Limited confirmed that they will submit the application quickly as suggested the EAC. Accordingly, the EAC **returned** the proposal in the present form.

Agenda No.19.2

Technical Pesticides/Intermediates & Synthetic Organic Chemicals (Speciality Chemicals) in existing manufacturing unit-Modification in EC by Configuration and Product Mix Change by M/s UPL Limited, located at Plot no. D-3/6, Dahej-III, GIDC Estate (Within PCPIR Region) Kadodara Village, Taluka Vagra, District - Bharuch, Gujarat – Consideration of Environmental Clearance.

[Proposal No. IA/GJ/IND3/231156/2021; File No. J- J-11011/330/2016-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 modification in environmental clearance under the para 7(ii) of the EIA Notification, 2006 by configuration and Product Mix Change for the Technical Pesticides/Intermediates &Synthetic Organic Chemicals (Speciality Chemicals) in existing manufacturing Unit, located at Plot no. D-3/6, Notified Industrial Estate, GIDC (Within PCPIR Region) Dahej - III, Village Kadodara, Taluka Vagra, District - Bharuch, Gujarat by M/s UPL Limited.

The details of products and capacity as under:

Existing Plant No	Proposed Plant No.	Product Status	Name of Products	Production capacity (MT/Annum)			Remarks
				Existing EC	Proposed Change (+/-)	Total after Modification	
C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**
Pesticide Technical							
1	1	Existing	S Metolachlor (a mixture of (S)-2-Chloro-N-2(Ethyl-6-methylphenyl)-N-(2-Methoxy-1-methylethyl) Acetamide and (R)-2-Chloro-N-(2-ethyl-6-methylphenyl) Acetamide in the proportion	5000	0	5000	No Changes

Existing Plant No	Proposed Plant No.	Product Status	Name of Products	Production capacity (MT/Annum)			Remarks
				Existing EC	Proposed Change (+/-)	Total after Modification	
C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**
			80 - 100% to 20-0%				
2	2	Existing	Dicamba (3,6-dichloro-2-methoxybenzoic acid)	5000	0	5000	No Changes
3	3A	Existing	Propanil(3',4' dichloroproionanilide)	10000	-5000	5000	Two plants in place of One plant with total production same as earlier
	3B			NIL	5000	5000	
4	4	Existing	clodinafop (R)-2-[4-[(5-Chloro-3-fluoro-2-pyridinyl)oxy] phenoxy] propenic acid	2000	0	2000	No Changes
5	5	Existing	Asulam (methyl [(4-aminophenyl) sylfonyl] carbamate)	4000	0	4000	No Changes
6	6	Existing	Azoxystrobin (methyl (E)-2-[[6-2(Cynophenoxy) pyrimidinyl]oxy]-a-methoxy methelene) benzeneacetate)	2000	0	2000	No Changes
7	7A	Existing	Acephate(N-[Methoxy(methylthio) phosphinoyl] acetamide)	30000	-20000	10000	Three plants in place of One plant and possible addition of one new product. Total production will not exceed existing production.
	7B			NIL	10000	10000	
			Acephate(N-[Methoxy(methylthio) phosphinoyl] acetamide) OR	NIL	10000	10000	
		New	OR	NIL	OR	OR	
	7C		3-Bromo-4'Chloro-1-(3-Chloro-2-pyridyl)-2'-methyl-6'-(methyl-carbomoyl)pyrazole-5-carboxanilide (Chlorantraniliprole Technical)		3500	3500	

Existing Plant No	Proposed Plant No.	Product Status	Name of Products	Production capacity (MT/Annum)			Remarks
				Existing EC	Proposed Change (+/-)	Total after Modification	
C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**
8	8	Existing	Pilot plant / multi-purpose plant (MPP) (as Azoxystrobin) (Methyl (E)-2-[[6-2(Cynophenoxy) pyriminyl] oxy] -a- (Methoxy methylene) benzeneacetate)	1000	0	1000	No Changes
9	9A	Existing	Atrazine (6-chloro-N-Ethyl-N'-1(1-methylethyl)- 1,3,5-triazine-2,4-diamine)	5000	-2500	2500	Two plants in place of One plant with total production same as earlier
	9B			NIL	2500	2500	
10	10A	Existing	Glufosinate (ammonium (+) -2-amino-4- (hydroxyl methyl phosphinyl) butanoate	10000	-5000	5000	Two plants in place of One plant and possible addition of one new product. Total production will not exceed existing production.
	10B	Existing	Glufosinate (ammonium (+) -2-amino-4- (hydroxyl methyl phosphinyl) butanoate	NIL	5000	5000	
		New	OR	OR	OR	OR	
			2-[(2RS)-2-(1-chlorocyclopropyl)-3-(2-chlorophenyl)-2-hydroxypropyl]-2H-1,2,4-triazole-3(4H)-thione (Prothioconazole Technical)	NIL	750	750	
11	11	Existing	Sulphur WDG (wettable Dispersible Granule)(sulfur)	30000	0	30000	No Changes
Total				104000	0	104000	No Changes in EC Approved Quantity
Pesticide Specific Intermediates							
12	12A	Existing	Dimethyl phosphoroamidothioate (DMPAT) (O,O-Dimethyl	30000	-15000	15000	Two plants in place of One plant with total
	12B			NIL	1500	15000	

Existing Plant No	Proposed Plant No.	Product Status	Name of Products	Production capacity (MT/Annum)			Remarks
				Existing EC	Proposed Change (+/-)	Total after Modification	
C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**
			phosphoramidothioate)		0		production same as earlier
13		Existing	Chloroformates				Five plants in place of One plant and possible addition of five new products. Total production will not exceed existing production.
13.1	13A		Phenyl chloroformate or/ and chloroformic Acid phenyl Ester OR AND	20000 (Either Or/Combined Capacity)	-18000	2000 Or / And Combined Capacity	
13.2			Benzophenone (Diphenyl Ketone) OR AND				
	13B	NEW	Phenyl Isocyante OR AND	NIL			
	13C	NEW	2 CyanoPhenol	NIL			
	13D	NEW	Methyl Chloroformate OR AND	NIL	5000	5000 Or/And Combined Capacity	
		NEW	Ethyl Chloroformate	NIL			
	13E	NEW	Chloroacetyl Chloride (Monochloroacetyl chloride)	NIL	13000	13000	
14	14	Existing	Tri Methyl Phosphite (TMP) / (Trimeththoxyphosphine)	5000	0	5000	No Changes
			Tri Ethyl Phosphite (TEP) (Tri Ethoxy Phosphine)				
15	15	Existing	Di Methyl Sulfoxide (Dimethyl Sulfoxide)	10000	0	10000	No Changes
16	16	Existing	Acrolein (2-propenal)	2000	0	2000	No Changes
Total				67000	0	67000	No Changes in EC Approved Quantity
17	17	Existing	CAPTIVE POWER PLANT	55 MWPH	0	55 MWPH	No Changes in EC Approved
				(Phase	0	(Phase	

Existing Plant No	Proposed Plant No.	Product Status	Name of Products	Production capacity (MT/Annum)			Remarks
				Existing EC	Proposed Change (+/-)	Total after Modification	
C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**
				1 (20) +		1 (20) +	Quantity
				Phase 2 (20) +	0	Phase 2 (20) +	
				Phase 3 (15) MWPH)	0	Phase 3 (15) MWPH)	
Pesticide Formulations							
18	18	Existing	Liquid Formulations	20000	0	20000	No Changes
19	19	Existing	Solid Formulations	20000	0	20000	
Total (Product not requiring EC)				40000	0	40000	
Intermediate and Speciality chemicals							
20	20	Existing	Ethylenediamine (EDA) (1,2-Diaminoethane)	30000	0	30000	No Change
21	21A	Existing	Meta Phenoxy Benzaldehyde (MPBAD) (3-phenoxy benzaldehyde)	3000	0	3000*	Two plants in place of One plant with Addition of One New Product
	OR AND	New	OR AND	NIL	OR AND	OR AND	
	21B		DEMP (Diethyl Methyl Phosphonite)		6000	6000	
22	22	Existing	Methoxy Methy Acrylate (MAM) (Methyl 3-methoxyacrylate)	1000	0	1000	Process Change
23	23	Existing	Aminoacetonitrile sulfate (AANS) (Aminoacetonitrile bisulfate)	1000	0	1000	No Change
24	24		Acid Chloride				No Change
24.1	24A	Existing	Chloroacetyl Chloride (Monochloroacetyl chloride)	3000	-3000	0	
24.2	24B	Existing	Methoxyacetyl Chloride (Methoxyacetyl chloride)	400	0	400	

Existing Plant No	Proposed Plant No.	Product Status	Name of Products	Production capacity (MT/Annum)			Remarks
				Existing EC	Proposed Change (+/-)	Total after Modification	
C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**
24.3	24C	Existing	2-chloro-3, 3-tri fluoropropen-1, 2 dimethylcyclopropane carbonyl chloride (cyclopropanecarbonyl chloride, 3-[(1Z)-2-Chloro-3, 3-trifluoro-1-propen-11yl] -2,2-dimethyl-,(1r,3s))	600	0	600	
24.4	24D	Existing	DV Acid Chloride (3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarbonyl chloride)	1000	0	1000	
25			CS2 Based Product				No Change
25.1	25A	Existing	Potassium Ethyl Xanthate (potassium Ethyl Xanthate)	5000 (Either Or/and Combined Capacity)	0	5000	
		Existing	Sodium Isopropyl Xanthate (Sodium Isopropyl Xanthate)				
		Existing	Potassium Isopropyl Xanthate (Isopropylxanthic Acid Potassium Salt)				
		Existing	Potassium Amyl Xanthate (Dithiocarbonic Acid)				
25.2	25B	Existing	Dimethyl Cyanoiminodithiocarbonate (CCITM) (N-Cyano-S,S-dimethyldithioimidocarbonate)	1000	0	1000	
25.3	25C	Existing	1,6 -Bis (N,N-dibenzylthiocarbamyldithio) hexane (N-CYANO-S,S-dimethyldithiomidocarbonate)	2000	0	2000	
25.4	25D	Existing	1-Methylamino-1-methylthio-2 Nitroethene (n-methyl-1-(methylthio)-2-(nitrovinylamine)	2000	0	2000	

Existing Plant No	Proposed Plant No.	Product Status	Name of Products	Production capacity (MT/Annum)			Remarks
				Existing EC	Proposed Change (+/-)	Total after Modification	
C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**
26.1	26A	Existing	NaCN (Sodium Cyanide)	25000	0	25000*	Solid Product
		New	OR AND	0	OR AND	OR AND	
			30% Aqueous Solution of NaCN (Sodium Cyanide)		71000	71000	Aqueous Product
26.2	26B	Existing	Potassium Cyanide (Potassium Cyanide)	500	0	500	No Change
26.3	26C	Existing	Cyanuric Chloride	40000	-36000	4000	Five plants in place of One plant Total production will not exceed existing production.
	26D			NIL	6000	6000	
	26E			NIL	10000	10000	
	26F			NIL	10000	10000	
	26G			NIL	10000	10000	
26.4	26H	Existing	DL-Methionine (DL-2-Amino-4(methylthio)butyric acid)	10000	0	10000	No Change
27	27A	Existing	UPDT (UPL, Drought Technology,(starch based super absobent polymer)	50000	-40000	10000	Five plants in place of One plant Total production will not exceed existing production.
	27B			NIL	10000	10000	
	27C			NIL	10000	10000	
	27D			NIL	10000	10000	
	27E			NIL	10000	10000	
28	28	Existing	Glacial Acetic Acid	30000	0	30000	No Change
29	29A	Existing	CCMP (2 CHLORO 5 CHLORO Methyl pyridine)	10000	-7500	2500	Four plants in place of One plant Total production
	29B			NIL	2500	2500	
	29C			NIL	2500	2500	
	29D			NIL	2500	2500	

Existing Plant No	Proposed Plant No.	Product Status	Name of Products	Production capacity (MT/Annum)			Remarks
				Existing EC	Proposed Change (+/-)	Total after Modification	
C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**
							will not exceed existing production.
30	30	Existing	TPPI (Tri Phenyl Phosphite)	10000	0	10000	No Change
31	31A	Existing	DPMP (Diphenyl Methyl Phosphonate)	12000	-8000	4000	Three plants in place of One plant Total production will not exceed existing production.
	31B			NIL	4000	4000	
	31C			NIL	4000	4000	
32	32	Existing	EDTA (Ethylene Di-Amine Tetra Acetic Acid)	20000	0	20000	No Change
33	33	Existing	Indigo Blue	5000	0	5000	No Change
34	34A	Existing	HMTBA (Hydroxy MethylthioButanoic Acid)	50000	-30000	20000	Three plants in place of One plant Total production will not exceed existing production.
	34B			NIL	15000	15000	
	34C			NIL	15000	15000	
35	35	Existing	RP (Red Phosphorus)	5000	0	5000	No Change
36	36A	Existing	MAAN (Methyl Amino Aceto Nitrile)	2000	0 OR AND	2000	Two plants in place of One plant with Addition of One New
			OR AND				
	36B	New	OR AND – Methyl Mercaptan		876*	876*	

Existing Plant No	Proposed Plant No.	Product Status	Name of Products	Production capacity (MT/Annum)			Remarks
				Existing EC	Proposed Change (+/-)	Total after Modification	
C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**
							Product
37	37	Existing	Sodium Ferrocyanide	2000	0	2000	No Change
38	38	Existing	Sulpherised Iso Butylene	5000	0	5000	No Change
39	39	Existing	Thiophene	1000	0	1000	No Change
40	40	Existing	Cytosine	5000	0	5000	No Change
41		Existing	NaSH based derivatives				No Change
41.1	41A		Cysteamine hydrochloride or	40000	0	40000	
41.2	41B		Na2S (Sodium Sulphide with Na2SO4 route)				
42	42	Existing	Triethyl Orthoformate (TEOF)	5000	0	5000	Process Change with Addition of New Product in existing plant
		NEW	OR	OR	OR	OR	
			Trimethyl Orthoformate (TMOF)	5000	5000*	5000*	
43	43	Existing	Trimethyl Orthoformate (TMOF)	5000	0	5000	Process Change with Addition of New Product in existing plant
		NEW	OR	NIL	OR	OR	
			2-Chloro methyl isopropyl carbonate (CMIPC)		1200*	1200*	
44	44	Existing	CS2 Based Derivative				No Change
			Methyl Isothiocyanate (MITC)	5000	0	5000	
45		Existing	Phosgene Derivatives**				
45.1	45A		Secondary Butyl Chloroformate (SBCF) or	6800	0	6800	Change in process
45.2	45B		2-Ethyl Hexyl Chloroformate (EHCF) OR				
45.	45C		Di-Cyclo Hexyl Carbodiimide				

Existing Plant No	Proposed Plant No.	Product Status	Name of Products	Production capacity (MT/Annum)			Remarks
				Existing EC	Proposed Change (+/-)	Total after Modification	
C1	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**
3			(DCC)				
46	46	Existing	Cyclo Propyl Acetylene (CPA)	1000	0	1000	No Change
47	47	Existing	ZnDTP (Zinc Di Thio Phosphate)	12000	0	12000	No Change
48	48	Existing	Glutaraldehyde	5000	0	5000	No Change
Total				412300	46000	458300	
Note: ** There is a possibility to combine the plants/ Facilities based on the detail engineering. *Phosgene Is in-situ generated and used in captive manufacturing, there is no storage or selling is proposed.							

Table B – List of Products Does Not Require EC Under EIA Notification 2006

S. No.	Status as per EC	Name of Product	Existing EC in MT/ Annum	Proposed Change in MT/ Annum	Total After Modification in MT/Annum
1	Existing	Piperazine (PIP)	9510	0	9510
2	Existing	Diethylenetriamine (DETA) -(95-99%)	3300	0	3300
3	Existing	Amino Ethyl piperazine (AEP) -(95 - 99%)	1650	0	1650
4	Existing	Amino Ethyl Ethanol Amine (AEEA) -(95 - 99%)	990	0	990
5	Existing	Hydroxy Ethyl Piperazine (HEP) - 98%	660	0	660
6	Existing	Ammonium Sulphate Solution 10 - 20%	18435	0	18435
7	Existing	Ammonia Solution - 10%	5980	0	5980
8	Existing	Aluminum Hydroxide	580	0	580
9	Existing	Potassium Chloride (25 - 30 %)	1750	0	1750
10	Existing	Methyl Acetate (95 - 99%)	3810	0	3810
11	Existing	Methanol (98 - 99%)	1266	0	1266

S. No.	Status as per EC	Name of Product	Existing EC in MT/ Annum	Proposed Change in MT/ Annum	Total After Modification in MT/Annum
12	Existing	Anhydrous Ammonia or	2075	0	2075
13	Existing	20% aq. Ammonia	10379	0	10379
14	Existing	Ammonium chloride soln. - 15 - 20 %	43521	0	43521
15	Existing	Calcium chloride solution 30% or	24000	0	24000
16	Existing	Calcium chloride powder	8000	0	8000
17	Existing	Di Calcium Phosphate (DCP) Sludge	540	0	540
18	Existing	Aluminum Chloride Solution - (20 - 25%)	8454	0	8454
19	Existing	Meta Bromo Benzaldehyde - (95 - 99%)	1290	0	1290
20	Existing	Aq. Potassium Chloride - (20 - 25%)	7770	0	7770
21	Existing	Dimethoxy methane - (95 - 99%)	722	0	722
22	Existing	Ammonium Acetate - (28 - 35%) OR	70680	0	70680
23	Existing	Acetic Acid & Ammonium Sulphate - (95 - 99%)	83400	0	83400
24	Existing	Ammonium Sulphate & Sodium Acetate (30%)	106560	0	106560
25	Existing	Hydrochloric Acid Soln. (28 - 32%)	65818	-3156	62662
26	Existing	Methyl Mercaptan	710	0	710
27	Existing	Steam	1382400	0	1382400
28	Existing	30% Hydrochloric Acid Solution	3156	0	3156
29	Existing	30% Hydrochloric Acid Solution	440	0	440
30	Existing	30% Hydrochloric Acid Solution	276	0	276
31	Existing	30% Hydrochloric Acid Solution	527	0	527
32	Existing	31% Sodium sulphite solution	14378	0	14378
33	Existing	Ethyl Acetate soln. (90 - 95%)	6000	0	6000
34	Existing	Ammonia Solution - 20%	600	0	600
35	Existing	Ammonium chloride	26560	0	26560
36	Existing	Magnesium Chloride solution (25 - 28%) OR	33160	-33160	0
37	Existing	Magnesium Chlorate -50%	33160	-33160	0
38	Existing	40% Ammonium Sulphate	1061	0	1061
39	Existing	40% Ammonium Sulphate	80	0	80
40	Existing	40% Ammonium Sulphate	2415	0	2415
41	Existing	30% Hydrochloric Acid Solution	29676	0	29676
42	Existing	30% HCL	25372	0	25372
43	Existing	Aq. Ammonia	45410	0	45410
44	Existing	Ammonium Sulphate	104878	-606	104272
45	Existing	NaCl Solution	3360	0	3360

S. No.	Status as per EC	Name of Product	Existing EC in MT/ Annum	Proposed Change in MT/ Annum	Total After Modification in MT/Annum
46	Existing	Sodium Hydrosulphide (NaSH)	157900	0	157900
47	Existing	Methanol	2240	0	2240
48	Existing	Caustic Soda (NaOH)	1795	0	1795
49	Existing	Ammonium Chloride	9286	2444	11730
50	Existing	Potassium Chloride (KCL)	675	-675	0
51	Existing	Sulphur	3040	0	3040
52	Existing	30% Sodium Cyanide	7660	0	7660
1	New	CaCl2 Solid OR CaCl2 Liquid from PCF/BF/PIC/2CP	0	2468 OR 8228	2468 OR 8228
		CaCl2 Solid OR CaCl2 Liquid (from ECF/MCF)	0	3350 OR 11160	3350 OR 11160
		CaCl2 Solid OR CaCl2 Liquid from 2 CP	0	17147 OR 57161	17147 OR 57161
2	New	Magnesium Carbonate (Glufosinate)	0	8650	8650
3	New	Magnesium Chloride Flakes (Prothioconazole)	0	951.75	951.75
4	New	AlCl3 Solution 27% (DEMP)	0	16282.2	16282.2
	New	NH4Cl Wet Cake (DEMP)	0	5136.6	5136.6
5	New	CaCl2 Dry (CMIPC)	0	766.8	766.8
	New	Ammonium Chloride (CMIPC)	0	378	378
Note: *All Non EC Require Products will be reused within site or sent to other sites of UPL or sold to domestic / International Markets. **The New Plant(s)/Facility for Other Products will be constructed separately along with the main product facility based on the requirement.					

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

The Ministry had issued ECs earlier vide letter no. J-11011/306/2016-IA (II); dated 1st March, 2019 and 11th August, 2020 to the existing project for manufacturing Pesticides Technical, Pesticide Specific Intermediates, Intermediates & Specialty Chemicals and Captive Thermal Power plant in favour of M/s UPL Limited at Plot No D-3/6, GIDC Industrial Estate, Dahej III, Village Kadodara, Taluka Vagra, District Bharuch, Gujarat. Further PP has taken amendments in EC by the MoEFCC vide letter dated 24.09.2020. PP has submitted certified compliance report of IRO MoEFCC dated 20.07.2021.

PP reported that existing land area is 755495.16 m^2, no additional land will be used for proposed expansion. Industry will develop greenbelt in an area of 33 % i.e., 263005.16 m^2 out of total area of the project. The estimated project cost is Rs. 359.75 Crores excluding existing ongoing investment of Rs.3625.16 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 444.24 Crores (413.5 Crores Existing + 30.74 Crores Additional) and the Recurring cost (operation and maintenance) will be about Rs.12.44 Crores (Rs. 11.88 Crores Existing + Rs. 0.56 Crores Additional) per annum. Total existing employment is 1300 persons as direct & 2200 persons indirect & No Additional Manpower proposed for change in configuration and product mix. Industry proposes to allocate Rs.15.66 Crores towards CER. Public hearing is not applicable as the project site is located within PCPIR region of Notified GIDC Dahej Industrial Estate.

The Project proponent reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body Bhukhi River is flowing at a distance of ~14.0 km in south-east direction.

Ambient air quality monitoring was carried out at 8 locations during 20th May 2021 to 21st June 2021 and the baseline data indicates the ranges of concentrations as: PM_{10} (79-92 µg/m^3), $PM_{2.5}$ (25 – 37µg/m^3), SO_2 (7.6 – 10.2µg/m^3) and NO_2 (14.1 –18.0µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3.598 µg/m^3, 3.635 µg/m^3 and 4.571 µg/m^3 with respect to PM_{10}, SO_x and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is (25377m^3/day Existing -12 m^3/day Additional = 25365 m^3/day Total) of which fresh water requirement of (Existing 12966m^3/day - 12 m^3/day Additional =12984m^3/day Total) will be met from GIDC water supply. Effluent of (10044.20 m^3/day Existing – 11 m^3/day Additional = 10033 m^3/day Total) quantity will be treated through existing ETP followed by RO and MEE. The total (2891.92 m^3/day Existing - 11 m^3/day Additional = 2881 m^3/day. Total effluent will be discharged through GIDC Drainage System for Deep Sea Disposal.

No Additional Power requirement for proposed EC Modification. The Existing Power requirement 35 MW will cater power requirements which will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has 7 DG sets of 4x2000 kVA, 2 X 1250 KVA & 1x500 kVA capacity, No Additional DG set is proposed. The DG sets will be used as standby during power failure. Stack (height30 m) will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 2 X 130 TPH, 1 X 100 TPH, 9x40 TPH, 2 X 31 TPH, 2 X 20 TPH, 9 x 10 TPH capacity Natural gas/ coal fired boilers. Additionally, Natural gas fired 10 Nos of Thermic Fluid Heaters& Calcined Pet-coke based 2 Nos of CO Generators will be installed. Adequate stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 for the proposed thermic fluid heaters and CO Generators.

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

Stack No.	Stack attached to	Air pollution Control System	Dia in MM	Height (M)	Exit gas velocity in m/s	Air emission	
						Pollutant Name	Permissible limit (mg/nM3)
(A) Ethylenediamine (EDA)							
1.	2-Stage Water scrubber of Vapor Liquid separator	Water scrubber	500	30	2	NH3	175
	(B) Dicamba						
2.	Bag filter attached to SPD	Bag Filter	600	30	2	PM	20
(C) Dimethyl Phosphoroamidothioate (DMPAT)							
3.	Reactor	2-Stage Caustic scrubber	500	30	2	PCl3	9
4.	NH3 recovery column	2-Stage water scrubber	500	30	2	NH3	175
(D) Isocyanates & Chloroformates							
5.	Reactor	1st solvent +2nd water+3rd caustic scrubber	600	30	5	Phosgene	NIL
6.	Reactor	2-Stage water & Caustic scrubber	600	30	5	HCl	20
(E) Tri Methyl Phosphite(TMP) / Tri Ethyl Phosphite (TEP)							
7.	PCl3 storage tank	Dilute Caustic scrubber	400	30	2	PCl3	0 9
8.	Reactor	Dilute HCl scrubber	500	30	2	NH3	175
9.	Wet scrubber attached to SPD	Water Scrubber	500	30	2	PM	150
(F) Meta Phenoxy Benzaldehyde (MPBAD)							
10.	Reactor	Alkali Scrubber	600	30	5	Bromine	5
(G) Acephate							
11.	Reactor	2-Stage water	500	30	5	NH3	30

Stack No.	Stack attached to	Air pollution Control System	Dia in MM	Height (M)	Exit gas velocity in m/s	Air emission	
						Pollutant Name	Permissible limit (mg/nM3)
		scrubber					
12.	Bag filter attached to SPD	Bag Filter	600	30	2	PM	20
(H) Sulphur-WDG (Wettable Dispersible Granule)							
13.	Bag filter attached to SPD	Bag Filter	600	30	2	PM	20
(I) Chloroacetyl Chloride							
14.	Reactor	2-Stage water scrubber	500	30	2	HCl	20
15.	Reactor	Caustic scrubber	500	30	2	SO2	40
(J) Methoxyacetyl Chloride							
16.	Reactor	Water Scrubber	500	30	2	HCl	20
17.	Reactor	Caustic scrubber	500	30	2	SO2	40
	(K) 2-Chloro-3, 3-tri fluoropropen-1,2 dimethylcyclopropane Carbonyl chloride						
18.	Reactor	Water Scrubber	500	30	2	HCl	20
19.	Reactor	Caustic scrubber	500	30	2	SO2	40
	(L) DV Acid Chloride						
20.	Reactor	Water Scrubber	500	30	2	HCl	20
21.	Reactor	Caustic scrubber	500	30	2	SO2	< 40
(M) DL-Methionine							
22.	Reactor	Water Scrubber	500	30	2	NH3	< 175
(N) Acrolein, 1-Methylamino-1-Methylthio-2-Nitroethene , Sodium Cyanide ,Potassium Cyanide and Cyanuric Chloride (Proposed Revised Standards)							
23	Combined fume incinerator 1 & 2 (2 nos.)	Thermal destruction	1000	30	10	PM	150
						HCl	20
						SO2	100
						NOx	400
						H2S	45
						HC (Organic Trace)	20
						HCN	30
(O) Sodium Cyanide							

Stack No.	Stack attached to	Air pollution Control System	Dia in MM	Height (M)	Exit gas velocity in m/s	Air emission	
						Pollutant Name	Permissible limit (mg/nM3)
24.	Reactor	NH3 absorber in H2SO4 scrubber	800	40	2	NH3	175
(P) Potassium Cyanide							
25.	Reactor	NH3 absorber H2SO4 scrubber	1000	35	2	NH3	175
(Q) Cyanuric Chloride							
26.	Reactor (Crystalizer)	HCl absorber Water scrubber	500	30	2	HCl	20
® Tri Methyl Phosphide							
27.	Spray dryer of CaCl2	Water scrubber	500	30	2	PM	150
(S) Glufosinate							
28.	From Reactor to water scrubber & its vent to Stack	Alkali scrubber	600	30	5	HC	20
29.	From Reactor to water scrubber & its vent to Stack	Water scrubber	500	30	2	NH3	30
30.	From Reactor to water scrubber & its vent to Stack	Caustic scrubber	500	30	2	HC + NH3	20 + 30
31.	From Reactor to water scrubber & its vent to Stack	Caustic scrubber	500	30	2	PCl3	9
32.	From Tank to water scrubber & its vent to Stack	Caustic scrubber	500	30	2	HCl	20
33.	From Reactor to water scrubber & its vent to Stack	Carbon Absorption Tower	500	30	2	VOC + HC	60 + 20
(T) Captive Incinerator (2 nos)							
34.	Incinerator Plant (for solid & liquid)	Caustic scrubber attached to incinerator plant	500	30	2	PM	50
						HCl	50
						SO2	200
						CO	100 (daily

Stack No.	Stack attached to	Air pollution Control System	Dia in MM	Height (M)	Exit gas velocity in m/s	Air emission	
						Pollutant Name	Permissible limit (mg/nM3)
							avg.)
						TOC	20
						Total dioxin & Furans	0.2 ng TEQ/ Nm3 (8 hr sampling)
						Sb+As+Pb+Cr+Co+Cu+Mn+Ni+V & their compounds	1.5 mg/ Nm3 (2 hr sampling)
35.	Stack attached to Bag Filter-2 nos. for pesticide formulation products.	Bag filter	600	30	2	PM	20
36	Saponification Reactor (UPDT)	NH3 scrubbing with Water	200	30	6	NH3	30
37	BFNCl reactor (CCMP)	Alkali Scrubber	300	30	6	Chlorine	9
						HCl	20
38	TPPI reactor	Alkali Scrubber followed by Water scrubber	350	30	6	HCl	20
39	EDA reactor (EDTA)	Water scrubber	600	30	6	NH3	30
40		Alkali Scrubber		30		HCl	20
41	Indigo Blue	Water scrubber	400	30	6	NH3	30
42	HMTBA	Dil H2SO4	400	30	6	NH3	30
43	Red Phosphorous	Alkali followed by Water	500	30	6	HCl	20
44	Sul Isobutylene	Alkali Scrubber	500	30	6	H2S	5

Stack No.	Stack attached to	Air pollution Control System	Dia in MM	Height (M)	Exit gas velocity in m/s	Air emission	
						Pollutant Name	Permissible limit (mg/nM3)
45	Cysteamine Hydrochloride`	Alkali Scrubber+ Water Scrubber	600	30	6	H2S	5
46	Cyanuric Chloride	Bag Filter followed by Alkali Scrubber+ Water Scrubber	250	30	10	Cl2	9
						HCl	20
47	MITC	Alkali Scrubber	500	30	6	H2S	5
48	PCF/SBCF/2EHCF/DCC	Alkali Scrubber+ Water Scrubber Common Scrubber	500	30	6	HCl	20
49	CPA	Alkali Scrubber+ Water Scrubber	500	20	6	HCl	20
50	ZnDTP	Alkali Scrubber+ Water Scrubber	500	30	6	H2S	5
51	Na2S Flakes	Bag Filter Followed by Water Scrubber	600	20	2	PM,	150
						SO2,	100
						NOX	50
52	NaCN Plant (Emergency Stack)	Two stage water scrubber	800	40	5	NH3	175
						HC	20
	NaCN Plant (Process Stack)	2 stage Alkali Scrubber + Water Scrubber	1000	35	10	NH3	175
						HCN	30
53	Natural gas based fume gas incinerator – III (NaCN, TEOF,	Thermal Destruction	1000	30	10	PM	150
						HCl	20
						SO2	100
						NOx	400

Stack No.	Stack attached to TMOF,Indigo Blue, EDTA, HMTBA, Cyanuric Chloride)	Air pollution Control System	Dia in MM	Height (M)	Exit gas velocity in m/s	Air emission	
						Pollutant Name	Permissible limit (mg/nM3)
						H2S	45
						HC Traces	20
						HCN	30
54	Natural gas based fume gas incinerator – IV (Thiophine, DCC,MITC)	Thermal Destruction	1000	30	10	PM	150
						HCl	20
						SO2	100
						NOx	400
						H2S	45
						HC Traces	20
						HCN	30

Details of Proposed Changes in Process Emissions:

Sr No	Plant	Process	Air Pollution Control Measures	Diameter in mm	Height in m	Exit Gas Velocity (m/s)	Air Emission		Existing No Of Stacks in Each Plant (Before)	Proposed No of Stacks in Each Plant After Modification	Remarks
							Pollutant Name	Permissible Limit (mg/Nm3)			
1	Acephate	Neutralization Reactor	2-stage water scrubber	200	30	5	NH3	30	2	3	Three No of Plants Proposed hence Total 9 No of Stacks
		Bag filter attached to SPD	Bag filter	200	30	5	PM	20			
		Acetic Acid Recovery (New Stack)	Caustic Scrubber	200	30	5	NH3	30	0		

Sr No	Plant	Process	Air Pollution Control Measures	Diameter in mm	Height in m	Exit Gas Velocity (m/s)	Air Emission		Existing No Of Stacks in Each Plant (Before)	Proposed No of Stacks in Each Plant After Modification	Remarks
							Pollutant Name	Permissible Limit (mg/Nm3)			
	OR AND										
	Chlorantraniliprole	Process plant (New Stack)	2 stage caustic Scrubber	200	30	5	HCl	20	0	1	New Stack to Plant
2	Glufosinate	From Reactor to water scrubber & its vent to stack	Alkali Scrubber	200	30	5	HC	20	6	6	Three No of Plants Proposed hence Total 18 No of Stacks
		From Reactor to water scrubber & its vent to stack	water scrubber	200	30	5	NH3	30			
		From Reactor to water scrubber & its vent to stack	Caustic Scrubber	200	30	5	HC + NH3	20 30			
		From Reactor to	Caustic Scrub	200	30	5	PCL3	9			

Sr No	Plant	Process	Air Pollution Control Measures	Diameter in mm	Height in m	Exit Gas Velocity (m/s)	Air Emission		Existing No Of Stacks in Each Plant (Before)	Proposed No of Stacks in Each Plant After Modification	Remarks
							Pollutant Name	Permissible Limit (mg/Nm3)			
		water scrubber & its vent to stack	ber								
		From Tank to water scrubber & its vent to stack	Caustic Scrubber	200	30	5	HCL	20			
		From Reactor to water scrubber & its vent to stack	Carbone Absorption Tower	200	30	5	VOC HC	60 20			
		OR AND									
	Prothioconazole	Process plant (New Stack)	2 stage caustic Scrubber	200	30	5	HC HCl NH3	20 20 30	0	1	New Stack To Plant
3	Phenyl Chloroformate OR Benzophenone OR Phenyl	Reactor of Process Plant	1st Solvent+2nd Water +3rd	200	30	5	HCl	20	2	3	Addition of One Stack for

Sr No	Plant	Process	Air Pollution Control Measures	Diameter in mm	Height in m	Exit Gas Velocity (m/s)	Air Emission		Existing No Of Stacks in Each Plant (Before)	Proposed No of Stacks in Each Plant After Modification	Remarks
							Pollutant Name	Permissible Limit (mg/Nm3)			
	Isocyanate Or 2 Cyano Phenol	(New Stack)	Caustic Scrubber								CaCl2 Recovery
		Phosgene Generation (New Stack)	2-Stage Water & Caustic Scrubber	200	30	5	HCl Cl2	209			
		CaCl2 Recovery (New Stack)	water scrubber	1700	30	2	PM	150	0		
	Ethyl Chloroformate Or Methyl Chloroformate	Reactor of Process Plant (New Stack)	1st Solvent+2nd Water +3rd Caustic Scrubber	200	30	5	HCl	20	0	3	Addition of New Stacks as Addition of New Products under Product Mix Change
		Phosgene Generation (New Stack)	2-Stage Water & Caustic Scrubber	200	30	5	HCl Cl2	209			
		CaCl2 Recov	water scrubb	1700	30	2	PM	150			

Sr No	Plant	Process	Air Pollution Control Measures	Diameter in mm	Height in m	Exit Gas Velocity (m/s)	Air Emission		Existing No Of Stacks in Each Plant (Before)	Proposed No of Stacks in Each Plant After Modification	Remarks
							Pollutant Name	Permissible Limit (mg/Nm3)			
		ery (New Stack)	er								
	Chloro Acetyl Chloride	Reactor of Process Plant (New Stack)	1st Solvent+ 2nd Water + 3rd Caustic Scrubber	200	30	5	HCl	20	0	3	Addition of New Stacks as Addition of New Products under Product Mix Change
		Phosgene Generation (New Stack)	2-Stage Water & Caustic Scrubber	200	30	5	HCl Cl2	20 9			
		CaCl2 Recovery (New Stack)	water scrubber	1700	30	2	PM	150			
4	MPBAD	MPBAD	Alkali Scrubber	600	30	5	Bromine	5	1	1	Addition of New Stacks Under Product Mix Change
		OR AND									
	DEMP	Process plant (New Stack)	2 Stage HNP Scrubber	200	30	5	HCl	20	0	3	

Sr No	Plant	Process	Air Pollution Control Measures	Diameter in mm	Height in m	Exit Gas Velocity (m/s)	Air Emission		Existing No Of Stacks in Each Plant (Before)	Proposed No of Stacks in Each Plant After Modification	Remarks
							Pollutant Name	Permissible Limit (mg/Nm3)			
		Process plant (New Stack)	2 Stage Water & Caustic Scrubber	200	30	5	NH3	30			
		Process plant (New Stack)	2 Stage Water/ HCl Scrubber	200	30	5	HCl	20			
5	Chloro Acetyl Chloride	Reactor	2-Stage Water Scrubber	500	30	2	HCl	20	2	NIL	To Be Discontinued
		Reactor	Bag filter	500	30	2	SO2	40			
6	Cyanuric Chloride	Process	Bag Filter Followed by Alkali Scrubber	200	30	10	Cl2 HCl	9 20	1	1	Five Plants proposed hence Total Five Stacks
7	UPDT	Process	NH3 Scrubbing with Water	200	30	6	NH3	30	1	1	Five Plants proposed hence Total

Sr No	Plant	Process	Air Pollution Control Measures	Diameter in mm	Height in m	Exit Gas Velocity (m/s)	Air Emission		Existing No Of Stacks in Each Plant (Before)	Proposed No of Stacks in Each Plant After Modification	Remarks
							Pollutant Name	Permissible Limit (mg/Nm3)			
											Five Stacks
8	CCMP	Process	Alkali Scrubber	300	30	6	Cl2 HCl	9 20	1	1	Four Plants proposed hence Total Four Stacks
9	HMTBA	Process	Dil H2SO4	400	30	6	NH3	30	1	1	Three Plants proposed hence Total Three Stacks
10	MAAN	Process	NIL	NIL	NIL	NIL	NIL	NIL	0	NIL	Addition of One Stack under Product Mix Change
		OR AND									
	Methyl Mercaptan	Process (New Stack)	2 Stage Water/ Caustic Scrubber	200	30	5	H2S	5	1	1	
11	TEOF OR TMOF	Reactor of Process	2 Stage Water &	200	30	5	HCl HC	20 20	1 (Common To	1	Change from Com

Sr No	Plant	Process	Air Pollution Control Measures	Diameter in mm	Height in m	Exit Gas Velocity (m/s)	Air Emission		Existing No Of Stacks in Each Plant (Before)	Proposed No of Stacks in Each Plant After Modification	Remarks
							Pollutant Name	Permissible Limit (mg/Nm3)			
		Plant	Third Stage Caustic Scrubber						Fume Incinerator)		mon Fume Gas Incinerator To Inhouse Plant Stack
12	CMIPC	Process (New Stack)	2 Stage Water & 2 Stage Caustic Scrubber	200	30	5	HCl Cl2	20 9	0	2	Product Mix Change - Addition of Two New Stacks
		Process (New Stack)	2 Stage Water Scrubber	200	30	5	Cl2 NH3	9 30	0		
13	SCBF/2EHCF/DCC	Process	Alkali Scrubber +Water Scrubber	500	30	6	HCl	20	1	2	Addition of Phosgene Generation Stack
		Phosgene Generation (New	2-Stage Water & Causti	200	30	5	HCl Cl2	20 9	0		

Sr No	Plant	Process	Air Pollution Control Measures	Diameter in mm	Height in m	Exit Gas Velocity (m/s)	Air Emission		Existing No Of Stacks in Each Plant (Before)	Proposed No of Stacks in Each Plant After Modification	Remarks
							Pollutant Name	Permissible Limit (mg/Nm3)			
		Stack)	c Scrubber								
14	Methoxy SCBFMethyl Acrylate (MAM)	MDMP Reaction (New Stack)	Primary Water & Secondary Caustic Scrubber	200	30	5	HC	20	0	1	Increase in No of Stack due to Change in Process
15	Chloroformates and Iso Cyanates (DCC/2EHCF/SCBF & 2CP/PCF/PIC/ECF/MCF/CAC)	CO Generator (Common Stack for All Phosgene Based Derivatives) @ 20000 TPA	Water Scrubber Caustic Scrubber	250	25	10	PM SO2 Nox	150 100 50	0	1	Addition of Stack As Change in CO Generation
16		CO Generator (Common Stack for All Phosg	Water Scrubber Caustic Scrubber	250	21	10	PM SO2 NOx	150 100 50	0	1	Addition of Stack As Change in CO Gener

Sr No	Plant	Process	Air Pollution Control Measures	Diameter in mm	Height in m	Exit Gas Velocity (m/s)	Air Emission		Existing No Of Stacks in Each Plant (Before)	Proposed No of Stacks in Each Plant After Modification	Remarks
							Pollutant Name	Permissible Limit (mg/Nm3)			
		ene Based Derivatives) @ 6800 TPA									ation
17	All Solid Product Plants	Packaging Area	Bag Filter	200	10	2	PM	20	0	1	Addition of Packaging Stack for Solid Products
18	All Liquid Product Plants	Packaging Area	Scrubber	200	10	2	VOC	20	0	1	Addition of Packaging Stack for Liquid Products
Note : The Above Sr. No 15 & 16 Stacks have been considered under Flue Gas Stacks However Calcined Pet Coke is Consumed under Process of CO Generation hence Added at Process Emissions Also.											

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

S. N	Type of Waste	Hazardous	Existing EC Approve	PROPOSED MODIFICATION DETAILS	Total Overall Quantity	Source	Method of Treatment / Disposal

o		Waste Category	d Overall Quantity in TPA	Existing EC Approved Quantity for Modification in TPA	Proposed Additional Modification Quantity in TPA	Total Modification Quantity in TPA	After Modification in TPA		
1	ETP Sludge/ STP Sludge	35.3	7770	3650	0	3650	7770	From ETP/ STP	Sent to common TSDF For landfilling
2	Used Oil	5.1	360	169	0	0	360	Machinery	Sale to CPCB Registered re processor/recycle
3	Discarded containers /bags/liners	33.1	Containers- 41556 NOS.(825MT)/Bag- 41366 NOS.(407 MT)/Container liner- 42566 NOS.(825 MT)	Containers - 19521 Nos (388 MT)/ Bag - 19432 Nos (191 MT)/ Container Liner - 19996 Nos (388 MT)	0	Containers - 19521 Nos (388 MT)/ Bag - 19432 Nos (191 MT)/ Container Liner - 19996 Nos (388 MT)	Containers- 41556 NOS.(825MT)/Bag- 41366 NOS.(407 MT)/Container liner- 42566 NOS.(825 MT)	Raw material container /Bag	Recycle/Reuse into process or sale to GPCB authorized dealer and scrap processor or contaminated drum to approved decontamination facility.
4	Organic Residue	29.1	97518	55118	4151	59268.8	101669	From Process	sent to cement industry for co-processing/ CHWIF site for incineration/captiv

S. No	Type of Waste	Hazardous Waste Category	Existing EC Approved Overall Quantity in TPA	PROPOSED MODIFICATION DETAILS			Total Overall Quantity After Modification in TPA	Source	Method of Treatment / Disposal
				Existing EC Approved Quantity for Modification in TPA	Proposed Additional Modification Quantity in TPA	Total Modification Quantity in TPA			
									e incineration
5	Aqueous Waste	29.1						From Process	sent to cement industry for co-processing/ CHWIF site for incineration/captive incineration
6	Inorganic Salts/Ash/ Residues/ Sludge/ other product from Evaporation /Production process	35.3	245637	121842	2770	124611	248407	from processes and MEEs	Sent to common TSDF site For landfilling
7	Date Expired and off specification Pesticide	29.3	145	68	0	68	145	from Process	CHWIF site for incineration/captive incineration
8	Spent filter Material	36.2	252	118	0	118	252	from Process/ Utility	sent to CHWIF Site for incineration/captive incineration
9	Spent solvent	29.4	15075	7082	0	7082	15075	from Process	Recovery /sale to GPCB Approved recycler/sent to

S. No	Type of Waste	Hazardous Waste Category	Existing EC Approved Overall Quantity in TPA	PROPOSED MODIFICATION DETAILS			Total Overall Quantity After Modification in TPA	Source	Method of Treatment / Disposal
				Existing EC Approved Quantity for Modification in TPA	Proposed Additional Modification Quantity in TPA	Total Modification Quantity in TPA			
									CHWIF Site for incineration/captive incineration
10	Contaminated cotton waste	33.2	62	29	0	29	62	from process plant	sent to common TSDF Site for landfilling /sent to CHWIF Site for incineration /captive incineration
11	Insulation Waste	33.1	83	39	0	39	83	from equipment	send to common TSDF site for landfilling
12	Non-Recyclable plastic waste	33.1	94	44	0	44	94	RM container /Bag	send to common TSDF site for landfilling
13	Used PPE	33.1	21	10	0	10	21	From process plant	send to common TSDF site for landfilling
14	Incineration Ash	37.2	4000	1879	0	1879	4000	from Incinerator	send to common TSDF site for landfilling
15	Spent Catalyst	29.5	104.8	49	0	49	104.8	from process	sent to CHWIF Site for incineration
16	HCl Solution. (28-32%)	29.6	125266	58845	-30010	28835	95256	From process	By selling to actual user.
17	Fe (OH)2 sludge	35.3	157	74	0	74	157	From proce	send to common TSDF site for

S. No	Type of Waste	Hazardous Waste Category	Existing EC Approved Overall Quantity in TPA	PROPOSED MODIFICATION DETAILS			Total Overall Quantity After Modification in TPA	Source	Method of Treatment / Disposal
				Existing EC Approved Quantity for Modification in TPA	Proposed Additional Modification Quantity in TPA	Total Modification Quantity in TPA			
								ss	landfilling
18	Iron Residue	36.1	251	118	0	118	251	From process	send to common TSDF site for landfilling
Reduction in Spent HCl Generation by Change in Process of Chloroformate / Iso Cyanates									

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 the 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 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.

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

The Committee, after detailed deliberations, noted that the Ministry had issued ECs earlier vide letter no. J-11011/306/2016-IA (II); dated 1st March, 2019 and 11th August, 2020 to the existing project for manufacturing Pesticides Technical, Pesticide Specific Intermediates, Intermediates & Specialty Chemicals and Captive Thermal Power plant in favour of M/s UPL Limited. Now PP want to modify the EC and submitted the proposal under provision of the Para 7(ii) of the EIA Notification, 2006. The EAC is of the view that the instant proposal pertains to Para 7(ii) of the EIA Notification, 2006 and accordingly PP has submitted the Report and Certified Compliance Report of the EC compliances submitted by IRO, MoEFCC vide letter dated 20.07.2021. The Committee deliberated the Certified Compliance Report and found in order.

The Committee noted that the reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for green belt development. PP committed to plant 70000 nos. trees with 4 to 5 rows of plants along the boundary. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested the use the recycled water. The Committee deliberated the solvent recovery and its mitigation plan and found satisfactory. The committee also deliberated the pesticide usage and the effect of pesticide on crops and pests. The Committee deliberated the mangrove plantation and Schedule-I conservation plan and found satisfactory. The Committee also deliberated water balance and risk assessment. It was advised to complete the plantation as soon as possible.

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

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

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

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

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

(ii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

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

(iv). Domestic effluent shall be treated in STP and the treated domestic effluent shall be used for greenbelt development and other suitable purposes within premises.

(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 Integrated Regional Office of Ministry and SPCB along with the compliance report.

(vii). The treated waste water of 2881 cum/day shall be discharge through GIDC drainage system for deep sea disposal after conform to the standards prescribed under the Environment (Protection) Rules, 1986.

(viii). The Sodium Cyanide manufactured by the unit shall not be used as insecticidal purpose nor it shall be used for manufacturing of banned pesticide mentioned in the Notification issued on 18th August, 2018 by the Ministry of Agriculture & Farmers Welfare.

(ix). Total fresh water requirement shall not exceed 12984 cum/day, proposed to be met from GIDC water supply. Necessary permission obtained in this regard shall be renewed from time to time. The fresh water demand shall be reduced by 10% using rain water harvesting system.

(x). As proposed by PP, Rs. 15.66 crore shall be allocated towards Corporate Environment Responsibility (CER). As proposed, the CER allocation shall be spent mainly for education including education/skill development/solar lights, etc., and shall be completed within 5 years. The amount proposed in CER shall be spent during execution of the project and shall not be linked with the CSR. Preference shall be given to local villagers for employment in the unit.

(xi). Implementation of outcome of Process safety and risk assessment studies using 3D CFD Consequence Analysis and its mitigating measures shall be implemented accordingly.

(xii). 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.

(xiii). 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.

(xiv). 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.

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

(xvi). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF.

(xvii). 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.

(xviii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology.

(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 in nearly 33 % of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map. Trees have to be planted with spacing of 2m x 2m and number of trees has to be increased accordingly. PP committed to plant 70000 nos. trees with 4 to 5 rows of plants along the boundary. The plant species can be selected that will give better carbon sequestration and plantation shall be started from first year onwards.

(xxii). 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.

(xxiii). 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. 19.3

Setting up of manufacturing of different types of pigments of capacity 210 MTPM, located at Survey No. 292/5 p1 292/6 p1 292/7 p1 292/8 p1, Latipar-Tankara road, Village Bangavadi, Taluka Tankara, District Morbri, Guajrat by M/s Gajanan Organics LLP –Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/201966/2021, F.No:IA-J-11011/84/2021.20-IA-II (I)]

The Project Proponent and the accredited Consultant M/s T.R. Associates 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 of Pigment production unit of Phthalocyanine Green 7(200 MT/Month),Pigment Orange 13 OR Pigment Orange 34 OR Pigment Red 2 OR Pigment Red 3 OR Pigment Red 4 OR Pigment Red 48:2 OR Pigment Red 49:2 OR Pigment Red 53:1 OR Pigment Red 57:1 OR Pigment Red 63:1 OR Pigment Red 112 OR Pigment Yellow 1 OR Pigment Yellow 12 OR Pigment Yellow 13 OR Pigment Yellow 83(10 MT/Month), total production capacity of 210 MT/Month at Survey No.: 292/5 p1, 292/6 p1, 292/7 p1, 292/8 p1, Latipar-Tankara road, Village: Bangavadi, Taluka: Tankara& District: Morbi, Gujarat by M/s. Gajanan Organics LLP.

The details of products and capacity as under:

S. No.	Name of the Product	Production Capacity (MT/Month)	CAS Number
1.	Pigment Phthalocyanine Green 7	200	1328-53-6
Group 1			
2.	Pigment Orange 13	10	3520-72-7
3.	Pigment Orange 34		15793-73-4
4.	Pigment Red 2		6041-94-7
5.	Pigment Red 3		2425-85-6
6.	Pigment Red 4		2814-77-9
7.	Pigment Red 48:2		7023-61-2
8.	Pigment Red 49:2		1103-39-5

9.	Pigment Red 53:1		5160-02-1
10.	Pigment Red 57:1		5281-04-9
11.	Pigment Red 63:1		6417-83-0
12.	Pigment Red 112		6535-46-2
13.	Pigment Yellow 1		2512-29-0
14.	Pigment Yellow 12		6358-85-6
15.	Pigment Yellow 13		5102-83-0
16.	Pigment Yellow 83		5567-15-7
Total Production Capacity		**210**	--

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

The ToR has been issued by the Ministry vide letter No.IA-J-11011/84/2021-IA-II(I) dated 12thMarch, 2021. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 06.08.2021. The main issues raised during the public hearing are related to the employment, health and safety of worker, hazardous waste generation and its impact on environment and other people also welcome this new project.

Total land area is 22662 sqm. Industry has proposed greenbelt in an area of 34.78% i.e. 7881 m^2out of total area (22662 m^2) of the project. The estimated project cost is Rs 11.0 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 183.43 lakhs and the Recurring cost (operation and maintenance) will be about Rs.207.42 lakh per annum. Total Employment will be 60 persons as direct. Industry proposes to allocate22 Lakhs towards Corporate Environment Responsibility.

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

Ambient air quality monitoring was carried out at 8 locations during October 2020 to December 2020 and the baseline data indicates the ranges of concentrations as: PM_{10} (61.60µg/m^3 to 81.21µg/m^3), $PM_{2.5}$ (32.75µg/m3 to 49.73µg/m^3), SO_2 (9.78 µg/m^3 to 20.72µg/m^3) and NO_2 (20.96µg/m^3 to 38.63µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.15µg/m^3,0.2 µg/m^3, 0.085 µg/m^3 3µg/m^3 and 0.2µg/$m^3$with respect to $PM_{10,}$ SO_2, NO_2, HCL, Cl_2.The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 309.77m^3/day which will be met from Bore Well. As well as unit will provide 2 tank of 100 kl for rainwater harvesting for proposed unit. Effluent of 195.06 m^3/day quantity will be treated through Effluent Treatment Plant.

PP reported that Power requirement will be 300 kVA and will be met from Paschim Gujarat Vij Corporation limited (PGVCL). Industry has one steam boiler of 3.5 TPH (Indonesian coal : 7.87 MT/day or Briquettes 10.82 MT/day), 3 Lakh Kcal/hr Thermic Fluid Heater (fuel : Indonesian coal 0.98 MT/day or Briquettes : 1.35 MT/day, HAG attach with Spin Flash Dryer

(3 lakh Kcal/hr) fuel :Indonesian coal 0.98 MT/day or Briquettes 1.35 MT/day &D. G. Set(1 X 250 KVA) (fuel : HSD 54 liter/hr). Unit will provide separates take for boiler, T.F.H., and HAG of 30 meter.

Details of Process emissions generation and its management:

S. No.	Stack attached to	Stack Height (m)	Expected Pollutant	APCM System
1	Reaction vessel System (CPC green- 7)+ Suction hood in chlorine handling area	11	HCL, Cl_2,	Triple Stage scrubber system (Two stage Water + Alkali media)
2	Spin Flash dryer (1 nos)	11	PM	Bag filter
3	Tray dryer (2 nos)	11	PM, VOCs	Dust Collector followed by Activated carbon column
4	Distillation rector	11	VOCs	Dual condenser system (water + brine)followed by activated carbon column

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

S. No.	Description	Category under HW Rules	Source	Total Quantity	Mode of Disposal
1.	Used oil / Spent Oil	5.1	Plant & machinery	0.5 KL/Annum	Collection, storage and use within premises as a lubricant/ sell to registered recycler
2.	Discarded Plastic Bags / Drums / Barrels	33.1	Raw Material storage area	678 MT/Annum	Collection, storage and sell to authorized vendor.
3.	ETP Sludge	35.3	Effluent treatment plant	702.22 MT/Annum	Collection, storage and disposal at Approved TSDF site
4.	Evaporation Residue	35.3	MEE	687.42 MT/Annum	Collection, storage and disposal at Approved TSDF site

5.	Sodium hypochlorite solution (20%)	35.1	Scrubber of Pigment Phthalocyanine Green 7	64.8 MT/ Annum	Collection, storage and sold to approved rule 9 vendor.
6.	Spent hydrochloric acid (25 % HCL)	26.3	Scrubber of Pigment Phthalocyanine Green 7	5590.8 MT/ Annum	Collection, storage and sold to approved rule 9 vendor.
7.	Aluminium Chloride solution	26.3 of schedule I and C2 of schedule II	Manufacturing process Pigment Phthalocyanine Green 7	30143.20 MT/Annum	Collection, storage and sold to approved rule 9 vendor.
8.	Spent solvent	26.4	Distillation process	116.04 KL/Annum	Collection, storage and reuse in manufacturing process.
9.	Spent carbon	36.2	Activated carbon column	14.88 MT/Annum	Collection, storage and disposal at Approved CHWIF site

Deliberations by the EAC:

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

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

The Committee noted that the EIA/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for green belt development. PP committed to plant 2364 nos. trees inside the premises and along the boundary in one year. The Committee deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The Committee suggested use of coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The

Committee suggested use the recycled water. The Committee deliberated the solvent recovery and its mitigation plan and found satisfactory. The committee also deliberated the issues raised in the public hearing and found the reply of PP to be satisfactory. The Committee also deliberated water balance and risk assessment. The EAC deliberated the Action Plan on the issues raised during Public hearing and found in order.

The EAC has appreciated the Consultant and their way of presentation and providing the complete details w.r.t. proposed mitigation measures in the EIA/EMP Report.

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 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 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/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

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

(iv). Fugitive emissions shall be controlled at 99.97% with effective chillers. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology. Regular VOCs monitoring should be carried out.

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

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

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

(viii). Total fresh water requirement shall not exceed 309.77 m^3/day and shall be sourced from borewell. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

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

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

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

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

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

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

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

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

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

Agenda No. 19.4

Setting up of pesticides specific intermediates (450 MT/Month) manufacturing unit of capacity 450 MTPM located at plot no. DP -46, Sakhya Industrial Estate, Taluka Vagra, District Bharuch, Gujarat by M/s Starlite Paints-Consideration of Environmental Clearance.

[Proposal No.: IA/GJ/IND3/213816/2021, File No.: IA-J-11011/235/2021-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 of pesticides specific intermediates (450 MT/Month) manufacturing unit of capacity 450 MTPM located at plot no. DP -46, Sakhya Industrial Estate, Ta: VAgra, District Bharuch, Gujarat by M/s Starlite Paints.

The details of products and capacity as under:

S. No.	Name of Products	Quantity MT/Month	CAS No.	LD50 (mg/Kg)

1	Methyl-3-methoxy{2-(2-(6-chloropyrimidine-4-yl)oxy phenyl}-acrylate (Inter-3 MONO)	450	131860-97-4	>2000
2	1-(2, 6-diiso propyl)-4-phenoxyphenyl) thiourea (DTU).		135252-10-7	>500
3	4-amino-6-(tert-butyl)-3-thioxo-3,4-dihydro-1,2,4-triazin-5(2H)-one(Triazinone)		33509-43-2	2347
4	Bromobenzene		108-86-1	2383
5	O-(4- bromo-2-chlorophenyl)-O,O-diethyl phosphorothioate: (PC)		71093-61-3	--
6	2-(4-(4-chlorophenoxy)-2-chlorophenyl)-2-(bromomethyl)-4-methyl 1,3-dioxolane (Bromoketal).		873012-43-2	--
7	2-Chloro 5-Chloro MethylThiazole (CCMT)		105827-91-6	>2000
8	Diethyl Ketone (DEK)		96-22-0	2140
Total		**450**		

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

The Standard ToR has been issued by Ministry vide letter No. IA-J-11011/235/2021-IA II (I); dated 08th June 2021. Public Hearing is exempted as the Unit is located in Industrial area.

PP reported that total 10800.675 sq. meter land area is available for proposed project. Industry will develop Greenbelt in an area of 33% i.e., about 3565 sq. meter (33 %) area will be covered as greenbelt. The estimated project cost is Rs.52 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 22 Crores and the Recurring cost (operation and maintenance) will be about Rs.27 Crores per annum. Employment will be 45 nos. persons as direct and 55 nos. persons indirect for proposed project. Industry proposes to allocate of Rs.104 Lakhs (approx.) towards Corporate Environment Responsibility.

Project proponent reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance from the project site. River/ waterbody Narmada is flowing at distance of 14.46 Km in South direction.

The 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 (71.58 – 78.63 µg/m3), PM2.5 (42.15 – 47.41 µg/m3), SO2 (9.13 – 14.38 µg/m3) and NO2 (10.25 – 16.96 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.043 µg/m3, 0.134 µg/m3 and 0.046 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 428.35 KL/Day of which fresh water requirement of 266.35 KL/Day

and will be met from GIDC Water Supply. Effluent of 237.35 KL/Day quantity will be treated through ETP, MEE, and treated effluent will be sent to CETP, Saykha for further treatment.

Power requirement for proposed project will be 2000 kVA will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Unit will have 2 No. DG sets of 500 kVA capacity is used as standby during power failure. Stack (height 18 m) will be provided as per CPCB norms to the proposed DG sets. Unit will have 1 No. TFH (Capacity: 10.0 Lac Kcal/Hr) and 1 No. of Boiler (Capacity: 10.0 MT/Hr) will be installed. And Boiler (10 MT/Hr), Thermic Fluid Heater (10 Lac Kcal/Hr) & D.G. Set (500*2 Nos.) with a stack of height of 30 m, 36 m & 18 m will be installed for controlling the particulate emissions (within the statutory limit of 150 mg/Nm^3) respectively.

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

1) <u>Flue Gas Stack</u>

S. No.	Source of Emission With Capacity	Stack Height (Meter)	Type of Fuel	Quantity of Fuel	Type of Emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1.	Boiler (Capacity: 10 MT/Hr)	30	Imported Coal / briquettes of bio coal	32 MT/Day / 35 MT/Day	PM $\leq$150 mg/Nm^3 $SO_2\leq$100 ppm NOx$\leq$50 ppm	ESP + Water Scrubber
2.	TFH (Capacity: 10 Lac Kcal/hr)	36	Imported Coal / briquettes of bio coal	32 MT/Day / 35 MT/Day		ESP + Water Scrubber
3.	D. G. Set (500 KVA*2 Nos.)	18	Diesel	800 Lit./Day		Adequate Stack Height

2) Process Stack

S. No.	Vent attached to	Stack Height	Pollutants	Air pollution Control System
1	Process Vent (Product No -6)	15 Meters	HCL	Two Stage Water Scrubber
2	Process Vent (Product No -2)	15 Meters	NH3	Two Stage Water Scrubber
3	Process Vent (Product No -2)	15 Meters	HBr	Two Stage Water Scrubber
4	Process Vent (Product No -7)	15 Meters	HCl & SO2	Two Stage Water +Alkali Scrubber

Details of solid waste/ hazardous waste generation and its management is given below:
23 Categories of Hazardous/Solid Wastes shall be generated from this Unit.

No.	Name of waste	Source of Generation	Category No. as per HW Rules	Proposed Quantity (MT/Annum)	Mode of Disposal
1	Discarded Containers/Bags/ Liners	Storage & handling of Raw Materials	Sch-I/ 33.1	120.0	Collection, Storage, Transportation, Decontamination & Disposal by selling to registered recycler.
2	Used/Spent oil	Equipment & Machineries	Sch-I/ 5.1	15 KL	Collection, Storage, Transportation and reused for Machine Lubrication / Given to GPCB registered reprocessor
3	Used Filters/ Filter Cloths & Materials	Process	--	0.5	Collection, Storage, Transportation and send to Common Incineration Facility
4	Used Hy-Flow Material	Process	--	0.5	Collection, Storage, Transportation and send to Common Incineration Facility
5	Spent Solvent	Process	Sch-I/ 28.6	88250	Collection, Storage, Transportation and Sold to solvent distillation unit under Rule-9 or distilled within premises and reuse within premises.
6	Distillation Residue	Solvent Distillation	Sch-I/ 20.3	1765	Collection, Storage, Transportation and sell to co-processing or send to Common Incineration Facility
7	Stripper Solvent Residue	Solvent Stripper	Sch-I/ 28.1	660	
8	MEE Salt	MEE	Sch-I/ 35.3	1870	Collection, Storage, Transportation and dispose to Landfill at TSDF
9	ETP Sludge	In-house ETP	Sch-I/ 35.3	620	Collection, Storage, Transportation and dispose to Landfill at TSDF
10	Organic Impurities	Process (Product No 7)	Sch-I/ 29.1	11340	Collection, Storage, Transportation and sell to co-processing or send to Common Incineration Facility

11	Expired Pesticides	--	Sch-I/ 29.3	What So Ever Generates	Collection, Storage, Transportation and send to Common Incineration Facility
12	Spent Catalyst	Process (Product No. 8)	Sch-I/ 29.5	999	Collection, Storage, Transportation and send to regenerator.
13	Sodium Chloride	Process (Product No. 3)	Sch-I/ 29.1	6800	Collection, Storage, Transportation and dispose to Landfill at TSDF
14	NaBr solution	Process (Product No. 2)	Sch-I/ 29.1	14094	Collection, Storage, Transportation & Disposal by selling to authorized end user registered under Rule-9 of HW Rules 2016.
15	Aq. MnO2	Process (Product No. 3)	Sch-I/ 29.1	4752	
16	Hydrobromic Acid (40%)	Process (Product No. 5) + Scrubber	Sch-I/ 29.1	1080	
17	N-propyl bromide	Process (Product No 5)	Sch-I/ 29.1	697	
18	HCl (30%)	Process (Product No 6) + Scrubber	Sch-II-Class B(15)	8127	
19	Methyl Acetate	Process (Product No 1)	Sch-I/ 29.1	8380	
20	KCl	Process (Product No 6)	Sch-I/ 29.1	2375	
21	NaHSO3 Solution	Scrubber	Sch-I/ 29.1	2500	
22	Liq. Ammonia	Scrubber	Sch-I/ Sch-I/ 29.1	300	
23	Ash from Boiler	--	--	300	Collection, Storage, Transportation to brick manufacturer.

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 reports are in order and compliance of the ToR issued for the project, reflecting the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for green belt development. PP committed to plant 892 nos. trees inside the premises and along the boundary 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 use the recycled water. The Committee deliberated the solvent recovery and its mitigation plan and found satisfactory. The committee also deliberated the pesticide usage and the effect of pesticide on Crops and pests. The committee also deliberated water balance and found satisfactory.

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

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

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

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

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

(ii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable

of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

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

(iv). The treated effluent of 237.35 KL/Day proposed to send to CETP Saykha for further treatment and disposal, shall conform to the standards prescribed under the Environment (Protection) Act, 1986. The project proponent shall achieve improvement in recycle and reuse of the treated water in the unit to reduce the fresh water demand and waste disposal. Treated domestic effluent shall be used for greenbelt development.

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

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

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

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

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

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

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

(xii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology.

(xiii). Total fresh water requirement shall not exceed 266.35 KL/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.

(xvii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEFCC in this regard.

(xviii). 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.

(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.

Agenda No. 19.5

Expansion of organic pigments manufacturing unit from capacity 4560 TPA to 7640 TPA, located at Sl. Nos. 1,2,4,5,6,7 & 10, at Ladivali, Post Gulsunde, Taluka Panvel, District Raigad Maharashtra by M/s Lona Industries Limited -Consideration of Environmental Clearance.

[Proposal No. IA/MH/IND3/232150/2018; File No. J-11011/84/2018-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 Environmental Clearance (EC) to the project for expansion of organic pigments manufacturing unit from capacity 4560 TPA to 7640 TPA, located at SI. Nos. 1,2,4,5,6,7 & 10, at Ladivali, Post Gulsunde, Taluka Panvel, District Raigad Maharashtra by M/s Lona Industries Limited**,**

The details of products and capacity are as under:

S. No.	Name of the Product		Products Quantity (TPA)			Uses
			Existing	Expansion	Total	
	Pigment					
1.	Copper Pthalocyanine crude (CPC)		1680	1680	3360	• **Used** in various areas of textile dyeing (Direct dyes for cotton), for spin dyeing • In the paper industry • In printing ink and packaging industry, • In Paints and Plastic.
2.	Copper Pthalocyanine Green		1440	Nil	1440	
3.	Copper Pthalocyanine Alfa Blue		840	Nil	840	
4.	Pigment Emulsion		Nil	1000	1000	
5.	**Other Pigments**					
	a.	Copper Pthalocyanine Beta Blue	162	400	562	
	b.	Quinacridone Pink & Red	270	Nil	270	
	c.	Copper Pthalocyanine ZCN	148	Nil	148	
	d.	Monosulpho Copper pthalocyanine	20	Nil	20	
	Total (TPA)		**4560**	**3080**	**7640**	

List of Byproducts

S. No.	By Products	Quantity (MT/A)		
		Existing	Expansion	Total
1.	$AlCl_3$ (PAC) Solution (7-10% as Al_2O_3)	36000	---	36000
2.	Hydrochloric acid (30%)	2160	---	2160
3.	Hypochlorite	2160	---	2160
4.	Dilute Sulphuric Acid & $MnSO_4$ or	14400	---	14400
	Solid Manganese Carbonate	2520	---	2520
5.	Copper Sulphate / Carbonate as Copper	90	18	108
6.	Cobalt Sulphate / Carbonate as Cobalt	9	--	9
7.	Ammonium Chloride	--	2520	2520
8.	Dicalcium phosphate	--	2160	2160
9.	Gypsum	--	2520	2520

As per the provision of “EIA Notification No. S. O. 1533 (E)” dated 14.09.2006 as amendments thereto the expansion project comes under Category – A of item 5(f) ‘Synthetic organic chemicals industry and requires appraisal at Central Level by Expert Appraisal Committee (EAC). However, project is established on Non MIDC Land and further General

Condition is also applicable– the Karnala Bird Sanctuary lies within 5 Km from Project Site. PP reported that the Karnala Bird Sanctuary is located about 1.65 Km from project site. ESZ for the Karnala Bird Sanctuary is notified vide notification No. S.O. 230 (E) dated 22.01.2016. PP confirmed that the Unit is located outside of the ESZ i.e. 1.56 Km. The River Patalganga is at a distance of 0.2 Km on East from the project site.

The Standard ToRs has been issued by Ministry vide letter No. No. J-11011/84/2018-IA-II (I) dated 8th April, 2018 for Expansion of Organic Pigments Manufacturing Unit. Public hearing for expansion project has been conducted by the State Pollution Control Board on 20.02.2020 which was presided over by Additional District Magistrate. The main issues raised during the public hearing are related to the employment, health and safety of worker, hazardous waste generation and its impact on environment.

PP reported that the Unit was established in the year 1968 and well before the "EIA Notification No. S.O. 60 (E) dated 27.01.1994 and "EIA Notification No. S.O. 1533 (E) dated 14.09.2006. Theferfore, the existing unit of LIL did not attract the condition for procurement of Environmental Clearance (EC) and hence only MPCB consent was procured and operating the Unit with valid CTO as per the Air and Water Act. The certified compliance status of CTO was issued by the SPCB and the same was deliberated by the EAC and found in order.

Total plot land area is 86210.35 sqm. Total built-up area 29443.16 sqm. Industry has already developed Green Belt in an area of 25863.10 sqm (30% out of total plot area). Moreover, additional Green Belt area of 2586.3 sqm (3 % out of total plot area) will be developed. After expansion of project, the total Green Belt area would be 28449.4 sqm which accounts for 33 % of total plot area. The estimated expansion project cost is Rs.6.48Crores. Total capital cost earmarked towards environmental pollution control measures under proposed project is Rs.1.0 Crores and the Recurring cost (operation and maintenance) will be about Rs.0.31 Crores per annum. Total Employment under expansion project would be 30 persons (as direct& indirect). Industry proposes to allocate Rs.45 Lakh towards CER.

The Ambient air quality monitoring was carried out at 8 locations during March-April-May 2019 and submitted baseline data indicates that ranges of concentrations of PM_{10} (45.10–71.30 µg/M^3), $PM_{2.5}$ (12.20 – 24.80 µg/M^3), SO_2 (10.20 – 28.70 µg/M^3) and NOx (17.13 – 28.80 µg/M^3) respectively. The concentrations are within the National Ambient Air Quality Standards (NAAQS). No new boiler will be installed under expansion hence AAQ modeling study was not carried out.

Total water requirement after expansion project will be 2309.63 CMD. Out of which, 1928.43 CMD fresh water will be taken from Patalganga River, 253.2CMD will be recycle water in process, 98 CMD will be MEE Condensate and 30 CMD will be STP treated effluent to be recycled thereby reducing fresh water demand. Effluent of 1468 M^3/Day will be generated and same will be segregated as strong and weak streams and treated through 2 separate ETP schemes. The treated effluent (MEE Condensate) of 98 CMD from Strong Stream(Stream-I) will be recycled and Treated effluent from weak stream (Stream-II) after achieving prescribed standards will be discharged through underground pipeline in Saline zone of Patalganga river near Kharpada Creek. The Domestic effluent of 40 CMD is treated in existing STP and treated effluent of 30 CMD will be reused for Greenbelt Plantation.

Power requirement after expansion of project will be 2090 kVA including existing 1900 kVA and will be taken from MSEDCL. Existing unit has 4 D.G. sets of capacities namely 500 kVA, 250 kVA, 180 kVA and 62.5 kVA installed as standby during power failure. Stack of heights of 4.5 m, 3.2 m, 2.7 m and 1.6 m (ARL) respectively are provided as per CPCB norms.

Existing unit has 3 Boilers of capacities 6 TPH, 10 TPH and 14 TPH.MDC to 10 TPH boiler and MDC followed by Bag Filter to 14 TPH Boiler with a stack of height of 30 m and 33 m are installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the existing boilers. Five Thermic Fluid Heaters (TFHs) each of capacity 4 Lac Kcal/Hr and three VTBs with capacities of 10 Lac Kcal, 15 Lac Kcal and 20 Lac Kcal are provided on site. Further, four Spin Flush Dryers (SFD) of capacities 2 Lac Kcal, 4 Lac Kcal (2 Nos.) and 6 Lac Kcal are also installed on site.

Details of Process emissions generation and its management: There are process emissions in the form of NH_3 and HC land same are controlled through 7 Scrubbers installed in the industries. After expansion, the process emissions will remain the same.

S. No.	Scrubber to Process Plant	Dia. of Scrubber (M)	Height of Scrubber (M)	Process Emission from Reactors	Packing Material	Mode of regeneration	Scrubbing Media Used	Disposal/ Recycle/ Reuse
	Existing							
1.	CPC Plant-Ammonia scrubber	1.2 M, 1No. 0.85 M, 2 Nos	9.9	Ammonia	SS pall ring	Cleaning by water	Water	Sale
2.	Copper Phthalocyanine Green Plant -HCl scrubber	0.35 M, 4 Nos.	7	HCl	PTFE Pall ring	Cleaning by water	Water	Sale & captive use

S. No	Emissions	Qty. (kg / Day)	Treatment Method
1	Cl_2	6203	1) Scrubbing by using caustic solution & saturated solution to MEE 2) Scrubbing in water media till conc. 28-35%. 3) Partial in-house use and remaining sold in the market.
2	CO_2	8660	1) Scrubbed by using caustic solution & saturated solution used back in the process 2) Partially sold in the market as saturated solution
3	SO_2	75	1) Scrubbing by using caustic solution & saturated solution is sold to reprocessing agencies

4	NH_3	250	1)Scrubbing by using Chilled Water Media till achieving concentration 8-12% & same will be used in the in-house process
5	HCl	560	Will be scrubbed by using dil. HCl solution and saturated solution will be treated in MEE

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

S. No.	Description	Quantity			Disposal Facility
		Existing	Expansion	Total	
1.	Boiler Ash	5 MT/ Day	----	5 MT/ Day	Brick
2.	Rubber & Plastic Hose + Gaskets &Packings + Thermocol + glass wool	0.86 MT/M	0.14 MT/M	1.0 MT/M	CHWTSDF Taloja
3.	Paper Waste	3600 Kg /A	360 Kg /A	3960 Kg/A	Sale to Authorized party or vender or Scrap Merchant.
4.	Used Plastic Bags	500 Kg/ A	500 Kg/A	1000 Kg/A	
5.	Metallic Scrap	2 MT/M	1 MT/M	3 MT/M	
6.	E-Waste i.e. tube lights& bulbs	0.25 MT/A	0.25 MT/A	0.5 MT/A	Sale to Auth. Recycler / re-processor or return to supplier/ manufacturers.
7.	Printer Toner	2 Nos/A	--	2 Nos/A	

Details of Hazardous Waste Generated &its Management

Sr. No.	Category as per HW Rules 2016	Type of HazardousWaste	Quantity			Disposal Facility
			Existing	Expansion	Total	
1	26.1	Process Sludge	0.3 MT/Annum	----	0.3 MT/Annum	CHWTSDF
2	35.3	ETP Sludge	8 MT/ day	8 MT/day	16 MT/day	
3	5.2	Waste oil	0.5 KL/Annum	----	0.5 KL/Annum	Sale to Auth. Party/Recycler or at CHWTSDF
4.	5.1	Used oil	0.5 KL/Annum	----	0.5 KL/Annum	
5.	15.1	Asbestos sheet	0.84 MT/M	0.16 MT/M	1.0 MT/M	CHWTSDF
6.	33.1	Discarded containers/ barrels/liners	1000 Nos/A	----	1000 Nos/A	Sale to Auth. Party/Recycler after decontamination

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

Pollutants	Conc. of Pollutants generated	Qty. of Pollutants generated

Waste Water	(Mass / Volume) (mg / lit)	(Mass / Day) (kg / Day)
	Stream - I (High COD & High TDS Effluent) Raw Effluent -135 CMD	
pH	1-2	--
BOD	1300	175.5
COD	4800	648
TDS	22000	2970
	Stream - II (Low COD & Low TDS Effluent) Raw Effluent -1333 CMD	
pH	2-3	--
BOD	800	1066
COD	1600	2133
TDS	2500	3333

Quantification of Pollutants' Load wrt Hazardous Waste Generation

Kg/Day		
Organic SW	**Inorganic SW**	**Distillation Residue**
550	1150	1100

Quantification of Pollutants' Load wrt Process Emissions

Kg/Day	
Process Emission	**Fugitive Emission**
15748	1250

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
1928430	1468000	135000	1333000	6303	2781	2970	3333	1468000	550	1150	--	1100	15748	1250

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 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 EAC noted that the Karnala Bird Sanctuary is located about 1.65 Km from project site. ESZ for the Karnala Bird Sanctuary is notified vide notification No. S.O. 230 (E) dated 22.01.2016. PP confirmed that the Unit is located outside of the ESZ i.e. 1.56 Km. The Committee deliberated the issue on KML/Map and found in order. The EAC is of the view that since ESZ has been notified and the instant Unit is outside of the ESZ, the proposal may be considered.

The EAC noted that the Unit was established in the year 1968 and well before the “EIA Notification No. S.O. 60 (E) dated 27.01.1994 and “EIA Notification No. S.O. 1533 (E) dated 14.09.2006. Therefore, the existing unit did not attract the requirement of Environmental Clearance and PP is operating the Unit with CTO as per the Air and Water Act. The certified compliance status of CTO was issued by the SPCB and the same was deliberated by the EAC and found in order.

The Committee noted that the 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 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 deliberated the solvent recovery and its mitigation plan and found satisfactory. The committee also deliberated water balance and found satisfactory. The Committee also suggested to find possibility to increase the use the recycled water. The committee also deliberated the Action Plan on issues raised in the public hearing and found the reply of PP to be satisfactory.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, and 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, and subject to compliance of terms and conditions as under, and general terms and conditions given in Annexure**:-

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

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(iii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(iv). No banned Chemicals/Products shall be manufactured by the project proponent. No banned raw materials shall be used in the unit. The project proponent shall adhere to the notifications/guidelines of the Government issued in this regard.

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

(vi). Treated effluent shall be reused in the process/utilities. Treated Industrial effluent shall not be used for gardening/greenbelt development/horticulture purpose.

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

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

(ix). Total fresh water requirement, sourced from Patalganga River, shall not exceed 1928.43 CMD. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

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

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

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

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

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

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

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

Agenda No. 19.6

Setting up of Synthetic Organic Chemicals (Resin) manufacturing unit with production Capacity of 920 TPM, located at Survey No. 626, Village Jornang, Taluka & District: Mehsana, Gujarat by M/s R P Polymer -Consideration of Environmental Clearance.

[Proposal No. IA/MH/IND3/231968/2020; File No. J-11011/93/2020-IA.II (I)]

The Project Proponent and the accredited Consultant M/s. T. R. Associates 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 Synthetic Organic Chemicals (Resin) manufacturing unit with production Capacity of 920 TPM located at Survey No. 626, Village Jornang, Taluka & District: Mehsana, Gujarat by M/s R P Polymer.

The details of products and capacity as under:

S. No.	Name of the Product	Production Capacity (MT/Month)	CAS Number
1	Phenol Formaldehyde Resin	200	9003-35-4
2	Melamine Formaldehyde Resin	700	82115-62-6
3	Urea Formaldehyde Resin	20	9011-05-6
Total Production Capacity		920	**--**

As the proposed project will be involved in manufacture of Resin (Synthetic Organic Chemical), comes under Item 5(f) of the Schedule, as Category A, as per EIA Notification 2006 and its subsequent amendments and, therefore the proposal appraised at central level by Expert Appraisal Committee (EAC).

The Standard ToR was granted vide letter dated 19th May, 2020 Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 04.09.2021. The main issues raised during the public hearing are related to the proposed safety equipment's, any damage due to proposed project on surrounding land and impact of gaseous emission.

The proposed project will be established in a land area of 3612 sqm. Industry has propsoed greenbelt in an area of 35.05 % i.e. 1266 sqm. out of total area (3612 sqm.) of the project. The estimated project cost is Rs.100 lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs. 16.65 lakhs and the Recurring cost (operation and maintenance) will be about Rs.25.62 lakh per annum. Total Employment will be of 8 persons as direct. Industry proposes to allocate Rs. 2.0 Lakhs towards Corporate Environment Responsibility (CER)

Project Proponent reported that there are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the

project site.

The Ambient air quality monitoring was carried out at 8 locations during October to December, 2020 and the baseline data indicates the ranges of concentrations as: PM10 (64.43 to 83.56 µg/m3), PM2.5 (34.75 µg/m3 to 48.78 µg/m3), SO2 (9.57 µg/m3 to 19.08 µg/m3) and NO2 (20.60 µg/m3 to 37.61 µg/m3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.09 µg/m3, 0.015 µg/m3 and 0.09 µg/m3 with respect to PM10, SO2 and NO2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

PP reported that total water requirement is 7.8 m^3/day which will be met from Bore Well. The unit has already got permission to extract ground water. Unit will provide 2 tank of 25 kl for rainwater harvesting for proposed unit. Effluent of 1.3 m^3/day quantity will be treated through Effluent Treatment Plant.

Power requirement will be 30 KW and will be met from Uttar Gujarat Vij Company Ltd. (UGVCL). Industry has one steam boiler of 1.5 TPH [Fuel: Briquettes (1 Ton/day)] & D.G. Set (20 KVA) [Fuel: Diesel (7.5 Lit./hr.)]. Unit will provide separate stake for boiler and D.G. set of 30 meter & 6 meter respectively.

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

S. No.	Name of the waste	Category as per HW Rules 2016	Quantity (Ton/M)	Mode of disposal
1	ETP Sludge / Evaporation Residue	35.3	0.33	Collection, storage and disposal at approved TSDF site
2	Process Residue	23.1	0.46	Collection, storage and disposal at approved CHWIF site
3	Used Oil	5.1	0.002	Collection, storage and used within premises as a lubricant / sold to registered recycler.
4	Discarded Plastic Bags /Drums/ Barrels	33.1	1.2	Collection, storage & return to supplier or sold to authorized recyclers

Deliberations by the EAC:

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

The EAC noted that the Project Proponent has given an undertaking that the data and

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

The Committee noted that the EIA/EMP reports are in compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee 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 also deliberated water balance and found satisfactory. The committee also deliberated the action plan on the issues raised in the public hearing and found the reply of PP to be satisfactory.

The Committee suggested use of coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices. The Committee suggested to revise the water balance and to increase in the use percentage of recycled water. The Committee suggested to increase solvent recovery and accordingly revised solvent recovery plan was submitted. The Committee also deliberated hazardous waste management plan, and found satisfactory.

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

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

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

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

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

(ii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

(iii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

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

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

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

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

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

(ix). Total fresh water requirement, sourced from Ground Water through, shall not exceed 7.8 m^3/day. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

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

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

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

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

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

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

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

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

Extension of Validity of Environmental Clearance

Agenda No. 19.7

Expansion of Chemical unit (From 24,980,04 to 1,45,685,04 MTPA) by M/s Gulbrandsen Chemicals Pvt. Ltd. Located at Survey No. 194,195,196,197,198, 199,200,202, 203,204, 205,206,265B,266A,285,286,287,288,289,290,291,292,293,294,296,297,298,321,322, 323, 326,327 & 449, Coastal Highways, Village Mujpur, Tehsil: Padra District Vadodara, Gujarat –Extension of validity of Environmental Clearance.

[Proposal No. IA/GJ/IND3/233257/2021, File No. J-11011/490/2011-IA-II(I)]

The proposal is for Extension of Validity in the Environmental Clearance granted by the Ministry vide letter No. J-11011/490/2011-IA-II (I) dated January 23, 2014 & EC Amendment letter March 07, 2018 for Expansion of Chemical Unit (From 24,980.04 to 1,45,685.04 MTPA) located at Survey No. 194, 195, 196, 197, 198, 199, 200, 202, 203, 204, 205, 206, 265B, 266B, 266A, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 296, 297, 298, 321, 322, 323, 326, 327 & 449, Coastal Highways, Village: Mujpur, Tehsil: Padra, District: Vadodara - 391440 Gujarat in favour of M/s. Gulbrandsen Chemicals Pvt. Ltd.

The details of products and capacity as under:

S. No.	Name of Products	Proposed in EC	Present status of proposed Expansion	Still Pending for Expansion
		MTPA	**MTPA**	**MTPA**
1	Organometallic compounds	32700	27000	5700
2	Polyethylene wax	20000	20000	0
3	R&D Products Organometallic Compounds/Organic/inorganic chemicals	25.0	25.0	0
4	Aluminum Chloride (25%) (AICI3)	48510	48510	0
5	Ethyl Iodide (C2H5I)	19470	0	19470
	Total	**120705**	**95535**	**25170**

PP earnestly requested for extension of Environmental Clearance validity for further three years.

Deliberations in the EAC

The Committee noted that the proposal was earlier placed before the EAC in its meeting held on December 8-9, 2020 wherein the EAC at the first instance noted that the Ministry has extended the validity of the environmental clearances ending till March, 2021 for further period of six months and accordingly PP can execute the project without stopping it. The Committee, however, was very annoyed on the compliance status of the existing EC conditions. The Committee has advised the project proponent to complete the greenbelt development along the periphery of the plant, to combat the pollution and emissions from the unit. The Committee had suggested the PP to at first comply with the EC conditions and submit the monitoring report from the Regional Office of the Ministry. The Committee opined that the PP can approach the EAC/Ministry before completion of the EC validity period for further extension, if required, as per the EIA Notification, 2006.The proposal was accordingly returned in its present form for the needful.

In this context, PP has submitted the application for validity of EC on Parivesh Portal on 08.10.2021. PP reported that IRO, MoEFCC has submitted the certified compliance report of EC conditions vide their letter dated 12.08.2021. The Committee deliberated the compliance status and its action plan and found in order.

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

The Committee, after detailed deliberations, **recommended** for extension of validity of the EC dated 23th January, 2014 for three years i.e. till 22th January, 2024 to complete the project work as per scope of the project. All other terms and conditions shall remain unchanged.

Day 2: 26th October 2021 (TUESDAY)

Agenda No. 19.8

Setting up of Active Pharmaceutical Ingredients (API) manufacturing unit of capacity 40 TPM located at Plot No. 247 & 248, Kadechur Industrial Area, Yadgir Taluk & District, Karnataka by M/s Arani Life Sciences, - Consideration of Environmental Clearance

[Proposal No. IA/KA/IND3/230903/2021; File No. J-11011/410/2021-IA-II(I)]

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

The proposal is for grant of environmental clearance (EC) to the proposed project for setting up of Active Pharmaceutical Ingredients (API) manufacturing unit of capacity 40 TPM located at Plot No. 247 & 248, Kadechur Industrial Area, Yadgir Taluk & District, Karnataka by M/s Arani Life Sciences

The details of products and capacity as under:

S. No.	Name of Products	Quantity in TPM	CAS NO	Therapeutic use
1.	Anastrozole	2	120511-73-1	To treat breast cancer
2.	Bicalutamide	3	90357-06-5	To treat metastatic prostate cancer
3.	Canagliflozin	10	842133-18-0	Used along with diet
4.	Docetaxel	10	114977-28-5	To treat cancer
5.	Fluconazole	3	86386-73-4	Azole antifungals
6.	Gefitinib	1	184475-35-2	Anti cancer (lung cancer)
7.	Gemcitabine HCl	3	95058-81-4	Anti-cancer ("antineoplastic" or "cytotoxic") chemotherapy drug
8.	Linagliptin	2	668270-12-0	Antidiabetic

9.	Metronidazole	10	443-48-1	Antibiotic
10.	Nebivolol HCl	3	99200-09-6	To treat high blood pressure
11.	Nizatidine	2	76963-41-2	To treat Ulcers
12.	Olanzapine	5	132539-06-1	Antipsychotic
13.	Pirfenidone	3	53179-13-8	Antiviral
14.	Risperidone	5	106266-06-2	To treat Schizophrenia
15.	Thalidomide	5	50-35-1	To treat a skin condition and cancer
16.	Vildagliptin	4	274901-16-5	Antidiabetic
	Total	**71 TPM**		
	Total (5 products)	**40 TPM**		
Note: From the above list of products, any 5 products will be manufactured at a given point of time.				

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 (amendment on 27.03.2020, 15.10.2020 & 16.07.2021). Due to applicability of general conditions (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 (8032 sqm). Industry will develop greenbelt in an area of 2685 Sqm which is 33.4% out of the total project area. The proposed project cost is about 7.5 Crores. Total capital cost earmarked towards environmental pollution control measures is 81 Lakhs and the recurring cost (operation and maintenance) will be about 18.5 lakhs per annum. Total Employment under proposed project will be of 50 nos. Industry proposes to allocate 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 1.8 km in the North-East direction.

Total water requirement is 107.1 KLD, out of which freshwater requirement is 61.8 KLD and will be met from KIADB. Generated effluent is 49.0 KLD. All industrial effluents will be treated through Common Effluent Treatment Plant CETP, Kadechur. Domestic sewage of 1.9 KLD will be passed to septic tank and soak pit.

The 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/ Nm3). The industry has also proposed for Thermic fluid heater of 3 Lakh kcal/Hr with chimney of height 15 m.

Details of Process emissions generation and its management:

S. No.	Name of the Gas	Quantity in Kg/Day	Treatment Method	Disposal Method
1	Carbon Dioxide	114.9	Dispersed into atmosphere	-
2	Nitrogen	34.2		
3	Oxygen	103.3		
4	Hydrogen	3.3	Dispersed into atmosphere through flame arrestor	-
5	Hydrogen Bromide	150.6	Scrubbed by using C.S. Lye solution	Residues from the reaction will be sent to TSDF
6	Hydrogen Chloride	93.5	Scrubbed by using water media	Generated Dil. HCl will be reused within the industry
7	Ammonia	80.3		Generated NH4OH will be reused within the industry

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

S. No	Category of HW as per HW Rules 2016	Name of Hazardous Waste	Quantity	Disposal Method
Hazardous waste generation from plant				
1	5.1	Waste oils & Grease/ Used Mineral oil	0.2 KL/Annum	Agencies authorized by KSPCB
2	5.2	Oil-Soaked Cotton	2 Kgs/month	KSPCB authorized Vendor
3	20.3	Distillation Residue	523.7 kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing
4	28.1	Process Residues & Waste	2582 kg/day	Store in secured manner and hand over to authorized cement industry for Co-processing/TSDF
5	28.2	Spent Catalyst	10.8 kg/day	Store in secured manner and hand over to authorized recycler
6	28.3	Spent Carbon	149 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	200 No's/Month	After complete detoxification, shall be disposed to the outside agencies.
10	33.2	Contaminated cotton rags or other cleaning materials	20 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
13	--	Residues from Scrubber	191 kgs/day	Shall be stored in secured manner & handed over to TSDF.
14	--	Used PPE	5 Kgs/ Month	Sent to authorized vendor
15	--	E- Waste	150 Kgs/ Annum	Authorized recyclers
16	--	Plastic Waste	200 Kgs/ Annum	Authorized recyclers
17	--	Metal Scrap	3 TPA	Sale to outside agencies/ recyclers
18	--	Used Filters (HEPA filters, Oil Filters etc.)	25 Nos/year	Sent to TSDF
19	--	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	Inorganic	Spent carbon	Spent Catalyst	Process Emission	Distillation residue

25693.3	25867.17	276.33	1737.2	497.97	21385.6	8535.7	2921.3	1144.15	1437.7	149.1	10.8	413.3	523.7

HAZARDOUS SOLID WASTE DETAILS

Organic solid waste	Inorganic solid Waste	Spent Carbon	Distillation Residue
Kg/day	Kg/day	Kg/day	Kg/day
1144.15	1437.7	149.1	523.7

EMISSION DETAILS

Kg per day						
CO_2	**N_2**	**O_2**	**H_2**	**HBr**	**HCl**	**NH_3**
114.9	34.2	103.3	3.3	150.6	93.5	80.3

Deliberations by the EAC:

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

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

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

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

Air, Water, Noise and Soil pollutions. The Committee suggested to use coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available**.** The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The Committee suggested to carryout detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species. The Committee also suggested that the PP shall carry out detailed Phyto and Zooplankton study of the Nala water passing through the Industrial park during non-monsoon season and submit the report within one year. The committee also suggested to develop green belt on the recommendations of agricultural expert report. The committee deliberated about the capacity of CETP and was satisfied with the reply of consultant.

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

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

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

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

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

(ii). Project Proponent reported that the amount of CO_2 emissions per day are stated to be 114.9 Kg/day and hence it is desirable that usage of economical viable technologies for CO2 sequestration must be explored for usage in the Industry. The implementation report shall be submitted to the IRO, MoEFCC in this regard.

(iii). The PP shall carry out detailed Phyto and Zooplankton studies of the Nala water passing through the Industrial park during non-monsoon season and submit the report within one year for its appraisal before the EAC.

(iv). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

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

(vi). The treated effluent of 49.0 KLD proposed to discharge to the CETP. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

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

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

(ix). Total fresh water requirement, sourced from KIADB water supply, shall not exceed 61.8 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

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

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

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

(xiv). Process organic residue and spent carbon, if any, shall be sent to Cement or other suitable industries for its incinerations. ETP sludge, process inorganic & evaporation salt shall be disposed of to the TSDF. There shall be commitment from the brick

manufacturer to take the fly ash from the plant. The Unit is to be started after getting the commitment from the brick manufacturer / cement plant.

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

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

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

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

Agenda No. 19.9

Expansion of Manufacturing of Pesticides & Agrochemical Products by M/s Punjab Chemicals and Crop Protection Ltd. (Agro-Division), located at Milestone- 18, Ambala-Kalka Road, Village P.O. Bhankharpur, Tehsil. Dera Bassi, District: SAS Nagar Punjab- Consideration of Environmental Clearance

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

The Project Proponent and the accredited Consultant M/s. Eco Chem Sales & Services (ECSS) made a detailed presentation on the salient features of the project and informed that: The proposal is for environmental clearance to the project for proposed expansion project for the manufacturing of pesticides & agrochemical products at Milestone - 18, Ambala-Kalka Road, village P.O. Bhankharpur, Tehsil. Dera Bassi, Dist.: SAS Nagar Punjab – 140201 by M/s. Punjab Chemicals and Crop Protection Ltd. (Agro-Division).

The details of products and capacity as under:

S. No.	Product/s	Category	CAS No.	Existing quantity (TPA)	Proposed Quantity (TPA)	Total after proposed (TPA)	End-Use
CHEMICALS							**Agriculture - active agent protecting plants**
1.	Oxalic acid	Chemical	6153-56-6 / 144-62-7	10000	--	10000	
2.	Sodium nitrite	Chemical	7632-00-0	1800	--	1800	
3.	Diethyl Oxalate (DEO)	Chemical	95-92-1	2700	--	2700	
4.	Sodium Bisulphate (By-Product)	Chemical	7681-38-1	2631.28	4575.6	7206.9	
5.	Potassium Chloride (By-Product)	Chemical	7447-40-7	501.45	983.68	1485.13	
6.	HCl (30%) (By-Product)	Chemical	7647-01-0	1045.36	1724.57	2770	
7.	Sodium bromide soln. (By-Product)	Chemical	7647-15-6	1035.87	0	1035.87	
8.	Spent acetic acid (By-Product)	Chemical	64-19-7	1479.34	2959	4438.3	
9.	$Mn(OH)_2$ Sludge (By-Product)	Chemical	1309-42-8	--	82.5	82.5	
10.	Sodium Sulphate (By-Product)	Chemical	7757-82-6	--	5421.02	5421.02	
11.	NaSH Soln. (By-Product)	Chemical	16721-80-5	--	89	89	
12.	$Zn(OH)_2$ (By-Product)	Chemical	20427-58-1	--	546	546	
13.	Acifluorfen (ACF (85%)/ 2-Nitro-5-(2-Chloro-4(Trifluor methyl) Phenoxy) Benzoic acid	Chemical	50594-66-6	500	1000	1500	
14.	Acifluorfen ACF (25%)/ 2-Nitro-5-(2-Chloro-4(Trifluor methyl) Phenoxy)	Chemical	50594-66-6	500	1500	2000	

S. No.	Product/s	Category	CAS No.	Existing quantity (TPA)	Proposed Quantity (TPA)	Total after proposed (TPA)	End-Use
	Benzoate Sodium						
			Sub Total (A)	**22193.3**	**18881.37**	**41074.67**	
FINE CHEMICALS							
15.	Ethyl oxalyl chloride	Fine Chemical	4755-77-5	1080	2120	3200	
16.	Ethyl Phenyl Glyoxalate (EPGO)	Fine Chemical	1603-79-8	1080	2520	3600	
			Sub Total (B)	**2160.00**	**4640.00**	**6800.00**	
HERBICIDES							
17.	Metamitron	Herbicide	41394-05-2	800	1900	2700	
18.	Ethofumisate	Herbicide	87290-1	250	850	1100	
19.	Diflufenican	Herbicide	83164-33-4	300	0	300	
20.	Pretilachlor	herbicide	51218-49-6	250	0	250	
21.	Lenacil	Herbicide	2164-08-1	20	20	40	
22.	Cyanazine	Herbicide	21725-46-9	20	40	60	
23.	Devrinol	Herbicide	15299-99-7	-	1200	1200	
24.	Pyrazosulfuron Ethyl (PSE)	Herbicide	93697-74-6	-	160	160	
25.	Bensulfuron Methyl (BSM)	Herbicide	83055-99-6	-	120	120	
26.	Metsulfuron Methyl (MSM)	Herbicide	74223-64-6	-	200	200	
			Sub Total (C)	**1640.00**	**4490.00**	**6130.00**	
FUNGICIDES							
27.	Metalaxyl	Fungicide	57837-19-1	100	0	100	
28.	Metaconazole (MCZ)	Fungicide	125116-23-6	240	0	240	
29.	Dithianon	Fungicide	3347-22-6	150	0	150	
30.	Tricyclozole	Fungicide	41814-78-2	200	0	200	
31.	Tebuconazole	Fungicide	107534-96-3	20	-	20	

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

All Products are listed at S.N. 5(b) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and are requires appraises at Central Level by Expert Appraisal Committee (EAC).

Deliberations in the EAC

The EAC made deliberations on the proposal. The Committee noted the information/inputs submitted by consultant was not satisfactory with respect to Green Belt plan, mitigation measures, green belt development and its budget, sludge generation calculation, Schedule-1 conservation plan and other mitigation measures. In addition to that the Certified compliance report submitted by the PP had various non-compliances and partial compliances.

The Committee noted that the PP has got EC on 17.06.2002 and after that there are certain non-compliances of EC conditions. In this context, EAC advised that the IRO, MoEFCC may be inspected the Unit for verification of ATR submitted by the PP to the IRO. Without complete compliances this instant project may not be considered by the EAC for further expansion.

The Committee noted that there were various SCN issued to the project by the SPCB and as informed court case was also filed against the project. The Committee deliberated the issues related to pollution and conservation of environment. The Committee after, detailed deliberation, **deferred** the proposal and desired for certain requisite information/inputs as follows:

(i) The Committee noted that the PP has got EC on 17.06.2002 and after that there are still non-compliances of EC conditions. In this context, EAC advised that the IRO, MoEFCC may inspect the Unit for verification of ATR submitted by the PP. Without complete compliances this instant project may not be considered by the EAC.

(ii) Details of Show Cause Notices issued by the SPCB to the project and its action taken report with respect to the same needs to be submitted

(iii) Details of court cases, its compliances status and their present status needs to be submitted.

(iv) Revised Green belt development plan along with budgetary allocation needs to be submitted.

(v) Revised sludge generation calculation and its mitigation measures and handling needs to be submitted.

(iv) Revised water balance and permission of water balance.

(viii) Revised risk assessment and mitigation measure plan.

(ix) The EAC also warned to the Consultant [M/s. Eco Chem Sales & Services] not to submit the immature proposal and read the various provisions of the EIA Notification, 2006 before submitting the application on Parivesh Portal.

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

Agenda No.19.10

Setting up of Active Pharmaceutical Ingredients (API) manufacturing unit of capacity 45 TPM, located at Plot No. 482, Kadechur Industrial Area, Yadgir Taluk & District, Karnataka by M/s Laxmi Genchem Sciences Pvt. Ltd.-Consideration of Environmental Clearance

[Proposal No. IA/KA/IND3/233538/2021; File No. J-11011/427/2021-IA-II(I)]

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

The proposal is for grant of environmental clearance (EC) to the proposed project for Setting up of Active Pharmaceutical Ingredients (API) manufacturing unit of capacity 45 TPM, located at Plot No. 482, Kadechur Industrial Area, Yadgir Taluk & District, Karnataka by M/s. Laxmi Genchem Sciences Pvt. Ltd.

The details of products and capacity as under:

S. No.	Name of Products	Qty. in kg/month	Qty. in TPM	CAS No.	Uses
1.	Alprostadil	1000	1	745-65-3	To treat erectile dysfunction
2.	Apixaban	1000	1	50361-47-3	Helps to prevent strokes or blood clots
3.	Bempedoic acid	2000	2	738606-46-7	To treat high cholesterol
4.	Bilastine	1000	1	202189-78-4	To treat allergic rhino conjunctivitis
5.	Carbamazepine	10000	10	298-46-4	To treat epilepsy
6.	Carboprost Tromethamine	500	0.5	58551-69-2	To treat severe bleeding after childbirth (postpartum)
7.	Cloprostenol Sodium	500	0.5	55028-72-3	In veterinary medicine to terminate pregnancy, induce parturition
8.	Cyclophosphamide	10000	10	50-18-0	To treat Hodgkin's lymphoma
9.	Dabigatran Etexilate	6500	6.5	211915-06-9	To prevent stroke and harmful blood clots
10.	Dapagliflozin	10000	10	461432-26-8	To treat type 2 diabetes
11.	Empagliflozin	1000	1	864070-44-0	To lower blood sugar levels in type 2 diabetes
12.	Infigratinib	1000	1	872511-34-7	To treat bile duct cancer
13.	Lactobionic acid	6000	6	96-82-2	To treat atopic dermatitis and rosacea
14.	Lamotrigine	2000	2	84057-84-1	To treat epilepsy
15.	Letrozole	7000	7	112809-51-5	To treat breast cancer
16.	Lisinopril Dihydrate	3000	3	83915-83-7	To treat high blood pressure
17.	Lubiprostone	500	0.5	136790-76-6	To relieve stomach pain, bloating, and straining
18.	Mifepristone	2000	2	84371-65-3	To cause an abortion during the early part of a pregnancy
19.	Misoprostol 1% HPMC	3000	3	59122-46-2	To treat stomach ulcers
20.	Riociguat	2000	2	625115-55-1	To treat high blood

					pressure in the lungs
21.	Thiocolchicoside	300	0.3	602-41-5	To treat orthopaedic, traumatic and rheumatologic disorders
22.	Topiramate	8000	8	97240-79-4	To prevent and control seizures (epilepsy)
23.	Valganciclovir	2000	2	175865-59-5	To control CMV retinitis
24.	Vorinostat	2000	2	149647-78-9	To treat cutaneous T-cell lymphoma
	Total (5 products at a time)	**45000**	**45**		
Note: From the above list of products, any 5 products will be manufactured at a given point of time					

LIST OF PROPOSED BY-PRODUCTS

S .No.	Name of the Product	Name of the By Product	Quantity in Kgs/Day
1.	Alprostidil	Triethyl amine HCl	14.5
2.	Apixaban	Triethyl amine HCl	10.9
3.	Bilastine	Triethyl amine HCl	15.2
4.	Carboprost Tromethamine	Triethyl amine HCl	6.6
5.	Dabigatran Etexilate	Triethyl amine HCl	115.0
6.	Dapagliflozin	Triethyl amine HCl	492.8
7.	Empagliflozin	Triethyl amine HCl	55.1
8.	Topiramate	Sodium Sulphate	125.0
		Triethyl amine HCl	114.4
9.	Valganciclovir	Potassium chloride	18.8

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 (amendment on 27.03.2020, 15.10.2020 & 16.07.2021). Due to applicability of general conditions (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 4.4 acres (17785.7 Sq.m). Industry will develop greenbelt in an area of 6400.3 sq.m which is 36.0 % out of the total project area. The proposed project cost is about Rs.17 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.85 Lakhs and the recurring cost (operation and maintenance) will be about Rs.18 lakhs per annum. Total Employment under proposed project will be of 90 nos. Industry proposes to allocate Rs.10 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 2.3 km in the North-East direction.

The total water requirement is 123.3 KLD, out of which freshwater requirement is 59.7 KLD

and will be met from KIADB. Generated effluent is 44.3 KLD. All industrial effluents will be treated through Common Effluent Treatment Plant CETP, Kadechur. Domestic sewage of 3.5 KLD will be passed to septic tank followed by soak pit.

Power requirement of project will be 750 kVA and will be met from GESCOM. The unit is proposed to install 1X 250 kVA & 1X 500 kVA DG Sets, Stack height of 6 m will be provided as per CPCB norms. The unit has proposed to install 1 X 2 TPH & 1 X 3 TPH Briquettes/Coal fired boilers 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/ Nm3). The industry has also proposed for Thermic fluid heater of 1 X 2 Lakh kcal/Hr with chimney of height 15 m.

Details of Process emissions generation and its management:

S. No	Name of the Gas	Quantity in Kg/Day	Treatment Method	Disposal Method after treatment
1	Hydrogen chloride	192.6	Scrubbed by using water media	Generated Dil. HCl will be reused within the industry
2	Hydrogen Bromide	209.5	Scrubbed by using C.S. Lye solution	Residues from the reaction will be sent to TSDF
3	Alkane gases	61.8	Dispersed into atmosphere	-
4	Carbon dioxide	59.6		
5	Oxygen	39.9		
6	Hydrogen	4.9	Dispersed into atmosphere through flame arrester	-

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

S. No.	Category of the HW as per HW Rules 2016	Name of the Hazardous Waste	Quantity	Disposal Method
Hazardous waste generation from plant				
1	5.1	Waste oils & Grease/ Used Mineral oil	0.4 KL/Annum	Agencies authorized by KSPCB
2	5.2	Oil-Soaked Cotton	3 Kgs/month	KSPCB authorized Vendor
3	20.3	Distillation Residue	797.7 kgs/day	Store in secured manner and hand over to authorized cement industry for Co-processing
4	28.1	Process Residues & Waste	1267 kg/day	Store in secured manner and hand over to authorized cement industry for

				Co-processing/TSDF
5	28.2	Spent Catalyst	21.7 kg/day	Store in secured manner and hand over to authorized recycler
6	28.3	Spent Carbon	4.7 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	300 No's/Month	After complete detoxification, shall be disposed to the outside agencies.
10	33.2	Contaminated cotton rags or other cleaning materials	30 Kgs/month	Store in secured manner and hand over to KSPCB Authorized Vendor
11	A1160	Used Lead Acid batteries	5 No's/Annum	Returned back to dealer/ Supplier
Other & Miscellaneous Solid Wastes				
12	--	Coal ash	1400 kgs/day	Sent to Brick Manufacturers
13	--	Briquette ash	3640 kgs/day	Sent to fertilizer industries
13	--	Residues from Scrubber	266 kgs/day	Shall be stored in secured manner & handed over to TSDF.
14	--	Used PPE	10 Kgs/ Month	Sent to authorized vendor
15	--	E- Waste	150 Kgs/ Annum	Authorized recyclers
16	--	Plastic Waste	200 Kgs/ Annum	Authorized recyclers
17	--	Metal Scrap	5 TPA	Sale to outside agencies/ recyclers
18	--	Used Filters (HEPA filters, Oil Filters etc.)	50 Nos /year	Sent to TSDF
19	--	Used / Discarded RO Membranes	0.3 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	Inorganic	Spent carbon	Spent Catalyst	Process Emission	Distillation residue
17100.0	16813.17	1764.17	5678.50	2606.37	22639.67	1016.67	23656.33	431.0	38.33	4.67	21.67	264.36	797.67

HAZARDOUS SOLID WASTE DETAILS

Organic solid waste	Inorganic solid Waste	Spent Carbon	Distillation Residue
Kg/day	Kg/day	Kg/day	Kg/day
431.0	38.33	4.67	797.67

EMISSION DETAILS

Kg per day					
CO_2	**Alkane gases**	**O_2**	**H_2**	**HBr**	**HCl**
59.6	61.8	39.9	4.9	209.5	192.6

Deliberations by the EAC:

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

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

The Committee noted that the PFR/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the greenbelt development in the unit complex and suggested the PP to develop greenbelt on at least 33% areas around the periphery of the complex. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considering 2m x 2m ratio and suggested to complete plantation with-in one year. The Committee deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The Committee suggested to use coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available**.** The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The Committee suggested to carryout detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species. The Committee also suggested that the PP shall carry out detailed Phyto and Zooplankton study of the Nala water passing through the Industrial park during non-monsoon season and submit the report within one year. The committee also suggested to develop green belt on the recommendations of agricultural expert report. The committee deliberated about the capacity of CETP and was satisfied with the reply of consultant.

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

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

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

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

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

(ii). Project Proponent reported that the amount of CO_2 emissions per day are stated to be 59.6 Kg/day and hence it is desirable that usage of economical viable technologies for CO2 sequestration must be explored for usage in the Industry. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(iii). The PP shall carry out detailed Phyto and Zooplankton studies of the Nala water passing through the Industrial park during non-monsoon season and submit the report within one year for its appraisal before the EAC.

(iv). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

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

(vi). The treated effluent of 44.3 KLD proposed to discharge to the CETP. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

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

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

(ix). Total fresh water requirement, sourced from KIADB water supply, shall not exceed 59.7 KLD. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

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

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

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

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

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

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

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

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

Agenda No.19.11

Expansion Project for manufacturing of Resin (@900 MTPM), located at Survey no. 354 P1& P2, Village Nani Chirai, Taluka Bhachau, District Kutch, Gujarat by M/s Pegasus Panels Private Limited -Consideration of Environmental Clearance

[Proposal No. IA/GJ/IND3/231678/2018; File No. J-11011/298/2018-IA-II(I)]

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

The proposal is for environmental clearance to the project for expansion Project for manufacturing of Resin (@900 MTPM), located at Survey no. 354 P1& P2, Village Nani Chirai, Taluka Bhachau, District Kutch, Gujarat by M/s Pegasus Panels Private Limited.

The details of products and capacity as under:

S. No.	Name of Products	Quantity				
		CAS No.	Existing	Proposed Additional	Total	End Use
*1.	Laminates & pre-laminated particle board	--	1,25,000 Nos./Month	--	1,25,000 Nos./Month	Making of Furniture
2.	Phenol Formaldehyde Resin	9003-35-4	--	900 MT/Month	900 MT/Month	Used as Bonding Materials in Manufacturing of laminates/pre laminated particle board & Ply Wood
3.	Melamine Formaldehyde Resin	9003-08-1				
4.	Melamine Urea Formaldehyde	25036-13-9				
5.	Urea Formaldehyde Resin	9011-05-6				
Note: *Existing product does not required EC, CC&A no. AWH –24494 dated 18-07-2017 valid up to 17-07-2022 is obtained for existing products.						

All Resin Manufacturing projects are listed at S.N. 5(f) synthetic organic chemicals of Schedule of Environment Impact Assessment (EIA) Notification and the project is categorized under category ‘A’ and requires appraisal at Central Level by Expert Appraisal Committee (EAC).

The Standard ToR has been issued by the Ministry vide letter No. J-11011/298/2018-IA-II(I) dated 09.11.2018. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 23.03.2021, which was presided over by the Additional District Magistrate. The main issues raised during the public hearing are related to CER/CSR activities, water & air pollution and its control measures, local employment, green belt development etc. Certified Compliance report of existing CTO Conditions was issued by GPCB on 11.08.2021.

PP reported that existing land area is 34905 sqm, no additional land will be used for

proposed expansion. Industry has already developed greenbelt in an area of 10% i.e., 3490 sqm out of total area of the project. In addition to this, greenbelt development of approx. 8510 sqm (24.38%) area to be developed within the company premises. The total green belt area will be 34.38% i.e., 12000 sqm out of total area of the project. The estimated project cost is Rs.0.85 Crores including existing investment of Rs.8.8784 Crores Total capital cost earmarked towards environmental pollution control measures is Rs.0.513 Crores and the Recurring cost (operation and maintenance) will be about Rs.0.26 Crores per annum. Total Employment will be 45 persons after proposed expansion project. Industry proposes to allocate Rs.1.2 Lakh towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Local village pond is close to the North side boundary.

Ambient air quality monitoring was carried out at 8 locations during Oct'18 to Dec'18 and the baseline data indicates the ranges of concentrations as: PM10 (58-91 µg/m3), PM2.5 (17-40 µg/m3), SO2 (8-24 µg/m3) and NO2 (10-28 µg/m3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.40631 µg/m3, 7.82921 µg/m3 and 0.11013 µg/m3 with respect to PM10, SO2 & NOx, respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement will be 40.0 m^3/day of which fresh water requirement of 30 m^3/day will be met from GWIL water supply department. Effluent of 16 kl/day will be generated after proposed expansion (Domestic: 3 kl/day & Industrial: 13 kl/day). Domestic wastewater generated from the plant will be disposed of through septic tank/ soak pit system. Industrial waste water generated from the unit will be treated in ETP followed by Evaporator, Condensate from evaporator will be recycled back for industrial purpose. The plant will be based on Zero Liquid Discharge system.

Power requirement after expansion will be 250 kVA including existing 200 kVA and will be met from Paschim Gujarat Vij Co. Ltd. Existing unit has one DG sets of 250 kVA capacity, and Roof top Solar plant of 113 kVA. Existing DG sets of 250 kVA capacity will be sufficient after the proposed expansion project and will be used as standby during power failure.

Existing unit has 6 TPH wood waste/Briquettes fired boiler & 10 Lakh.kCal/hr. wood waste/Briquettes fired TFH. No additional utility will be required for proposed expansion. Only working load and working hours will increase of the existing utilities after proposed expansion project. Moreover, Lignite/Coal will be used as optional fuel of Wood waste / briquettes after the proposed project. Multi cyclone separator + Bag filter + Scrubber with a common stack with Stack (Height: 30 m) will be provided to the utility.

Details of Process emissions generation and its management: In existing operations, the company has installed Bag filter to control dust emission from sanding machine. There will be no process gas emissions from the proposed Resin manufacturing plant.

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

Type of waste & Category	Source	Existing	Proposed Additional	Total	Disposal Method
Hazardous Waste					
Used Oil (Cat. 5.1)	Maintenance	0.02 MT/annum	0.48 MT/annum	0.50 MT/annum	Collection, storage, and reuse within plant as a lubricant.
Empty barrels/containers/ liners (Cat. 33.1)	Raw material storage	0.50 MT/annum	1.5 MT/annum	2.0 MT/annum	Collection, storage, reuse, disposal by giving it to registered recycler.
ETP Sludge /Evaporator Salt: (35.3)	Waste water treatment	Nil	35.0 MT/annum.	35.0 MT/annum.	Storage, transportation and disposal to the TSDF site
Non-Hazardous Waste					
Fly Ash	Utility	3.0 MT/Month	62 MT/Month	65 MT/Month	Storage, transportation and sold out to brick manufacturer

Deliberations by the EAC:

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

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

The Committee noted that the EIA/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for green belt development. PP committed to plant 3000 nos. trees with 4 to 5 rows of plants along the boundary. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. The Committee suggested use of coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available. The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost

precautions and following the safety norms and best practices.

The Committee suggested use the recycled water. The Committee deliberated the solvent recovery and its mitigation plan and found satisfactory. The committee deliberated the Schedule I conservation plan and found satisfactory. The committee also deliberated water balance and risk assessment. It was advised to complete the plantation as soon as possible. The committee deliberated the condition mentioned in the certified compliance report and found satisfactory. The committee also deliberated the issues raised in the public hearing and found the reply of PP 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 EIA/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(iii). 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.

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

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

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

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

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

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

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

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

(xii). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97% with effective chillers/modern technology.

(xiii). Total fresh water requirement shall not exceed of 30 m3/day, proposed to be met from GWIL water supply department. 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 has to be increased accordingly. The plant species can be selected that will give better carbon sequestration and plantation shall be started from first year onwards.

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

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

Agenda No.19.12

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

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

The proposal was earlier placed before the EAC in its meeting held during October 5-6, 2021 wherein EAC deferred the proposal and desired for certain requisite information/inputs. Information desired by the EAC and response submitted by the project proponent is as under:

S. No.	Additional information /inputs	Reply of PP	Observation of EAC
1.	Revised solvent recovery/solvent management Plan needs to be submitted	All the solvent storage tanks will be connected with vent condensers with chilled brine circulation. The solvent storage tanks will be provided with breather valves to prevent losses. Reactor will be connected to chilled brine condenser system. Proper Earthing will be provided in all the electrical equipment wherever solvent handling is done. All solvents will be stored in a separate space provided with all safety measures. Mechanical seals in pumps, compressors, treatment vessels, distillation vessels will be used and maintained periodically. Closed unloading, conveying and packing system will be provided. Safety devices will be provided	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.

		to workers working near the reactors. Drip tray will be placed for each pump to collect leakages and spillages. Breather valves, PSVs, Rupture disc, Vapour recovery system will be installed for process/storage tank vents. Proper Control of the operating parameters, mainly temperature, vacuums, cooling media circulation, during plant operation and solvent recovery. Regular monitoring of VOC concentration in work zone.	
	Revised Volatile organic compounds (VOCs)/Fugitive emissions control plan needs to be submitted.	Volatile organic compounds (VOCs)/Fugitive emissions will be controlled at 99.7% with effective chillers/modern technology at project site. Regular VOC monitoring with portable VOC meter at primary and secondary vent condensers and online fixed VOC detector connected to data logger to be provided by the concerned unit. In case of continuous process online emission data be connected to server of the concerned SPCB. Any VOCs shall be captured in a system with mechanical seals, chillers/condensers and all vents will be channelized with a solvent recovery plant. All the vessels will be equipped with condensers connected to chilled water and brine solution for effective recovery of solvents and avoid fugitive emission. Emission of solvent vapour is a potential problem from the blending and mixing vessels used for solvent based products in material handling and pumping. Reactors will be provided with mechanical seals solvent handling pumps will be provided with mechanical seals. Solvents will be transferred in a closed line and added in the vessel by side wall wetting. It ensures no vapor generation during transfer operation. The traces of vapour generated in the vessel shall be sent to scrubber. Good Housekeeping will be done as per OHSAS. Storage areas will be provided with a Common scrubber. Greenbelt will be developed around the plant to arrest the fugitive emission.	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.
	Revised water conservation plan needs to be submitted.	The rain water collection tank capacity (40 KL) will be provided inside the project premises. Which will be collected from roof top only during rainy season. The collected roof water will be used for process consumption by passing through requisite filtration methods. The surface run off will be collected through same 40 KL capacity of tank. Which will be treated by deep bed filters with one stage chemical precipitation. The collected rain water will be used cooling tower & boiler. This would be covered to 50% of total water requirement of the proposed project.	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.

		Industrial effluent will be treated up to primary treatment and then disposed to CETP line. CETP treated water will be bought back & utilized for boiler & cooling. Hence, total fresh water requirement will be minimized. Industry will achieve 60% of recycling of treated water and only 40% of overall fresh water consumption for process will be sourced through KIADB water supply. Domestic waste water will be treated by modular STP capacity of 2 KLD. Treated waste water will be reused for landscape development inside the project premises. Which reduces fresh water consumption for landscaping development.	
	Revised green belt development plan with high carbon sequestration trees needs to be submitted along with budgetary provisions.	Proposed project site is located at Notified Kadechur KIADB Industrial Area which is barren land and there are no trees at KIADB Industrial Area. Hence, our proposed project committed following environmental protection measures at proposed site. The following activities totally towards to environmental benefits. The proposed project will be developed green belt inside the premises in nearly 33% of the total project area. A total of 2666.5 sqm (33%) will be proposed to designated for the development of greenery along the plant periphery. All trees will be planted within first year. The proposed green belt width 8-10 m to be developed as green belt mainly along the plant periphery. The selection of plant species as per the advised by District forest officers (DFO) such as Indigenous species and variety of trees will be planted within the plant premises & KIADB industrial area which are economically remunerative and un-decorative. The trees will be planted with spacing of 2 m x 2 m = 4 sqm for 1 tree/plant inside the premises.	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.
	The Project Proponent shall submit the detailed availability/facility/capacity of the treatment of waste water in the CETP and its working status from the concerned	The proposed project effluent (up to primary treatment) will be sent to CETP line (Mother Earth Environ Tech Pvt. Ltd.) The Mother Earth Environ Tech Pvt. Ltd. has obtained Environmental Clearance from MoEF for setting-up the CETP capacity of 5 MLD at KIADB kadechur industrial area, Yadigiri taluk, Karnataka. CETP phase 1 is completed with capacity of 0.50 MLD. Currently, Kadechur KIADB industry area rapidly establishing industrial units. Complete Industry establishment & development in KIADB area will be end of 2023. Accordingly, CETP (Mother Earth) has been given the agreement and membership To M/s Sunrise Industries. Our process effluent is 21 KLD which is very less quantity and it will be treated by CETP.	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.

	authority.		
	Details of power requirement from the green energy/ solar power needs to be submitted.	Solar panel/Solar Street lights will be installed inside the project premises. 20% energy (i.e. 120 KW) will be saved from the total power load through using renewable energy products. And energy efficient equipment's/appliances will also be used inside the project such as 5 Star Rating Motors, LED Lights, Energy Efficient Pumps etc., As, we committed in CER activities & 5 lakhs budget is also allotted for 15 solar street lights along with poles which is going to be installed/implemented in KIADB Kadechur Industrial Area. 15 solar panel will generate around 1.5 KW of energy which would be used for Common areas & street lighting of KIADB industrial area. Apart from 1.5 KW generation of solar energy outside industrial premises which would be contribute under CER activities. Industry is focusing to generate solar energy of around 120 KW power through solar roof harnessing which will be used for external & internal lighting as well as utilities back up power. Industry has proposed and programmed to achieve to gain carbon credit wide solar harnessing up to 40,000 TPA.	EAC deliberated the Action Plan in detail and found the reply to be addressing the concerns of the Committee.
	Detailed plan on Hazardous Waste Management.	Both non-hazardous and hazardous wastes are generated during all stages of pharmaceutical manufacturing. These wastes can include off-specification or obsolete raw materials or products, spent solvents, reaction residues, used filter media, still bottoms, used chemical reagents, dusts from filtration or air pollution control equipment, raw material packaging wastes, laboratory wastes.	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. Eco Green Enviro Services made a detailed presentation on the salient features of the project and informed that:

The proposal is for Grant of Environmental Clearance to Establishment of Active Pharmaceutical Ingredient (API) Manufacturing Industry with capacity of 802 TPA by M/s Sunrise Industries, located by Plot No. 174 & 175, Kadechur & Badiyal Industrial Area, Saidapur Hobli, Yadgiri Taluk & District, Karnataka.

The details of products and capacity as under:

S. No.	Product Name	Quantity In TPA	CAS No	Therapeutic Use

1	Pregabalin	40.00	148553-50-8	Anticonvulsants. Analgesics and Fibromyalgia agents
2	Vildagliptin	35.00	274901-16-5	Anti Diabetic, Type-2, Diabetes mellitus
3	Olmesartan	28.00	144690-92-6	Treatment of high blood pressure.
4	Gabapentin	45.00	60142-96-3	Antiepileptic To prevent and control Seizures.
5	Itraconazole	65.00	84625-61-6	Antifungal Infections
6	Ofloxacin	12.00	82419-36-1	Anti-bacterial infections
7	Metaprolol	70.00	56718-71-9	Treatment for high blood pressure
8	Fluconazole	4.00	86404-63-9	Prevention and treat a variety of fungal And yeast infections.
9	Ketoconazole	30.00	65277-42-1	Antifungal Infections and Skin infections.
10	Fexofenadine HCL	25.00	153439-40-8	Antihistamine. To relieve allergy symptoms
11	Oxpentifylline	20.00	6493-05-6	Improve the symptoms of certain blood flow problems in the legs and arms.
12	Venlaflaxin	6.00	93413-69-5	Treatment of Depression.
13	Levocetirizine HCL	5.00	130018-77-8	Used to relive runny nose, sneezing.
14	Imatinib mesylate	3.00	220127-57-1	Anticancer. Philadelphia positive chronic myeloid leukaemia.
15	Omeprazole	10.00	73590-58-6	Treatment of heartburn (Decreasing the amount of acid made in the stomach)
16	Losartan potassium	8.00	124750-99-8	Treatment of High blood pleasure (Hypertension)
17	Sertraline Hydrochloride	4.00	79559-97-0	Treatment of Depression, Obsessive compulsive disorders.
18	Acecolofenac	4.00	89796-99-6	Pain relief & inflammation such as Rheumatoid arthritis.
19	Favipiravir	7.00	259793-96-9	Emerging antiviral option in COVID-19
20	Pantoprazole Sodium	8.00	138786-67-1	Heartburn, acid reflux and gastro – oesophageal reflux disease. Prevention and treat stomach ulcers
21	Phenylephrine HCL	12.00	61-76-7	Temporary relief of stuffy nose, sinus and ear symptoms.
22	Mantelukast Sodium	5.00	158966-92-8	Prevent wheezing, difficulty breathing, chest tightness, and coughing caused by Asthma.
23	R & D Products	1.00	--	--
Total		**447**		

LIST OF BY-PRODUCTS AND ITS QUANTITIES

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

PROPOSED API PRODUCT WITH THEIR CONSOLIDATED CAPACITY

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

As per the provision of EIA notification No. S.O. 1533 (E) dated 14.09.2006 as amendments there to. The proposed project falls under category B2 as per the Notification vide number S.O. 2859 (E) dated on 16th July, 2021. Due to applicability of General Condition, it is noted that proposed project has interstate boundary Karnataka-Telangana state within 5 km from the project location. Hence, the project requires appraisal at Central Level by the Sectoral Expert Appraisal Committee (EAC) in the Ministry. It was informed that no litigation pending against the proposal.

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

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

The total water requirement is 77.25 m^3/day and will be met from KIADB industrial water supply. Industrial effluent generation will be 23 KLD which will be treated up to primary treatment. The partially treated effluent will be disposed to CETP line. The plant will be based on CETP discharge system (Mother Earth, Kadechur).

Power requirement of project will be 600 KVA and will be met from GESCOM. The unit is proposed to install (1 x 250 KVA) DG Set, Stack height of 6 M will be provided as per CPCB norms. The unit has proposed to install 1 x 2.5 TPH boiler and 1 x 2 lakhs Kcal/hr of thermic fluid heater are proposed Stack Height of 30 Meter respectively.

Cyclone separators and bag filters will be installed separately for each of the boiler for controlling the particulate emissions (within statutory limit of 115 mg/ Nm^3). LSHS/Fuel briquettes will be used instead of coal for the proposed Boiler & fired utilities.

Air pollution control/measures

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

Details of Process emissions generation and its management.

S. No.	Name of the Gas	Quantity in Kg/day	Treatment Method
1	Hydrogen Chloride	98.5	Scrubbed by using chilled water media
2	Carbon Dioxide	216	Dispersed into the atmosphere
3	Hydrogen	2.6	Diffused by using through flame arrestor
4	Ammonia	3.2	Scrubbed by using chilled water media
5	Sulphur dioxide (SO2)	86.95	Scrubbed by using C. S. Lye Solution

DG sets Emission

S. No.	Dg sets capacity	Gas flow rate (m3/min)	Temp C	NO2 (g/sec)	SO2 (g/sec)	PM (g/sec)	CO (g/sec)	Velocity (m/sec)	Diameter in (m)
1.	250 kVA	43	500	0.51	0.063	0.02	0.19	15	0.192

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

S. No.	Waste Code as per HW Rules 2016	Waste Name	Quantity (MTA)	Disposal Mode
1	5.1	Used Spent Oil	5.0	KSPCB authorised recycler
2	20.3	Distillation Residues	250	KSPCB authorised CHWIF or send to pre/co-processing units (cement industries)
3	28.1	Process Residue and wastes (organic & inorganic solid waste)	300	KSPCB authorised CHWIF or send to pre/co-processing units (cement industries)
4	28.2	Spent catalyst	10	KSPCB authorised CHWIF or send to pre/co-processing units (cement industries)
5	28.3	Spent carbon	10.1	KSPCB authorised CHWIF or send to pre/co-processing units (cement industries)
6	28.6	Spent solvents	25	KSPCB authorised recycler having permission under rule-9
7	33.1	Discarded drums/bags/liners	60 Nos/day	KSPCB authorised recycler
8	33.2	Contaminated Cotton rags or other cleaning materials	1.5	KSPCB authorised TSDF
9	36.1	Solvent distillation residue	180	KSPCB authorised CHWIF or send to pre/co-processing units (cement industries)
10	37.3	Concentration or evaporation residues	215	KSPCB authorised TSDF
Non –Hazardous waste details				
Sl. No.	**Waste Code**	**Waste Name**	**Quantity (MTA)**	**Disposal Mode**
1	--	Packing Materials (Paper, Plastic & Wood etc.) and stationary waste	50	Sale to Authorized Party
2	--	Insulation Material	10	Sale to Authorized Party
3	--	Metallic Scrap	50	Sale to Authorized Party
4	--	Non metallic Scrap	20	Sale to Authorized Party

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

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

Kg Per Day				
CO_2	H_2	NH_3	HCl	SO_2
216	2.6	3.2	98.5	86.95

Deliberations by the EAC:

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

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

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

The Committee noted that the PFR/EMP reports reflect the present environmental status and the projected scenario for all the environmental components. The Committee

deliberated on the greenbelt development in the unit complex and suggested the PP to develop greenbelt on at least 33% areas around the periphery of the complex. The Committee suggested that the greenbelt development shall be taken up actively by the PP and trees shall be planted considering 2m x 2m ratio and suggested to complete plantation with-in one year. The Committee deliberated on the proposed mitigation measures towards Air, Water, Noise and Soil pollutions. The Committee suggested to use coal having ash content less than 15% only during the rainy season when the Biomass Briquettes may not be available**.** The Committee also suggested that the storage of toxic/explosive raw materials/products shall be undertaken with utmost precautions and following the safety norms and best practices.

The Committee suggested to carryout detailed description of micro flora and fauna (terrestrial and aquatic) existing in the study area with special reference to rare, endemic and endangered species. The Committee also suggested that the PP shall carry out detailed Phyto and Zooplankton study of the Nala water passing through the Industrial park during non-monsoon season and submit the report within one year. The committee also suggested to develop green belt on the recommendations of agricultural expert report. The committee also deliberated the requisite information sought in the previous EAC meeting and was satisfied with the action plan submitted by PP.

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

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

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

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

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

(ii). Project Proponent reported that the amount of CO_2 emissions per day are stated to be 216 Kg/day and hence it is desirable that usage of economical viable technologies for

CO2 sequestration must be explored for usage in the Industry. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

(iii). The PP shall carry out detailed Phyto and Zooplankton studies of the Nala water passing through the Industrial park during non-monsoon season and submit the report within one year for its appraisal before the EAC.

(iv). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.97 % with effective chillers/modern technology. Regular monitoring of VOCs shall be carried out.

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

(vi). The treated effluent of 23 KLD proposed to discharge to the CETP. The project proponent shall explore possibilities for recycling and reusing of treated water in the unit to reduce the fresh water demand and waste disposal.

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

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

(ix). Total fresh water requirement, sourced from KIADB water supply, shall not exceed 77.25 m^3/day. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

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

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

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

losses. (f) All the solvent storage tanks shall be connected with vent condensers with chilled brine circulation.

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

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

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

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

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

Reconsideration of modification of EC proposal

Agenda No.19.13

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

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

The proposal is for amendment in the Environment Clearance granted by the Ministry vide

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

PP reported that as per the earlier Environmental Clearance was obtained in 2019, MoEF&CC had recommended to achieve 100% Zero Liquid Discharge scheme for wastewater treatment. But, as the unit is into the production of highly complex pesticide streams, having a common effluent treatment facility poses a high risk of cross contamination if, recycle & reuse the treated wastewater in process. As per the proposed amendment, the total effluent will be bifurcated in the following manner:

- Total Effluent 3857 KLD
  (a) 447 KLD to ETP to NCT
  (b) 82 KLD Domestic waste water to STP
  (c) 2981 KLD In-house Effluent Treatment scheme
  (d) 29 KLD to ACPTCL/BEIL
  (e) 318 KLD (Boiler + Cooling)

The unit proposed to dispose 447 KLD of Low TDS effluent to the common facility at NCT for biological treatment and achieve sea discharge norms and the High TDS effluent generated from products Gemester and Lactum (29 KLD) will be segregated at source and will be sent to common MEE for further treatment.

The unit will not be able to achieve complete Zero Liquid Discharge but it is committed that approx. 83 % of total waste water generation (3198 KL/day) will be reused within premises and only 17 % will be disposed for treatment in common treatment facility i.e. BEIL/ACPTCL and NCT. The unit has already obtained permission for the disposal of effluent at BEIL and NCT.

The unit has obtained membership certificate for disposal of Low TDS effluent to common facility at NCT since September 2011.

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

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/reasons provided by PP
1.	Point No. 10 (iii)	As already committed by the project proponent, zero liquid discharge shall be ensured and no waste /treated wastewater shall be	• Total wastewater generation will be 3857 KLD (Industrial 3775 KLD+ Domestic 82 KLD). • Total wastewater generation from industrial is 3775 KLD in which 318 KLD	As per the proposal for EC amendment PP would like to dispose 17 % of the total industrial effluent generated to common treatment facility (29 KLD to ACPTCL/BEIL and 447 KLD to NCT) **1. Justification for**

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/reasons provided by PP
		discharged outside the premises.	(Boiler 213 KLD + Cooling 105 KLD) will be reused in for the process utility in the plant after pretreatment. • Remaining 3457 KLD industrial effluent will be segregated in to 2 streams: Stream I- High TDS and COD stream (3010 KLD) and stream II - Low TDS and COD stream (447 KLD). **Stream I-High COD stream** ➢ Out of the 3010 KLD of effluent, 29 KLD will be directly sent in to the common MEE facility at BEIL/ACPTCL. • Remaining 2981 KLD will be treated in in-house treatment facility through ETP+RO+HPRO or MEE+ Stripper+ ATFD with further reuse. • Total 2801 KLD of RO permeate will be reused for process. • RO Reject will be sent to MEE for further treatment. • 180 MT concentrated salt from MEE will be sent to TSDF site. **Stream II-Low COD stream**	**disposal of 29 KLD at BEIL/ACPTCL** Through the techno-feasibility study (as enclosed) conducted we have identified that about 29 KLD (effluent generated from Lactum) of the HTDS effluent produced, has an exorbitantly high amount of TDS and COD. This proved to have a high potential for MEE tube damage if treated in the in-house MEE facility. The HTDS effluent stream generated also showed the possibility of corrosion in MEE components due to the highly complex nature of the pesticides stream hence we had a discussion with the common MEE service providers who can ensure efficient dilution or pretreatment of the high complex stream before treatment in their Common Multi Effect Evaporator (CMEE) and the final disposal. We have obtained permission from BEIL/ACPTCL for the disposal of 29 KLD of highly concentrated effluent. **2. Justification for disposal of 447 KLD at NCT** We would like to dispose 447 KLD of low TDS industrial effluent for
2.	Point No. 10 (xi)	Industrial /trade effluent shall be segregated in to high COD /TDS and low COD/TDS effluent streams. High COD/TDS shall be treated through stripper followed by MEE and ATFD (agitated thin film drier). Low TDS effluent stream shall be treated in ETP/RO to meet the prescribed standards.		

S. No.	Para of EC issued by MoEF&CC	Details as per the EC	To be revised/ read as	Justification/reasons provided by PP
			• 447 KLD after primary, secondary and tertiary treatment shall be sent to NCT. **Domestic Effluent** • Domestic effluent of 82 KLD shall be treated in the in-house STP. The treated domestic effluent shall be reused for gardening purpose.	complete biological treatment at common facility of NCT avoiding in-house MEE + ATFD + RO Treatment, this would help reap the following advantages: a) Lower usage of natural gas- as effluent is treatable with biological treatment, Avoiding MEE + ATFD + RO Treatment b) Lower usage of Power- as MEE + ATFD + RO operation requires higher power compared to biological treatment. Also, as per the cost-benefit analysis conducted, a yearly benefit of 5 crores is anticipated, part of this amount will be used effectively for green belt development around the plant premises and implementation of other CER activities.

Deliberations by the EAC:

The EAC noted that the instant proposal was earlier placed before the EAC held on October 5-6, 2021 wherein the proposal was deferred for consideration at a later stage upon receipt of the adequate justification/information from the PP. Further the PP has submitted the detailed information and accordingly the proposal is considered in this instant meeting. The Committee deliberated the details and found the justification now is in order.

After due deliberations on the application put forth by the PP and considering the importance of the products being manufactured, and the availability of a common effluent treatment plant and a common multiple-effect evaporation plant available in the immediate vicinity of the industry, the EAC is of the view fact that by permitting the industry to send 447 KLD to the CETP and 29 KLD to the CMEE unit would be helpful in avoiding the operational problems of plant and contamination of products without having adverse environmental

impacts. The Committee also recommended that the PP needs to develop the dense green belt around the periphery of the Unit.

After detailed deliberations, the EAC accepted the request of the PP and **recommended** the proposal for modification in EC condition, as detailed above. The Committee also recommended the following specific conditions:

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

(ii). The project proponent shall utilize modern technologies for capturing of carbon emitted and shall also develop carbon sink/carbon sequestration resources capable of capturing more than emitted. The implementation report shall be submitted to the IRO, MoEF&CC in this regard.

The meeting ended with thanks to the Chair.

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ANNEXURE

GENERAL EC CONDITIONS

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

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

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

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

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

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

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

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

the company.

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

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

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

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

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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.	**Prof. (Dr.) Vijay S. Moholkar** Professor in Department of Chemical Engineering, Block-K (Academic complex), Room No. 111, Inidia Institute of Technology Gawahati, Gawahati – 781039 E-mail: vmoholkar@iitg.ac.in	Member
5.	**Shri Santosh Gondhalkar** 'Shree' Apartment, Flat 401, Plot No. 22, Tukaram Society, Santnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
6.	**Dr. Suresh Panwar** House No.4, Gayateri Green Society, NH 58 Bypass, Kankerkhera, Meerut, Uttar Pradesh Email-spcppri@gmail.com	Member
7.	**Shri Dinabandhu Gouda** Additional Director, DH IPC-I, Room No. 309A, Third Floor, Central Pollution Control Board, Parivesh Bhawan, East Arjun Nagar, Delhi – 110032, E-mail: dinabandhu.cpcb@nic.in	Member
8.	**Shri Tukaram M Karne** "SHREYAS ORNATE" F-1, 95-Tulasibagwale Colony, Sahakarnagar-2, PUNE: 411 009, Maharashtra E-mail: tmkarne@gmail.com	Member

9.	**Shri Sanjay Bisht** Scientist 'E', Room No. 517, Office of the Director General of Meteorology, Indian Meteorological Department, Musam Bhawan, Lodhi Road, New Delhi - 110003 E-mail: sanjay.bist@imd.gov.in	Member
10.	**Dr. Rakesh Kushwaha**, Sr. Scientist, Central Ground Water Authority 18/11, Jamnagar House, Mansingh Road New Delhi - 110011 E-mail ID- kushwaha-cgwb@gov.in	Member
11.	**Dr. R. B. Lal** Scientist 'E'/Additional Director Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Room No. V-304, Vayu Wing, Jor Bag Road, New Delhi-110003 Telefax: 011-24695362 E-mail: rb.lal@nic.in	Member Secretary

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

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Annexure-III

Approval of EAC Chairman

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

Re: Zero Draft Minutes of the 19th EAC (Industry 3 Sector) meeting held during October 25-26, 2021 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir.

From : ab pandit <ab.pandit@ictmumbai.edu.in> Mon, Nov 01, 2021 10:29 AM

Subject : Re: Zero Draft Minutes of the 19th EAC (Industry 3 Sector) meeting held during October 25-26, 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, Rakesh kushwaha <kushwaha-cgwb@gov.in>

Dear Dr. Lal,

Please find attached the signed minutes,

Thanks and Regards
Pandit

Aprroved

(Prof Aniruddha B Pandit)

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