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

Dated: 25.05.2021

MINUTES OF THE 10th EXPERT APPRAISAL COMMITTEE (INDUSTRY-3) MEETING HELD DURING MAY 18-19, 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 - 18th May, 2021 (Tuesday)

(i) Opening Remarks by the Chairman and Member Secretary

Dr. R.B. Lal, Member Secretary, with profound grief informed the Committee about the unfortunate and untimely demise of Dr. Rajashekar P. Mandi, Chairman, Expert Appraisal Committee in April 2021.

The EAC expressed deep and heartfelt condolences to the sorrowing family and joined for two minutes silence. May the lord almighty take the departed soul to his heavenly abode and give the entire family strength and courage to bear this irreparable loss.OM SHANTI !

Dr. Lal further informed that the competent authority in the Ministry, vide letter dated 13th May 2021, has nominated Prof. (Dr.) A.B. Pandit, as an Interim Chairman of EAC. All the members of the EAC have welcomed the New Chairman.

Prof. (Dr.) A.B. Pandit, mentioned that Dr. Rajashekar P. Mandi, had been carrying out the role of EAC Chairman with utmost dedication and commitment and he has been a real asset to the EAC/Ministry and his contribution to the Nation in the capacity of Chairman EAC cannot be forgotten.

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

(ii) Confirmation of the Minutes of the 9th Meeting of the EAC (Industry-3 Sector) held on April 12-13, 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 **9th Meeting of the EAC (Industry-3) held on April 12-13, 2021** conducted through Video Conferencing (VC), and as such no request has been received for any 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

Agenda No.10.1

Expansion and Change in Product Mix for manufacture of Synthetic Organic Chemicals Drugs by M/s Sanskar Chemicals and Drugs Private Limited, located at S.F. No. 457/3A, 457/3C, 457/4A, 457/4C, 457/4C (Part), Ammoor village, 12/5 (part) Chettithangal Village, Taluk Walajah, District Vellore (Now Ranipet), Tamil Nadu- Consideration of Environment Clearance

[IA/TN/IND3/203950/2018; IA-J-11011/361/2018-IA-II(I)]

The proposal was earlier considered by the EAC in its meeting held during 29-30 December, 2020. The information desired by the Committee earlier and response submitted by the PP is as under;

S. No	Information desired by the EAC	Reply submitted by the PP
1.	Direction to be issued under section 5 of the Environment (Protection) Act, 1986 to stop the violating activities till the EC is obtained.	Directions issued vide F.No. J-11011/361/2018-IA-II(I) issued on 09.03.2021 under section 5 of the E(P) Act,1986 by MoEF &CC. Following products (Schedule- 5f Synthetic Organic products) have been stopped from 31.01.2021 onwards: 1. Isopropanol Hydrochloride 2. Poly Allyl Amine Hydrochloride. a. Proof of stoppage can be seen as vide GST R1 filed statement for the month of January 2021. b. Affidavit for the stoppage of violated 5(f) product is submitted. However, PP is continuing the production of Non-EC products viz Non ferric alum, Basic Chromium Sulphate and Spent caustic lye solution.
2.	Letter issued to the State Government with a request to initiate legal action against PP under	Letter issued to the State Government by the Ministry on 09.03.2021

<table>
<tr><td></td><td>section 15 read with section 19 of the Environment (Protection) Act, 1986.</td><td></td></tr>
<tr><td>3.</td><td>Revised Form 2 and EIA/EMP report with complete details and documents.</td><td>Revised EIA/EMP report and Signed form-2 is submitted.</td></tr>
<tr><td>4.</td><td>Revised remediation plan and natural and community resource augmentation plan.</td><td>Revised remediation plan and natural and community resource augmentation plan is prepared.
<table>
<tr><th>S. No</th><th>Name of the area</th><th>Budget(Rs)</th></tr>
<tr><td>1</td><td>Estimation cost for remediation plan based on the Damage Assessment due to violation</td><td>9,13,750</td></tr>
<tr><td>2</td><td>Natural Resource Augmentation Plan</td><td>3,90,000</td></tr>
<tr><td>3</td><td>Community Resource Augmentation Plan</td><td>7,30,000</td></tr>
<tr><td colspan="2">Grand total</td><td>20,33,750</td></tr>
</table>
Total amount to be spent is INR. 20,33,750/-.
Details are provided.</td></tr>
<tr><td>5.</td><td>Action plan based on public hearing issues and details of activities.</td><td>Action plan based on Public hearing issue for the next Four years (2021-2025) under the CER.
<table>
<tr><th>Sl. No</th><th>Description of Beneficiary</th><th>2021-2022</th><th>2022-2023</th><th>2023-24</th><th>2024-25</th></tr>
<tr><td>1</td><td>Solar Lights for Chettithangal Village</td><td>2.00</td><td>-</td><td>2.00</td><td>-</td></tr>
<tr><td>2</td><td>Water RO system in Chettithangal village</td><td>-</td><td>2.00</td><td>-</td><td>-</td></tr>
<tr><td>3</td><td>Green Belt development to nearby villages</td><td>-</td><td>-</td><td>-</td><td>2.5</td></tr>
<tr><td colspan="2">Sub total cost INR(Lakhs)</td><td>2.00</td><td>2.00</td><td>2.00</td><td>2.5</td></tr>
<tr><td colspan="2">Grand Total INR (Lakhs)</td><td colspan="4">8.50</td></tr>
</table>
Public hearing issues are addressed in the EIA in Chapter-7, and continual improvement of EHS and social welfare of nearby villages will be implemented. Some of the action plans are given in Table 7-28 of EIA Report.</td></tr>
</table>

6.	Action plan for compliance of CTO conditions.	PP submitted the CTO Compliance report to TNPCB for Certified Compliance report. Compliance Report along with Acknowledgement copy for the submission of Report to TNPCB is submitted.
7.	Plan for Installation of Double acoustic membrane for noise pollution control.	No, DG sets are housed in the open space and the photographs are submitted. The results of noise level monitoring conducted within the facility is submitted.
8.	Permission for fresh water/Copy of license of private tanker through which fresh Water requirement is proposed to be met.	Fresh Water supply Agreement made between M/s. Sanskar Chemicals & Drugs Pvt Ltd and M/s. Dhyanalinga Water Treatment Company is submitted. Approval/NoC for Ground Water extraction of M/s. Dhyanalinga Water Treatment Company is submitted.
9.	Mitigation measures and action plan for improving the air quality.	**Inside facility**: Adequate Stack heights and scrubbers are provided for the proper dispersion of pollutants. Additional Greenbelt will be developed inside the facility to reduce the dispersion of pollutants. **Outside Facility**: Proposed mitigation measures for improving air quality in Chettithangal and Vanapadi Villages are given below: 1. Planting and maintaining trees along the road side of Chettithangal and Vanapadi Villages (No of trees -448 x INR 500 = **INR 2,23,750**) 2. Monitoring of Ambient Air Quality in the Chettithangal and Vanapadi Villages villages (4 stations down wind, once in a year for 3 years) (INR 5000 x 4 station x 3 years= **INR 60,000**) **Total Cost: INR. 283750/-**

The project proponent and their accredited consultant M/s Hubert Enviro Care System (P) Ltd, made a detailed presentation on the salient features of the project:

The proposal is for environmental clearance to the project for Expansion/Change in Product Mix for manufacture of Synthetic Organic Chemicals Drugs and Drug Intermediates [5 nos of product to 12 nos of products (250 TPM to 112.85 TPM by dropping production of 3 existing products of capacity 190 TPM)] by M/s Sanskar Chemicals and Drugs Private Limited located at S.F. No. 457/3A, 457/3C, 457/4A, 457/4C, 457/4C (Part) Ammoor Village, 12/5 (Part) Chettithangal Village, Taluk Walajah, District Ranipet, Tamil Nadu.

The details of products and capacity as under:

S. No.	**Products**	**Quantity (MT/Month)**		**Total quantity after expansion**
		Existing Products*	**Proposed Products**	

1.	Poly Allamine Hydrochloride	20	Retained	20
2.	Isopropanol Hydrochloride	40	Retained	40
3.	Non ferric alum	90	Dropped	0
4.	Basic chromium Sulphate	90	Dropped	0
5.	Spent caustic lye solution	10	Dropped	0
6.	Linagliptin	-	0.15	0.15
7.	Vildagliptin	-	1.5	1.5
8.	Trityl olmesartanmedoximal	-	2	2
9.	Allyl Isopropyl acetyl urea	-	5	5
10.	Diacerine	-	0.2	0.2
11.	Sitagliptin	-	1	1
12.	Lexoprofen	-	2	2
13.	Isopropyl bromide	-	10	10
14.	Allylbromide	-	6	6
15.	Hydrogen Bromide	-	25	25
	Total	**250**	**52.85**	**112.85**
	By products			
1	Spent Sulphuric acid	81	Retained	81
2	Gypsum	60	dropped	-
	Total	**141**	**-**	**81**

***Note**:
1. As per Consent to Operate (renewal) order no:F.0190VLR/RS/DEE/TNPCB/VLR/W/2020 dated 03.07.2020 for 5 products with total capacity of 250 MT/month and 2 by products of capacity 141 MT/month which is valid upto 31.03.2021.
2. Non ferric alum, Basic chromium Sulphate and Spent caustic lye solution are dropped from the existing product and Gypsum from existing by-product.

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

The standard terms of reference (ToR) was granted by the Ministry dated 18.12.2018. The public hearing was conducted by the State Pollution Control Board on 02.01.2020. The public hearing was presided over by the District Revenue Officer. The main issues raised during the public hearing are related to Air, water pollution and improper activities industries in Ranipet area. The proponent has allocated 16 Lakhs as a budget for PH commitments.

It was informed that the company was originally under the name of J.R.P Intermediate Private Limited, incorporated on 2nd February 2000. Later it was name changed to M/s. Sanskar Chemicals and Drugs Private Limited. There were no operations from 2000-2009.

In August 2010, proponent started manufacturing the following Inorganic chemicals:
1.Potassium Nitrate,

2. Ammonium Chloride and
3. Calcium chloride.

In 2013, Sanskar applied for CTE (Expansion) vide Proceeding no: DEE/TNPCB/VLR/F.VLR0349/RS/A/2013dated: 01.04.2013 by dropping the existing 3 products and addition of 5 New products such as:

1. Isopropanol hydrochloride,
2. Poly Allyl Amine Hydrochloride,
3. Non ferric alum,
4. Basic Chromium Sulphate and
5. Spent caustic lye solution.

Subsequently, CTO received vide proceeding no: F.VLR0349/RS/TNPCB/DEE/VLR/A/2013 dated 19.7.2013 (for Air) & F.VLR0349/RS/TNPCB/DEE/VLR/W/2013 dated 19.07.2013 (for water) and started manufacturing of above products.

Subsequently in 2018, TNPCB was approached for addition of new products, and TNPCB directed to obtain EC. In 2013 without knowledge and proper direction proponent have violated by not taking EC for the synthetic organic chemicals and agree for action to be taken on proponent under the E(P) Act, 1986, and as per the rules/ guidelines framed under the Ministry's notification S.O.04 (E) dated 14th March 2017. Since the violation was done without proponent's knowledge and they will comply the directions issued to the proponent.

The proponent has stopped the production of two organic products such as Isopropanol hydrochloride and Poly Allyl Amine Hydrochloride from 31.01.2021.

The existing land area is 0.925 Acres (3745.18 m^2). No additional land will be used for proposed expansion. Industry has already developed greenbelt in an area of 40.00 % (since it is located in Ranipet district which is declared as Critically Polluted Area and attracts CEPI index) i.e.,1498.07m^2 (0.37 Acres) out of total area of the project. The estimated project cost is Rs.4.25Crore. Total capital cost earmarked towards environmental pollution control measures is Rs1.61Crore and the Recurring cost (operation and maintenance) will be about Rs. 16.1Lakh per annum. Total Employment will be 25 persons as direct and 10person as indirect after expansion. The budget for CER will be INR. 8.50 lakhs.

There are no National parks, Wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, and Wildlife corridors etc. within 10 km radius from the project site. Palar river ≃5.06 Km (WSW), Kaveripakkam Lake ≃9.93 Km (ESE), West Bank Main canal≃12.28km (NW) and Ponnai/Bahuda River≃7.29 km (SW).

Ambient air quality monitoring was carried out at 8 locations during Mid of January to End of April, 2019 and average baseline data indicates the ranges of concentrations as: PM_{10} (55.1-71.1 µg/m^3), $PM_{2.5}$(20.3-26.9 µg/m^3), SO_2 (7.1-12.4 µg/m^3), NO_2 (16.4-23.7 µg/m^3), O_3 (9.6- 12.7 µg/m3). AAQ modeling study for point source emissions indicates that the maximum incremental

GLCs after the proposed project would be 0.75µg/m^3, 0.54µg/m^3 and 55µg/m^3(controlled emission) with respect to PM_{10}, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 20.7 KLD of which fresh water requirement of 12.5 KLD will be met from Private Tankers and the recycle water of 8.2 KLD will be sourced from MEE condensate and STP Treated sewage.

Water requirement and breakup for proposed expansion:

S. No	Description	Existing (KLD)		Proposed (KLD)		After Expansion (KLD)		
		Fresh	Recycle	Fresh	Recycle	Fresh	Recycle	Total
1	Cooling Tower	2	0	-2	3.5	0	3.5	3.5
2	Domestic usage	2	0	1.0	0	3.0	0	3.0
3	Process	1	-	4	0	5	0	5
4	Boiler	-	-	3	0	3	0	3
5	Green belt	-	-	-	4.7	-	4.7	4.7
6	Washing	-	-	1.5	0	1.5	0	1.5
	Total	**5**	**0**	**7.5**	**8.2**	**12.5**	**8.2**	**20.7**

Effluent of 6 KLD will be treated through proposed MEE with capacity of 10 KLD. The plant will be based on Zero Liquid Discharge system (ZLD).

Wastewater treatment and disposal management as follows:

Unit	Existing	Additional	Total After expansion	Treatment and disposal methods
Sewage	1.6	0.8	2.4	**Existing: -** The sewage is being collected in septic tank followed by soak pit. **Proposed: -** Total sewage generation will be 2.4 KLD and it will be treated through 3 KLD STP. Treated sewage will be used for greenbelt.
Effluent	0.5	5.5	6	Existing: - The effluent generation from the existing industrial activities is being disposed in solar evaporation pond. Proposed: -Total industrial effluent generation after the proposed expansion will be 6 KLD and same will be treated through MEE (10 KLD). MEE permeate will be reused for cooling tower, washing and other utilities. MEE condensate will go through ATFD and salt will be

				disposed through TSDF. Thus, Zero Liquid Discharge (ZLD) will be implemented and maintained.

Power requirement after expansion will be 139.87kVA including existing 116.56KVA and will be met from TANGEDCO. Existing unit has 1 No of 100 KVA DG set are installed. Additionally,1x200 Kva DG set will be used as the standby during power failure. Adequate Stack height (4 m ARL) is provided as per CPCB norms. After expansion, existing 100 kVA will be replaced with 200 kVA DG set.

Existing unit has Boiler 1x 0.75 TPH. A stack of height 20 m was installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3.

Details of process emissions generation and its management is given below in table: Controlled

S. No	Stack details			Stack Details				Emission per stack (g/s)							
		APC	No of Stacks	Height (m)	Dia. (m)	Exit Velocity	Temp (°C)	PM_{10}	$PM_{2.5}$	SO_2	NO_X	HCl	HBr	Chlorine	VOC
Utilities															
1	Boiler (Briquette)	Cyclone Sepa	1	20	0.4	8.2	126	1.94E-02	1.17E-02	5.78E-03	5.09E-02	-	-	-	-
2	Diesel Generator 200KVA	Stack	1	4	0.14	14.3	154	2.44E-03	1.47E-03	2.28E-03	3.48E-02	-	-	-	-
Process & Storage tank															
3	Process Stack	Wet Scrubber	1	6	0.15	32	8	-	-	1.20E-04	-	2.50E-04	2.00E-05	4.00E-05	0.000667
4	PPFRP Storage tank-HCL	Vent connected Scrubber	1	6	0.15	35	0.1	-	-	0	-	0.005	-	0.001	-
5	MS Storage Tank-Sulphuric Tank	Vent connected Scrubber	1	6	0.15	35	0.1	-	-	9.75E-06	-	-	-	-	-
Transportation															

S. No	Type of Vehicle	NoofVehicle(Based on maximum operation capacity)	PM10	PM2.5	SO2	NOX	HCl	HBr	Chlorine	VOC
6	Bike	12	8.33 E-06	5.00 E-06	8.33 E-07	3.25 E-02	-	-	-	-
7	Car	1	1.74 E-04	1.04 E-04	6.94 E-08	1.74 E-03	-	-	-	-
8	Heavy Vehicle	1	1.39 E-04	8.33 E-05	6.94 E-08	2.43 E-02	-	-	-	-
Total (G/s)			**2.22 E-02**	**1.34 E-02**	**8.19 E-03**	**1.44 E-01**	**5.25 E-03**	**2.00 E-05**	**1.04 E-03**	**6.67 E-04**

Details of Solid waste/ Hazardous waste generation and its management is given below in table:

Solid Waste (Operation Phase):

Municipal solid waste:

S. No	Waste	Quantity		Total after expansion (kg/day)	Collection method	Treatment / disposal method
		Existing	Proposed			
1	Organic (kg/day)	6.75	2.7	9.45	Bins	Local bin including food waste
2	Inorganic (kg/day)	4.5	1.8	6.3	Bins	TNPCB Authorized dealers

Other Solid waste

S. No	Waste	Quantity		Total after expansion (kg/day)	Collection method	Treatment / disposal method
		Existing	Proposed			
1	Ash from Fire wood (kg/Month)	1500	1750	3250	Bins	Sold to brick manufacturer

Hazardous Waste Management:

S No.	Schedule	Type of the Hazardous waste	Quantity		After expansion	Mode of Disposal
			Existing	Proposed		
1.	33.1	Discarded containers/ barrels/liners contaminated with	-	40	40	Will be disposed to TNPCB

		hazardous wastes / chemicals (kg/month)				authorized recyclers
2.	17.2	Spent catalyst (T/Annum)	972	-	972	
3.	A4	Chromium and/or Chromium (III) compounds concentration limit equal to (or) more than 5mg/l (T/Annum)	4320	-	4320	
4.	5.1	Spent oil (T/Annum)	-	60	60	
5.	35.3	MEE salts (Kg/d)	-	60	60	TSDF
Note: *Chromium and/or Chromium (III) compounds are not currently used due to market scenario*.						

Deliberations in the EAC:

The Member Secretary informed the Committee that the proposal was earlier considered by the EAC (Industry-2) in its meeting held on 20-22 October, 2020 and again by EAC (Industry-3) on 29-30 December, 2020. The EAC during deliberations noted that the project had been involved in the production of organic compounds without prior EC from the Ministry since 2010. The Committee has been informed that there is no window available now for consideration of such project proposals. The Committee had earlier opined that the matter be examined by the Ministry and the proposal be considered by the EAC based on the decisions taken.

The Member Secretary informed the Committee that the Competent Authority in the Ministry, in a related case (of M/s Tata Steel Limited, Odisha, F. No. J-11011/7/2006-IA-II(I)), has observed and directed that the case is beyond the applicability of S.O. 804 (E) dated 14/03/2017 and should be considered by EAC as normal project. He also informed the Committee that the Competent Authority in the Ministry has also directed to follow the procedure adopted in the case of M/s Electrosteel Ltd (F.No.L-11011/188/2017-IA.II(I)(Pt)) for consideration of such cases. It was also directed in the F. No. 2/8/2021-IA.III, to consider such cases of violation for grant of ToR/EC, if there is no specific stay by the Hon'ble Courts on consideration of such projects.

In pursuance to the aforesaid directions of the competent authority in the Ministry, the proposal was again placed before the EAC for consideration. The Committee noted that the proposal has been considered only on merit, and after detailed deliberations recommended to for initiating actions/carrying out additional studies, considering the violation of the EIA Notification, 2006.

The Committee made a detailed deliberations on the additional information submitted by the project proponent based on the discussion in the EAC meeting held on 29-30 December, 2020. The Committee noted that based on the recommendations of the Committee and as per the directives provided, the Ministry has issued direction under section 5 of the Environment

(Protection) Act, 1986 to stop the violating activities till the EC is obtained and a letter has also been issued to the State Government with a request to initiate legal action against PP under section 15 read with section 19 of the Environment (Protection) Act, 1986. The Committee also noted that the PP reported about discontinuing the production of two organic products Isopropanol hydrochloride and Poly Allyl Amine Hydrochloride with effect from 31st January, 2021.

The Committee however was dissatisfied on the poor quality of 'Remediation plan and natural and community resource augmentation plan' and lack of preparedness of the Consultant. The Committee noted that the report was prepared using hypothetical data and that are not based on the real situation, which would have lead to miscalculation of the impact on the environment. The Committee observed that the project proponent shall provide the actual data to the consultant for preparation of the report. **The Committee recommended a show cause notice be issued to the consultant [M/s Hubert Enviro Care System (P) Ltd] for using unrealistic data, poor quality report and lack of preparedness and thereby wasting the time of EAC.** The Committee desired **for revision in the report/plan,** in addition to additional information/inputs from the project proponent as under:

(i). *Confirmation from SPCB regarding legal action against PP under section 15 read with section 19 of the Environment (Protection) Act, 1986.*

(ii). *Confirmation from SPCB regarding stoppage of the production of Isopropanol hydrochloride and Poly Allyl Amine Hydrochloride in the said unit.*

(iii). *Undertaking by the PP that no violation activities are being undertaken in the unit.*

(iv). *Revised remediation plan and natural and community resource augmentation plan.*

(v). *Production details with material balance and possible environment impact.*

(vi). *Detailed effluent generation and management plan.*

(vii). *GMP requirement of drugs*

(viii). *Revised greenbelt development plan.*

(ix). *Details of VOC recovery management plan.*

The proposal was accordingly <u>deferred</u> for the needful. The Committee also recommended for issuing a show-cause notice to the consultant M/s Hubert Enviro Care System (P) Ltd.

Agenda No. 10.2

Proposed Pesticide Technical (150 MT/Month) and Specialty Chemical (100 MT/Month) in Existing Formulation Unit (4000 MT/Month) by M/s Niyam Industries, located at District Bharuch, Gujarat- Consideration of Environment Clearance

[IA/GJ/IND3/208650/2020; IA-J-11011/162/2021-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 Pesticide Technical (150 MT/Month) and Specialty Chemical (100 MT/Month) manufacturing unit in Existing Formulation Unit (4000 MT/Month) at Plot No. 409/B/1, GIDC Panoli, Tal: Ankleshwar, Dist: Bharuch (Gujarat) by M/s. Niyam Industries.

The details of products and capacity as under:

Sr. No.	Products	CAS No.	LD50	QTY MT/MONTH			End Application
				Existing	Additional	Total after Proposed Expansion	
EXISTING (CCA Obtained Vide Order No. AWH-42570)							
FORMULATION							
1	"Formulation Packing & Repacking of various type of pesticides and fine chemicals (Liquid, Powder & Granules)"			**2500**	**---**	**2500**	All products are Formulated Pesticides falling in different categories of Insecticide, Fungicide, Herbicides and are used in Crop Protection
2	Acephate 75% SP	30560-19-1	700	**1500**	**---**	**1500**	
3	Acetamiprid 20% SP	135410-20-7	217				
4	Alphacypermethrin 5% EC	67375-30-8	1050				
5	Alphacypermethrin 10% EC	67375-30-8	1050				
6	Cartap Hydrochloride 4% Granules	15263-52-2	650				
7	Chlorpyriphos 20% EC	2921-88-2	490				

8	Chlorpyriphos 50% + Cypermethrin 5% EC	2921-88-25 2315-07-8	--				
9	Cypermethrin 10% EC	52315-07-8	575				
10	Cypermethrin 25% EC	52315-07-8	575				
11	DDVP 76% EC	62-73-7	100				
12	Deltamethrin 2.5% EC	52918-63-5	150				
13	Deltamethrin 2.5% SC	52918-63-5	150				
14	Fipronil 0.3% G R	120068-37-3	97				
15	Glyphosate 41% SL	38641-94-0	2000				
16	Hexaconazole 10% EC	79983-71-4	6071				
17	Hexaconazole 5% EC	79983-71-4	6071				
18	Imidacloprid 30.5% SC	138261-41-3	410				
19	Imidacloprid 17.8% SL	138261-41-3	410				
20	Lambda Cyhalothrin 2.5% EC	91465-08-6	612				
21	Lambda Cyhalothrin 5% EC	91465-08-6	612				
22	Mancozeb 64% + Metalaxyl 8% WP	8018-01-7 57837-19-1	--				
23	Mancozeb 75% WP	8018-01-7	5000				
24	Mancozeb 63% + Carbendezim 12% WP	8018-01-7 10605-21-7	--				
25	Monocrotophos 36% SL	6923-22-4	112				
26	Profenophos 50% EC	41198-08-7	620				

27	Pendimethalin 30% EC	40487-42-1	1050				
28	Tricyclazole 75% WP	41814-78-2	250				
	EXISTING TOTAL - A			**4000**	**--**	**4000**	
PROPOSED							
GROUP I: FUNGICIDE				---	**50**	**50**	1 to 5 are Fungicide Class Crop Care Chemical with varied application. No. 6 is Intermediate
1	Hexaconazole	79983-71-4	6071				
2	Tebuconazole	107534-96-3	1700				
3	Tricyclazole	41814-78-2	250				
4	Metalaxyl	57837-19-1	566				
5	Azoxystrobin	131860-33-8	5000				
6	1,2,4 Triazole	288-88-0	1750				
GROUP II - HERBICIDE				---	**50**	**50**	7 to 10 are Herbicide Class Crop Care Chemical with varied application. No. 11 is Intermediate
7	Atrazine	1912-24-9	3090				
8	Metribuzin	21087-64-9	1100				
9	Pretilachlor	51218-49-6	2200				
10	Pendimethalin	40487-42-1	1050				
11	1, 2, 4 Triazinone	33509-43-2	2200				
GROUP III - INSECTICIDE				---	**50**	**50**	12 to 17 are Insecticide Class Crop Care Chemical with varied application. No. 18 is intermediate
12	Acetamiprid	135410-20-7	217				
13	Imidacloprid	138261-41-3	410				
14	Thiamethoxam	153719-23-4	1563				
15	Thiacloprid	111988-49-9	2000				
16	Netenpyram	150824-47-8	1680				
17	Buprofezin	69327-76-0	2198				
18	2-Chloro-5-(14hloromethyl)	70258-18-3	1200				

	pyridine [CCMP]						
GROUP IV: SPECIALTY CHEMICALS				---	**100**	**100**	Raw Material for various dyes, pigments and Pharmaceuticals
19	2,3 Dichlorophenol	576-24-9	2376				
20	2,5 Dichlorophenol	583-78-8	1580				
21	3,5 Dichlorophenol	591-35-5	1250				
	PROPOSED TOTAL - B			**--**	**250**	**250**	
TOTAL (A + B)				**4000 MT/Month**	**250 MT/Month**	**4250 MT/Month**	

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

The Standard ToR has been issued by Ministry vide letter No. J-11011/403/2012 -IA II (I); dated 06th Oct 2020. Unit is located in Notified Industrial estate of GIDC Panoli. Hence, Public hearing is exempted. There is no litigation pending against the proposal.

There was no EC obtained for existing operations as Unit has obtained CTO Vide Order No. AWH – 42570 Dated 13th August, 2020 valid upto 15th July, 2030 for Formulation unit. PP reported that SPCB has visited the Unit on 22.07.2020 for monitoring compliances.

Existing land area is 11,990 m^2, additional no land will be used for proposed expansion. Industry has already developed Greenbelt in an area of 15% i.e., 1796 m^2 out of 11,990 m^2 of area of the project. Unit will develop remaining area of 25% i.e.,3000 m^2 as green belt. Ultimately overall green belt will be 40% i.e. 4796 m^2 out of 11,990 m^2 total area of the project. The estimated project cost is Rs. 6.4 Crores including existing investment of Rs. 1.7 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 0.6 Crores and the Recurring cost (operation and maintenance) will be about Rs. 0.25 Crores per annum. Total Employment will be 88 persons as direct 56 persons indirect after expansion. Industry proposes to allocate Rs. 9.7 Lakhs (approx.) in next 1 years @ of 2.0% of the additional project cost towards Corporate Environment Responsibility.

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 12.30 Km in North direction.

Ambient air quality monitoring was carried out at 8 locations during March, 2019 to May, 2019 and the baseline data indicates the ranges of concentrations as: PM10 (75.38 – 91.94 µg/m3), PM2.5 (42.9 – 52.87 µg/m3), SO2 (16.08 – 26.72 µg/m3) and NO2 (18.87 – 28.53 µg/m3)

respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.037 µg/m3, 0.030 µg/m3 and 0.010 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 83.92 m3/day and will be met from GIDC Water Supply. Effluent of 58.70 m3/Day quantity will be treated through ETP facilities and then effluent will be sent to CMEE for further treatment.

- Total 58.70 KL/Day (49.4 KL/Day: Industrial + 9.3 KL/Day: Domestic) of effluent shall be generated.
- Stream-I: 49.4 KL/day (from Process, Boiler, Cooling, Washing and Scrubber) will be treated in ETP consist of primary treatment and then sent to CMEE for further Treatment and Disposal.
- 9.3 KL/day Domestic waste water will be sent to Septic Tank & Soak Pit.

Power requirement after expansion will be 500 KVA including existing 250 KVA and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Existing unit has 1 No. DG sets of 175 KVA capacity, additionally 1 No. DG sets 125 KVA capacity are used as standby during power failure. Stack (height 10 m) will be provided as per CPCB norms to the proposed DG sets.

1 Nos. of 2.0 TPH Boiler and 1 No. of Thermic Fluid Heater (5 Lac Kcal/Hr) will be installed. stack of height of 30 m, 10 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm3 for the proposed boilers.

Details of Process emissions generation and its management.

1) Flue Gas Stack

Sr. No.	Source of Emission With Capacity	Stack Height (Meter)	Type Of Fuel	Quantity of Fuel MT/Day	Type Of Emissions I.E. Air Pollutants	Air Pollution Control Measures (APCM)
Existing						
1.	D. G. Set (175 KVA)	10	HSD	100 Lit/hr	SPM≤ 150 MG/NM3 SO_2≤ 262 MG/NM3 NOx≤ 94 MG/NM3	Adequate Stack Height
Proposed						
2.	Boiler (Capacity: 2 TPH)	30	Natural Gas	150 M^3/Hr	SPM≤ 150 MG/NM3 SO_2≤ 262 MG/NM3 NOx≤ 94 MG/NM3	Adequate Stack Height
3.	TFH (Capacity: 5 Lac Kcal/hr)	10	Natural Gas	75 M^3/Hr		Adequate Stack Height

4.	D. G. Set (125 KVA)	10	HSD	75 Lit/hr		Adequate Stack Height

Process Stack

Sr. No.	Source Of Emission	Air Pollution Control System	Stack Height	Parameters	
				Pollutants	Limits
Existing					
1	Pulverizer	Bag Filter	Closed Loop	SPM	≤ 150 MG/NM3
Proposed					
2	Group I Plant **Drier**	Water Scrubber	10 Meters	SPM	≤ 150 MG/NM3
3	Group II Plant **Drier**	Water Scrubber	10 Meters		
4	Group III Plant **Drier**	Water Scrubber	10 Meters		
5	**Process Vent - 4**	Two Stage Water & Alkali Scrubber	10 Meters	HCl	≤ 20 MG/NM3
6	**Process Vent - 5**	Two Stage Alkali Scrubber	10 Meters	H_2S	≤ 45 MG/NM3
7	**Process Vent - 6**	Two Stage Alkali Scrubber	10 Meters	SO_2	≤ 40 MG/NM3

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

13 Categories of Hazardous/Solid Wastes shall be generated from this Unit.

Total Proposed

Used Oil (Existing) @ 0.01 KL/Month & (Total Proposed) @ 0.26 KL/Month shall be Collected, Stored, Transported and Disposal by selling to registered refiners. Discarded liners/Bags Carboy Drums (Existing) @ 0.8 MT/Annum & (Total Proposed) @ 100.8 shall be Collection, Storage, Decontamination, Transportation, Disposal by selling to authorized recycler. Process wastes/ Laboratory waste containing Pesticides (Existing) @ 2.5 MT/Annum & (Total Proposed) @ 52.5 MT/Annum shall be Collection, Storage, Transportation for co-processing in cement industry or incineration in common incineration facility. Data expired or Off Specification Products (Existing) @ 2.5 MT/Annum & (Total Proposed) @ 27.5 MT/Annum shall be Collection, Storage, Transportation for co-processing in cement industry or incineration in common incineration facility. Used Filters/ Filter Cloths & Materials (Existing) @ 0.0 MT/Annum & (Total Proposed) @ 0.5 MT/Annum shall be Collection, Storage, Transportation for co-processing in cement industry or incineration in common incineration facility. Spent Hy-Flow (Existing) @ 0.0 MT/Annum & (Total Proposed) @ 0.5 MT/Annum shall be Collection, Storage, Transportation for co-processing in cement industry or incineration in common incineration facility. Distillation Residue (Existing) @ 0.0 MT/Annum & (Total Proposed) @ 264.0 MT/Annum shall be Collection, Storage, Transportation for co-processing in cement industry or incineration in common incineration facility. Spent Solvent (Existing) @ 0.0 MT/Annum & (Total Proposed) @ 18550.0 MT/Annum shall be Collection, Storage, Distill in-house and Reuse within premises for same product. Process Residue[Inorganic] (Existing) @ 0.0 MT/Annum & (Total Proposed) @ 2000.0

MT/Annum shall be Collected, Stored, Transported and Disposal at TSDF site. ETP Sludge (Existing) @ 0.0 MT/Annum & (Total Proposed) @ 183.0 MT/Annum shall be Collected, Stored, Transported and Disposal at TSDF site. Hydrochloric Acid Solution (Existing) @ 0.0 MT/Annum & (Total Proposed) @ 1546.0 MT/Annum shall be Collection, Storage, Transportation & Sell to end user having permission under rule-9. Spent Acid (Existing) @ 0.0 MT/Annum & (Total Proposed) @ 6069.0 MT/Annum shall be Collection, Storage, Transportation & Sell to end user having permission under rule-9. Sodium Sulphite Solution (Existing) @ 0.0 MT/Annum & (Total Proposed) @ 640.0 MT/Annum shall be Collection, Storage, Transportation & Sell to end user having permission under rule-9. Sodium Hydrogen Sulphide (Existing) @ 0.0 MT/Annum & (Total Proposed) @ 787.0 MT/Annum shall be Collection, Storage, Transportation & Sell to end user having permission under rule-9.

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 Committee noted that the EIA/EMP report are in compliance of the ToR issued for the project, considering the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee also deliberated on the activities/action plans and found to be addressing the issues in the study area. The Committee suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee suggested that the tankers carrying effluent to the CETP shall be a dedicated one having GPS tracking system. The Committee has also suggested the PP to increase the greenbelt density. The Committee also noted that PP has obtained the CTO from SPCB, vide Order dated 13th August, 2020 which is valid upto 15th July, 2030 for formulation unit. The EC is not required for present operation of formulation as per provisions of the EIA Notification, 2006. PP also reported that SPCB has visited the Unit on 22.07.2020 for monitoring compliances.

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

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

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

The EAC, after detailed deliberations, **recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under, and general terms of conditions at 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 treated effluent of 49.4 cum/day proposed to send to CMEE through tankers, shall conform to the standards prescribed under the Environment (Protection) Act, 1986. The project proponent shall explore possibilities for recycle and reuse of treated water in the unit to reduce the fresh water demand and waste disposal.

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

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

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

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

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

(viii). 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.

(ix). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.99% with effective chillers/modern technology.

(x). Total fresh water requirement shall not exceed 83.92 cum/day, proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(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). 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 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. All trees must be planted within first year.

(xiii). As committed, at least Rs 0.11725 Crore shall be allocated for conservation of Schedule I species. The implementation report shall be submitted to the IRO, MoEFCC.

(xiv). 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.

(xv). 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. 10.3

Expansion project of existing Synthetic Organic Chemicals Manufacturing unit by M/s Meghmani Organics Ltd., located at Plot No. 20, 21, 22/1, GIDC Estate, Phase-IV, Panoli, Ta.: Ankleshwar, District Bharuch, Gujarat – Consideration of Environmental Clearance

[IA/GJ/IND3/203158/2009; IA-J-11011/194/2020-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Green Circle Inc made a detailed presentation on the salient features of the project and informed that:

The proposal is for environmental clearance to the project for Expansion of manufacturing of Synthetic organic chemicals (pigments) at plot no: - 20, 21 21/1, GIDC Estate, Phase-IV, Panoli, and District: Bharuch, Gujarat by M/s. Meghmani Organics Limited.

The details of products and capacity as under-

Sr. No.	Name of Products	CAS No./ CI No.	Existing as per Consent (AWH-96796) MT/MONTH	Proposed (Increased /Decreased) MT/MONTH	Total MT/ MONTH	End Use
ORGANIC PRODUCTS						
1.	Captive Power Plant (2 SETS)	---	2.1 MW	- 2.1 MW	0	Discontinued.
2.	Copper Pthalocyanine Blue	74160	125	+1375	1500	For the manufacturing of CPC Alpha Blue, CPC Beta blue, Ink, Printing Ink and Packaging Industry.
3.	Pigment Alpha Blue	74160	25	+100	125	Plastic, Ink , Rubber & Textile
4.	Pigment Beta Blue	74160	25	+575	600	
5.	Pigment Green - 7	74260	0	+100	100	Ink, Coatings, Plastics & Paints, Cosmetic, Printing ink and Packaging Industry.

6.	Azo Pigments	---	0	+100	100	Printing inks, plastics, paints,
Total			**175**	**2250**	**2425**	
INORGANIC PRODUCTS						
1.	Copper Sulphate	7758-99-8	33.33	+41.67	75	Nutrient for agriculture crop
2.	Ammonium Sulphate	7783-20-2	250	+1250	1500	Soil softening agent
3.	Copper Earth	7440-50-8	250	+160	410	Soil softening agent
4.	Sodium Hypochlorite solution	7681-52-9	00	+33	33	Used as a disinfectant
5.	Hydrochloric acid	7647-01-0	00	+57	57	Internally reused within the CPC Green-7 or sell.
6.	Aluminum hydroxide AND/OR	21645-51-2	00	+105	105	Pharma Industry.
	Poly Aluminium Chloride	1327-41-9	00	+1380	+1380	Use as a flocculent
	Total		**533.33**	**3026.67**	**3560**	

The ToR has been issued by Ministry vide letter No. J. No. IA-J-11011/194/2020-IA-II(I), dated 14.10.2020. Public hearing is exempted as the unit is located in the notified Industrial area. There is no litigation pending against the proposal.

PP submitted that the existing unit was in operation before the year 2006 and such no EC was required and the PP was operating the unit with valid CTO. PP has also submitted the certified compliance status report of CTO from SPCB as per TOR granted to the project.

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

Existing land area is 99002 m2 which will be used for proposed expansion. Industry has already developed 31096 m2 area 32% within premises and 8% i.e , 8504 m2 out of total area outside the premises. The estimated proposed project cost is Rs. 35.70 Cr. excluding existing investment. Total capital cost earmarked towards environmental pollution control measures is Rs. 4.9 Cr. and the Recurring cost (operation and maintenance) will be about Rs. 5.58 cr per annum. Total Employment will be 205 nos. persons as direct & 80 nos. persons indirect after expansion. Industry proposes to allocate Rs.70 Lakhs @ of 2 % towards Corporate environment responsibility.

PP reported that there are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. River/ water body is flowing at a distance of 16.7 km in North direction.

Ambient air quality monitoring was carried out at 8 nos. of locations during March -2018 to May-2018 and the baseline data indicates the ranges of concentrations as: PM10 (61 to 90 µg/m^3), PM2.5 (30 to 46 µg/m^3), SO2 (22 to 40 µg/m^3) and NOx (32 to 48 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.948 µg/m^3, 2.791 µg/m^3 and 1.599 µg/m^3 with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 2710 m3/day of which fresh water requirement of 2460 m3/day will be met from GIDC-Panoli. Over the time of 5 years, the unit will increase the recycled water quantity up to 30%. Effluent of 1585 m3/day quantity will be treated through Effluent Treatment Plant after passing from primary, secondary and tertiary treatment and sent to treatment facility (FETP) of M/s NCTL.

Power requirement will be 6000 KVA including existing 4000 KVA and will be met from Dakshin Gujarat Vig Company Limited. The unit has proposed 500 KVA D.G.Set . D.G.Set are used as standby during power failure. Stack (height 11.0 m) will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 5 TPH capacity- 2 nos fired boiler and additional 8 TPH & 10 TPH – coal based boiler will be installed by the unit. The unit will provide ESP with water scrubber in proposed boiler. Height of the boiler stack is 30 meter. Existing TFH of the unit are 20 Lac Kcal/hr of 4 nos and in proposed unit will install 20 Lac Kcal/hr – 2 nos TFH with 30 meter height with ESP and water scrubber.

Details of Process emissions generation and its management- Acid scrubber and alkali scrubber will be provided by the unit.

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

S. No.	Type of Hazardous waste	Source of generation	Category	Quantity in MT/Annum			Method of Disposal
				Existing as per CCA-AWH-96796	Proposed (Increased/ Decreased)	Total	
1.	Gypsum Waste	ETP	26.1	6000	+1100	7100	Collection, Storage, Transportation

							and send to cement industry or send it to TSDF Site.
2.	ETP sludge	ETP	35.3	720	+280	1000	Collection, storage, transportation & disposal at TSDF / Co-processing at cement industry.
3.	Used Oil	Lubrication of machinery	5.1	1.200	+3.8	5.0	Collection, storage &transportation and selling to recyclers authorized by GPCB.
4.	Discarded containers/ drums/ liners	From packing of products and raw material	33.1	3000 nos	+7000 nos	10,000 nos	Collection, Storage and disposed of by sending it to authorized decontaminatio n facility/ recycler or reused by unit or send back to supplier or disposal at TSDF site.
5.	Discarded liners	Storage of product & raw material	33.1	0	4 Lakh	4 Lakh	
6.	Jumbo Bags	Storage of product & raw material	33.1	0	30000 Nos.	30000 Nos.	
7.	Spent Sulphuric Acid (25-30%)	From Alpha Blue plant	D-II	6000	+16650	22650	Collection, Storage, and reused within the premises in the manufacturing of CPC Blue, Ammonium Sulfate &/Or Sell to under

							rule-9
8.	Spent Sulfuric acid (10% to 12%)	From CPC Plant	D-II	--	+78480	78480	Collection, Storage, and reused within the premises in the manufacturing of Ammonium Sulphate &/Or sell under rule-9.
9.	Dust Iron Air Filtration	Bag Filter	26.2	2.4	+0.6	3.0	Collection, Storage Transportation and Disposal at TSDF.
10.	Spent Carbon	From ETP-Carbon Filter	28.3	--	+5	5	Collection, Storage Transportation and send for co-processing / Incineration.

During meeting the project proponent has also submitted following additional information/ documents.

(i) Action plan for partial complied conditions in reference to Certified CTO compliance report granted by GPCB vide outward no. 582810 dated 05.02.2021.

S. No.	**Partially complied condition**	**Reply given in Certified CTO compliance**	**Current action taken/ Compliance**
1.	Units shall follow “Coal handling guidelines” framed by Board and provide closed ash handling facility	Unit is following majority points of coal handling guidelines	We would like to inform your kind authority is company is complying all conditions of “coal handling guidelines.” However, during site visit GPCB officer has recommended to do 100% utilization of fly ash. Currently we are sending all fly ash generated to brick manufacturers as there is no cement plant in nearby locality.

			Further, the unit has complied all other conditions i.e… (i) Providing mechanical system for loading/ unloading of coal. (ii) Coal is being covered in closed shed yard, (iii) Coal is transported through closed trucks only, (iv) water sprinkling is being carried out regularly, (v) Company has developed greenbelt covering the boundary of the plant.
2.	Unit shall have to display on line data outside the main factory gate.	The display board as per the guidelines of supreme court is installed, company was instructed to install the online display board about the Environment parameters.	We would like to apprise your kind authority that we have installed online display board showing environment parameter at main gate. Photograph of the same is given below for your ready reference.

(ii) Revised greenbelt development plan: PP submitted the revised Proposed greenbelt development programme along with time bound budgetary planning :

Plantation required in Area	41,100 sq meter
Existing Greenbelt area	31096 sq meter
Proposed additional greenbelt area	12,504 sq meter (within & outside of plant premises)
Amount (INR) to develop additional greenbelt area and its maintenance cost for 2 years	30 lakhs

Work/activities	**1st year**	**2nd year**	**Total**
Plantation	2000 nos.	1000 nos.	3000 nos.
Area for plantation	8504 sq meter	4000 sq meter	12504 sq meter

(iii) Evaluation of using coal instead of natural gas with proper justification: Justification of using coal instead of natural gas along with costing bifurcation is described below:

- **Steam boiler expansion**

Particular	Gas based boiler (A)	Coal based boiler (B)
Price	41.18 Rs/9000 m3 (34.9 Rs + 18% GST)	4.5 Rs/4000 kcal
Capacity	18 tonne/hr (10 tonne/hr + 8 tonne / hr)	18 tonne/hr (10 tonne/hr + 8 tonne / hr)
Boiler efficiency	92%	75%
Cost of steam per kg	{(660/9000)*41.8} = 3.02 Rs/kg Efficiency (92%) = 3.02/0.92 = 3.28 Rs/kg	{(660/4000)*4.5} = 0.75 Rs/kg Efficiency (75%) = 0.75/0.75 = 1 Rs/kg
Total cost	18000* 3.28* 24* 365 = 51,71,90,400 Rs/year	18000* 1* 24* 365 = 15,76,80,000 Rs/year

- **Thermo pack expansion**

Particular	Thermo pack expansion Gas based (A1)	Thermo pack expansion Coal based (B)
Price	41.18 Rs/9000 m3 (34.9 Rs + 18% GST)	4.5 Rs/4000 kcal
Capacity	40 lacks kcal	40 lacks kcal
Total cost	(40,00,000 * 41.18)/9000 = 18302 Rs/hr Efficiency (92%) = 18,302/0.92 = 19893 Rs/ hr	(40,00,000* 4.5)/4000 = 4500 Rs/hr Efficiency (75%) = 4500/ 0.75 = 6000 Rs/ hr
Total cost per year	19,893 * 24* 365 = 17,42,62,680/- Rs/year	6000* 24* 365 = 5,25,60,000/- Rs/year

Based on above calculation PP can get following conclusion:

- Total expansion quantity will be = 2250 MT/Month = 27,000 MT/year
- Total (A+A1) = 51,71,90,400 + 17,42,62,680 = 69,14,53,080 Rs./Year = 25,609 Rs/ MT
- Total (B+B1) = 15,76,80,000 + 5,25,60,000 = 21,02,40,000 Rs. / Year = 7786 Rs /MT
- Difference of costing per MT of production = 17,823 Rs/MT

(iv) Revised water recycle quantity: PP has revised the water recycle quantity. PP has prepared 5 year strategy to increase water recycle quantity. Revised table of the same is given below :

Category	Existing	Proposed	total	1st year	2nd year	3rd year	4th year	5th year
A. Domestic	20	70	90	F	F	F	F	F
B. Gardening	77.5	22.5	100	F	F	F	F: 25 KLD R: 75 KLD	F: 25 KLD R: 75 KLD
Industrial								
Process	240	1260	1500	F: 1250 KLD R: 250 KLD	F: 1250 KLD R: 250 KLD	F: 1250 KLD R: 250 KLD	F: 1250 KLD R: 250 KLD	F: 1250 KLD R: 250 KLD
Boiler	250	20	270	F	F	F	F	F
Cooling	100	450	550	F	F	F: 440 KLD R: 110 KLD	F: 400 KLD R: 150 KLD	F: 165 KLD R: 385 KLD
Washing	12.5	87.5	100	F	R: 100 KLD	R: 100 KLD	R: 100 KLD	R: 100 KLD
others	-	100	100	F	F	F	F	F
Industrial total	602.5	1917.5	2520					
Grand Total (A+B+C)	700	2010	2710	F: 2460 KLD R: 250 KLD	F: 2360 KLD R: 350 KLD	F: 2250 KLD R: 460 KLD	F: 2135 KLD R: 575 KLD	F: 1900 KLD R: 810 KLD
Percentage recycle water	**-**			**9%**	**13%**	**17%**	**21%**	**30%**

F: Fresh water
R: Recycled water
* Final Water requirement / consumption quantity: After 1st year: 2460 KLD, After 2nd year: 2360 KLD, After 3rd year: 2250 KLD, After 4th year: 2135 KLD, After 5th year: 1900 KLD.

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 Committee noted that the EIA/EMP report are in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee deliberated on the activities/action plan and found to be addressing the issues in the study area. The Committee suggested that the storage of toxic/explosive raw material should be bare minimum in quantity and inventory. The Committee suggested that the tankers carrying effluent to the FETP should be a dedicated type having GPS tracking system. The Committee noted that the existing unit was in operation before the year 2006 and as such no EC was required and the PP was operating the unit with valid CTO. The Committee deliberated the certified compliances status report of CTO which was submitted by the SPCB. The Committee found the compliance status to be in order. The Committee noted that based on the deliberations in the Committee, the project proponent has also submitted additional information on certified compliance of CTO conditions, detailed greenbelt plan, techno-economic feasibility study on use of coal/natural gas in the industry, revision in water balance. The Committee made detailed deliberations on the feasibility study of coal/natural gas and based on the detailed presentation Committee agreed for the use of coal in the boiler/other utilities. However, the Committee suggested that over a period of time, PP shall go for a much cleaner fuel. The Committee appreciated the proposal of PP in increasing the recycled water quantity up to 30% over a period of five years. The Committee also suggested the PP to increase the greenbelt density as per their proposal. The additional information submitted by the PP was found 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, 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 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, subject to compliance of terms and conditions as under, and general terms of conditions at 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 treated effluent of 1585 cum/day proposed to send to FETP of M/s NCTL through tankers/pipeline, shall conform to the standards prescribed under the Environment (Protection) Act, 1986. As committed, 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. As proposed, after 5 years, there shall be at least 30% reduction in the effluent discharge.

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

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

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

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

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

(viii). 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.

(ix). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.99% with effective chillers/modern technology.

(x). Total fresh water requirement shall not exceed 2460 cum/day, proposed to be met from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority. As proposed, PP shall achieve improvement in recycle and reuse of water every year and over a period of 5 years, PP shall increase recycled quantum to 30% of total water consumption. After 5 years, the fresh water requirement shall not exceed 1900 cum/day.

(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). 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.

(xiii). The green belt of at least 5-10 m width shall be developed in nearly 40% of the total project area, mainly along the plant periphery/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. Preference shall be given for plantation of trees in first year. The detailed greenbelt development plan proposed shall be completed in letter and spirit.

(xiv). 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.

(xv). 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. 10.4

Setting up of Active Pharmaceutical Ingredients (API's) manufacturing unit by M/s Sri Sairam Life Sciences located at R.S. Nos: 47 A & 47 B, Shermohmmedpeta Village, Jaggayyapeta Mandal, Krishna District, Andhra Pradesh - Consideration of Environment Clearance.

[Proposal No. IA/AP/IND2/205082/2021; File No. IA-J-11011/163/2021-IA-II(I)]

The project proponent and accredited consultant M/s. Rightsource Industrial Solutions Pvt. Ltd.,

gave a detailed presentation on the salient features of the project and informed that:

The proposal is for Environmental Clearance to the project proposed setting up of Active Pharmaceutical Ingredients (API's) manufacturing unit by M/s Sri Sairam Life Sciences located at R.S. Nos: 47 A & 47 B, Shermohmmedpeta Village, Jaggayyapeta Mandal, Krishna District, Andhra Pradesh.

The details of products and capacity as under:

S. No.	Product	Capacity in TPM	CAS No	Therapeutic use
1	Esomeprazole Magnesium Trihydrate	5.00	217087-09-7	Anti-ulcer
2	Fexofenadine hydrochloride	5.00	153439-40-8	Anti-histamine
3	Fluconazole	5.00	153439-40-8	Anti-histamine
4	Flurbiprofen	5.00	5104-49-4	Anti-inflammatory
5	Itraconazole	5.00	84625-61-6	Anti-fungal
6	Losartan Potassium	5.00	114798-26-4	Anti-hypertensive
7	Olmesartan	5.00	144689-63-4	Anti-hypertensive
8	Omeprazole	5.00	73590-58-6	Anti-ulcer
9	Pantoprazole Sodium	5.00	138786-67-1	Anti-ulcer
10	Rabeprazole Sodium	5.00	117976-90-6	Anti-ulcer
11	Telmisartan	5.00	144701-48-4	Anti-hypertensive
12	Valsartan	5.00	137862-53-4	Anti-hypertensive
Total (Any 6 products will be manufactured at any given point of time)		**30.00**		

LIST OF BY-PRODUCTS AND ITS QUANTITIES

S. No	Product	By-Product	Quantity in Kg/Day
1	Fexofenadine Hydrochloride	Boric acid	25.90
		Sodium methoxide	22.60
2	Fluconazole	Ammonium nitrate	66.30
3	Flurbiprofen	2-Methyl propanol	65.30
4	Losartan Potassium	Succinimide	54.40
		Sodium bromide	49.15
		Trityl alcohol	124.40
5	Olmesartan	Succinimide	63.20
6	Omeprazole	Ammonium sulphate	365.54
		Sodium nitrite	63.10
		Sodium acetate	75.00
7	Rabeprazole Sodium	Sodium acetate	96.60
		Acetic acid	70.70
8	Valsartan	Potassium chloride	45.00
		Potassium Bromide	71.70
Note: The quantity of By-products based on respective products being manufactured.			

The project is covered under Category B2 of item 5(f) 'Synthetic, Organic Chemicals Industry' of the Environment Impact Assessment (EIA) Notification, 2006 & OM dated 27.03.2020 and 15.10.2020. Due to applicability of general condition (Interstate boundary Andhra Pradesh - Telangana State is within 5 km), the project requires appraisal at Central level by the Sectoral Expert Appraisal Committee (EAC) in the Ministry. It was informed that no litigation is pending against the proposal.

The proposed project will be established in a land area of 2.25 Acres (9105.43 Sqm). Industry will develop greenbelt in an area of 3329.46 Sqm i.e. 36.56 % out of 9105.43 Sqm of the total project area.

The proposed project cost is about Rs.5.0 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.171 Lakhs and the recurring cost (operation and maintenance) will be about Rs.24 Lakhs per annum. Total Employment will be 50 persons. Industry proposed to allocate Rs.10 Lakhs for 5 years towards Corporate Environment Responsibility. It is reported that no national parks, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. lies within 10 km distance.

The total water requirement is 95.82 m^3/day of which fresh water requirement of 68.12 m^3/day is proposed to be met from Ground water supply. The unit has obtained Ground water permission from Ground Water and Water Audit Department, Govt. of Andhra Pradesh to with draw of 120 KLD Water from bore well vide letter dated 19.04.2021. Generated effluent of 36.41 m^3/day will be treated through stripper followed by MEE/ATFD, Biological Treatment Plant followed by RO plant and will be Zero Liquid Discharge System.

Power requirement of 500 kVA will be met from Andhra Pradesh Southern Power Distribution Company Limited (APSPDCL). The unit is proposed to install 1 X 200 kVA DG Set, Stack (height 7 mts) will be provided as per CPCB norms to the proposed DG sets. 2 x 2.0 TPH boilers are proposed with stacks of height 20 mtrs & 30 mtrs separately. Cyclone separator followed by bag filters will be installed for the boilers separately for controlling the particulate emissions (within statutory limit of 115 mg/ Nm^3). 1 x 1.0 Lakh K. Cal/ Hr Thermic fluid heater is proposed with stack height of 11 mtrs.

Details of Process emissions generation and its management:

S. No.	Gas	Quantity in Kg/Day	Treatment Method
1	Carbon dioxide	222.00	Dispersed into the atmosphere
2	Hydrogen	3.00	Diffused by using Nitrogen through Flame arrestor
3	Ammonia	20.00	Scrubbed by using chilled water media
4	Oxygen	77.00	Dispersed into the atmosphere
5	Nitrogen	45.00	Dispersed into the atmosphere
6	Hydrogen Bromide	134.00	Scrubbed by using C. S. Lye solution
7	Hydrogen chloride	320.00	Scrubbed by using chilled water media
8	Hydrogen Fluoride	26.00	Scrubbed by using C. S. Lye solution
9	Hydrogen Iodide	92.00	Scrubbed by using C. S. Lye solution

10	Sulphur dioxide	259.00	Scrubbed by using C. S. Lye solution

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

S. No	Waste	Quantity	Disposal Method
Hazardous Waste Details			
1	Organic solid waste (Process Residue)	1981 Kg/Day	Will be sent to Cement Industries
2	Spent Carbon	66 Kg/Day	
3	Solvent Distillation Residue	356 Kg/Day	
4	Organic distillate from MEE Stripper	610 Ltrs/Day	
5	Inorganic Solid Waste	1016 Kg/Day	Will be sent to TSDF
6	MEE Salts	2013 Kg/Day	
7	ETP Sludge	70 Kg/Day	
8	Used Oil	40 Ltrs/Annum	Will be sent to SPCB Authorized Agencies for Reprocessing/ Recycling
9	Detoxified Containers/ Container liners	300 No's / Month	After Detoxification will be sent to SPCB authorized agencies.
10	Used Lead Acid Batteries	2 No's/ Annum	Send back to suppliers for buyback of New Batteries
Solid waste details			
11	Ash from boilers	4550 Kg/Day	Will be sent to Brick Manufacturers

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.

Water Input	Effluent Water	Inorganics	Organics In	TDS	COD	HTDS	LTDS	Total Effluent	Organic solid	Inorganic solid	Spent Carbon	Distillation	Process Emission	Fugitive Emission
Ltrs/Day	Ltrs/Day	Kg/Day	Kg/Day	Kg/Day	Kg/Day	Ltrs/Day	Ltrs/Day	Ltrs/Day	Kg/Day	Kg/Day	Kg/Day	Kg/Day	Kg/Day	Kg/Day
17316.67	19036.65	1113.55	682.48	1113.55	1048.22	20512.58	395.62	20908.20	1980.84	1016.25	66.11	356.11	918.52	408.22

Water Input	Effluent Water	Inorganics In Effluent	Organics In Effluent	TDS	COD	HTDS	LTDS	Total Effluent
Ltrs/Day	Ltrs/Day	Kg/Day	Kg/Day	Kg/Day	Kg/Day	Ltrs/Day	Ltrs/Day	Ltrs/Day
17316.67	19036.65	1113.55	682.48	1113.55	1048.22	20512.58	395.62	20908.20

Organic solid waste	Inorganic solid waste	Spent Carbon	Distillation Residue
Kg/Day	Kg/Day	Kg/Day	Kg/Day
1980.84	1016.25	66.11	356.11

EMISSION DETAILS

Process Emissions	Fugitive Emissions
Kg/Day	Kg/Day
918.52	408.22

GENERATED GASEOUS EMISSION DETAILS

Kg per Day									
CO2	H2	NH3	O2	N2	HBr	HCl	HF	HI	SO2
221.95	2.51	19.83	76.96	44.94	133.78	320.20	25.82	92.18	258.71

Deliberations in the EAC:

The EAC, constituted under the provision of the EIA Notification, 2006 comprising of Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in 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 report. If any part of data/information submitted is found to be false/ misleading at any stage, the project will be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

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

the EAC also deliberated on the pollution load as estimated by the PP/Consultant.

The Committee noted that the PFR/EMP reports reflect the present environmental 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 suggested to use to use coal having ash content less than 15% only during rainy season when Biomass Briquettes may not be available. The Committee also suggested that the storage of toxic/explosive raw material/products shall be undertaken with utmost precautions and following the safety norms and best practices. The committee suggested to increase the percentage use of recycled water

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 the grant of environmental clearance, subject to compliance of terms and conditions as under, and general terms of 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 PFR/EMP in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Fugitive emissions shall be controlled at 99.98% with effective chillers. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular VOCs monitoring should be carried out.

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

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

(v). 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. Mock drill shall be conducted regularly.

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

(vii). Total fresh water requirement shall not exceed 68.12 m^3/day and shall be met from Ground water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.

(viii). 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.

(ix). 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).

(x). 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.

(xi). 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. 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.

(xii). 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.

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

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

(xiv). 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.

(xv). 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. 10.5

Setting up of API manufacturing unit of capacity 515 MTPM by M/s SNA Healthcare Pvt. Ltd. located at Plot No. T-2, Taluka & District Palghar, Maharashtra- Consideration of Environment Clearance

[Proposal No.IA/MH/IND2/207248/2021; File No.IA-J-11011/165/2021-IA-II(I)]

The project proponent, vide email dated 17.05.2021, requested the Ministry not to consider the proposal in the upcoming meeting as the instant proposal has been withdrawn from Parivesh website (Online Proposal No.: IA/MH/IND2/207248/2021).

***The Committee deliberated the request of PP and accordingly the proposal was returned in its present form*.**

Reconsideration of EC Proposals

Agenda No. 10.6

Expansion of Chemical Industry at Plot No.161/2/ 162, Ujjain (Madhya Pradesh) by M/s LANXESS INDIA PVT. LTD – Re-Consideration of Environment Clearance

[IA/MP/IND2/83152/2018, IA-J-11011/350/2018-IA-II(I)]

The proposal was earlier considered by the EAC in its meeting held on 14-15 January, 2021. The additional information desired by the EAC in its first meeting and reply submitted by the PP are as under.

(i) Considering the location of the project site adjacent to Chambal river, details of alternative site analyzed.
• The expansion/increased production volumes will be in existing plants only. Therefore all other infrastructure like Effluent treatment plant, Sewage treatment plant, Post treatment reverse osmosis and Evaporators are available at site to meet Zero liquid discharge. • Similarly main utility steam and Power is supplied by Grasim (Staple Fiber Division) Nagda.

- Easy availability of key raw material like Chlorine; which is supplied by adjacent industry Grasim Chemical Division Limited.
- All the manufacturing process units of the plant are in the Northern part of the site and away (more than 700 m.) from river Chambal. Moreover, between the used site and river there is a colony which is acting as buffer from plant and the river.
- Thus, whereas the major plant activities located in the Northern part of the site is about 700 m from river Chambal, with a colony which is acting as buffer from plant and the river, the southern part, nearest to the river, will be used for plantation with insignificant impact on river.
- The expansion will be done in existing plant only, and there is no requirement of additional land.

Therefore no alternative site for the expansion was considered.

(ii) Details of existing products with consented and production capacity from 2005, along with copy of CTE/CTOs.

The present plant was started in 1978 by M/s Gwalior Chemicals Pvt. Ltd. The Plant was acquired by Lanxess (a German Multinational company) on 1st September, 2009. The CTE/CTOs of the plant after 2009 with production are attached. No production has been increased after acquisition by Lanxess India Pvt. Ltd, Nagda.

(iii) Details of expansion/modernization/product mix changes undertaken without taking EC, and undertaking in this regard.

No further expansion has been carried out till date by Lanxess India Pvt. Ltd, Nagda, after it was acquired. The undertaking is attached.

(iv) Public hearing issues, response, detailed action plan/activities with. Issues raised by each Participant shall be provided with response and action plan and commitment.

The issues raised during public hearing, response by the project proponent on individual issues with action plan and commitment is attached as **Annexure 3**. A brief summary of the responses are as follows:

Support to the project	103
Support with Suggestions for the project	26
Total supporting project	*129*
Shown concerns for the project	36
Total	***165***

Thus 78.2% are supporting the project.

(v) Reason, if any for not conducting public hearing at the project site.

- The location of public hearing was decided by Madhya Pradesh Pollution Control Board, Ujjain and District Magistrate, Ujjain. The venue of public hearing from the project site is 2 km. The ADM letter for conducting public hearing is attached.
- Lanxess India Pvt. Ltd, Nagda have paid the requisite administration fee with copies of draft EIA and other documents to MPPCB, Ujjain for conducting public hearing.
- The MPPCB has published notice about public hearing at the selected site in three local newspaper. The copy of advertisement in the newspaper is attached.

(vi) Detailed effluent management plan.

The LANXESS India Nagda site is "**Zero liquid discharge**" facility since 2012. All the waste water generated from various plant is treated in Effluent treatment plant having capacity 300 KLD and reused/evaporated. The effluent management plan is attached.

(vii) Detailed greenbelt development plan along the periphery of the plant with revised layout.

The project site is already having about 3.63 ha of the green area. More than 5000 trees have been planted at the site. Locally available types of trees which are resistant to pollutants are planted and will be planted. In the proposed expansion, additional green belt/planation will be developed in 8.83 ha i.e., covering 37.63% of the existing land area in which 12000 trees will be planted inside the plant boundary housing existing process units and in acquired adjacent land to the existing boundary without any process units. The greenbelt plan with layout is attached.

(viii) Details of court case, and its implication on the project, present status along with copy of petition and affidavits.

Sr.no.	Case No	Details	Present status	Implication on Project
1	**NGT BHOPAL NGT OA 77/2017**	Some of the so called social activist formed a group named as "Chambal Bachao Aandolan" and started giving forged messages in media and making Dharna and Aandolan in the name of "Chambal Bachao Aandolan". These activists also filed a complaint with the NGT Bhopal making MPPCB Bhopal, MPPCB Ujjain, Grasim (SFD), Grasim Chemical Division, Lanxess India Private Limited, and CMO Nagar Palika Nagda. We (all the parties) had submitted our replies against the statement of claim given by the social activist. After the due consideration, the case was dismissed on the grounds that the complainant has not followed and complied the NGT Practice and Procedures Rule 2011 in filing this complaint so the complaint has been dismissed by order dated 1.10.2018.	Dismissed on 01.10.2018	None
2	**High Court Indore MCRC 47769/2018**	The members of the inspection team took some water sample from the storm drain. It had rained heavily and we were pumping the water from storm water drain in to ETP plant through a pump. It was then and there shown to the MPPCB team that no water was flowing out of	Granted interim relief on 14.12.2018 and stayed the proceedings in the lower court JMFC Ujjain. Matter	None

		the site and the pump was on and pumping the water in to our ETP plant. We were already a ZLD (zero liquid discharge) plant as such no process water are sent outside. Inspite of this, the case was registered by MPPCB against our industry. We have approached High Court Indore Bench against the proceedings of lower court which had granted interim relief on 14.12.2018 and stayed the proceedings in the lower court JMFC Ujjain.	last listed in the High Court on 01.07.2019	
3	**High Court Indore MCRC/5902/2013**	A show cause notice was issued to the company on 10.02.2010 with findings of the joint inspection done by CPCB and MPPCB giving us the various dates of completion up to 31/10/2012. Although all the findings were complied before the due date, they had filed a case against us in the court of CJM Ujjain, and as such we filed a Writ Petition in the High Court Indore Bench against the MPPCB Respondents. High Court Indore Bench vide its order dated 25.07.2013 had stayed the proceedings in the court of CJM Ujjain.	High Court Indore Bench vide its order dated 25.07.2013 had stayed the proceedings in the court of CJM Ujjain.	None

The details of court cases attached.

(ix) Closure notice/show cause notice issued by the SPCB in the last 5 years and response and present status.

The closure notice/show cause notice issued by the SPCB in the last 5 years are given below and attached.

Sr. No.	Year	Notice	Copy of Notice	Reply Letter	Compliance
1	2016	1923/TS/MPPCB/2016 Date : 24.05.2016	Enclosure 1(a)	Enclosure 1(b)	All the directed actions completed

2	2017	768/MPPCB/HSMD/2017 Bhopal, Date: 16.03.2017	Enclosure 2(a)	Enclosure 2(b)	All the directed actions completed
3	2017	2385/TEC/HOPCB/2017 Bhopal, Date: 24.10.2017	Enclosure 3(a)	Enclosure 3(b)	All the directed actions completed.
4	2018	783/TS/HOPCB/2018 Bhopal, Date: 04.05.2018	Enclosure 4(a)	Enclosure 4(b)	Additional directions in reference to 2385. All accepted conditions complied as above.
5	2019	1476/TS/MPPCB/2019 Bhopal, Date: 29.04.2019	Enclosure 5(a)	Enclosure 5(b)	Complied
6	2019	1406/PCB/ROU/2019 Ujjain, Date: 01.10.2019	Enclosure 6(a)	Enclosure 6(b)	Complied

(x) Product list, separately mentioning products requiring EC and not.

Existing and Proposed Production Capacity of various chemicals

Sl. No.	Name of Product	Existing Permitted Capacity (MTPA)	Additional Proposed Capacity (MTPA)	Total Proposed Capacity (MTPA)
1	Benzyl Chloride	54750	25550	80300
2	Benzyl Alcohol	36000	0	36000
3	Benzyl Acetate	7200	7800	15000
4	Benzaldehyde	19000	13250	32250
5	Hydochloric Acid	212400	76300	288700
6	Sulphur Di Chloride	12400	(-)11800	600
7	Sodium Benzoate	2500	(-)150	2350
8	Thionyl Chloride	50000	20000	70000
9	Di Benzyl Ether	3600	1400	5000
10	Cinnamaldehyde	3000	7000	10000
11	Benzyl Benzoate	3000	6000	9000
12	Benzyl Salicylate	3000	7000	10000
13	Cinnamyl Alcohol	3000	0	3000
14	Hexyl Cinnamaldehyde	3000	5000	8000
15	Fraction Finished Goods	9250	4250	13500
16	Industrial Salt	2675	9575	12250
17	Sodium HypoChlorite	Nil	250	250

18	Alpha amyl Cinnamaldehyde	Nil	2000	2000
19	Sulphuric Acid	Nil	6000	6000
TOTAL		**4,24,775**	**1,79,425**	**6,04,200**

List of Intermediates (Used for Captive Consumption)				
Sl. No.	**Name of Intermediates (Used for Captive Consumption)**	**Existing Permitted Capacity (MTPA)**	**Additional Proposed Capacity (MTPA)**	**Total Proposed Capacity (MTPA)**
1	Benzal Chloride	32850	22850	55700
2	Sulphur Mono Chloride	9400	17100	26500
3	Sodium Salicylate	Nil	8000	8000
4	N-Octanal	Nil	5950	5950
5	Sulphur Trioxide	Nil	16100	16100
TOTAL		**42,250**	**70,000**	**1,12,250**

(xi) Master plan/Flood plain of the project site and adjacent river plain from the concerned regulatory authority.

The flood level of the Chambal river for last 7 years is given in below table.

S. No.	Date	Highest Flood level AMSL (m)
1.	22/08/2020	463.97
2.	13/09/2019	463.17
3	22/09/2018	462.67
4.	17/09/2017	462.82
5.	20/08/2016	462.57
6.	15/10/2015	460.91

The existing site is a flat or level land ranging from AMSL **468 m to 471** m. The nearest boundary which is 300 m from the Chambal river has elevation 468 m which is more than 4 m above HFL as per the above HFL table. The main plant units which are 700 m from the Chambal river have elevation 471 m which is more than 7 m as per the above HFL table. The letter from the authority is attached. The data shows that the site elevation is at safer height. We have not faced flood problem in the past.

(xii) Opinion/comments of the SPCB and local village administration on location of such chemical industries adjacent to the river.

LANXESS INDIA PVT. LTD is complying all the rules and regulations pertaining to Environment. LANXESS INDIA PVT. LTD has valid Air and Water consent issued by MPPCB. LANXESS INDIA PVT. LTD is complying all the directions received from MPPCB and CPCB and same will be complied after expansion. The opinion of local village administration is attached.

(xiii) Details of red category industries adjacent to the project site

S. No.	Name of the Adjacent Industry	Category
1.	Grasim Industries Limited (Staple fiber) division	Red
2.	Grasim Industries Limited (Chemical Division)	Red
3.	Gulbrandson Industries Limited	Red
4.	Clarient Industries Limited	Red
5.	Swastik Industries	Red
6.	Nagda Chemical	Red

7.	Diamond Chemical	Red

(xiv) The baseline data is found to be collected by another consultant and also presented during public hearing. Details of work done by the present consultant for preparation of EIA/EMP report and undertaking that they are liable for the authenticity of data and conclusion in the report.

The "Greencindia Consulting Private Limited" was involved in preparation of EIA/EMP report for Expansion of Chemical Industry by M/s Lanxess India Private Limited located at Ujjain, Madhya Pradesh. The collection of baseline data for the project was done by Team Labs & Consultant Hyderabad under the supervision of accredited experts of Greencindia Consulting Private Limited and Greencindia Consulting Pvt. Ltd is responsible for authenticity of the baseline data presented in the report. The undertaking is submitted.

The Project Proponent and the accredited Consultant M/s. Greencindia Consulting 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 of Chemical Industry at Tehsil Nagda, District Ujjain, State Madhya Pradesh by M/s. Lanxess India Pvt. Ltd.

The details of products and capacity as under:

S. No.	Name of Product	Existing Permitted Capacity (MTPA)	Additional Proposed Capacity (MTPA)	Total Proposed Capacity (MTPA)
1	Benzyl Chloride	54750	25550	80300
2	Benzyl Alcohol	36000	0	36000
3	Benzyl Acetate	7200	7800	15000
4	Benzaldehyde	19000	13250	32250
5	Hydochloric Acid	212400	76300	288700
6	Sulphur Di Chloride	12400	-11800	600
7	Sodium Benzoate	2500	-150	2350
8	Thionyl Chloride	50000	20000	70000
9	Di Benzyl Ether	3600	1400	5000
10	Cinnamaldehyde	3000	7000	10000
11	Benzyl Benzoate	3000	6000	9000
12	Benzyl Salicylate	3000	7000	10000
13	Cinnamyl Alcohol	3000	0	3000
14	Hexyl Cinnamaldehyde	3000	5000	8000
15	Fraction Finished Goods	9250	4250	13500
16	Industrial Salt	2675	9575	12250
17	Sodium HypoChlorite	Nil	250	250
18	Alpha amyl Cinnamaldehyde	Nil	2000	2000

19	Sulphuric Acid	Nil	6000	6000
TOTAL		4,24,775	1,79,425	6,04,200

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

The ToR has been issued by Ministry vide letter No. J-11011/350/2018-IA-II(I); dated 31st December 2018. Public Hearing for the proposed project has been conducted by the Madhya Pradesh Pollution Control Board on 07/03/2020. The main issues raised during the public hearing are related to Employment generation from enhancement of production, Air pollution control measures to be corrected. Latest techniques / devices to be deployed for control of Air and Water pollution, Providing safe drinking water and high quality health care facilities to villagers and To ensure community development, the unit to help nearby villagers in getting education and healthcare facilities.

The present plant was started in 1978 by M/s Gwalior Chemicals Pvt. Ltd. for manufacturing of chemicals in an area of 23.468 ha in Village – Birlagram, Tehsil –Nagda, District – Ujjain, State – Madhya Pradesh. The Plant was taken over by LIPL on 1st September 2009 for manufacturing of chemicals for the same products and production capacity of 5,91,305 MTPA. No further expansion has been carried out till date by LIPL and therefore, environment clearance notification was not been attracted till the present proposal under consideration.

Existing land area is 234680m2 and No additional land is required for the project as the proposed expansion is within the existing site only. Industry has area for development of greenbelt in an area of 37.63% i.e., 88,300 m2 out of total area of the project. The estimated project cost is Rs 390 crores including existing investment of Rs. 600 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 55.0 crores and the Recurring cost (operation and maintenance) will be about Rs. 5.5 crores per annum. Total Employment will be 1020 persons as direct & indirect after expansion. Industry proposes to allocate Rs. 2.92 crores i.e. 0.75% of the project cost towards Corporate Social Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site. Chambal River is flowing at a distance of 300 m in West direction from the boundary and at 700 m distance from plant facilities.

Ambient air quality monitoring was carried out at 10 locations during March to May 2019 and the baseline data indicates the ranges of concentrations as: PM10 (58.8-85.8 µg/m3), PM2.5 (31.8-42.5 µg/m3), SO2 (19.5-23.8 µg/m3) and NO2 (21.8-40.2 µg/m3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 24.1 µg/m3 and 42.6 µg/m3 with respect to Sox and NOx. For PM10, the values were insignificant. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 5064 KLD out of which 3048 KLD water demand is proposed to be met by Domestic wastewater from local areas treated by in-house STP of 3500 KLD, 766 KLD water demand is proposed to be met by steam Condensate water from external steam, 9 KLD

of drinking water demand is met by external water suppliers and Recycled water from STP will be 1241 KLD.

Total 1241 KLD waste water quantity will be recycled after required treatment through ETP, Reverse Osmosis (RO) Separation and Multiple Vapor Reclaimer (MVR) Evaporator. The plant will be based on Zero Liquid discharge system.

Power requirement after expansion will be 10.3 MW including existing units and will be met from MP Paschim Kshetra Vidyut Vitaran Company and 1x3.95 MW Co-generation plant. After proposed expansion, an additional Co-generation plant of 6.0 MW will serve as power source.

Existing unit has 4 DG sets of 1500 kVA, 1250 kVA, 1000 kVA and 500 kVA capacity, No additional DG sets are proposed. Existing unit has 3.5 TPH of Captive Liquid waste Incinerator with heat recovery boiler, 25 TPH AFBC Boiler (Standby) and 45 TPH of Coal and biomass fired Boiler. Additionally 3.5 TPH of Captive Liquid waste Incinerator with heat recovery boiler and 70 TPH of Coal and biomass fired Boiler will be installed. Bag filter with a stack of height of 72 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm3 for the proposed boilers and 32 m stack will be provided to proposed liquid waste incinerator.

Details of Process emissions generation and its management.

Existing									**Proposed**		
Stack No.	1	2			3	4		5	6	7	8	9
Stack attached to	Emergency1 500 kVA DG set	Emergency 1000 kVA DG Set	Emergency 1250 kVA	Emergency 1500 kVA	3.5 TPH Boiler	25 TPH2 AFBC Boiler (Standby)	45 TPH Boiler	Caustic Scrubber of TC Plant	Water absorber of HCL Tank Farm	3.5 TPH Boiler	6MW /70 TPH Co-generation Plant	Sulphuric Acid Plant
Fuel type	HSD	HSD	HSD	HSD	Distillation	Coal	95% Biomass	-	-	Distillation	95% Biomass+5%	-
Fuel quantity	106.0 l/hr	201.0 l/hr	269.0 l/hr	291.0 l/hr	375 kg/hr	5000 kg/hr	11458kg/hr +	-	-	375 kg/hr	17916kg/hr + 1041	-
Stack height above ground in (m)	10	32			32	58		30	18	32	72	50
Stack diame	0.27	0.6			0.6	1.7		0.25	0.2	0.6	3	0.4

ter in (m)											
Sulphur %	<0.25	<0.25			0.0001	Coal 0.5%	Blend 0.082%	-	-	0.0001	Blend 0.082%	-
Flue gas volume (Am3/hr)	2438	5637.2	6854.8	7883.2	4832.5	51,764	1,74,180	5000	700	5250	2,59,888	5000
Flue gas temp (K)	363	363			315	441		323	313	315	423	323
Exit velocity of gas in (m/s)	11.83	5.54	6.74	7.75	4.75	8.84	14.03	28.31	6.2	5.16	10.25	11.06
Emission rate												
PM (g/s)	-	-			-	2.1		-	-	-	1.5	-
SO2 (g/s)	0.04	0.34			0.00002	2.4	4.4	0.010	-	0.0002	5.02	1.88
NO2 (g/s)	0.34	2.33			0.60	0.8	6.3	-	-	0.600	5.02	-
CO (g/s)	0.13	0.67			-	-		-	-	-	-	-
HC/NMHC (g/s)	0.05	0.23			-	-		-	-	-	-	-
HCL (g/s)	-	-	-	-	-	-		-	0.0043	-	-	-
H2SO4 Acid mist (g/s)	-	-	-	-	-	-		-	-	-	-	0.0752

Environmental Aspects/Issues	Mitigation Measures
Impact of dust, smoke, gas, fumes & odour	❑ Proper ventilation in storage & production area are always ensured and all materials are stored in suitable packing to prevent contamination of air due to particulates & volatile emissions from storage container & area.

	❑ Electro static precipitator (ESP) and bag filter considered to keep PM emissions within limits. Due to lower combustion temperature, NO_2 will be within limit. ❑ Process emissions and fugitive emissions are properly scrubbed/condensed and recovered before vented out through stacks of adequate height. ❑ ESP will be provided to 70 TPH new boiler to keep emissions of PM within limits. ❑ Most of manufacturing process are in closed systems to eliminate any chances of fugitive emissions. All solvents/liquids are charged mechanically in the closed loop to avoid losses thus eliminating chances of air pollution also due to fugitive emissions. ❑ Breather Valves, chilled water condensers have been provided on storage tanks and process equipment to arrest fugitive emissions. ❑ The storage tanks of low boiling solvents like Acetaldehyde are equipped with chilled water circulation system to avoid fugitive losses. ❑ All the distillation columns are attached with double stage cooling water/chilled water condensers to control vapour emissions. ❑ Monitoring of ambient air quality/ source emission is carried out as per monitoring plan. ❑ Green belt/Plantation developed around the plant and along roads to arrest the fugitive emissions. Additional green belt shall be developed.
Solid Waste & Hazardous Waste Management	❑ The total domestic solid waste generation after proposed expansion will be 208.36 kg per day, out of which, municipal waste will be 204 kg/day and Horticulture waste will be 4.36 kg/day. ❑ The waste collected is stored in twin bin waste collection system; green bins for bio-degradable wastes and blue bins for non-biodegradable wastes. ❑ Municipal solid wastes are segregated at source into biodegradable and non-biodegradable. Biodegradable waste handed over to Nagar Palika for further processing. Horticulture waste and sludge from STP are dried and used as manure. ❑ The Non-biodegradable portion of MSW and hazardous wastes generated from the plant is disposed off to Treatment, Storage and Disposal Facility (TSDF), Pithampur (RAMKY). ❑ The company has already the Authorization under the Hazardous and Other Waste (Management. & Transboundary Movement) Rules, 2016 as amended vide Consent no. H-50734 with validity up to 31/08/2024.

Table: Pollution Control Devices

S. No	Facility	Unit	Existing Qty.	Existing Installed Capacity	Additional Qty.	Proposed additional installed Capacity	Total Qty.	Proposed Installed Capacity
1	Captive Incinerator with Waste Heat Recovery Boiler	kg/hr (steam in TPH)	1	375 (3.5 TPH)	1	375 (3.5 TPH)	2	750 (7 TPH)
2	WWPT (Wastewater Post Treatment)	KLD	1	260	1	260	2	520
3	PTRO (Post Treatment Reverse Osmosis)	KLD	1	900	1	900	2	1800
4	STP	KLD	1	3500	0	0	1	3500
5	Organic Waste Converter	kg/hr	0	0	1	100	1	100
6	ETP	KLD	1	300	0	0	1	300

Details of Solid waste/ Hazardous waste generation and its management

A. Solid Waste Generation

Description	Rate	No. of Employees/Area	Solid waste generation kg/day	Type
Municipal Solid Waste	0.2 kg/p/d	1020 persons	204	Non Hazardous
Horticulture Waste	15 kg/acre/day	21.81 acre	4.36	Non Hazardous
Total			**208.36**	Non Hazardous

B. Hazardous and Other Waste Generation and Disposal Details

Sl. No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Category	Authorized mode of disposal or Recycling or utilization or co-processing, etc.	Quantity (ton/annum)
1.	Used or Spent Oil	(I-5.1)	To be sold to authorized Re-processors/ Recycler authorized	6.000-MT

Sl. No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Category	Authorized mode of disposal or Recycling or utilization or co-processing, etc.	Quantity (ton/annum)
			with SPCB.	
2.	Oily rages/DG-filters etc.	(I-5.2)	M.P. Waste Management Project, Pithampur, Dist. Dhar (M.P.) or pre-processing or Co- processing.	0.600 MT
3.	Chemical-containing residue Arising from decontamination.	(I-34.1)	M.P. Waste Management Project, Pithampur, Dist. Dhar (M.P.) or pre-processing	5.000-MT
4.	Sludge From Treatment Of Waste Water Arising Out Of Cleaning / Disposal Of Barrels / Containers	(I-34.2)	M.P. Waste Management Project, Pithampur,Dist. Dhar (M.P.) or pre-processing.	5.000-MT
5.	Empty barrels/containers/liners contaminated with hazardous chemicals /wastes	(I-33.1)	At Captive Incinerator or M.P. Waste Management Project, Pithampur, Dist. Dhar (M.P.) or to be sold to authorized Re- processors/ Recycler authorized with SPCB.	10.000-MT
6.	Ash from incinerator and flue gas cleaning residue	(I-37.2)	M.P. Waste Management Project, Pithampur,Dist. Dhar (M.P.) or pre-processing	0.500-MT
7.	Chemical sludge from waste water treatment	(I-35.3)	M.P. Waste Management Project, Pithampur, Dist. Dhar (M.P.) or pre-processing	2000.000-MT
8.	Spent ion exchange resin containing toxic metals	(I-35.2)	M.P. Waste Management Project, Pithampur, Dist. Dhar (M.P.) or pre-processing	8.000-MT
9.	Distillation Residues	(I--20.3)	At Captive Incinerator or M.P. Waste Management Project, Pithampur, Dist. Dhar.(M.P.) or pre processing	5200.000-MT
10.	Chemical sludge from waste water treatment	(I-35.3)	M.P. Waste Management Project, Pithampur, Dist. Dhar (M.P.) or pre-processing with due permission from the disposal destination SPCB.	1500.000-MT
11.	Any process or distillation residue	(I-36.1)	CTSDF/Pre-processing.	3800.00 MT
12.	Any process or distillation residue	(I-36.1)	Captive Incinerator/CTSDF/Pre-processing.	2300.00 MT
13.	Spent Carbon or filter medium	(I-36.2)	M.P. Waste Management Project, Pithampur, Dist. Dhar (M.P.) or pre-processing	510.000-MT

Sl. No.	Category of Hazardous Waste as per the Schedules I, II and III of these rules	Category	Authorized mode of disposal or Recycling or utilization or co-processing, etc.	Quantity (ton/annum)
14.	Exhaust Air or Gas cleaning residue	(I-35.1)	M.P. Waste Management Project, Pithampur, Dist. Dhar (M.P.) or pre-processing	6000.000-MT
15.	Oil And Grease, Skimming	(I-35.4)	M.P. Waste Management Project, Pithampur, Dist. Dhar (M.P.) or pre-processing	5.000-MT

Compliance Report of CTO Air and Water has been submitted to MPPCB on 23/12/2020 and certified by RO, MPPCB on 14/01/2021. The Committee deliberated the compliances status and found in order.

Status of Litigation Pending against the proposal:

Sr.no.	Case No	Details	Present status	Implication on Project
1	**NGT BHOPAL NGT OA 77/2017**	Some of the so called social activist formed a group named as "Chambal Bachao Aandolan" and started giving forged messages in media and making Dharna and Aandolan in the name of "Chambal Bachao Aandolan". These activists also filed a complaint with the NGT Bhopal making MPPCB Bhopal, MPPCB Ujjain, Grasim (SFD), Grasim Chemical Division, Lanxess India Private Limited, and CMO Nagar Palika Nagda. We (all the parties) had submitted our replies against the statement of claim given by the social activist. After the due consideration, the case was dismissed on the grounds that the complainant has not followed and complied the NGT Practice and Procedures Rule 2011 in filing this complaint so the complaint has been dismissed by order dated 1.10.2018.	Dismissed on 01.10.2018	None
2	**High Court Indore MCRC 47769/2018**	The members of the inspection team were took some water sample from the storm drain. It had rained heavily and we were	Granted interim relief on 14.12.2018 and stayed the	None

Sr.no.	Case No	Details	Present status	Implication on Project
		pumping the water from storm water drain in to ETP plant through a pump. It was then and there shown to the MPPCB team that no water was flowing out of the site and the pump was on and pumping the water in to our ETP plant. We were already a ZLD (zero liquid discharge) plant as such no process water are not sent outside. Inspite of this, the case was registered by MPPCB against our industry. We have approached High Court Indore Bench against the whimsical proceedings of lower court which had granted interim relief on 14.12.2018 and stayed the proceedings in the lower court JMFC Ujjain.	proceedings in the lower court JMFC Ujjain. Matter last listed in the High Court on 01.07.2019	
3	**High Court Indore MCRC/5902/2013**	A show cause notice was issued to the company on 10.02.2010 with findings of the joint inspection done by CPCB and MPPCB giving us the various dates of completion up to 31/10/2012. Although complied before the due date, they had filed a case against us in the court of CJM Ujjain, and as such we filed a Writ Petition in the High Court Indore Bench against the MPPCB Respondents. High Court Indore Bench vide its order dated 25.07.2013 had stayed the proceedings in the court of CJM Ujjain.	High Court Indore Bench vide its order dated 25.07.2013 had stayed the proceedings in the court of CJM Ujjain.	None

Deliberations in the EAC:

The Committee, in 6th EAC held during 22-23 February, 2021 after detailed deliberation, recommended that the site visit of the project by Sub-Committee comprising of Dr. Rajashekar P. Mandi, Dr. A.B. Pandit, and Shri Dinabandhu Gouda. The representative from the Ministry will also assist the Sub-Committee. The visit of the Sub-Committee could not be undertaken due to

the on-going Covid pandemic situation and unavoidable circumstances. Thus, the proposal was therefore placed for reconsideration in EAC. The Committee was also of the view that the site visit cannot be undertaken due to existing pandemic situation and proposal deliberated based on the information submitted by PP.

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 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 Committee noted that the EIA/EMP report are in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee also deliberated on the activities/action plan and found to be addressing the issues in the study area and public hearing concerns. The Committee suggested that the storage of toxic/explosive raw materials shall be bare minimum in quantity and inventory. The Committee noted that at present there is no court order against the project proponent. The Committee also noted that there is no credible flood plan/river bed management plan for Chambal river, which is otherwise required. The Committee noted that the unit was in operation with the valid CTO from the State PCB. PP has submitted the certified compliance report of CTO/existing operation received from SPCB and the Committee found the same in order. The Committee noted that water requirement in the unit is to be met through the external waste water treated through STP and steam condensate water from external steam. The Committee found the additional information submitted by the project proponent to be satisfactory and addressing to the concerns of the Committee.

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

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

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

The EAC, after detailed deliberations, **recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under, and general terms of conditions at 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). This Environmental clearance is granted subject to outcome of Hon'ble High Court, Hon'ble NGT and any other Court of Law, if any, as may be applicable to this project.

(iii). As already committed by the project proponent, Zero Liquid Discharge 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.

(iv). 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.

(v). 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.

(vi). 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.

(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). 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.

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

(x). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.99% with effective chillers/modern technology.

(xi). As proposed water requirement for industrial use shall be met from STP treated domestic wastewater from local areas and steam condensate water from external steam. Drinking water requirement shall be met through external fresh water suppliers.

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

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

(xiv). The green belt of at least 5-10 m width shall be developed in 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. All trees must be planted within first year.

(xv). The activities and the action plan proposed by the project proponent to address the socio-economic/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.

(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.

The meeting ended with thanks to the Chair.

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DAY 2 - 19th May, 2021 (Wednesday)

Agenda No. 10.7

Expansion in existing production capacity and addition of new products within existing premises at Plot Nos. 12 & 14, GIDC Phase-I, Vatva, District Ahmedabad, Gujarat by M/s Anar Chemicals LLP- Consideration of Environment Clearance

[IA/GJ/IND3/188277/2006; J-11011/508/2006-IA-II(I)]

The Project Proponent and the accredited Consultant M/s. Anand Environmental Consultants 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 in Production capacity of existing products as well as addition of new products (129 MT/Month to 254 MT/Month) within the existing premises at Plot Nos.12 & 14, GIDC Phase-I, Vatva, District- Ahmedabad, Gujarat. The details of products and capacity as under:

S. No.	Name of Product	Quantity of Product (MT/Month)			
		Existing	Proposed	Total	CAS No.
EXISTING PRODUCT					
1 to 11	Dyes* (and mixtures) Solvent Green 33 Solvent Blue 79 Solvent Blue 98 (Automate Blue 8A,Automate Blue 8AHF & Automate Blue 9BHF) Solvent Red 161 Solvent Red 19 E (Liquid Red 3, Automate Red PB XF mixture) Solvent Red 164 (Automate Red IKHF, Automate Red IKHF D50, Liquid Red HX, Automate Red BXL, Automate Red 9BHF) Solvent Yellow 107 Solvent Yellow 124 Solvent Orange 98 (Automate Yellow 8HF, Liquid Yellow 1) Solvent Marker 1,Marker 2,Marker 3 and Marker 7 - new proposed Solvent Yellow HF 2 (Automate Yellow HF) - new proposed	70	97	167	 97862-23-2 64553-79-3 71819-49-3 85750-13-6 56358-09-9 92257-31-3 67900-27-6 34432-92-3 65087-00-5
12	Dye Intermediate- DAZN (BON DCA)	03	-03	00	--
13	R&D Products for dyes intermediates, metal Phthalocyanines and speciality	01	00	01	--

	chemicals				
14	Metal Phthalocyanines and its derivatives	20	-05	15	132-16-1 14055-02-8 28901-96-4
15	Naphthols	30	-15	15	135-62-6 137-52-0
16	Blue 700	05	-05	00	--
Existing 16 Products Total (A)		**129**	**69**	**198**	
PROPOSED PRODUCT					
1.	Photo initiators	**--**	25	25	75980-60-8
2.	Fluorescent monomers	**--**	03	03	276878-97-8
3.	Hydrogenated Products	**--**	25	25	104-42-7
4.	Di-BromoDi-ketoPyroloPyrolle (DBDPP)	**--**	03	03	1000623-98-2
Proposed 04 products Total (B)		**--**	**56**	**56**	
TOTAL (A + B)		**129**	**125**	**254**	

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

Standard Terms of References (ToRs) was issued by Ministry vide letter No. J-11011/508/2006-IA-II(I) dated October 6, 2020. Since, unit is located within GIDC, Vatva, Gujarat and therefore Public Consultation is not applicable. No litigation is pending against the industry.

The Ministry had issued EC earlier vide letter no. F. No. J-11011/508/2006-IA- II (I) dated 24/07/2007 to the manufacturing of the product in the existing unit M/s. Anar Chemical LLP. Certified compliance of CTO by RO, SPCB, dated 01/04/2021 has been submitted. However, PP has not submitted certified compliance report of EC, neither from SPCB nor from IRO, MoEFCC.

Existing land area is 13,389 m^2. Proposed expansion activity will be carried out within the existing premises. Industry will develop greenbelt in an area of 40 % i.e. 5,355 m^2 out of total area of the project. The total estimated cost of the proposed expansion is Rs. 16 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 1.55 Crore and the Recurring cost (operation and maintenance) will be about Rs. 0.94 Crore per annum. Total Employment will be 50 persons as direct as well as other indirect employees for expansion. Industry proposes to allocate Rs 32 Lakh towards Corporate Environmental Responsibility (CER). There are no National parks, Wildlife sanctuaries, Biosphere reserves, Tiger/Elephant reserves, Wildlife corridors etc. within 10 km distance from the project site.

Ambient air quality monitoring was carried out at 8 locations during April 2019 to June 2019 and the baseline data indicates the ranges of concentrations as: PM_{10} (49 – 88 µg/m³), $PM_{2.5}$ (22 – 52 µg/m³), SO_2 (19 - 45 µg/m³) and NO_2 (15 – 42 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be

0.12 µg/m³, 0.16 µg/m³ and 0.09 µg/m³ with respect to PM_{10}, SO_2 and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 435 m³/day of which 2nd day fresh water requirement of 395 m³/day (after recycling) will be met by GIDC. Domestic waste water (24 m³/day) will be treated in Effluent Treatment Plant while, industrial wastewater (254 m³/day) will be treated in Effluent Treatment Plant. ETP treated water (278 m³/day) will be sent to CETP, Vatva. While 40 m3/day from Stream trap will be reused within process.

Power requirement after expansion will be 525 KW and will be met from Torrent Power Ltd. However, in case of power failure, proposed D.G. set with capacity 250 kVA will be used as standby during power failure/ emergency. Stack (height 11 m) will be provided as per CPCB norms to the proposed D.G. Set.

Existing unit has 1.5 TPH of White coal fired boiler with APCM of Multi Cyclone Dust collector with a stack height of 40 m. and 6,00,000 kcal/Hour Thermic fluid heater. Additionally 1.5 TPH Natural gas fired / White coal fired boiler will be installed with APCM Cyclone separator & Bagfilter with adequate stack height of 40 m.and one no. of D.G. Set (250 KVA) will be installed.

Details of Process emissions generation and its management

Sr. No.	Vent attached to	Stack height from G.L., meter	APCM	Expected Pollutant
Existing				
1	Reaction Vessel - 1 (Naphthol, LSD plant)	21 m	Water Scrubber followed by Alkali Scrubber	HCl – 16 mg/Nm^3
2	Reaction Vessel - 2 (Metal Phthalocyanines, PH Plant)	21 m	Two stage water scrubber followed by Acid scrubber	Ammonia (NH_3) – 140 mg/Nm^3
Proposed				
1	Reaction Vessel - 3 (Solvent dyes, LSD Plant)	21 m	Acetic acid scrubbing system	Amine Acetate
2	Reaction Vessel - 4 (Photoinitiator, Pilot Plant)	21 m	Water Scrubber followed by Alkali Scrubber	HCl – 16 mg/Nm^3
3	Reaction Vessel System – 5 (alkyl halides gases)	21 m	Water Scrubber followed	Sodium Chloride

			by Alkali Scrubber	

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

S. No	Type of Waste	Waste Category	Quantity per Month			Mode of Disposal**
			***Existing* (a)**	***Proposed* (b)**	***Total* (a+b)**	
1	ETP Sludge	35.3 (Sch-I)	400 MT	200 MT	600 MT	Will be collected, stored, transported and disposed at GPCB approved TSDF site.
2	Used Oil	5.1 (Sch-I)	0.04 MT	0.01 MT	0.05 MT	Will be collected, stored and disposed by selling it to registered recyclers/ refiners.
3	Discarded Containers/Liners	33.1 (Sch-I)	600 Nos. 2000 Nos.	100 Nos. 300 Nos.	700 Nos. 2300 Nos.	Will be collected, stored and disposed by selling it to authorized recycler.
4	Inorganic Acid (Spent sulphuric acid 18-20%)	26.3 (Sch-I)	912 MT	1246 MT	2158 MT	Will be collected, stored, transported to registered spent acid recovery unit (NSAM, Vatva, Ahmedabad).
5	Oil & Grease	35.4 (Sch-I)	5 MT	0.5 MT	5.5 MT	Will be collected, stored, transported and disposed to registered recycler (RSPL, Ankleshwar).
6	Solvent Residue	20.3 (Sch-I)	10 MT	90 MT	100 MT	Will be collected, stored, transported and disposal to registered recycler/incinerator. (RSPL, Ankleshwar).
7	Cotton Waste	33.2 (Sch-I)	--	5 MT	5 MT	Will be collected, stored, transported and disposal to registered recycler/incinerator. (RSPL, Ankleshwar)
8	Ammonium Solution	26.1	--	100 MT	100 MT	The Ammonium solution generated due to the scrubbing of Ammonia will be collected, stored and used for neutralization in our ETP. Excess if any will be sold to actual users under rule-9 of HWM Rules, 2016.
9	Zinc Chloride Solution	26.1	--	50 MT	50 MT	Collection, Storage, Transportation and disposal by selling to actual users under rule-9 of HWM Rules, 2016.

Note:
*Existing quantity as per CC&A granted by GPCB
**As per Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016 Other waste like E-Waste and Battery Waste (if any) will be managed as per E-Waste (Management) Rules,2016 and Batteries (Management and Handling) Amendment Rules, 2010 as well as MoEFCC Notification/CPCB guidelines.

Deliberations in the EAC:

The EAC made detailed deliberation on the proposal. The EAC was informed that the project proponent obtained EC during 2007 for existing operations. The Committee was of the view that existing EC conditions shall be complied first by the project proponent before considering the application for expansion. **The Committee also noted that the PP has not submitted the compliance status of the existing EC conditions, as per TOR granted to the project. The Committee also observed that the consultant has failed to guide the PP regarding requirement of certified report. The Committee noted that the PP has not complied many environmental conditions even after 14 years of granting EC and even rain water harvesting and greenbelt development not undertaken.** The Committee also observed that the project being located in the critically polluted area shall also come out with better environmental compliances and mitigation measures/technology to control the pollution**.**

The Committee noted that the consultant has not properly guided the PP or reluctance of PP for compliance of EC conditions regarding the EIA provisions and submitted **incomplete EIA/EMP report and even without complying existing EC conditions.** The Committee also noted that the consultant has not provided adequate reply/documents during presentation. The project proponent/consultant were least bothered about the environment, and has not taken any initiatives for recycling of water, reduction in fresh water, rain water harvesting etc. **The Committee also showed its displeasure on the technical quality of the EIA/EMP report and incomplete application submitted by the Consultant for the PP and recommended that Show Cause Notice shall be issued to the Consultant, and the Consultant shall make a detailed explanation before the Committee in the next presentation.**

The Committee has also deliberated on **various technical and environmental data deficiencies** in the proposal and desired for following requisite information/input, as under:

(i) The Committee noted that even after 14 years of granting EC, the PP is unable to comply with environmental conditions and even not undertaken the greenbelt development and rain water harvesting. The existing environmental clearance shall be complied first. Compliance status of the existing EC conditions shall be forwarded by the Ministry's Regional Office.

(ii) The company shall ensure development of green belt of at least 5-10 m width in nearly 40% of the total project area, mainly along the plant periphery. Plan for additional plantation in the adjacent area, if any, shall be submitted. Trees have to be planted with spacing of 2m x 2m and number of trees have to be increased accordingly.

(iii) Details of Raw material and its linkage and its mitigation measure during transportation needs to be submitted.

(iv) Considering the critical air quality of the region, cleaner fuels shall be used as fuel in the boiler. If other fuels are proposed, detailed techno-economic-environmental feasibility study report shall be submitted.

(v) Detailed rain water harvesting plan.

(vi) Revised water balance and effluent management system. The PP shall achieve increase of at least 30 % recycle/reuse of water within 5 years, and reduce fresh water requirement accordingly.

(vii) Detailed process flow diagram.

The EAC expressed its concern on the quality of the EIA/EMP prepared by M/s Anand Environmental Consultants Pvt Ltd, and their extremely poor technical presentation before the Committee and flimsy justification. The Committee is of the view that Consultant should have guided the project proponent properly on the environmental aspects and provisions of the EIA Notification, which is not been seen in the present case. The Consultant should ensure compliance of the existing EC conditions/ToR before submission of the final EIA/EMP report. The Committee was of the view that in the instant case the Consultant failed in these aspects leading to delay in project and wastage of Committee's time. The Committee recommended that a Show-cause Notice be issued to the Consultant [M/s Anand Environmental Consultants Pvt Ltd.]

The proposal was accordingly <u>return the proposal</u> for the revision of complete report as mentioned above.

<u>Agenda No. 10.8</u>

Expansion of Synthetic Organic Dyes Manufacturing Plant at Plot No. Plot no. - 109 and 220, Phase - II, GIDC, Vatva, Taluka & District Ahmedabad, State Gujarat by M/s Jay Chemical Industries Ltd Unit - 3- Consideration of Environment Clearance

[IA/GJ/IND3/201332/2019; IA-J-11011/37/2020-IA-II

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 Environment Clarence to the project for Expansion of Synthetic Organic Dyes Manufacturing Plant at Plot no. - 109 and 220, Phase - II, GIDC, Vatva, Taluka & District Ahmedabad, State Gujarat by M/S. Jay Chemical Industries Ltd. (Unit-3).

The details of products and capacity as under:

S. No	Name of Products	CAS Number	Type of Dye	Production capacity MT/Month		
				Existing	Proposed	Total

1	**Turquoise Blue**		Reactive	40	0	40
2	**Vinyl Sulphone**		Intermediate	160	0	160
3	**Acetanilide**		Intermediate	60	0	60
4	**Synthetic Organic Dyes**		Reactive/ Disperse			
1	Acid Black 210	99576-15-5	REACTIVE	0	1000	1000
2	Acid Red 357	61951-36.8				
3	Reactive Black 5	17095-24-8				
4	Reactive Black 31	12731-63-4				
5	Reactive Blue 220	128416-19-3				
6	Reactive Blue 19	2580-78-1				
7	Reactive Red 198	78952-61-1				
8	Reactive Orange 107	94158-82-4				
9	Reactive Blue 38	68412-18-0				
10	Reactive Orange 16	20262-58-2				
11	Reactive Red 35	85940-67-6				
12	Reactive Red 106	152066-97-2				
13	Reactive Blue 21	12236-86-1				
14	Reactive Violet 5	12226-38-9				
15	Reactive Yellow 37	20298-05-9				
16	Reactive Yellow 15	60958-41-0				
17	Reactive Black 8	12225-26-2				
18	Reactive Blue 4	-				
19	Reactive Blue 49	72214-18-7				
20	Reactive Blue 13	14692-76-3				
21	Reactive Blue 198	124448-55-1				
22	Reactive Blue 160	93921-06-3				
23	Reactive Blue 248	-				
24	Reactive Green 19	61931-49-5				
25	Reactive Violet 13	12270-87-0				
26	Reactive Violet 46	-				
27	Reactive Orange 4	12225-82-0				
28	Reactive Orange 13	12225-85-3				
29	Reactive Red 74	12270-82-5				
30	Reactive Violet 1	93858-39-0				
31	Reactive Red 31	93919-17-6				
32	Reactive Red 120	68214-04-0				
33	Reactive Red 141	71002-20-5				
34	Reactive Orange 14	-				
35	Reactive Yellow 86	-				
36	Reactive Yellow 85	93941-80-1				
37	Reactive Orange 86	83929-91-3				
38	Reactive Orange 12	35642-64-9				

39	Reactive Yellow 145A	93050-80-7				
40	Reactive Blue 172	85782-76-9				
41	Reactive Blue 194	80156-94-1				
42	Reactive Brown 9	70788-62-4				
43	Reactive Red 198 A	111211-40-6				
44	Reactive Red 195A	93050-79-4				
45	Reactive Red 250	152187-49-0				
46	Reactive Blue 71	70955-64-5				
47	Reactive Yellow 84	68133-40-4				
48	Reactive Yellow 135	68991-98-0				
49	Direct Orange 108	6358-79-8				
50	Direct Blue 199	90295-11-7				
51	Direct Blue 86	1330-38-7				
52	Yellow 22	12226-49-2				
53	REACTIVE YELLOW C4G	-				
54	Reactive Orange 122	12220-12-1				
55	Reactive Brilliant Blue 221	93051-41-3				
56	Brilliant Blue JRF	84057-71-6				
57	BLUE 72	68967-01-1				
58	BLUE P5G	12236-87-2				
59	BLACK MIX	-				
60	YELLOW 160A	84000-63-5				
61	YELLOW 95	84045-63-6				
62	YELLOW 205	780759-89-9				
63	RED 21	80419-51-8				
64	YELLOW MIX	-				
65	RED MIX	-				
66	BLUE MIX	-				
67	ORANGE MIX	-				
68	Red 2BN / Red FB - CI Red 60	6408-72-6	Disperse Dye (Azo Cynation)	0	50	50
69	Reactive Violet-26	17418-58-5				
70	Fluorescent Yellow 10GF - CI Disperse 184	71838-87-4	Disperse Dye (Yellow Methine)	0	10	10
71	Fluorescent Yellow 8GF - CI Disperse 82	12239-58-6				
72	Fluorescent Yellow 10GN - CI Disperse 232/184.1	35773-43-4				

73	Brilliant Blue SR - CI Disperse Blue 354	104137-27-1	Disperse Dye (Blue Methine)	0	20	20
74	Cyanine Red	-	Disperse Dye (Cyanine Plant)	0	10	10
75	Cyanine Pink	-				
76	Cyanine Blue	-				
77	CI - Blue 56	12217-79-7	Disperse Dye (Multi P Plant)	0	10	10
78	CI - Yellow 64	10319-14-9				
79	Blue BG - CI - Blue 60	12217-80-0				
80	Orange RL - CI Orange 25	-	Disperse Dye (HCl- Nitrite Base Azo Dye)	0	400	400
81	Yellow SG - CI Yell 114	-				
82	Yellow 4G – CI Yell 231	-				
83	Scarlet BR - CI Red 74	-				
84	Yellow C4G - C.I. Yellow 79	12220-70-1				
85	Yellow SGL	70528-90-4				
86	Yellow SG- C.I. Yellow 114	61968-66-9				
87	Yellow 34	1344-37-2				
88	Yellow 119	57308-41-5				
89	Yellow 68	21811-64-3				
90	Red 278	68248-10-2				
91	Yellow M7G	-				
92	Yellow 247	-				
93	Yellow 248	-				
94	Yellow 249	-				
95	Yellow 235	177570-98-8				
96	Orange 25	31482-56-1				
97	Red 74	61703-11-5				
98	Yellow 56	-				
99	Yellow 7GN	-				
100	Black 296	-				
101	Black 1	6054-48-4				
102	Orange 288	3769-57-1				
103	Navy Blue 3G - CI Blue 79.1	3618-72-2	Disperse Dye (NSA Based Azo Dye)	0	500	500
104	Dark Red 2B - CI Red 167.1	-				
105	Violet 3R - CI Violet 99	-				
106	Blue 2R - CI Blue 183	-				

107	Navy Blue 79.1	3618-72-2				
108	Navy Blue 79.2	3618-72-3				
109	Navy Blue 183	2309-94-6				
110	Navy Blue 183.1	2537-62-4				
111	Blue 291	56548-64-2				
112	Blue 4R	66557-45-7				
113	Blue 6GEF	-				
114	Blue 4RB	-				
115	Blue 4GEF	-				
116	Red BS	78564-86-0				
117	Scarlet GS	86836-02-4				
118	Red-XF2R	-				
119	Red 311	77907-28-9				
120	Yellow Brown XF	-				
121	Brown XF	-				
122	Navy XF2R	-				
123	Navy XF2G	-				
124	Brown 378	-				
125	Brown 165.1	-				
126	Brown 165.1					
127	Orange 61	12270-45-0				
128	Orange 30	12223-23-3				
129	Scarlet 3R C.I. Red 50	12223-35-7				
130	Scarlet 3R C.I. Red 54	12217-86-6				
131	Blue 373	51868-46-3				
132	Red 202	61931-39-3				
Total				**260**	**2000**	**2260**

The project/activities are covered under category ‘B’ of item 5(f) ‘Synthetic organic chemicals industry’ of the Schedule to the Environment Impact Assessment Notification, 2006. Due to applicability of general condition (CPA within 5 km) the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The ToR has been issued by SEIAA vide letter No.SEIAA/GUJ/TOR/5(f)/827/2019; dated 24th May 2019. The unit is located within GIDC, Vatva, Gujarat and therefore Public Consultation is not applicable. No litigation is pending against the industry.

EC is not applicable for existing products. Certified compliance report of existing CTO is taken by GPCB, Gandhinnagar. Site visit was carried out by GPCB, Gandhinagar to verify conditions as stipulated in existing consent to operate on 23.12.22020. Certified Monitoring & Compliance report was received from GPCB, Gandhinagar vide File No. GPCB/ABD/CCA-VT-75(4)/ID:11773/584137 dated 19/02/2021. The Committee deliberated and found in order.

Total plot area is 11666 m^2. Out of which 3697 m^2 area will be used for proposed project. Industry will develop greenbelt in an area of 12.94 % i.e., 1510 m^2 out of total area of the project and

approx. 3850 m^2 addition land has been allotted behind the industry premises for green belt development by the VIA-GIDC. So, total greenbelt area will be 5360.0 m2 (0.536 Ha.) which is ~ 45.94 % of the total plot area. The estimated project cost is Rs 70 Crores. Total capital cost earmarked towards environmental pollution control measures for proposed project is Rs 1206 lakhs and the Recurring cost (operation and maintenance) will be about Rs 1991.54 lakhs per annum. At present 60 Nos. permanent employees are working at site and after proposed expansion additionally ~70 Nos. of people will be employed. Industry proposes to allocate Rs 1.4 Crores 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. Khari River is flowing at a distance of 2.38 km in SSE direction.

Ambient air quality monitoring is carried out at 8 locations during March, 2019 to June 2019 and the baseline data indicates the ranges of concentrations as: PM10 (90-143 µg/m3), PM2.5 (37-50 µg/m3), SO2 (8.6-10.4 µg/m3) and NO2 (13.2-16.5 µg/m3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1.09 µg/m^3, 0.40 µg/m^3 and 28.6 µg/m^3 with respect to PM10, SOx and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS) except PM10. The Action Plan on mitigation measures have been submitted by PP and deliberated by the EAC.

Total water requirement is 2296.3 m^3/day of which fresh water requirement of 1928.3 m^3/day. From that 146.33KLD existing water is withdrawn from borewell and 1782 KLD will be met from GIDC water supply system. Total Effluent generation will be 518 KL/Day. From that 33 KLD domestic sewage will be going to soak – pit and 485 KLD will be going to ETP and after ETP treatment, 105 KLD going to CETP and 380 KLD will be sent to MEE followed by RO.

Power requirement after expansion will be 2900 KW including existing 650 KW will be met from Torrent Power, Ahmedabad. Existing unit has 1DGset of 250 KVA capacity, additionally Unit will have another 1 No. of D.G.Set of 500 KVA capacity. Stack (height 12m) will be provided as per CPCB norms to the proposed DG sets.

Existing unit have 2 nos. of 600 kg/hr Natural gas fired boiler. Additionally 2 nos. of 4 TPH natural gas fired boiler will be installed. Multi cyclone separator/bag filter with a stack of height of 20 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm3 for the proposed boilers.

Details of Process emissions generation and its management are as following: There will be 19 Nos. of Process vents attached to process vessels, storage tanks and storage vessels. Water Ventury, Two Stage Water Scrubber followed by Alkali Ventury, Two Stage Alkali Scrubber will be installed as APCM.

Details of Solid waste/ Hazardous waste generation and its management is as following:

S. No.	**Type of Waste**	**Hazardous Waste Category**	**Quantity per Year Mt/yr.**			**Source**	**Treatment / Disposal**
			Existing	**Proposed**	**Total**		

1	ETP Sludge	35.3	4080	9600	13680	ETP	Packed in HDPE Bags, and Dispose to TSDF
2	Gypsum Sludge	26.1	-	1000	1000	Pre-treatment plant	Packed in HDPE Bags, and Dispose to Cement Industry
3	Ammonium Chloride	35.3	-	256	256		Reused in plant
4	Distillation Residue	36.1	-	256	256	Evaporation	Packed in HDPE Bags, and Dispose to TSDF
5	Spray Dry Salt	37.3	-	3000	3000	Evaporation	Packed in HDPE Bags, and Dispose to TSDF
6	Used Oil	5.1	1.43	1.8	3.23	Machinrary	Disposal by selling to register recycler
7	Discarded Container	33.1	239.4	72	311.4	Production	Disposal by selling to register recycler
8	Discarded Liners/Bags	33.1	9.6	8.4	18	Production	Disposal by selling to register recycler
9	Spent Solvent	20.2	-	3.74	3.74	Production	Collection, Storage, Transportation, incineration and disposal by sell out to authorize users having Rule 9 permission or incineration at CHWIF or send for co-processing.
10	Spent Acid (Spent	26.3	9000	20400	29400	Production	Disposal by selling to

	Sulphuric Acid)						NOVEL, Ecocare, Arvind and Aarvee denim and Actual end user
11	Spent Acid (Spent Hydrochloric Acid)	26.3	7200	-	7200	Production	

Deliberations in the EAC:

The EAC, constituted under the provision of the EIA Notification, 2006 comprising of Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in 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 Committee noted that the EIA/EMP reports are in order and compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project. The Committee also deliberated the action plan on mitigation measures on various impacts due to project. The Committee also deliberated on the activities/action plans and found to be addressing the issues in the study area. The Committee also suggested that the storage of toxic/explosive raw materials shall be bare minimum in quantity and inventory. The Committee suggested that the PP shall formulate a proper safety awareness programme and list strict guidelines to be followed by the workers and nearby villagers. The Committee also suggested the PP to increase the greenbelt density and improve the rainwater harvesting system. The Committee observed that EC was not required for the existing operations and the PP was operating the unit with valid Consent to Operate from the State PCB. The Committee deliberated on the certified compliance report of CTO submitted by SPCB and found the same in order.

The EAC deliberated on the proposal with due diligence in the process as notified under the provisions of the EIA Notification, 2006, and its subsequent amendments 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.

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 of conditions at 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 treated effluent of 105 cum/day proposed to send to CETP through tankers/pipeline, shall conform to the standards prescribed under the Environment (Protection) Act, 1986. The project proponent shall explore possibilities to recycle and reuse treated water in the unit to reduce the fresh water demand and waste disposal. The tankers shall be GPS enabled.

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

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

(v). 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/masks for personal protection.

(vi). Training shall be imparted to all employees on safety and health aspects of chemicals handling. Safety and visual reality training shall be provided to employees. The project proponent shall ensure safety awareness programme for employees and nearby villagers.

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

(viii). Solvent management shall be carried out as follows: (a) Reactor shall be connected to chilled brine condenser system. (b) Reactor and solvent handling pumps shall have mechanical seals to prevent leakages. (c) Solvents shall be stored in a separate space specified 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 vent condensers with chilled brine circulation.

(ix). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.99% with effective chillers/modern technology.

(x). Total fresh water requirement shall not exceed 1928.3 cum/day, out of which 146.33 cum/day is proposed to be met from borewell and 1782 cum/day from GIDC water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA and renewed from time to time.

(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). 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.

(xiii). The green belt of at least 5-10 m width shall be developed over nearly 40% of the total project area (1300 Plants), 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 the number of trees shall have to be increased accordingly. The plant species can be selected that will give better carbon sequestration. All trees must be planted within first year.

(xiv). As proposed, at least Rs 5 lakhs shall be allocated for conservation plan for Schedule I species.

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

(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. 10.9

Setting up of Active Pharmaceutical Ingredients (API's) manufacturing unit located at plot no. 249 & 250, Kadechur Industrial Area, Yadagir Taluk & District, Karnataka by M/s Telangana Pharmatech-Consideration of Environment Clearance

[Proposal No.IA/KA/IND2/202920/2021; File No.IA-J-11011/91/2021-IA-II]

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's) manufacturing unit located at plot no. 249 & 250, Kadechur Industrial Area, Yadagir Taluk & District, Karnataka by M/s. Telangana Pharmatech. The details of products and capacity as under:

Sl. No	API name	Quantity in TPM	CAS No.	Therapeutic use
1	Atazanavir Sulphate	3	229975-97-7	Antiviral
2	Atorvastatin Calcium	3	134523-03-8	To manage cholesterol
3	Capecitabine	10	154361-50-9	Anti-Cancer
4	Cetirizine Dihydrochloride	10	83881-52-1	Antihistamine
5	Febuxostat	2	144060-53-7	Xanthine oxidase inhibitors
6	Fexofenadine HCl	3	153439-40-8	Anti-histamine
7	Imatinib Mesylate	3	220127-57-1	Anti-Cancer
8	Minoxidil	2	38304-91-5	Anti hypertension
9	Montelukast sodium	3	151767-02-1	Anti-allergic & Asthma
10	Olmesartan medoximil	3	144689-63-4	Anti hypertension
11	Omeprazole	3	73590-58-6	Indigestion and heartburn and acid reflux
12	Pantoprazole sodium	2	138786-67-1	To treat Gastro-Oesophageal Reflux disease (GORD)
13	Piroctone Olamine	5	68890-66-4	Antifungal
14	Pregabalin	10	148553-50-8	Anticonvulsants
15	Ritonavir	3	155213-67-5	Anti HIV
16	Rosuvastatin Calcium	3	147098-20-2	To manage cholesterol
17	Tamsulosin HCl	3	106463-17-6	To treat Benign Prostatic Hyperplasia (BPH)
18	Telmisartan	3	144701-48-4	Anti hypertension
19	Valsartan	3	137862-53-4	Angiotensin Receptor Blockers (ARBs)
20	Zidovudine	10	30516-87-1	Antiretroviral
	Total (Any five products will be manufactured at any given point of time)	**45**		

List of by-products and its quantities

Sl. No	Product Name	By-Product name	Qty in kg/day
1	Capecitabine	Chloropentylformate	415.86
2	Cetirizine Dihydrochloride	Potassium Chloride	59.33
3	Montelukast sodium	Alpha pinene	97.69
4	Pregabalin	Ammonium chloride	858.31
		Sodium sulphate	0.00
5	Pantoprazole sodium	Sodium Acetate	31.00

		Sodium Phosphate	66.67
		Potassium Sulfate	87.33
6	PiroctoneOlamine	Aluminium hydroxide solution	1458.33
		sodium sulphate	16.67
7	Rosuvastatin Calcium	Triphenyl phosphine oxide	75.22
8	Valsartan	Sodium sulphate	10.00
9	Zidovudine	Benzene sulfonic acid	226.81
		Triethylamine Hydrochloride	644.54
Note: The quantity of By-products based on respective products being manufactured.			

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 (amendment on 27.03.2020). Due to applicability of general conditions (interstate boundary within 5 km), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposed project will be established in a land area of 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 Rs.6.3 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs.80 Lakhs and the recurring cost (operation and maintenance) will be about Rs.18.5 lakhs per annum. Total Employment under proposed project will be 60 no's. Industry proposes to allocate 5 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 flowing at a distance of 1.9 km (E) from the project site.

The total water requirement of 135.2 KLD and will be met from KIADB. Generated effluent of 62.1 KLD will be treated through Common Effluent Treatment Plant CETP, Kadechur.

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 2 TPH & 1 X 3 TPH Briquettes/Coal fired boiler with stack of height 30 m. Multi Cyclone separator will be installed for the boiler for controlling the particulate emissions-(within statutory limit of 115 mg/ Nm^3).

Details of Process emissions generation and its management:

S. No	Name of the Gas	Quantity Kgs/Day	Disposal Method
1	Hydrogen chloride	274.84	Scrubbed by using water media
2	Carbon dioxide	567.83	Dispersed into atmosphere
3	Hydrogen	35.41	Dispersed into atmosphere through flame arrester
4	Ammonia	77.17	Scrubbed by using water media
5	Sulfur dioxide	16.47	Scrubbed by using C.S. Lye solution
6	Oxygen	22.53	Dispersed into atmosphere
7	Dimethyl amine	13.32	Scrubbed by using

			C.S. Lye solution

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

Sl. No	ategory of Waste	Category Of Hazardous Waste	Mode of disposal	Proposed Quantity
1	5.1	Used Oil	Shall be stored in secured manner & handed over to KSPCB authorized re-processors.	00 Litres/Annum
2	20.3	Solvent Distillation Residue	Shall be stored in secured manner & handed over to KSPCB authorized incinerator/co-processing in cement kiln.	530 kgs/day
3	--	Inorganic Solid Waste	Shall be stored in secured manner & handed over to KSPCB authorized co-processing in cement kiln /TSDF.	778.37 kgs/day
4	28.1	Process Residue and Waste	Shall be stored in secured manner & handed over to KSPCB authorized co-processing in cement kiln /TSDF.	2916.36 kgs/day
5	33.3	Discarded Chemical Containers	Shall be stored in secured manner & handed over to KSPCB authorized recycler after wash only.	400 No's/A
6	--	Used Batteries	To Used (Old) batteries shall be disposed to the KSPCB registered recyclers.	2 No's/ Annum
7	28.3	Spent Carbon + Hyflow	Shall be stored in secured manner &handed over to KSPCB authorized incinerator/Co-incineration in cement kiln/TSDF.	110 kgs/day
8	--	Coal ash	Sent to Brick Manufacturers	3500 kgs/day
9	28.2	Spent Catalyst	Recovery / returned to manufacturer	15 kgs/day

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

Kg per day													
Effluent water								**Solid waste**					
Water in put	**Water in Effluent**	**Organics in effluents**	**TDS**	**COD**	**HTDS**	**LTDS**	**Total Effluent**	**Organic**	**In Organic**	**Spent carbon**	**Spent Catalyst**	**Process Emission**	**Distillation residue**

27916.67	32917.40	427.07	687.24	849.21	5797.05	27642.17	33439.23	2916.36	778.37	90.00	20.00	1010.00	530

Hazardous solid waste details

Organic solid waste	Inorganic solid waste	Spent Carbon	Distillation Residue
Kg/day	Kg/day	Kg/day	Kg/day
2916.36	778.37	90	530

Emission details

Kg/day						
HCl	CO_2	H_2	NH_3	SO_2	Dimethyl Amine	O_2
274.84	567.83	35.41	77.17	16.47	13.32	22.53

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 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 submitted 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, shall be revoked at the risk and cost of the project proponent.

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

The Committee noted that the PFR/EMP reports reflect the present environmental 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 increase the allocated amount accordingly PP submitted commitment to plant 270 plant to be planted in one year. The Committee deliberated on the mitigation measure to be adopted for Air, Water, Noise and Soil pollutions. The Committee suggested to use coal having ash content less than 15% only during rainy season only when Biomass Briquettes were not available. The Committee also suggested that the storage of toxic/explosive raw material/products shall be undertaken with utmost precautions and following the safety norms and best practices. The committee deliberated on the emergency management plan and found it 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 recommendation for the grant of environmental clearance to the proposal. The Experts Members of the EAC also found the proposal in order and recommended for the grant of environmental clearance.

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 the grant of environmental clearance, subject to compliance of terms and conditions as under, and general terms of 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 PFR/EMP) in respect of environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Fugitive emissions shall be controlled at 99.98% with effective chillers. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular VOCs monitoring should be carried out.

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

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

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

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

(vii). Total fresh water requirement shall not exceed 135.2 KLD and will be met from KIADB. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

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

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

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

(xii). Process organic residue and spent carbon, if any, shall be sent to Cement 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 manufacturers / cement plants.

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

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

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

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

Agenda No. 10.10

Setting up of Active Pharmaceutical Ingredients (API's) manufacturing unit by M/s. Mansfield Pharma Pvt. Ltd located at Plot No. 63, Kadechur Industrial Area, Yadagir Taluk & District, Karnataka - Consideration of Environment Clearance

[Proposal No.IA/KA/IND2/204272/202; File No.IA-J-11011/177/2021-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's) manufacturing unit by M/s. Mansfield Pharma Pvt. Ltd located at Plot No. 63, Kadechur Industrial Area, Yadagir Taluk & District, Karnataka.

The details of products and capacity as under:

S. No.	Product	Qty. in TPM	CAS No.	Therapeutic use
1.	Aatorvastatin calcium	5	134523-03-8	To treat cholesterol
2.	Albendazole	8	54965-21-8	Anti-worm medication
3.	Clopidogrel Bisulphate	5	120202-66-6	To treat the symptoms of acute coronary syndrome
4.	Dapoxetine Hydrochloride	2	129938-20-1	Inhibitor
5.	Darunavir amorphous & ethanolate	1	206361-99-1	To treat HIV-1 infection
6.	Domperidone	3	57808-66-9	Anti-sickness
7.	Etodolac	1	41340-25-4	To reduce the pain and swelling
8.	Etoricoxib	2	202409-33-4	To reduce pain and swelling
9.	Famotidine	3	76824-35-6	To treat gastritis
10.	Fenbendazole	3	43210-67-9	Treatment of parasites
11.	Fluconazole	8	86386-73-4	Azole antifungals
12.	Gefitnib	1	184475-35-2	To treat lung cancer
13.	Levocetirizine Dihydrochloride	3	130018-87-0	To relieve runny nose
14.	Metronidazole	8	443-48-1	Antibiotic
15.	Montelukast Sodium	2	151767-02-1	To prevent wheezing
16.	Moxifloxacin	2	186826-86-8	To treat pneumonia
17.	Olmesartan	5	144689-63-4	To treat high blood pressure
18.	Omeprazole	8	73590-58-6	To treat gastritis
19.	Pantoprazole Sodium	8	138786-67-1	To treat gastritis
20.	Praziquantel	1	55268-74-1	Anthelmintics
21.	Rabeprazole	3	117976-90-6	To treat gastritis

	Sodium			
22.	Rosuvastatin calcium	3	147098-20-2	To treat cholesterol
23.	Sildenafil citrate	5	171599-83-0	To treat male sexual function problems
24.	Sitagliptin Phosphate	1	654671-77-9	To control high blood sugar
25.	Tadalafil	2	171596-29-5	To treat erection problems
26.	Tapentadol Hydrochloride	3	175591-09-0	Pain relieve
27.	Telmisartan	5	144701-48-4	To treat high blood pressure
28.	Terbinafine Hydrochloride	2	78628-80-5	Antifungal
29.	Triclabendazole	3	68786-66-3	Anthelmintics
30.	Vildagliptin	2	274901-16-5	Treatment of type 2 diabetes
	Total (5 products)	**40 TPM**		

LIST OF BY-PRODUCTS AND ITS QUANTITIES

S .No	Product	By Product	Quantity in Kgs/Day
1	Telmisartan	Sodium phosphate	251
2	Famotidine	Potassium chloride	53.14
3	Pantoprazole Sodium	Potassium Sulphate	60
		Ammonium Phosphate	35
		Sodium Acetate	110
		Ammonium Chloride	72.25
Note: The quantity of By-products based on respective products being manufactured.			

The project/activity is covered under Category 'B2' of item 5 (f) 'Synthetic, Organic Chemicals Industry' of the schedule to the Environment Impact Assessment (EIA) Notification, 2006 (amendment on 27.03.2020). Due to applicability of general conditions (interstate boundary within 5 km), the project requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposed project will be established in a land area of 2 Acres (8089.8 sqm). Industry will develop greenbelt in an area of 2694.3 sqm which is 33.3% out of the total project area. The proposed project cost is about 4.8 Crores. Total capital cost earmarked towards environmental pollution control measures is 77 Lakhs and the recurring cost (operation and maintenance) will be about 15.5 lakhs per annum. Total Employment under proposed project will be 45 no's. Industry proposes to allocate 3 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 flowing at a distance of 1.5 km in the North-East direction.

The total water requirement is 163.6 KLD and will be met from KIADB. Generated effluent of 85.6 KLD will be treated through Common Effluent Treatment Plant CETP, Kadechur.

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

Details of Process emissions generation and its management:

S. No	Name of the Gas	Quantity Kgs/Day	Disposal Method
1	Hydrogen chloride	94.13	Scrubbed by using water media
2	Carbon dioxide	112.2	Dispersed into atmosphere
3	Hydrogen	19	Dispersed into atmosphere through flame arrester
4	Ammonia	91.5	Scrubbed by using water media
5	Sulfur dioxide	59.6	Scrubbed by using C.S. Lye solution
6	Oxygen	47.05	Dispersed into atmosphere

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

S. No	Category of the HW	Name of the Hazardous Waste	Quantity	Disposal Method
Hazardous waste generation from plant				
1	5.1	Waste oils & Grease/ Used Mineral oil	0.5 KL/Annum	Agencies authorized by KSPCB
2	5.2	Oil Soaked Cotton	2 Kgs/month	KSPCB authorized Vendor
3	20.3	Distillation Residue	250 kgs/day	Store in secured manner and hand over to authorized incinerator / Co-processing in cement kiln
4	28.1	Process Organic Solid Waste	2404 kg/day	Store in secured manner and hand over to authorized incinerator / Co-processing in cement kiln
6	28.3	Spent Carbon	124.3 Kgs/Day	Store in secured manner and hand over to authorized Co-processing in cement kiln
7	28.4	Off Specification Products	1 ton/month	Store in secured manner and hand over to authorized incinerator / Co-processing in cement kiln
8	28.5	Date expired products	500 Kgs/Month	Store in secured manner and hand over to authorized incinerator / Coprocessing in cement kiln
9	33.1	Detoxified-Container & Container Liners of	300 No's/Month	After complete detoxification, shall be disposed to the outside agencies.

		Hazardous Chemicals and Wastes		
10	33.2	Contaminated cotton rags or other cleaning materials	3 Kgs/month	Store in secured manner and hand over to KSPCB Authorized Vendor
11	A1160	Used Lead Acid batteries	2No's/Annum	Returned back to dealer/ Supplier
Other & Miscellaneous Solid Wastes				
12	--	Coal ash	2800 Kg/day	Sent to Brick Manufacturers
13	--	In organic Solid Waste	359.23 kg/day	Shall be stored in secured manner & handed over to KSPCB authorized co-processing in cement kiln /TSDF.

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

Kg per day													
EFFLUENT WATER								**SOLID WASTE**					
Water in put	**Water in Effluent**	**Organics in effluents**	**TDS**	**COD**	**HTDS**	**LTDS**	**Total Effluent**	**Organic**	**In Organic**	**Spent carbon**	**Spent Catalyst**	**Process Emission**	**Distillation residue**
46200	46752.5	882	1899.3	2009.2	31809.8	16379.3	48189.2	2404	359.2	124.3	59	485.16	250

HAZARDOUS SOLID WASTE DETAILS

Organic solid waste	**Inorganic solid waste**	**Spent Carbon**	**Distillation Residue**
Kg/day	Kg/day	Kg/day	Kg/day
2404	359.2	124.3	250

EMISSION DETAILS

Kg/day					
HCl	**CO_2**	**H_2**	**NH_3**	**SO_2**	**O_2**
94.1	112.2	19	91.5	59.6	47

Deliberations in the EAC:

The EAC, constituted under the provision of the EIA Notification, 2006 comprising of Experts Members/domain experts in various fields, examined the proposal submitted by the Project Proponent in desired form along with PFR & EMP report 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 shall be rejected and Environmental Clearance given, if any, will be revoked at the risk and cost of the project proponent.

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

The Committee noted that the PFR/EMP reports reflect the present environmental concerns and the projected scenario for all the environmental components. The Committee deliberated on the action plan and budget allocation for the green belt development and suggested to increase the allocated amount accordingly PP submitted commitment to plant 285 plant to be planted in one year. The Committee deliberated on the proposed mitigation measure towards Air, Water, Noise and Soil pollutions. It was suggested by the Committee to use coal having ash content less than 15% during rainy season only when Biomass Briquettes were not available. The Committee also suggested that the storage of toxic/explosive raw material/products shall be undertaken with utmost precautions and following the safety norms and best practices. The committee deliberated emergency management plan and found it 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 recommendation for grant of environmental clearance to the proposal. The Experts Members of the EAC also found the proposal in order and recommended for the grant of environmental clearance.

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 the grant of environmental clearance, subject to compliance of terms and conditions as under, and general terms of 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 PFR/EMP regarding environmental management, and risk mitigation measures relating to the project shall be implemented.

(ii). Fugitive emissions shall be controlled at 99.98% with effective chillers. Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.997% with effective chillers/modern technology. Regular VOCs monitoring should be carried out.

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

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

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

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

(vii). Total fresh water requirement shall not exceed 163.6 KLD and will be met from KIADB. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

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

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

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

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

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

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

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

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

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

Reconsideration of EC Proposal

Agenda No. 10.11

Proposed project for manufacturing of Reactive Dyes and Direct Dyes (100 MT/Month) by M/s. Vipul Industries at Survey No. 299/p (Old S. No. 200/1/p), Village: Sokhada, Taluka: Khambhat, District Anand, Gujarat

[IA/GJ/IND2/119460/2019; IA-J-11011/287/2019-IA-II(I)]

The proposal was earlier considered by the EAC in its meeting held on 1-2 February, 2021. The information desired by the Committee and response submitted by the PP are as under:

1. This is existing unit. PP has not submitted the Certified Compliance status of latest CTO conditions for the existing unit. The PP needs to submit the certified compliance status of CTO and to be forwarded by the SPCB as per provision of the Standard ToR granted to the project.

Based on request to Gujarat Pollution Control Board, Head Office and Regional Office for issuing Certified Compliance Report of existing CTO, GPCB has issued the compliance report. Certified Compliance Report of existing CTO is submitted.

2. Public hearing issues, action plan/activities with timelines based on public hearing and socio-economic status of the study area.

Revised action plan/activities with timelines based public hearing and financial provision for respective activities are submitted.

3. Details of existing products with consented and production capacity, along with copy of CTE/CTOs.

Existing products are Inorganic Salts namely Potassium Nitrate - 5 MT/Month and Side product Sodium Chloride - 2 MT/Month. This is a very small project with investment of Rs. 25 Lakhs. Both the products are commercially not viable and not produce since more than one year. It is also plan to surrender the CTOs of exiting products after obtaining EC from MoEFCC, New Delhi. Copy of CTO is submitted along with EIA report.

4. The Committee noted that it is existing unit; however PP now on 08.01.2021 has prepared the conservation plan for Schedule I species which is not adequate. In this context a detailed conservation plan for Schedule-I Species needs to be submitted.

Revised Conservation plan for Peafowl with revised financial provision is attached herewith as Annexure-IV and same is submitted to Deputy Conservator of Forest Anand, as revised conservation plan for Schedule I Species (Peafowl).

Issues Raised during Public Hearing and Action Plan with Budgetary Provision

Sr. No.	Name	Points raised	Reply from representative	Action Plan	Budget allocation
1.	Shri Khodabhai Govindbhai Bharwad, Sarpanch, Vill: Kodwa, Ta: Khambhat, Dist: Anand	He stated that he welcomed the industry since they are going to provide employment to 25 people. He added that the industry was going to provide 33% Green Belt which was good for the environment as trees would be planted and he welcomed the same. He further added that all industries around should give employment to the local people and also keep their offices in Khambhat itself, which would lead to more	--	Employments start with construction activities of project after getting EC from MoEFCC & CTE from GPCB.	Allocate around **Rs. 1.5 lakhs** for training of employee.

		employment. He concluded by thanking the partners of Vipul Industries for putting up the industry in Khambhat.			
2.	Shri Jayantibhai Jethabhai Patel, Vill: Sokhda, Ta: Khambhat, Dist: Anand.	He said that everybody had gathered there for the Public Hearing of Vipul Industries. He added that Vipul Industry was putting up an industry manufacturing Synthetic Organic Chemicals, which was a new unit in the area. He also said that there were around 50 industries in this area already. He further added that this industry was being put up in the remote area of Khambhat, which would lead to development of the region. He added that he hoped that the industry would run well, take care of the environment, give employment to the local people and thus gain the support of the people also.	--	Unit will take care of the environment from the beginning and Employments start with construction activities of project after getting EC from MoEFCC & CTE from GPCB.	EMP capital cost around **Rs. 44 Lakhs** allocate from the first day of start the industry and operational cost around **Rs. 62.5 Lakhs/Year** earmark in the month of April of every years.
3.	Shri Ramanbhai Ambalal Patel, Khambhat, Ta: Khambhat, Dist: Anand.	He stated that this project had to carry out Public Hearing as per the Rules of MoEF. He congratulated Shri Vipulbhai for his industry and said that people would be benefitted by his knowledge.	--	Unit will take care of the environment from the beginning and Employments start with construction activities of project after	EMP capital cost around **Rs. 44 Lakhs** allocate from the first day of start the industry and operational cost around **Rs. 62.5**

		He added that direct and indirect employment would be generated by the unit and development would also take place. He further added that tree plantation would be carried out by the industry. He then said that everyone should give suggestions if they had any and he ended by saying that he welcomed the unit.		getting EC from MoEFCC & CTE from GPCB.	**Lakhs/Year** earmark in the month of April of every years.
4.	Shri Manubhai Bhurabhai Bharwad, Sarpanch, Vill: Sokhda, Ta: Khambhat, Dist: Anand.	He started by saying that he welcomed the unit. He also said that the industry should give employment to the local people also. He said that Shri Ramanbhai and Shri Sadhubhai should also take local people for employment. He said that they should not have their offices in Ahmedabad and their polluting industries in Khambhat. He added that the industries should keep their offices also in Khambhat instead of Ahmedabad so that more employment could be generated.	Shri Ramanbhai (belonging to another industry) replied that all industries in the area employed maximum local people. He added that they would take up this issue in the association meeting also.	Employments start with construction activities of project after getting EC from MoEFCC & CTE from GPCB.	Allocate around **Rs. 1.5 lakhs** for training of employee.

The project proponent and the accredited Consultant M/s. San Envirotech 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 manufacturing of Reactive Dyes & Direct Dyes @ 100 MTPM at Survey No. 299/p, Village: Sokhada, Taluka: Khambhat, Dist: Anand, Gujarat by M/s. Vipul Industries.

The details of products and capacity are as under:

S. No.	Name of Products	Quantity (MT/month)		
		Existing	Proposed addition	Total
Existing (Non EC products)				
1.	Potassium Nitrate	5	-5	00
2.	Sodium Chloride	2	-2	00
Proposed (EC products)				
1	Direct Yellow 12	00	+100	100
2	Direct Yellow 99			
3	Direct Orange 34/39			
4	Direct Yellow 6			
5	Direct Yellow 11			
6	Reactive Yellow M4G			
7	Reactive Yellow H4G			
8	Reactive Yellow ME4GL			
9	Reactive Yellow FG			
10	Reactive Golden Yellow MR			
11	Reactive Golden Yellow HR			
12	Reactive Golden Yellow MERL			
13	Reactive Red BS			
14	Reactive Red ME4BL			
15	Reactive Red HE3B			
16	Reactive Orange 2R			
17	Reactive Orange 3R			
18	Reactive Blue ME2RL			
19	Reactive Magenta MB			
20	Reactive Magenta HB			
21	Reactive Black B			
22	Reactive Black WNN/RG			
23	Reactive Orange M2R			
24	Reactive Orange H2R			
25	Reactive Red M5B			
26	Reactive Red M8B			
27	Reactive Red H8B			
28	Reactive Red ME6BL			
29	Reactive Red P2B			
30	Reactive Orange ME2RL			
31	Reactive Blue P3R			

Total	**00**	**100**	**100**

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

The standard ToR has been issued by Ministry vide letter No. IA-J-11011/287/2019-IA-II (I); dated 04/11/2019. Public Hearing for the project has been conducted by the Gujarat Pollution Control Board on 07.10.2020. The main issues raised during the public hearing are related to employment to local people and upliftment of surrounding area. No Litigation is pending against the proposal.

Proposed land area of the project is 2845 m^2. Industry will develop greenbelt in an area of 33% i.e. 940 m^2, out of total area of the project. The estimated project cost is Rs. 3.0 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 0.44 Crore and the Recurring cost (operation and maintenance) will be about Rs. 0.62 Crore per annum. Total employment will be 25 persons as direct. Industry proposes to allocate Rs. 6.0 Lakhs towards Corporate Environmental Responsibility.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. Pond of Lunej Village is at a distance of 2.05 km in W direction.

Ambient air quality monitoring was carried out at 8 locations during December, 2019 to February, 2020 and the baseline data indicates the ranges of concentration as: PM_{10} (66.4 - 77.0 µg/m^3), $PM_{2.5}$ (37.7 - 46.7 µg/m^3), SO_2 (13.4 - 16.8 µg/m^3), NOx (17.4 - 20.8 µg/m^3). AAQ modeling study for point source emission indicated that the maximum incremental GLCs after the proposed project would be 0.959 µg/m^3, 0.214 µg/m^3 and 0.204 µg/m^3 with respect to PM_{10}, SO_2 and NOx. The resultant concentrations are within the national ambient air quality standards (NAAQS).

Total water requirement is 34.0 m^3/day of which fresh water requirement of 18 m^3/day will be met from Ground Water Source – Bore well. 16 m^3/day will be recycled/treated water. Sources of industrial effluent generation will be from process, washing and boiler blow down. Total trade effluent (16.5 KLD) will be taken into ETP, after primary treatment entire effluent passed through RO. RO permeate (10.0 KLD) will be reused within premises and RO reject (6.5 KLD) will be spray dried into in-house spray dryer. Thus, unit proposed to achieve Zero Liquid Discharge (ZLD). Sewage (1.5 KLD) will be disposed into soak pit though septic tank.

Power requirement will be 200 kVA and will be met from Madhya Gujarat Vij Company Ltd. (MGVCL). There is no proposal of D G Set. In proposed unit, one Agro Waste/Agro Briquettes fired Boiler (1 TPH) and one PNG fired Hot Air Generator (15.0 Lakhs Kcal/hr.) will be installed. Cyclone, bag filter with a stack height of 21 m will be installed on Boiler for controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 for the proposed utilities. Hot Air Generator will be operated by PNG Gas hence no need to install any APCM.

Process emission generation will be from vent attached with drying Equipments i.e. Spray Dryer & Spin Flash Dryer. In built Cyclone and bag filter will be provided as APCM for Spray Dryer and Inbuilt Bag filter will be installed for Spin Flash Dryer.

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

Sr. No.	Type of Waste	Category as per HWM rules, 2016	Quantity	Method of Disposal
1.	ETP Waste	35.3	7.5 MT/month	Collection, Storage, Transportation, Disposal at TSDF site.
2.	Salt of Spray Dryer	35.3	3.7 MT/month	Collection, Storage, Transportation, disposal at TSDF site.
3.	Used Oil	5.1	0.5 KL/year	Collection, Storage, Transportation, sell to registered re-processors or use for lubrication within premises.
4.	Discarded Containers/ Liners/Bag	33.3	300 Nos./month 0.5 MT/month	Collection, Storage, Transportation, Sell to registered recyclers.

Unit is producing Non-EC products (Inorganic Chemicals) and CTO granted by SPCB. Certified Compliance Report of CTO obtained from GPCB vide letter no. GPCB/CCA-AND-407/ID-48024/588041, dated 08.04.2021. The Committee deliberated the certified compliances report of CTO and found in order.

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

The Committee noted that the EIA/EMP report are in compliance of the ToR issued for the project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The Committee found the baseline data and incremental GLC due to the proposed project within the NAAQ standards. The Committee also deliberated on the activities/action plan and found to be addressing the issues in the study area and public hearing concerns. The Committee suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee noted that the unit was in operation with the valid CTO from the State PCB. The Committee deliberated the certified compliances report of CTO issued by SPCB and found in order. The Committee found the additional information

submitted by the project proponent to be satisfactory and addressing to the concerns of the Committee.

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

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

The EAC, after detailed deliberations, **recommended the project for grant of environmental clearance, subject to compliance of terms and conditions as under, and general terms of conditions at 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). As already committed by the project proponent, Zero Liquid Discharge 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.

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

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

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

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

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

(viii). 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.

(ix). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.99% with effective chillers/modern technology.

(x). Total fresh water requirement shall not exceed 18 cum/day, proposed to be met from bore well. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

(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). 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.

(xiii). 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 to be selected adequate carbon sequestration. All trees must be planted within first year.

(xiv). The activities and the action plan proposed by the project proponent to address the socio-economic/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.

(xv). As proposed, at least Rs 3 lakhs shall be allocated for conservation plan of schedule 1 species and implementation report shall be submitted to Ministry’s Regional Office.

(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.

Reconsideration of EC Modification Proposal

Agenda No. 10.12

Amalgamation and Amendment in Environmental Clearance of CFCL Fertilizers Plant, Gadepan by M/s CHAMBAL FERTILISERS AND CHEMICALS LTD- Amendment in Environment Clearance

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

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

The proposal is for proposed Amalgamation and Amendment in Environmental Clearance of CFCL Fertilizer plant for total production of 6100 MTPD of ammonia and 10800 MTPD of Urea along with total Captive Power generation of 55 MWH, 240 TPH of steam from HRSG and 320 TPH of steam from boiler" at P.O Gadepan, District Kota, Rajasthan by M/s. Chambal Fertilizers and Chemicals Limited. (CFCL).

All Chemical Fertilizer units are listed at S. No. 5(a) of Schedule of Environment Impact Assessment (EIA) Notification under Category 'A' and are appraised at Central Level by Expert Appraisal Committee (EAC).

The details of products and capacity as under:

S. No.	Product	Unit	Existing as per EC & CTO			Total (Existing)	Proposed/ Amendment			Total After Amalgamation and Amendment
			G-I with CPP	G-II	G-III		G-I with CPP	G-II	G-III	
1	Ammonia	MTPD	2000	**1900**	**2200**	6100	2000	**1750**	**2350**	6100
2	Urea	MTPD	3500	**3300**	**4000**	10800	3500	**3100**	**4200**	10800
3	Captive Power Plant	MWH	37	0	18	55	37	0	18	55
4	Steam (HSRG)	TPH	140	0	100	240	140	0	100	240
5	Steam (Boiler)	TPH	160	160	0	320	160	160	0	320

Unit proposed for Amalgamation and Amendment in Environmental clearance for incorporation of production and captive power generation details of G-I and G-II unit along with G-III capacity in the Environmental Clearance issued on 22.04.2010, amended on 10.06.2011 and extension

on 22.06.2015. After proposed Amalgamation and Amendment in Environmental clearance, the overall production capacity of plant will be 6100 MTPD of Ammonia, 10800 MTPD of Urea, 55 MW of Captive power, 240 TPH of steam from HRSG and 320 TPH of steam from Boiler.

G-III plant, being a new technology-based plant has proven to be more efficient than existing plants i.e., G- I & G-II with respect to production and environment sustainability. G-III Ammonia plant consumes the lowest energy per ton ammonia in the world. Thus, change is proposed in product mix by reduction in production capacity of Ammonia by 150 MTPD and Urea by 200 MTPD in G-II unit and enhancement of same capacity of Ammonia and Urea i.e., 150 MTPD and 200 MTPD respectively in G-III unit. Combined capacity of the project remains same. G-III plants capability is adequate to cater the additional production within the existing unit. No additional construction or machinery installation is involved in the project. There will not be any increase in the pollution load due to the proposed amendment.

CFCL Gadepan plant having three operational units i.e. Gadepan I, II & III. The plants were commissioned in 1994, 1999 and 2019, respectively. Latest environmental clearance was granted by the MoEF&CC for the expansion of project by setting up G-III unit within the existing plant premises vide letter no. J-11011/664/2008-IA II (I) dated 22.04.2010, amended (corrigendum) in EC issued on 10.06.2011 and validity extension was issued on 22.06.2015. All three plants are operational and has valid CTO granted by RSPCB.

Existing land area is 400 Ha and no further addition of land is proposed. Industry has already developed greenbelt in an area of 139 Ha i.e., 34.75%. The total project cost including environmental controlling equipment's is Rs. 9136 Crores (G-1:1982 Cr, G-II:1214 Cr, G-III:5940 Cr). No additional cost is envisaged in the proposed proposal. Total Employment in the plant is 1020 persons.

Nine Protected and Reserved forests are present within 10 km distance from the project site. No, wildlife sanctuary, national parks, Biosphere Reserves, Tiger/Elephant Reserves, etc. is present within 10 km distance from the project site. Parwan River and Kali Sindh River is flowing at 2.22 Km (SE) and 2.40 Km (E) from the project site, respectively.

After Amalgamation and Amendment, the total water and freshwater requirement of whole plant will reduce from 52744 KLD to 52371 KLD, respectively. Water will be available from River Kalisindh. There will not be any additional drawl of fresh water from River Kalisindh.

After Amalgamation and Amendment, the total effluent generation from whole plant will reduce from 11352 KLD to 11305 KLD. Effluent will be treated in respective treatment facilities (ETP, RO- ZLD Plant) and treated effluent will be reused in the plant for process and gardening. Only during rainy season (when there is sufficient flow in river for dilution), the treated water of G-I & G-II plant from holding pond is discharged to the Kalisindh River. G-III plant is Zero Liquid Discharge plant. Effluent from G-III Plant is treated in RO-ZLD Plant, no change from earlier practice. No change in domestic effluent is proposed. Total domestic effluent from whole plant (1272 KLD) will be treated in three no. of STPs and reused in gardening.

The power requirement of the plant is being met by in-house Captive power plant (CPP) in G-I and G-III of capacity 37 MWH and 18 MWH, respectively. The power is being generated by Natural gas-based Gas turbines. The flue gas from turbine is being used for heat recovery in

HRSG to generate steam for plant operations. Plant is also having additional source of power supply from state grid for backup. After Amalgamation & Amendment, the additional power and steam requirement for G-III will be sourced through G-III -CPP.

Existing units (G-I & G-II) have Natural gas based 2x 80 TPH and 1x 160 TPH steam boiler. No additional Boiler is proposed. 30 m and 35 m stack height for 80 TPH and 160 TPH boilers respectively, have been provided for controlling the emissions within the statutory limit.

Details of Process and utilities emissions generation and its management is mentioned below:

Particular	Stack Height (m)	Stack Dia (m)	Parameter	Standard
G-I				
Auxiliary Boiler-I (80 TPH)	30	2.0	NOx	50 ppm
Auxiliary Boiler-II (80 TPH)	30	2.0	NOx	50 ppm
HRSG-I (70 TPH)	30	3.0	NOx	50 ppm
HRSG-II (70 TPH)	30	3.0	NOx	50 ppm
Prilling Tower-I	104	26.0	PM	50 mg/Nm3
			Ammonia	175 mg/Nm3
Primary Reformer-Ammonia-I	40	3.0	NOx	400 mg/Nm3
EDG Set (1.6 MW)	19	0.45	PM	75 mg/Nm3
			NMHC	150 mg/Nm3
			CO	150 mg/Nm3
			NOx	1100 ppm
G-II				
Auxiliary Boiler No. III (160TPH)	35	2.5	NOx	50 ppm
Prilling Tower-II	118	26	PM	50 mg/Nm3
			Ammonia	175 mg/Nm3
Primary Reformer - Ammonia-II	55	4.1	NOx	400 mg/Nm3
EDG Set (2.5 MW)	30	0.9	PM	75 mg/Nm3
			NMHC	150 mg/Nm3
			CO	150 mg/Nm3
			NOx	1100 ppm
G-III				
HRSG CPP (100 TPH)	43.5	3.0	NOx	100 mg/Nm3
Prilling Tower	141.5	28.0	PM	50 mg/Nm3
			Ammonia	175 mg/Nm3
Primary Reformer - Ammonia-III	53.8	4.1	NOx	400 mg/Nm3

EDG Set (2.4 MW)	30	0.5	PM	75 mg/Nm3
			NMHC	150 mg/Nm3
			CO	150 mg/Nm3
			NOx	710 ppm
Dedusting Unit- G-I (Scrubber Packing Plant)	37.00	1.000	PM	150 mg/Nm3
Dedusting Unit - G-II (Scrubber Packing Plant)	35.73	0.400	PM	150 mg/Nm3
Dedusting Unit - G-III (Scrubber Packing Plant)	37	1.1	PM	150 mg/Nm3
Dedusting Unit Screen House (Scrubber Screen House)	27.80	0.650	PM	150 mg/Nm3
Dedusting Unit-G-III Screen House (Scrubber Screen House)	34	0.8	PM	150 mg/Nm3

No additional Stack is proposed.

Details of Solid Hazardous Waste Management:

Sr. No	Name of Waste	Total Quantity (G-I +G-II+G-III)	After Amalgamation and Amendment Total Quantity (G-I+G-II+G-III)	Impact after Amalgamation and Amendment	Disposal Method
1	Discarded Containers	1000 nos per year	1000 nos per year	No Change	TSDF Udaipur
2	Used/Spent Oil	107 MTPA	107 MTPA	No Change	Recycler
3	Spent Catalyst	660 MTPA	660 MTPA	No Change	Recycler
4	RO & ZLD sludge	17000 MTPA	17000 MTPA	No Change	TSDF site at Udaipur
5	Contaminated Cotton Rags/other cleaning materials	12.00 MTPA	12.00 MTPA	No Change	Common Incinerator

Deliberations in the EAC:

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/Domain Experts in various fields, have examined the proposal submitted by the Project Proponent in desired format 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 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 PFR & addendum EMP report. If any part of data/information submitted is found to be false/ misleading at any stage, the project shall be

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

The EAC in its meeting held during 1-2 February, 2021 deliberated on the proposal with due diligence for amalgamation and amendment as stated above. The EAC after detailed deliberations recommended the proposal for amalgamation and amendment in the EC with all other conditions shall remain unchanged as stipulated in the previous ECs.

It was observed by the EAC that during rainy season, the treated waste water is being disposed to the River Kalisindh which is being complained by public. It recommended to have ZLD even during rainy season also by making necessary arrangements.

The Committee, in 6th EAC held on 22-23 February, 2021 after detailed deliberations, recommended that the site visit of the project by Sub-Committee comprising of Dr. Rajashekar P. Mandi, Dr. A.B. Pandit, and Shri Dinabandhu Gouda. The representative from the Ministry will also assist the Sub-Committee. The Sub-Committee shall assess the present condition of the water body and impact of discharge from the industry on the water body. The Committee may take decision on effluent discharge as proposed by project proponent only after visit to the concerned industry.

The visit of the Sub-Committee could not be undertaken due to the on-going Covid pandemic situation and other unavoidable circumstances. Thus, the proposal was therefore placed for reconsideration in EAC. In view of the impracticability of site visit during the current pandemic situation the Committee deliberated on the proposal based on the information submitted by PP.

PP has submitted the last 5 years of the rainfall (precipitation) data at CFCL – Gadepan area. The total and daily average precipitation for the rainy months of June to September from year 2016 to 2020 are as below.

Year	2016	2017	2018	2019	2020
Total precipitation (June to Sept) - **mm**	933	351	1119	1586	544
Average daily precipitation June to Sept - **mm**	7.78	2.93	9.33	13.22	4.54

PP also submitted that during rainy times the land gets saturated with water, hence the treated effluent cannot be used for irrigation even after 4-5 days after stoppage of rains. During these 4-5 days of post rain also, treated effluent has to be discharged in to the River. Considering all above facts, PP requested the Committee to consider following for CFCL:

"Industry is permitted to continue to discharge treated effluent water to the River Kalisindh as per existing conditions and whenever the rainfall is more than 5 mm in a day, then also industry is allowed to make consequential discharge for 5 days succeeding the rainy days, following the existing practice of intimation to SPCB."

The Committee, after detailed deliberation, accepted the request of PP and decided that:

The discharge from G-I and G-II plant in the Kalisindh River be permitted only during the rainy season when the precipitation value is more than 5mm in a day.

During non-monsoon season, when precipitation is less that 5 mm in day (threshold value), the discharge from G-I & G-II plant in the Kalisindh River is not permitted and shall be ZLD system.

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

The EAC, after detailed deliberations, **recommended the project for amalgamation and amendment with all other conditions shall remain unchanged as stipulated in the previous ECs.**

Agenda No. 10.13

Discussion on Standardization/Optimization of conditions w.r.t. Standard Terms of Reference (TOR)

The Member Secretary informed the Committee that a detailed presentation on Standardization/Optimization of conditions with respect to Standard Terms of Reference (ToR) and further deliberations were made before the Committee in its meetings held on 14-15 January, 2021, 22-23 February, 2021 and 11-12 March, 2021. The Standard ToRs for the above sectors has also been circulated to the EAC Members. Based on the recommendations of the EAC, the matter has also been discussed again by the Sub Committee constituted to examine the matter. The additional terms of reference suggested by the EAC and EAC sub-committee has been included in the proposed ToR.

*Based on the additional ToR suggested by the Sub-Committee/EAC and further deliberations in the EAC, the Committee **recommended** for stipulation of following terms of reference for preparation of EIA/EMP reported for the projects/activities in the Industry-3 sector:*

S. No.	Category	Subject
1	**4(d)**	Chlor-alkali industry
2	**4(e)**	Soda ash Industry
3	**5(a)**	Chemical fertilizers
4	**5(b)**	Pesticides industry and pesticide specific intermediates (excluding formulations)
5	**5(f)**	Synthetic organic chemicals industry (dyes & dye intermediates; bulk drugs and intermediates excluding drug formulations; synthetic rubbers; basic organic chemicals, other synthetic organic chemicals and chemical intermediates)
6	**5(h)**	Integrated paint industry
7	**All the above categories**	Violation projects

STANDARD TERMS OF REFERENCE (TOR) FOR PREPARATION OF EIA/EMP REPORT FOR THE PROJECTS/ACTIVITIES REQUIRING PRIOR ENVIRONMENTAL CLEARANCE (IA DIVISION-INDUSTRY-3 SECTOR)

4(d): TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENTAL IMPACT ASSESSMENT STUDY FOR CHLOR ALKALI PROJECTS AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

A. STANDARD TERMS OF REFERENCE

1) Executive Summary

2) Introduction

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

3) Project Description

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

4) Site Details

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

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

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

vi. Copy of application submitted for clearance under the Wildlife (Protection) Act, 1972, to the Standing Committee of the National Board for Wildlife
vii. Recommendations and NOC from the concerned State/UT Coastal Zone Management Authority on CRZ angle

6) Environmental Status

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

ii. Raw data of all AAQ measurement for 12 weeks of all stations as per frequency given in the NAQQM Notification of Nov. 2009 along with – min., max., average and 98% values for each of the AAQ parameters from data of all AAQ stations should be provided as an annexure to the EIA Report.
iii. Surface water quality of nearby River (100m upstream and downstream of discharge point) and other surface drains at eight locations as per CPCB/MoEF&CC guidelines.
iv. Whether the site falls near to polluted stretch of river identified by the CPCB/MoEF&CC, if yes give details.
v. Ground water monitoring at minimum at 8 locations shall be included.
vi. Noise levels monitoring at 8 locations within the study area.
vii. Soil Characteristic as per CPCB guidelines.
viii. Traffic study of the area, type of vehicles, frequency of vehicles for transportation of materials, additional traffic due to proposed project, parking arrangement etc.
ix. Detailed description of flora and fauna (terrestrial and aquatic) existing in the study area shall be given with special reference to rare, endemic and endangered species. If Schedule-I fauna are found within the study area, a Wildlife Conservation Plan shall be prepared and furnished.
x. Socio-economic status of the study area.

7) Environment Impact and Environment Management Plan

i. Assessment of ground level concentration of pollutants from the stack emission based on site-specific meteorological features. In case the project is located on a hilly terrain, the AQIP Modelling shall be done using inputs of the specific terrain characteristics for determining the potential impacts of the project on the AAQ. Cumulative impact of all sources of emissions (including transportation) on the AAQ of the area shall be assessed. Details of the model used and the input data used for modelling shall also be provided. The air quality contours shall be plotted on a location map showing the location of project site, habitation nearby, sensitive receptors, if any.
ii. Water Quality Modelling – in case of discharge in water body

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

8) Occupational health

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

9) Corporate Environment Policy

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

10) Corporate Environmental Responsibility (CER)

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

10) Additional studies/Measures to be considered

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

11) Any litigation pending against the project and/or any direction/order passed by any Court of Law against the project, if so, details thereof shall also be included. Has the unit received any

notice under the Section 5 of Environment (Protection) Act, 1986 or relevant Sections of Air and Water Acts? If so, details thereof and compliance/ATR to the notice(s) and present status of the case.

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

B. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR CHLOR ALKALI INDUSTRIES

1. Details on demand of the product – chlorine and its associated products.
2. Details on raw materials used in the production of chlorine (sodium chloride, potassium chloride, *etc*.), its storage and handling.
3. Details of proposed source-specific pollution control schemes (salt washing, filtration, cell ventilation as, chlorine handling and safety, *etc*.) and equipments to meet the national standards.
4. Detailed effluent treatment scheme including ssegregation for units adopting 'Zero' liquid discharge.
5. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
6. Details on products to rage and handling–chlorine, caustic soda, *etc*.
7. Details on tail gas treatment.
8. Details on requirement of energy and water alongwith its source and authorization from the concerned department.
9. Incase of modernization of existing mercury based chlor-alkali plants with membrane cell Process (MBCP) industries or new unit in the existing industry premises, remediation measures adopted to restore the environmental quality of the ground water, soil, crop, air, etc., are affected due to salinity and a detailed compliance to the prior environmental clearance/ consent conditions.
10. Details on ground water quality and surface water quality of near by water sources and other surface drains. The parameters of water quality may include Residual chlorine*, TDS*, alkalinity*, pH* &Mercury* (in water & sediment), etc. (*- As applicable)
11. Details on existing ambient air quality and expected, emissions for PM10, PM2.5, SO2*, NOx*,CO2*, CO*, Chlorine*, acid mist* etc., and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards. (*-As applicable))
12. Specific programme to monitor safety and health protection of workers.
13. Risk assessment using advanced/latest models should also include leakages and location near to caustic soda plant & proposed measures for risk reduction
14. Details of the emergency preparedness plan for chlorine/ Hydrogen storage, handling and transportation and on- site and off- site disaster management plan.

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4(e): TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR SODA ASH PROJECTS AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

A. STANDERD TERMS OF REFERENCE

<Same>

B. SPECIFIC TERMS OF REFERENCEFOREIASTUDIES OF SODA ASH

1. Complete process flow diagram describing each unit, its processes and operations, alongwith material and energy inputs and outputs (material and energy balance).
2. Details on requirement of raw materials (sea water, lime-stone, coke, ammonia, additives, etc.), its source and storage at the plant.
3. Details of handling ammonia and risk assessment.
4. Details on water balance including water use, quantity of effluent generated, recycled and reused and its impact of discharge to receiving water body.
5. Detail so effluent treatment plant, inlet and treated water quality with specific efficiency of each treatment unit in reduction in respect of all concerned/ regulated environmental parameters.
6. Details of CO2 emissions including its quantum per tonne of soda ash.
7. Management plan for solid waste generation (fines of lime stone, grits, brine sludge etc.), storage, utilization and disposal modes.
8. In case of coast at plants details on extraction of seawater and effluent disposal, development ofsolar salt works based on sea water evaporation, etc,.
9. Details on ground water quality and surface water quality of near by waters ounces and other surface drains. The parameters of water quality may include Cl-*,Ca2+*, Na+*, SO42-*, NH4+, Suspended solids* etc. (*- As applicable)
10. Ambient air quality should include NH3.

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5(a): TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR CHEMICAL FERTILIZERS AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

A. STANDERD TERMS OF REFERENCE

< Same>

B. SPECIFIC TERMS OF REFERENCEFOREIASTUDIES FOR CHEMICAL FERTILIZER

1. Details on requirement of energy and water alongwith its source and authorization from the concerned department.
2. Energy conservation in ammonia synthesis for urea production and comparison with best technology.
3. Details of ammonia storage and risk assessment thereof.
4. Measures for control of urea dust emissions from prilling tower.
5. Measures for reduction of fresh water requirement.
6. Details of proposed source-specific pollution control schemes and equipments to meet the national standards for fertilizer.
7. Details of fluorine recovery system in case of phosphoric acid plants and SSP to recover fluorine as hydrofluorosilicicacid (H_2SiF_6) and its uses.
8. Management plan for solid/hazardous waste including storage, utilization and disposal of bye products viz., chalk, spent catalyst, hydro fluoro silicic acid and phosphor gypsum, sulphur muck, *etc*.
9. Details on existing ambient air quality for PM10, PM2.5, Urea dust*, NH3*, SO2*, NOx*,HF*,F*,Hydrocarbon (Methane and Non-Methane) *etc*., and expected, stack and fugitive emissions and evaluation of the adequacy of the proposed pollution control devices to meet standards for point sources and to meet AAQ standards.(*as applicable)
10. Details on water quality parameters in and around study area such as pH, Total Kjeldhal Nitrogen, Free Ammonical Nitrogen, free ammonia, Cyanide, Vanadium, Arsenic, Suspended Solids, Oil and Grease, *Cr as Cr^{+6}, *Total Chromium, Fluoride, *etc*.

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5(b): TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR PESTICIDES INDUSTRY AND PESTICIDE SPECIFIC INTERMEDIATES (EXCLUDING FORMULATIONS) AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

A. STANDERD TERMS OF REFERENCE

<Same>

B. SPECIFIC TERMS OF REFERENCEFOREIASTUDIES FOR PESTICIDES INDUSTRY AND PESTICIDE SPECIFIC INTERMEDIATES (EXCLUDING FORMULATIONS)

1. Commitment that no banned pesticides will be manufactured.
2. Details on solvents to be used, measures for solvent recovery and for emissions control.
3. Details of process emissions from the proposed unit and its arrangement to control.
4. Ambient air quality data should include VOC, other process-specific pollutants* like NH_3*,chlorine*, HCl*, HBr*, H_2S*,HF*, CS_2*etc*.,(*-as applicable)
5. Work zone monitoring arrangements for hazardous chemicals.
6. Detailed effluent treatment scheme including segregation for units adopting 'Zero' liquid discharge.
7. Action plan for odour control to be submitted.
8. A copy of the Memorandum of Understanding signed with cement manufacturers indicating clearly that they co-process organic solid/hazardous waste generated.
9. Authorization/Membership for the disposal of liquid effluent in CETP and solid/hazardous waste in TSDF, if any.
10. Material Safety Data Sheet for all the Chemicals are being used/will be used.
11. Authorization/Membership for the disposal of solid/hazardous waste in TSDF.
12. Details of incinerator if to be installed.
13. Risk assessment for storage and handling of hazardous chemicals/solvents. Action plan for handling & safety system to be incorporated.
14. Arrangements for ensuring health and safety of workers engaged in handling of toxic materials.

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5(F): TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR SYNTHETIC ORGANIC CHEMICALS INDUSTRY (DYES & DYE INTERMEDIATES; BULK DRUGS AND INTERMEDIATES EXCLUDING DRUG FORMULATIONS; SYNTHETIC RUBBERS; BASIC ORGANIC CHEMICALS, OTHER SYNTHETIC ORGANIC CHEMICALS AND CHEMICAL INTERMEDIATES) AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

A. STANDARD TERMS OF REFERENCE

<Same>

B. SPECIFIC TERMS OF REFERENCEFOREIASTUDIES FOR SYNTHETIC ORGANIC CHEMICALS INDUSTRY (DYES & DYE INTERMEDIATES; BULK DRUGS AND INTERMEDIATES EXCLUDING DRUG FORMULATIONS; SYNTHETIC RUBBERS; BASIC ORGANIC CHEMICALS, OTHER SYNTHETIC ORGANIC CHEMICALS AND CHEMICAL INTERMEDIATES)

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

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5(h): TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR INTEGRATED PAINT INDUSTRY AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

A. STANDARD TERMS OF REFERENCE

<same as above >

B. SPECIFIC TERMS OF REFERENCEFOREIASTUDIES FOR INTEGRATED PAINT INDUSTRY

1. Details on requirement of raw materials (binders, solvents, pigments, additives, resin, driers *etc*.), their source and storage at the plant.
2. Whether any of the material content lead if so details thereof.
3. Details on solvent management including loss accounting.
4. Details on composition, generation and utilization of waste from the plant–left out raw materials, paint sludge, filter cartridges, off-specification paint, *etc*
5. Existing ambient air quality for expected emissions (VOCs, pigment dust, *etc*.) from paint industry

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TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR VIOLATION PROJECTS OF ABOVE MENTIONED PROJECTS/CATEGORY AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

A. STANDARD TERMS OF REFERENCE

<same as above>

B. SPECIFIC TERMS OF REFERENCE FOR EIA STUDIES FOR RESPECTIVE PROJECT/ACTIVITY

<same as above related to the project/activity>

C. ADDITIONAL STUDIES/ACTIONS

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

(ii) Direction to be issued under section 5 of the Environment (Protection) Act, 1986 to stop the violating activities till the EC is obtained.

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

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

(v) Preparation of EMP comprising remediation plan and natural and community resource augmentation plan corresponding to the ecological damage assessed and economic benefits derived due to violation.

(vi) The remediation plan and the natural and community resource augmentation plan to be prepared as an independent chapter (13) in the EIA report by the accredited consultants.

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

The meeting ended with thanks to the Chair.

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ANNEXURE

GENERAL CONDITIONS

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

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

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

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

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

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

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

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

(ix) The environmental statement for each financial year ending 31st March in Form-V as is mandated shall be submitted to the concerned State Pollution Control Board as prescribed under the Environment (Protection) Rules, 1986, as amended subsequently, shall also be put on the website of the company along with the status of compliance of environmental

clearance conditions and shall also be sent to the respective Regional Offices of MoEF&CC by e-mail.

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

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

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

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Annexure-I

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

S. No.	Name of Members	Designation
1.	**Prof. (Dr.) A.B. Pandit** Vice Chancellor, Institute of Chemical Technology, Mumbai, Sir JC Bose Fellow, Government of India Email: ab.pandit@ictmumbai.edu.in	Interim EAC Chairman
2.	**Dr. Ashok Kumar Saxena, IFS** Bunglow No. 38, Sector-8A, Gandhinagar, Gujarat – 382008 E-mail: ashoksaxena1159@gmail.com	Member
3.	**Prof. (Dr.) S. N. Upadhyay** Research Professor (Hon.), Department of Chemical Engineering & Technology, Indian Institute of Technology (Banaras Hindu University), Varanasi E-mail: snupadhyay.che@iitbhu.ac.in	Member
4.	**Shri Santosh Gondhalkar** 'Shree' Apartment, Flat 401, Plot No. 22, Tukaram Society, Santnagar, Pune- 411009 E-mail: santoshgo@gmail.com	Member
5.	**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
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. Uma Kapoor** Regional Director, CGWA, 18/11, Jamnagar House, Mansingh Road, New Delhi E-mail: Uma-cgwb@nic.in	Member
11.	**Dr. R. B. Lal** Scientist 'E'/Additional Director Ministry of Environment, Forest and Climate Change Indira Paryavaran Bhawan, Room No. V-304, Vayu Wing, Jor Bag Road, New Delhi-110003 Telefax: 011-24695362 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.	**Dr. E.P. Nobi** Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Research Officer
14.	**Mr. Ritin Raj** Ministry of Environment, Forest and Climate Change, Indira Paryavaran Bhawan, Jor Bag Road, New Delhi-110003	Research Assistant

Annexure-II

Approval of EAC Chairman

Dated: 25.05.2021

I have gone through the detailed Minutes of the meeting and it has covered all the relevant discussion and recommendations of the committee. I am approving the minutes with one suggestion, Similar to the **recommended** as specified in the case of recommended proposals, the **Conditional Recommended** should also be specified in **Bold** as a final recommendation along with the specified conditions.

Professor Aniruddha B Pandit, In Charge Chairman

Email from Chairman Dated 25.05.2021

From: ab.pandit@ictmumbai.edu.in

Date: May 25, 2021 14:54

Subject: Re: Zero Draft Minutes of the 10th EAC (Industry 3 Sector) meeting held during May 18-19, 2021 (through Video Conferencing) for comments of the EAC and approval of the Chairman Sir.

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

Dear Dr. Lal,

Please find **attached** the signed MOM with a small change suggested at the end with the signature. The Zero Draft minutes have been approved. Compliments on a thorough job.
Please revert for any additional clarifications,

Thanks and Warm Regards,

Pandit

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