GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FOREST AND CLIMATE CHANGE
IA DIVISION
(INDUSTRY-2 SECTOR)

***

Dated: 29.10.2020

MINUTES OF THE 24th MEETING OF THE EXPERT APPRAISAL COMMITTEE (INDUSTRY-2 SECTOR FOR CHEMICAL BASED PROJECTS), HELD DURING 20th to 22th October, 2020

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: 20th October, 2020 (Tuesday)

(i) Opening Remarks by the Chairman

The Chairman made hearty welcome to the Committee members and appreciated the efforts of the Committee. After opening remarks, the Chairman opened the EAC meeting for further deliberations.

(ii) Confirmation of the Minutes of the 23rd Meeting of the EAC (Industry-2) held during 15th-17th September, 2020 at MoEFCC through VC.

The EAC, having taken note that final minutes were issued after incorporating comments offered by the EAC members on the minutes of its 23nd Meeting of the EAC (Industry-2) held during 15th-17th September, 2020 conducted through Video Conferencing (VC), 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. 24.1

Technical Pesticide and Pesticide Intermediates manufacturing unit located at Bharuch Gujarat by M/s Meghmani Industries Ltd. (Unit V)-Consideration of Environmental Clearance

[IA/GJ/IND2/123814/2019, IA-J-11011/324/2019-IA-II(I)]

The project proponent and their 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 Technical Pesticide & Pesticide Intermediates manufacturing of capacity 4050 TPM at Plot No. 42/5, GIDC Estate Dahej, Tehsil Vagra, District Bharuch, Gujarat by M/s Meghmani Industries Ltd (Unit-V).

The details of products and capacity are as under:

S. No.	Name of Products	CAS No.	LD_{50} value (mg/kg)	Quantity (MT/Month)
Technical Pesticide				
1.	Atrazine	1912-24-9	3090	500
2.	Metribuzin	21087-64-9	1100	
3.	Terbuthylazine	5915-41-3	>4000	
4.	Propazine	139-40-2	3,840	
5.	Simazine	122-34-9	3,100	
6.	Ametryn	834-12-8	508	200
7.	Simetryne	1014-70-6	780	
8.	Terbutryn	886-50-0	2450	
9.	Prometryn	7287-19-6	3,750	
10.	Difenoconazole	119446-68-3	1453	200
11.	Propiconazole	60207-90-1	1,517	
12.	Hexaconazole	79983-71-4	2189	
13.	Metconazole	125116-23-6	1020	
14.	Prothioconazole	178928-70-6	6200	
15.	Tebuconazole	107534-96-3	1700	
16.	Tricyclazole	41814-78-2	250	
17.	Cyproconazole	94361-06-5	250	
18.	Epoxiconazole	135319-73-2	3160	
19.	Flutriafol	76674-21-0	1140	
20.	Glyphosate	1071-83-6	5,000	300
21.	Pendimethalin	40487-42-1	1,050	200
22.	Diuron	330-54-1	1017	300
23.	Thiophanate Methyl	23564-05-8	6,640	200
24.	Chlorothalonil	1897-45-6	5000	1000
Pesticide Intermediates				
1.	Azoxystrobin OR	131860-33-8	2000	650
2.	Benalaxyl OR	98243-83-5	4200	

3.	Bispyribac sodium OR	125401-92-5	2,635	
4.	Clodinafop Propargyl OR	105512-06-9	1,392	
5.	DICMBA OR	1918-00-9	757	
6.	Fenoxaprop-P-ethyl OR	71283-80-2	>2000	
7.	Sulfentrazone OR	122836-35-5	>2,250	
8.	Kresoxim-methyl OR	143390-89-0	5000	
9.	Metalaxyl OR	57837-19-1	566	
10.	Oxyfluorfen OR	42874-03-3.	5,000	
11.	Pethoxamid OR	106700-29-2	2000	
12.	Myclobutanil OR	88671-89-0	1600	
13.	Pretilachlor OR	51218-49-6	2200	
14.	Quizalofop Ethyl OR	76578-14-8	1753	
15.	Diclofop-methyl OR	51338-27-3	2000	
16.	Diclosulam OR	145701-21-9	3819	
17.	1,2-Pentanediol OR	5343-92-0	7400	500
18.	DCAP OR	2234-16-4	1100	
19.	1,2,4 Triazinone OR	33509-43-2	1200	
20.	1,2,4 Triazole OR	288-88-0	1320	
21.	OPDA OR	95-54-5	1070	
22.	Bromoketal OR	60207-89-8	233	
23.	2,4,Dichloro valerophenone	61023-66-3	1050	
			Total	**4050**

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

The TOR has been issued by Ministry vide letter No. IA-J-11011/324/2019-IA-II (I) dated 12/12/2019. Public Hearing for the project is exempted as the industry is located in Notified Industrial Area at GIDC Dahej. It was informed that no litigation is pending against the proposal.

The land area available for the project is 97756.87 m^2. Industry will develop greenbelt in an area of 33% i.e. 32260 m^2, out of total area of the project. The estimated project cost of proposed unit is Rs. 110 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 19.05 Crore and the Recurring cost (operation and maintenance) will be about Rs. 11.41 Crore per annum. Total employment including direct and indirect will be 200 persons. Industry proposes to allocate Rs 1.68 crores towards Corporate Environmental Responsibility (CER).

PP reported that there are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance of the project site. Estuary of Narmada River is at a distance of 7.5 km in NW direction.

The Ambient air quality monitoring was carried out at 8 locations during January, 2020 to March, 2020 and the baseline data indicates the ranges of concentrations as: PM_{10} (68.1 –

75.0 µg/m^3), $PM_{2.5}$ (33.7 – 40.7 µg/m^3), SO_2 (14.5 – 18.7 µg/m^3) and NOx (17.7 – 23.3 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.013 µg/m^3, 0.695 µg/m^3 and 0.755 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 will be 1329.5 m^3/day of which fresh water requirement of 924.5 m^3/day will be met from GIDC water supply. 405 m^3/day will be recycled/treated water. Total industrial effluent generation will be 854 KLD. Process effluent having High COD/TDS (357 KLD) will be treated in ETP-1 followed by MEE and ATFD/Spray Dryer. Condensate of MEE (290 KLD) will be reused. Slurry of MEE (67 KLD) will be spray dried in to in house spray dryer to achieve Zero Liquid Discharge (ZLD). Process effluent having low COD/TDS (375 KLD), Lab effluent (2 KLD) and RO reject of washing, cooling bleed off, Boiler Blow down and Boiler bleed liquor (397 KLD) will be treated in ETP-2 and discharge to Deep Sea through Dahej-GIDC Discharge system. Domestic wastewater will be treated in STP and utilized for Greenbelt development.

Power requirement will be 1500 kVA and will be met from Dakshin Gujarat Vij Company Ltd. (DGVCL). Unit will install two D.G. Sets of 1000 kVA each and will be used as standby during power failure. Stack (height 11 meters) will be provided as per CPCB norms to the proposed D.G. Sets.

In proposed unit, 3 nos. of Briquette/Coal fired Boilers (6 TPH each), One Coal fired Hot Air Generator (30 lacs K Cal/hr.), 4 nos. of LDO fired TFH (10 lacs KCal/hr. each) will be installed. Multi Cyclone & bag filter with a stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 for the proposed utilities.

Process emission generation will be from vent attached to Reactor of Pendimethalin, Reactor of Metconazole, Reactor of Fenaxoprop P Methyl/Benalaxyl/Metalaxyl /Kresoxim Methyl/ Pethoxamide /Pretilachlor, Reactor of Bromoketal, Reactor of DCVP/ DCAP, Reactor of Chlorothalinil, Spray Dryer (5000 lit/hr.), 1 common vent of 6 nos. of Spin flash dryer, vent of Bromine recovery system. Water & Alkali Scrubber will be installed as APCM to process vents. Spray Dryer will be equipped with Cyclone, Bag filter & water scrubber. In built bag filter will be provided as an APCM to Spin Flash Dryer.

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

S. No.	Type of Waste	Category of Waste as per HWM Rules 2016	Quantity	Disposal facility
1.	ETP Sludge	35.3	750 MT/month	Collection, Storage, Transportation & Disposal at TSDF site approved by GPCB.
2.	Salt from MEE	35.3	700 MT/month	Collection, Storage, Transportation & Disposal at TSDF site approved by GPCB.

3.	Distillation Residue	20.3	145 MT/month	Collection, Storage, Transportation, Disposal at CHWIF or send for co-processing in cement kiln after approval from concern authorities.
4.	Alluminium Chloride	B-15	2200 MT/month	Collection, Storage & Sale to authorized users under Rule-9 of Haz. Rule, 2016.
5.	HBr (20%) + KBr (20%) solution And/or Recovered Bromine	B-15	250 MT/month And/or 50 MT/month	Collection, Storage & Sale to authorized users under Rule-9 of Haz. Rule, 2016 or captive recovery and reuse in process.
6.	Sodium/ Potassium Methyl Sulphate	--	100 MT/month	Collection, Storage & Sale to authorized users under Rule-9 of Haz. Rule, 2016.
7.	Spent Sulphuric Acid (30-45%)	B-15	950 MT/month	Collection, Storage & Sale to authorized users under Rule-9 of Haz. Rule, 2016.
8.	Formic Acid (40-45%)	B-15	48 MT/month	Collection, Storage & Sale to authorized users under Rule-9 of Haz. Rule, 2016.
9.	Spent Hydro Chloric Acid (20-22%)	B-15	150 MT/month	Collection, Storage & captive use in other products within premises/ sale to authorized users under Rule-9.
10.	Discarded containers/ liners	33.1	Drum: 2400 Nos./ month Liner: 2.0 MT/month	Being used for packing of ETP sludge in case of excess it will be sold to approved recycler.
11.	Used Oil	5.1	1.0 Kl/year	Collection, Storage, Transportation & disposal by selling to Registered Recyclers.
Solid waste				
1.	Fly Ash	--	150 MT/month	Collection, Storage, Transportation & sold to brick manufacturers.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/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 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 is 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 has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the activities proposed in the study area based on the socio-economic status of the region and found to be addressing the issues in the study area. The Committee has suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee has found the additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee. The Committee has noted that the Industry proposed Rs.1.05 lakhs/year towards Conservation Plan for Peacock/Schedule-I Bird Species.

The Committee has made a detailed deliberation on the effluent treatment and disposal by the project proponent. The Committee at the first instance was of the view that the PP needs to achieve ZLD. Considering the justification provided by the PP on the techno-feasibility of the scheme, the Committee has suggested the PP to reuse 75% of the effluent generated and agreed for release of 25 % to the deep sea through GIDC pipeline. The Committee suggested PP to achieve ZLD within 3 years for long term sustenance and viability of the project.

The EAC has deliberated the proposal and has made 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 have found the proposal in order and have 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) The project proponent proposed to discharge 397 cum/day to the deep sea through GIDC discharge system. As committed by the Project proponent, 75 % of the effluent proposed to discharged to the deep sea shall be recovered and reused to reduce the fresh water requirement, and only the remaining 25 % the effluent shall be sent for

discharge after meeting the prescribed standards. The project proponent shall achieve ZLD within 3 years and treated water shall be reused the unit. 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/explosive 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) Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(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) Total fresh water requirement shall not exceed 924.5 cum/day proposed to be met from GIDC water supply. Necessary permission in this regard shall be obtained from the concerned regulatory authority.

(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. 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.

(xv) As proposed, Industry shall allocate Rs.1.05 lakhs/year towards Conservation Plan for Peacock/Schedule-I Bird Species in consultation with State Forest/Wildlife Department.

(xvi) As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide RO drinking water facility, infrastructure and educational assistance to the ITI and women and family welfare schemes in the nearby villages. The action plan shall be completed within three years as proposed.

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

Agenda No. 24.2

SYNTHETIC ORGANIC CHEMICALS (RESIN) MANUFACTURING UNIT of Capacity 5000 TPM at Survey No.: 342 Paiki 1 amalgamated, Village Sokhda, Taluka Matar, District Kheda, Gujarat by M/s VIRGO LAMINATES LTD.-Consideration of Environment Clearance

[IA/GJ/IND2/115864/2019, IA-J-11011/264/2019-IA-II(I)]

The Project Proponent and their accredited M/s T R Associates, made a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal is for environmental clearance to the project for Resin Manufacturing unit of capacity 5000 TPM (Phenol Formaldehyde Resin- 2500 TPM, Melamine Formaldehyde Resin-1500 TPM & Phenol Urea Formaldehyde Resin -1000 MT/Month) at Survey No. 342 Paiki 1

Amalgamated, Village Sokhda, Taluka Matar, District Kheda, Gujarat by M/s Virgo Laminates Ltd.

The details of products and capacity as under:

S. No.	Name of the Product	Production Capacity	CAS no.
1	Phenol Formaldehyde Resin	2500 MT/Month	9003-35-4
2	Melamine Formaldehyde Resin	1500 MT/Month	82115-62-6
3	Phenol Urea Formaldehyde Resin	1000 MT/Month	25104-55-6

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-11011/264/2019-IA-II(I) dated 18 October, 2019. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 21th August 2020, which was presided over by the Resident Additional Collector and Additional District Magistrate. The major issues raised during public hearing are related to employment, worker's safety etc. It was also informed that there is no litigation pending against the proposal.

The land area available for the project is 5,860 m^2. Industry has greenbelt in an area of 33% i.e., 1935 m^2 out of total area (5860 m^2) of the project. The estimated project cost is Rs 200 lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs 45.6 lakhs and the Recurring cost (operation and maintenance) will be about Rs. 82.4 lakh per annum. Total Employment will be 9 persons as direct. Industry proposes to allocate 4 Lakhs 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 from the project site.

Ambient air quality monitoring was carried out at 8 locations during October to December 2019 and the baseline data indicates the ranges of concentrations as: PM_{10} (65.18 µg/m3 to 85.27 µg/m3), $PM_{2.5}$ (42.68 µg/m3 to 50.43 µg/m3), SO_2 (9.57 µg/m3 to 23.08 µg/m3) and NO_2 (21.61 µg/m3 to 36.57 µg/m3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.5 µg/m^3, 0.4 µg/m3 and 0.4 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 estimated to be 27.55 cum/day, which includes fresh water requirement of 10.5 cum/day, proposed to be met from Bore Well. Application has been submitted for ground water extraction. Effluent of 19.865 cum/day will be treated through Effluent Treatment Plant and reused. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement will be 100 kW and will be met from Madhya Gujarat Vij Corporation limited (MGVCL). Industry has proposed to install coal/briquette fired Steam boiler of capacity 2 TPH.

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

S. No.	Description	Category	Quantity	Mode of Disposal
1	ETP Sludge	35.3	45.19 MT/Annum	Collection, storage and disposal at approved TSDF site
2	Evaporation Residue	35.3	24.85 MT/Annum	Collection, storage and disposal at approved TSDF site
3	Used Oil	5.1	0.0704 MT/Annum	Collection, storage and used within premises as a lubricant / sold to registered recycler.
4	Discarded Plastic Bags /Drums/ Barrels	33.1	33.56 MT/Annum	Collection, storage & sold to authorized vendor.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/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 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 is 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 has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing action plan and found to be addressing the issues in the study area. The Committee has suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee has found the additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee. The Committee has noted that the Industry proposed Rs. 0.25 lakhs towards Conservation Plan for Schedule-I species. The Committee noted that the land has been converted for Industrial purpose.

The EAC has deliberated the proposal and has made 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 have found the proposal in order and have 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). Coal shall be used as fuel in the boiler only during the monsoon season.

(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). Total fresh water requirement shall not exceed 10.5 cum/day proposed to be met from bore well/ground water. Necessary permission in this regard shall be obtained from the concerned regulatory authority/CGWA, and renewed from time to time.

(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. 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.

(xv). As proposed, Industry shall allocate Rs. 0.25 lakhs towards Conservation Plan for Schedule-I species in consultation with State Forest/Wildlife Department.

(xvi). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, the project proponent shall provide RO drinking water and sanitation facility, educational assistance to the schools in the nearby villages. The action plan shall be completed within two years as proposed. All the commitments made during public hearing shall be satisfactorily implemented.

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

Agenda No. 24.3

Expansion of Bulk Drugs Manufacturing Facility with increase in Production Capacity from 4812 TPA to 9156 TPA at Plot No. R.S Nos. 30/4 PT, 32/1A, 32/2, 32/3, 33/1 in Perikalapet village, Mathur Road, Puducherry Tehsil, Puducherry by M/s SOLARA ACTIVE PHARMA SCIENCES LIMITED-Consideration of Environment Clearance

[IA/PY/IND2/155512/2020]

The project proponent, vide letter dated 19.10.2020, has requested to withdraw the project as PP want to revise the application as per the provisions of the EIA Notification, 2006. The Committee has accordingly decided not to consider the proposal and recommended to **RETURN** in present form as **PP want to withdraw.**

Agenda No. 24.4

EXPANSION OF SUGAR MILL FROM 7000 TCD TO 15000 TCD, COGENERATION PLANT FROM 18 MW TO 88 MW & INSTALLTION OF NEW MOLASSES BASED DISTILLERY OF 200 KLD CAPACITY, located at Vill. Naraipur, Bagaha Dist. West Champaran, Bihar by M/s Tirupati Sugars Ltd.-Consideration of Environmental Clearance

[IA/BR/IND2/141466/2012, No. IA-J-11011/359/2018-IA-II(I)]

The Project Proponent and their accredited Consultant M/s Paramarsh (Servicing Environment & Development), made a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal is for environmental clearance to the project for expansion of Sugar Mill from 7000 TCD to 15,000 TCD, Co-generation from 18 MW to 88 MW and setting up of Molasses based Distillery plant of 200 KLD, at village Naraipur, Taluka Bagha, District West Champaran, Bihar by M/s Tirupati Sugars Ltd.

The details of products and capacity as under:

Facilities	Product	Existing	Proposed	Total
Sugar Mill	Sugar	7000 TCD	8000 TCD	15000 TCD
Distillery	Ethanol/RS/ENA	-	200 KLPD	200 KLPD
Captive Power generation	Power	18 MW	70MW	88MW

The project/activities are covered under category A of item 5 (g) 'Distilleries', 5(j) 'Sugar Industry and 1 (d) 'Thermal power plant' 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-11011/359/2018-IA-II(I), dated 03.12.2018. Public Hearing for the project has been conducted by the State

Pollution Control Board on 29.06.2019. The main issues raised during the public hearing are related to Air & Water Pollution, Social Welfare Activities, Training of Farmers, Green Belt Development. It was also reported by the PP that there is no litigation pending against the proposal.

The SEIAA, Bihar had issued EC earlier vide letter Ref. no. 59; dated 16.04.2015 to the existing Sugar Mill project of 7000 TCD in favour of M/s. Tirupati Sugars Ltd. MoEFCC, Regional Office, Ranchi has visited TSL project site on 22nd Aug.'2019 and issued certified compliance report vide Letter No. 113-67/ROR/2019/3500 Dt: 09.10.2019. TSL has submitted action taken report on partially complied conditions as stated in the certified compliance report.

Existing land area is 50.58 Ha., No additional land will be used for proposed expansion. Industry has already developed greenbelt in an area of 33 % i.e., 2.6 Ha. out of total area of the TSL project. The estimated project cost is Rs 307.50 Crores for proposed expansion project. Total capital cost earmarked towards environmental pollution control measures is Rs. 40 Crore and the Recurring cost (operation and maintenance) will be about Rs. 5 Crore per annum. Total Employment will be 75 persons as direct & 25 persons indirect after expansion. Industry proposes to allocate Rs. 4.6 Crores towards Corporate Environmental Responsibility (CER).

The Valmiki Tiger Reserve (5 Km. NW) is located within 10 km distance from the project site. Gandak River is flowing at a distance of 1.75 Km. in West direction.

Ambient air quality monitoring was carried out at 8 locations during November, 2018–January, 2019 and the baseline data indicates the ranges of concentrations as: PM_{10} (31.6–79.3 µg/m^3), $PM_{2.5}$ (18.9 – 47.3 µg/m^3), SO_2 (5.9 - 19.5 µg/m^3) and NO_2 (10.1 – 40.1 µg/m^3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 3 µg/m^3 with respect to PM. Bagasse will be used as Fuel, Emission of SO_2 and NOX will be negligible so they are not considered for modeling. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 4000 m^3/day of which fresh ground water requirement of 3300 m^3/day will be met from existing sugar mill bore well & proposed distillery bore wells. Effluent (Spent Wash) of Distillery Project of 700 m^3/day will be treated through Multi-Effect Evaporators (MEE) and CPU followed by RO system & 972 m^3/day Effluent of Sugar Mill will be treated in existing 1400 KLD ETP. The plant will be based on Zero Liquid discharge system**.**

Power requirement after expansion will be 88 MW including existing 18 MW and will be met from Own Captive Power generation Plant. Existing unit has 2 nos. of 40 TPH and 1 nos. of 80 TPH Bagasse fired boiler. Additionally, new 2 nos. of 175 TPH High Pressure Bagasse fired boiler will be installed for Cogeneration Project and 2 nos. of 40 TPH Incineration Boiler for Distillery Project. Wet Scrubber with a stack of height of 76 m. & 40 m. will be installed for controlling the particulate emissions within the statutory limit of 50 mg/NM^3 from the proposed boilers of Cogeneration & Distillery Project respectively.

Process Emission due to new Bagasse fired 2 Nos. Boiler of 175 TPH & 2 nos. of 40 TPH Incineration Boiler will be controlled through Wet Scrubber system. Emission will be within 50 mg/NM^3.

Details of Solid waste/ Hazardous waste generation and its management

Solid Wastes	**Total Generation**		**Management**
	Ton / Day	**Ton/Annum**	
Molasses	654	117720	Molasses will be utilized as raw material in own distillery.
Bagasses	4294	772920	Bagasses will be used as fuel in Boiler.
Press mud	438	78840	Sold to farmers
Boiler Ash	193	34740	Ash is being utilized for bio composting and excess ash will be sold to Brick Manufacturer.

The EAC has deliberated on the proposal. The Committee noted that the project proponent has not able to provide the status of project site for industrial purpose. The Committee has noted that the project site is located adjacent to the Valmiki Tiger Reserve and the project proponent needs to submit application for obtaining recommendations of Standing Committee of NBWL. The EAC, after detailed deliberations has desired for additional information/inputs in respect of the following:

(i). EAC noted that PP has not submitted adequately TOR compliance and PP needs to be resubmit the TOR compliance adequately.

(ii). Details of land conversion for industrial purpose.

(iii). Status of NBWL recommendations for the existing and proposed project.

(iv). Details of the ESZ of the Valmiki Tiger Reserve and distance of the site from Tiger reserve and ESZ.

(v). Details of Wildlife conservation action plan submitted to State Wildlife Department/CWLW.

(vi). Public hearing issues, action plan and activities proposed in the study area needs to be submitted.

(vii). Details of ground water permission.

(viii). Action Taken Report on non-complied points to be forwarded by the Regional Office.

(ix). Details of incremental value for PM10 & PM2.5 & SOx needs to be verified and resubmitted. Air Quality Impact Prediction mentioned is inadequate kindly check and correct it accordingly.

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

Agenda No. 24.5

Synthetic Organic Chemicals (Resins) 500 MTPM at Proposed Manufacturing Unit (located at Survey No.: 55 Paiki 1/Paiki 2, 55 Paiki 3, Opposite of Ashwamegh Hotel, NH-8A, At. Timbadi, Morbi-363642, Gujarat) by M/s. Rosso Laminate LLP - Consideration of Environment Clearance

[IA/GJ/IND2/109912/2019, IA-J-11011/221/2019-IA-II(I)]

The Project Proponent and their accredited consultant M/s T R Associates, made a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal is for environmental clearance to the project for Resin Manufacturing Unit of capacity 500 TPM (Phenol Formaldehyde Resin-200 TPM, Urea Formaldehyde Resin-200 TPM and Melamine Formaldehyde Resin -100 TPM at Survey No : 55 Paiki 1/Paiki 2, 55 Paiki 3, Opposite of Ashwamegh Hotel, NH-8A, Timbadi, Morbi, Gujarat by M/s Rosso Laminate LLP.

The details of products and capacity as under:

S. No.	Name of Product	QUANTITY	CAS NO.
1	Phenol Formaldehyde Resin	200 MT/Month	9003-35-4
2	Melamine Formaldehyde Resin	100 MT/Month	82115-62-6
3	Urea Formaldehyde Resin	200 MT/Month	9011-05-6

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-11011/221/2019-IA II (I) dated 26th August, 2019. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 10th August 2020, which was presided over by the Resident Collector and Additional District Magistrate. The major issues raised during public hearing are related to effect of smoke, benefit to villagers, safety of workers etc. It is informed that there is no litigation pending against the proposal.

The land area available for the project is 14569 m^2. Industry will develop greenbelt in an area of 33 % i.e, 4807 m^2 out of total area of the project. The estimated project cost is Rs 85 lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs 33.28 lakhs and the Recurring cost (operation and maintenance) will be about Rs. 45.24 lakh per annum. Total Employment will be 10 persons as direct. Industry proposes to allocate Rs 1.7 Lakhs towards Corporate Environment Responsibility (CER).

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

Ambient air quality monitoring was carried out at 8 locations during October-December 2019 and the baseline data indicates the ranges of concentrations as: PM_{10} (65.43 µg/m3 to 87.24 µg/m3), $PM_{2.5}$ (35.22 µg/m3 to 51.90 µg/m3), SO_2 (12.70 µg/m3 to 225.99 µg/m3) and NO_2 (25.46 µg/m3 to 38.49 µg/m3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 1 µg/m^3, 0.05 µg/m3 and 0.01 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 estimated to be 23.15 cum/day, which includes fresh water requirement of 17.55 cum/day, proposed to be met from Bore Well. Effluent of 7.43 cum/day quantity will be treated through Effluent Treatment Plant and reused. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement will be 250 kWh and will be met from Paschim Gujarat Vij Corporation limited (PGVCL). Industry proposes to have cola/briquette fired Steam boiler of capacity 3 TPH and DG Set of 500 KVA.

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

S. No.	Description	Category	Quantity (MT/ Annum)	Mode of Disposal
1	ETP Sludge	35.3	14.04	Collection, storage and disposal at Approved TSDF site
2	Evaporation residue	35.3	7.05	Collection, storage and disposal at Approved TSDF site
3	Used Oil	5.1	0.033	Collection, storage and used within premises as a lubricant / sold to registered recycler.
4	Discarded Plastic bags / Barrels	33.1	4.650	Collection, storage & sell to authorized vendor

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/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 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 is 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 has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and activities proposed, and found to be addressing the issues in the study area. The Committee has suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee has found the additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee. The Committee has noted that the Industry proposed Rs.2.75 lakhs towards Conservation Plan, and the land has been converted for Industrial purpose.

The EAC has deliberated the proposal and has made 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 have found the proposal in order and have 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 17.55 cum/day proposed to be met from bore well/ground water. Necessary 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 in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiv). As proposed, Industry shall allocate Rs.2.75 lakhs towards Conservation Plan in consultation with State Forest/Wildlife Department.

(xv). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, the project proponent, as committed, shall provide educational assistance to the schools/scholarship to students in the nearby villages. The action plan shall be completed within three years as proposed. All the commitments made during public hearing shall be satisfactorily implemented.

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

Agenda No. 24.6

Expansion of Synthetic organic chemicals industry at Plot No. 807, Near Kheteshwar Hotel, Sachin GIDC, by M/s M CHEMICALS - Consideration of Environmental Clearance

[IA/GJ/IND2/170059/2020, IA-J-11011/137/2020-IA-II(I)]

The Project Proponent and their accredited Consultant M/s ENPRO Enviro Tech and Engineers Pvt Ltd, made a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal is for environmental clearance to the project for Expansion of Synthetic Organic Chemicals (Dyes Intermediate) from 10 TPM to 50 TPM at Plot No. 807, Near Kheteshwar Hotel, Sachin GIDC, Surat, Gujarat by M/s M Chemicals.

The details of products and capacity as under:

S. No.	Product List	CAS Number	Capacity (TPM)	
			Existing	Total
1	6 Nitro, 1-Diazo, 2-Napthol, 4-Sulphonic Acid	50412-00-5	10	10
2	G-Salt	842-18-2	0	40
3	R-Salt	148-75-4		
4	Amido G-Acid	86-65-7		
5	Aniline 2,4 DSA	137-51-9		
6	Aniline 2,5 DSA	98-44-2		
7	Para Nitro Chloro Benzoyl Sulphonic Acid	1836-62-0		
8	Para Cresidine Ortho Sulphonic Acid	6471-78-9		
9	Sulfo Gamma Acid	90-40-4		
10	1,6 Cleave Acid	119-79-9		
11	4 SulfoAnthranilic acid	98-43-1		

12	4 SulphoHydrazone	118969-29-2		
13	6 acetyl OAPSA	40306-75-0		
14	Benzedine 2,2 Disulphonic acid	117-61-3		
15	Bronners acid	93-00-5		
16	EMAMSA	101-11-1		
17	Schaeffer's Acid	93-01-6		
18	Sulpho C acid	27310-25-4		
	Total		**10**	**50**

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 the 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 Standard ToR for the project was issued by the Ministry vide letter dated 24th July, 2020. Public Hearing for the proposed project is exempted as the proposed project site is located within the notified industrial area.

The Unit does not have environment clearance for existing unit, as it was established before the year 2006. The unit has obtained CC&A vide letter no. CC&A No.: GPCB/CCA-SRT-1104(2)/ID-33282 dated 26/06/2020 which is valid upto 31/03/2026. It was reported that there is no litigation pending against the proposal.

The existing land area is 1650 m^2. Expansion shall be carried out within existing plant premises and no additional land shall be required. Industry has proposed 186 m2 green belt area within plant premises. As the proposed project is for an expansion project, unit does not have sufficient space available within plant premises for development of green belt. Thus, Unit has proposed to develop green belt on about 500 m^2 area in Sachin GIDC or nearby village within 5 Km radius of the project site. The Estimated project cost is Rs. 2.5 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 52 Lakhs and the Recurring cost (operation and maintenance) will be about Rs 80.3 lakhs per Annum. Existing employment is 30. Proposed expansion project will generate 20 additional employments. Thus, total employment after proposed expansion will be 50. Industry proposes to allocate Rs 10.25 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. Mindhola River is flowing at a distance of 5.1 km in South direction of project site.

Ambient air quality monitoring was carried out at eight locations during March to May 2019 and the baseline data indicates the ranges of concentrations as: PM_{10} (40.4 – 120.7 µg/m^3), $PM_{2.5}$ (20.7 – 68.1 µg/m^3), SO_2 (11.3 – 56.1 µg/m^3) and NOx (20.1 – 58.2 µg/m^3), CO (0.19 – 0.91 mg/m^3), NH_3 (2.3 – 15.4 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be PM_{10} - 0.11 µg/m^3, $PM_{2.5}$ - 0.05 µg/m^3, SO_2 – 0.3 µg/m^3, NOx – 0.13 µg/m^3. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS) except for PM10.

Existing water requirement is 10 KLD (9 KLD Industrial + 1 KLD Domestic). After proposed expansion, Total water requirement will be 23.5 KLD (19.5 KLD for industrial + 1.5 KLD for domestic +2.5 KLD for gardening). Unit will recycle and reuse 5.5 KLD water from RO plant, 5.5 KLD Condensate from Boiler and 4 KLD Condensate from Cooling tower. Thus, fresh water requirement will be reduced to 8.5 KLD. Fresh water will be met from Sachin Notified Area Authority (Sachin GIDC).

Existing effluent generation is 5.5 KLD (5 KLD from industrial activities + 0.5 KLD from domestic activities). Unit is sending 5 KLD industrial effluent to common CETP facility of M/s. Globe Enviro Care Ltd (GECL). After proposed expansion, quantity of waste water shall be 11.8 KLD (10.5 KLD Industrial + 1.3 KLD Domestic). Effluent will be segregated into two streams i.e. dilute and concentrated stream. Concentrated steam of 5.5 KLD along with 1 KLD RO reject will be treated into in-house MEE facility consisting of neutralization, MEE plant, biological and RO treatment plant. Here, RO permeate water shall be reused within plant premises and RO reject shall be again sent back to MEE plant. Dilute effluent of 1.2 KLD from process along with 3.8 KLD effluent from utilities will be treated into in-house ETP consisting of primary treatment and then it will be sent to common CETP facility of M/S. GECL as per existing granted quantity. Entire additional load of effluent will be treated into in-house facility and no effluent will be discharged outside premises. Domestic wastewater generation will be 1.3 KLD, shall be disposed through septic tank /Soak pit system.

At present, the energy required for the plant is 100 KVA and after proposed modification, project will consume total energy of 200 KVA (100 KVA Existing + 100 KVA Proposed) which shall be obtained from Dakshin Gujarat Vij Company Limited (DGVCL). D.G. Set having capacity 75 KVA will be kept as standby power back up.

After proposed expansion, Unit will install baby boiler with capacity of 500 kg/hr which will remain as stand by boiler. 15-meter stack height will be provided as APCM and Natural Gas (40 Nm3/hr) will be used as a fuel for baby boiler. D.G. Set having capacity 75 KVA will be kept as standby power back up in which LDO (23 Litre/Hr) will be used as a fuel. Industry will use steam from common boiler facility (steam house) during operation of manufacturing plant. Necessary permission for the same has already been obtained.

Details of Process emissions generation and its management is mentioned below.

EXISTING				
PROCESS GAS EMISSION				
Sr. No.	**Vent Attached To**	**Vent Height & Diameter**	**Pollutants**	**Air Pollution Control System**
1.	Reaction Vessel	Height: 12 Meters Diameter: 150 mm	SO2, NOx	Two stage alkali Scrubber
PROPOSED TOTAL				
FLUE GAS EMISSION				
Sr. No.	**Stack Attached to**	**Stack Height and Diameter**	**Fuel Consumption**	**Air Pollution Control System**

1	Baby Boiler Capacity: 0.5 MT/Hr (Stand by)	Height: 15 Meters Diameter: 200 mm	Natural Gas – 40 Nm3/hr	15 Meter stack height will be provided
2	DG Set = 75 KVA (Stand By)	Height: 11 Meters Diameter: 100 mm	LDO - 23 Litre/Hr	11 Meter stack height will be provided for DG set

PROCESS GAS EMISSION				
Sr. No.	**Vent Attached To**	**Vent Height & Diameter**	**Pollutants**	**Air Pollution Control System**
1.	Reaction Vessel	Height: 12 Meters Diameter: 150 mm	SO2, NOx	Two stage alkali Scrubber

Details of Solid waste/ Hazardous waste generation and its management is given below.

Sr. no.	**Type/Name of Hazardous waste**	**Specific Source of generation (Name of the Activity, Product etc.)**	**Category and Schedule as per HW Rules**	**Quantity (MT/year)**			**Management of HW**
				Existing	**Proposed**	**Total**	
1.	Used Oil	From plant & machinery	5.1	120 Liter/Year	50 Liter/Year	170 Litres/Year	Collection / Storage / Transportation / send to authorized recycler
2.	Discarded barrels/ containers/ liners	From raw material packaging	33.1	120 Nos./Year	130 Nos./Year	250 Nos./Month i.e. 2 MT/Year	Collection / Storage / Transportation / send to authorized recycler
3.	ETP Sludge	From ETP and neutralized sludge before MEE	35.3	3.5 MT/Year	20 MT/Year	23.5 MT/Year	Collection / Storage / Transportation / send to CHWTSDF Site for Landfilling/cement co-processing
4.	MEE Salt	From MEE		0	35 MT/Year	35 MT/Year	Collection / Storage / Transportation

							/ send to CHWTSDF for Landfilling/cement co-processing
5.	Spent Carbon	From manufacturing activities	--	0	16.8 MT/Year	16.8 MT/Year	Collection / Storage / Transportation / send to CHWTSDF for Landfilling/Cement co-processing/registered recycler
6.	Spent Acid	From manufacturing of Para Cresidine Ortho Sulphonic Acid	26.1	0	192 MT/Year	20 MT/Month i.e. 192 MT/Year	Collection / Storage / Reused in manufacturing of Amido G Acid or sent to authorized end user

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/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 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 is 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 has found the baseline data and incremental GLC due to the proposed project within NAAQ standards except for PM10. The Committee deliberated on the proposed pollution control devices in the unit and found that the incremental GLC due to the project are controlled. The Committee has also deliberated on the action plan along with activities for addressing the socio-economic issues and found to be addressing the issues in the study area. The Committee has suggested that the storage of toxic/hazardous raw material shall be bare minimum in quantity and inventory. The Committee has found the additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee.

The Committee has made a detailed deliberation on the effluent treatment and disposal by the project proponent. The Committee at the first instance was of the view that the PP

needs to achieve ZLD. Considering the justification provided by the PP on the techno-feasibility of the scheme, Committee has suggested the PP to discharge the effluent to the CETP during emergency.

The EAC has deliberated the proposal and has made 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 have found the proposal in order and have 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. Only during emergency, the effluent shall be send to the CETP for further treatment and disposal. 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 8.5 cum/day proposed to be met from GIDC water supply. Necessary 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.

(xiii). The green belt of at least 5-10 m width shall be developed in nearly 40 % of the total project/GIDC area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiv). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide education funds in technical training centers/ support in nearby village's schools, support in health care facilities, free medical check-ups and funds for miscellaneous

activities like solar street lights, renovation of pond etc., in the nearby villages. The action plan shall be completed within five years as proposed.

(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. 24.7

Molasses based Distillery (110 KLPD) along with 4.0 MW cogeneration power plant at Village Sewrahi, Tehsil Tamakuhi Raj, District Kushinagar, Uttar Pradesh by M/s The United Provinces Sugar Company Limited-Consideration of Environment Clearance

[IA/UP/IND2/113544/2019, IA-J-11011/249/2019-IA-II(I)]

The Project Proponent and their accredited Consultant M/s J M EnviroNet 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 Molasses Based Distillery of 110 KLPD along with 4 MW Co-generation Power Plant at Village Sewrahi, Block Seorahi, Tehsil Tamkuhi Raj, District Kushinagar, Uttar Pradesh by M/s The United Provinces Sugar Company Limited (Distillery Division).

The details of products and capacity as under:

S. No.	Units	Capacity	Products
1.	Molasses based distillery	110 KLPD	Ethanol / Extra Neutral Alcohol (ENA)/ Rectified Spirit (RS) / Impure alcohol
2.	Co-generation power plant	4.0 MW	Power
3.	IMFL/CL Bottling Plant	5000 cases/day	IMFL/CL Bottles

The project/activities are covered under category A of item 5 (g) 'Distilleries' 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.

Standard ToR has been issued by the Ministry vide letter no. IA-J-11011/249/2019-IA II (I) dated 21st August, 2019. Public Hearing for the proposed project has been conducted by the Uttar Pradesh Pollution Control Board on 19th March, 2020, which was presided over by the Additional District Magistrate. The main issues raised during the public hearing are related to water pollution, air pollution, odour problems, fly ash handling. It was reported that there is no litigation is pending against the proposal.

The land area available for the project is 4.872 ha (12.0387 acres). Industry will develop greenbelt in an area of 33% i.e. 1.619 Hectares (4 acres) out of total area of the project. The estimated project cost is Rs. 135 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 40 Crores and the Recurring cost (operation and maintenance) will be about Rs. 1.5 Crores per annum. No. of working days will be 350 days/annum. Total Employment during operation phase will be 85 persons (60 permanent and 25 temporary). Industry proposes to allocate Rs. 2.525 Crores towards Corporate Environment 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. There are four rivers i.e. Bansi Nadi at a distance of 0.7 km in North direction, Jharahi Nadi at a distance of 4.5 km in West direction, Chhoti Gandak Nadi at a distance of 7.5 km in ENE direction & Gandak River at a distance of 10 km in NE direction. There is one canal and one nala i.e. Western Gandak Main Canal at a distance of 2.0 km in SW direction and Mani Nala at a distance of 5.5 km in WNW direction.

Ambient air quality monitoring was carried out at 8 locations during Post-monsoon Season (October to December, 2019) and the baseline data indicates the ranges of concentrations as: PM_{10} (64.4 to 92.4 μg/m3), $PM_{2.5}$ (28.9 to 52.9 μg/m3), SO_2 (6.2 to 16.4 μg/m3) and NO_2 (12.6 to 30.6 μg/m3). AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.026 μg/m3, 0.105 μg/m3, 0.39 μg/m3, 0.47 μg/m3 with respect to $PM_{2.5}$, $PM_{10,}$ SO_2 and NO_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement for the proposed project will be 872 KLPD (805 KLPD for distillery + co-generation power plant+ utilities, 40 KLPD for blending & bottling, 12 KLPD for domestic & 15 KLPD for greenbelt) which will be met from Groundwater. Effluent of 939 KLPD quantity will be treated through Condensate Treatment Plant (Based on Anaerobic, aerobic treatment, filters, UV & RO) of capacity 1000 KLPD. The plant will be based on Zero Liquid discharge system.

Total power requirement will be 2.5 MW which will be met from proposed 4.0 MW co-generation power plant. D.G. Sets of 1000 & 1500 KVA capacity will be used as standby during power failure. Stack (8 m height) will be provided as per CPCB norms to the proposed DG sets.

The company has proposed 35 TPH incineration boiler which is slope (Conc. spent wash) fired boiler with auxiliary fuel like Bagasse or Indian coal. Electrostatic Precipitator with a stack height of 70 meters will be installed for controlling the particulate emissions within the statutory limit for the proposed boiler.

Details of Process emissions generation and its management.

Source	Emissions	Management
Incineration Boiler (Co-generation power plant)	Particulate matter, SO_2, NOx	• Electrostatic Precipitator will be installed. • Adequate stack height (70 m) will be provided.

		• Necessary temperature profile will be maintained.
Fermentation	Carbon dioxide	Carbon dioxide generated will be collected and sold to authorized vendors.

Concentrated spent wash burnt as fuel in incineration boiler. Ash will be used as manure due to rich potash content / sold to fertilizer manufacturers (Bagasse based) or supplied to brick manufacturers (Coal based). Sludge will be mixed with press mud for manufacturing organic manure. Used oil & grease generated from plant machinery/gear boxes as hazardous waste will be completely burnt in incineration boiler or sold to the authorized recyclers.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA 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 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 is 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 has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan along with activities for addressing the socio-economic issues and found to be addressing the issues in the study area. The Committee has suggested that with the improved technology, the fresh water requirement shall be restricted at 3 KL/KL of distillery production. Based on the deliberations in the EAC, PP has submitted following additional information. The Committee has found the additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee.

S. No.	Desired information /documents	Reply of PP
1.	The distillery should be completely based on Zero Effluent Discharge.	The distillery will be based completely on Zero Effluent Discharge. The company will install incineration boiler for treatment of spent wash to ensure ZLD.
2.	Water consumption for the distillery to be reduced to 3 kl/kl.	The fresh water requirement for 110 KLPD distillery as per 3 KL/KL will be 330 KLPD, for 4.0 MW Co-generation power Plant will be 250 KLPD, for IMFL/CL Bottling Plant will be 40 KLPD, for domestic usage will be 12 KLPD and greenbelt & others will be 15 KLPD. Thus, total water requirement will be 647 KLPD.

3.	Commitment for installation of CO_2 Plant.	The company commits to install CO_2 plant within the plant premises.
4.	Generation of solar power	Total power consumption of the plant is 2.5 MW. The company commits to generate 15% of the total power consumption. The same will be executed within the plant premises and nearby areas as a part of CER activities.
5.	Ash generated to be utilized for brick manufacturing.	The ash generated will be utilised for brick manufacturing. For this a brick manufacturing unit will be installed inside the plant premises and also given to nearby manufactures through covered/closed transportation.
6	Commitment for utilization of Rain water within plant premises.	The company commits to use rainwater within the plant premises. Rooftop rainwater will be collected in a pond of capacity 5000 m3 (50m length and 40m width with 2.5m depth). The collected rainwater will be reused in process and plant activities.

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). As proposed, total fresh water requirement shall be 647 cum/day, proposed to be met from ground water source. Prior permission shall be obtained from the concerned regulatory authority/CGWA in this regard, and renewed from time to time.

(iv). Project Proponent want to install incineration boiler for treatment of spent wash to ensure ZLD. As committed by PP, the spent wash/other concentrates shall be incinerated.

(v). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

(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). Process organic residue and spent carbon, if any, shall be sent to Cement/other suitable industries for its management/incinerations.

(x). 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.

(xi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xii). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, the project proponent, as committed, shall provide support for Infrastructure development in nearby villages & schools, promotion of solar power and electrification, greenbelt development in villages, healthcare facilities and infrastructure development of hospitals, skill development programs for youths and farmers in the nearby villages. The action plan shall be completed within five years as proposed. All the commitments made during public hearing shall be satisfactorily implemented.

(xiii). The project proponent shall ensure rain water harvesting system in the project area and reduce dependency on ground water.

(xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

(xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

(xvi). 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.

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

Reconsideration of Environmental Clearance.

Agenda No. 24.8

PROPOSED PESTICIDES, PESTICIDE INTERMEDIATES (633 MT/MONTH) AND SPECIALTY CHEMICALS (451 MT/MONTH) IN EXISTING UNIT SURVEY NO. 311/2, BLOCK NO. 261, AT & PO: NANA BORSARA, TALUKA: MANGROL, DIST: SURAT, GUJARAT by M/s MANGAL MURTI BIO-CHEM PVT. LTD- Reconsideration of Environment Clearance

[IA/GJ/IND2/146898/2017, J-11011/536/2017-IA-II(I)]

The proposal was earlier considered by the EAC (Industry-2) in its meeting held during 15 – 17 June, 2020. The information desired by the Committee and response of the PP are as under.

S. No.	Information desired by the EAC	Response by the PP	Remarks of the EAC
1.	The EAC observed that the project proponent is producing DAP since 2018. The PP need to clarify whether the said Fertilizer i.e. Di Ammonium Phosphate requires prior EC or not. Clarification in respect of manufacturing of DAP without obtaining prior EC needs to be submitted.	Diammonium phosphate is an inorganic phosphate, being the diammonium salt of phosphoric acid. It has a role as a fertilizer. As per S.O. 1533 (E), EIA Notification dated 14th September, 2006, inorganic products do not require EC. Hence EC was not obtained for existing inorganic manufacturing unit. The unit has obtained CC&A from GPCB, Gandhinagar for diammonium phosphate vide Consent Order No. AWH-80134 dated 07/07/2016 and	EAC has observed that the existing fertilizer of DAP required EC. The Ministry may examine the issues on admissibility of the provisions of the EIA Notification, 2006.

		there is no any violation made by the company.	
2.	Detailed rain water harvesting plan needs to be submitted. Fresh water requirement shall be reduced utilizing the harvested rain water. Accordingly, revised water balance shall be submitted.	Arrangement is made for rain water harvesting from the roof tops of the building and to collect the rain water in a collection tank and 6 KL/Day will be re-used in premises and Total water requirement will be 319.7 KL/Day out of which Fresh will be 227.7 KL/Day, Reuse: 86 KL/Day & Rain Water: 6 KL/Day will be required.	EAC was of the view that the PP shall attain 20 % reduction in fresh water requirement through proper rain water harvesting and management.
3.	The Committee noted that the PP needs to conduct the process safety and Risk assessment studies using advanced/3D modeling and the mitigating measures needs to be analyzed along with the action plan.	3D CFD Modeling & Consequence analysis studies was carried out using 'FLACS' software. The worst case scenarios were considered of Anhydrous Ammonia, Chlorine, EDC & n-Hexane and pre-mitigative (prevention) and mitigative measures were suggested.	EAC found the 3D modelling study to be satisfactory and desired the PP to follow the action plan.
4.	Commitment for inventory for raw materials, products and by-products for 3 days.	inventory for raw materials, products and by-products will be for 3 days.	EAC found the response to be satisfactory.
5.	Copy of submission of conservation plan for schedule-I species to CWLW of the State Government as there are 12 schedule-I species are reported in the study area.	The proponent has proposed a sum of Rs. 3, 07,500/- for the "3 Species". If required, additional budget for other species, we will increase for the same.	EAC found the response to be satisfactory.

The Project Proponent and their Consultant M/s Aqua-Air Environmental Engineers Pvt Ltd (with stay order from the Hon'ble High of Gujarat) made a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal is for environmental clearance to the project for Setting up Pesticide, Pesticide Intermediates (633 MT/Month) and Specialty Chemicals (451 MT/Month) manufacturing

plant in the existing Unit at Survey No. 311/2, Block No. 261, At & Po: Nana Borasara, Taluka Mangrol, District Surat, Gujarat by M/s Mangal Murti Bio-Chem Pvt Ltd.

List of products and capacity are as under:

S. No.	Products	CAS No.	LD50 (Oral) mg/Kg	End Use	Production Quantity (TPM)	
					Existing	Total after Proposed Expansion
Inorganic Chemical						
1	Liquid Bromine	7726-95-6	2600	Agro-Intermediate	50	50
Fertilizers						
2	NPK Fertilizer	66455-26-3	**--**	Farming	3000	3000
3	Magnesium Sulphate	10034-99-8	**--**		462	462
4	Ammonium Sulphate	7783-20-2	2840		52	52
5	Di Ammonium Phosphate	7783-28-0	**--**		51	51
6	Mono Ammonium Phosphate	7722-76-1	--		20	20
7	Calcium Nitrate	35054-52-5	--		20	20
8	Tri Sodium Phosphate	7601-54-9	4150		50	50
9	Mono Potassium Phosphate	7778-77-0	**--**		20	20
Pesticides & Pesticide Intermediates						
10	Ethion	563-12-2	13	Agro Formulation	--	633
11	Permethrin	586-78-7	1030	Agro Formulation	--	
12	Cypermethrin	34911-51-8	250-4150	Agro Formulation	--	
13	Meta Phenoxy Benzaldehyde (MPBD)	3915-51-0	1222	Agro Chemical	--	
14	Meta Phenoxy Benzyl Alcohol (MPBA)	13826-35-2	1496	Agro Chemical	--	
Specialty Chemicals						

15	Streneted Phenol	61788-44-1	2500	Rubber Chemicals	--	451
16	Meta Bromo Anisole	2398-37-0	--		--	
17	Para Bromo fluoro Benzene	460-00-4	2700		--	
18	Meta Bromo Nitro Benzene	585-79-5	--		--	
19	N-Butyl Bromide	109-65-9	2761		--	
20	Tetra Butyl Ammonium Bromide	1643-19-2	2143.38		--	
21	N-Propyl Bromide	106-94-5	4260		--	
22	1-Bromo 3 Chlorine Propane	109-70-6	--		--	
23	ISO-Butyl Bromide	78-77-3	--		--	
24	4-Amino, 1,2,4 Trizole	100-11-8	--		--	
25	Para Nitro Benzyl Bromide	110-53-2	--		--	
26	N-Pentyl Bromine	10035-10-6	--		--	
27	Hydro Bromic Acid in Water (48%)	106-93-4	--		--	
28	1,2-di bromo ethane	79-96-4	108	Pharma Intermediates	--	
29	Ethyl Bromide	603-35-0	1350		--	
30	Tri Phenyl Phosphine	--	1380 (mouse)		--	
31	Ethyl tri phenyl Phosnium Bromide	1530-32-1	200-2000		--	
32	Mono Bromo Acetic Acid	2398-37-0	--		--	
33	N-Bromo Succinimide	79-08-3	--		--	
34	Diethyl, Dipropyl Malonate	128-08-5	--		--	
35	Methyl Tri Phenyl Phosnium Bromide	6065-63-0	--		--	
36	Tri ethyl benzyl ammonium chloride	1779-49-3	--		--	

37	1H-1,2,4 Trizole	56-37-1	1750		--	
38	1,3 Dichloro Acetone	288-88-0	--			
39	Bromo Benzene	534-07-6	2699		--	
				Total	**3725**	**4809**
PESTICIDES FORMULATION & PACKING						
40	Dichlorovos 76% EC	62-73-7	80	Farming	357.5	357.5
41	Monocrotophos 36% SL	6923-22-4	17-20			
42	Hexaconazole 5% E.C	79983-71-4	2200-6100			
43	Acephate 75% S.P.	30560-19-1	1030			
44	Glyphosate 41% SL	1071-83-6	>4000			
45	Mencozeb 75% WP	8018-01-7	>5000			
			Total		**357.5**	**357.5**
BULK REPACKING						
46	Acetamipride 20% SP	160430-64-8	1065	Farming	--	**195**
47	Ammonium Salt of Glyphosate 71% SG	114370-14-8	>3000			
48	Atrazine 50% WP	1912-24-9	--			
49	Carbendazim 50% WP	10605-21-7	5826-15595			
50	Carbendizam 12% + Mencozeb 63% WP	10605-21-7 + 8018-01-7	**--**			
51	Carbofuran 3% CG	1563-66-2	8			
52	Cartop Hydrochloprid 50% GR	15263-52-2	**--**			
53	Cartop Hydrochloride 50% SP	15263-52-2	**--**			
54	Chloropyriphos 20% EC	2921-88-2	51-500			
55	Chloropyriphos 50% EC	2921-88-2	**--**			
56	Cypermethrine 25% EC	52315-07-8	>300-2000			
57	Ethion 50% EC	821-48-7	--			

58	Ethion 40% + Cypermethrine 5% EC	821-48-7 + 52315-07-8	--			
59	Fenvalrate 20% EC	51630-58-1	451			
60	Hexaconazole 5% SC	79983-71-4	>2000			
61	Imidachloprid 17.8% SL	138261-41-3	480-650			
62	Imidachloprid 70% WS	138261-41-3	695.74			
63	Imidachloprid 70% WG	138261-41-3	981			
64	Indoxacarb 14.5% SC	144171-61-9	268-1730			
65	Lamdacylothrin 2.5% EC	91465-08-6	--			
66	Lamdacylothrin 5% EC	91465-08-6	--			
67	Malathion 50% EC	121-75-5	>5500			
68	Mencozeb 64% + Metalaxyl 8% WP	8018-01-7 + 57837-19-1	--			
69	Metalaxyl 35% WS	57837-19-1	>600			
70	Paraquate Dichloride 24% SL	1910-42-5	612-707			
71	Pendimethrine 30% EC	40487-42-1	>2000			
72	Phorate 10% CG	298-02-2	--			
73	Pretilachlore 50% EC	51218-49-6	5508.1			
74	Profenophos 50% EC	41198-08-7	358			
75	Profenophos 40% + Cypermethrine 4% EC	41198-08-7 + 52315-07-8	--			
76	Qunolphos 25% EC	13593-03-8	--			
77	Sulphur 80% WDG	7704-34-9	>5000			
78	Thiomethoxam 25% WG	153719-23-4	>5000			

79	Trizophos 40% EC	24017-47-8	--			
80	Trycyclozole 75% WP	41814-78-2	245-314			
				Total	--	**195**

The project/activities are covered under category A of item 5(b) 'Pesticides industry and Pesticide specific intermediates', 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 TORs has been issued by Ministry vide letter No.IA-J-11011/536/2017-IA-II(I); dated 09th Dec, 2017. Public Hearing for the project has been conducted by the State Pollution Control Board on 02 November 2018.

PP reported that the existing unit is inorganic manufacturing unit and has no earlier EC. The unit is in operation with valid CTO from the State PCB. It was informed that no litigation is pending against the proposal.

The land area available for the project is 23,427 m^2. Industry has already developed 7280 m^2 and will develop 4720 m^2 Greenbelt in an area of 51.22% i.e., 12,000~~a~~/ m^2 out of total area of the project. The estimated project cost is Rs. 31.5694 Crores including existing investment of Rs. 9.6185 crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 2.8210 Crores and the Recurring cost (operation and maintenance) will be about Rs. 1.2 Crores per annum. Total Employment will be 95 persons as direct & indirect for project. Industry proposes to allocate Rs 66.0 Lakhs in next 2 years towards Corporate Environment Responsibility.

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance.

Ambient air quality monitoring was carried out at 9 locations during March, 2017 to May, 2017 and submitted baseline data indicates that ranges of concentrations of PM10 (74.91 – 95.94 µg/m3), PM2.5 (43.55 – 51.28 µg/m3), SO2 (15.75 – 26.72 µg/m3) and NOx (18.63 – 28.53 µg/m3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.349 µg/m3, 0.573 µg/m3, and 0.205 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 319.7 m3/day of which fresh water requirement of 227.7 m3/day will be met from GIDC Water Supply Authority.Total wastewater generation will be 94.4 KL/day (Industrial: 87.9 KL/day + Domestic: 6.5 KL/day). Low COD & TDS waste water (46 KLD) from boiler, Cooling, Washing and Softener Generation will be treated in ETP within premises along with MEE Condensate (62 KLD) followed by RO. RO permeate (86 KLD) will be reused within plant premises. RO reject (22 KLD) will be sent to MEE. Cyanide Process waste water (7.5 KLD) will be treated in Reactors-1 & 2 followed by primary settling and treated waste water will be sent to MEE. High TDS Process waste water (34.4 KLD) will be given primary treatment and treated waste water will be sent to MEE. MEE Condensate (62 KLD) will be sent to ETP for further treatment.

Power requirement for proposed project will be 750 KVA and will be met from DGVCL. 2 Nos. DG set of 250 KVA & 500 KVA capacity shall be used as standby during power failure. Stack (height 11 m & 6 m) will be provided as per CPCB norms to the proposed DG sets of 250 KVA & 500 KVA respectively which will be used as standby during power failure.

Existing unit has 2 TPH Coal/ Bio Coal fired boiler, 0.3 TPH Hot Air Generator and Closed Furnace. Additionally, 5 TPH Coal/ Bio Coal fired boiler will be installed. Multi cyclone separator, Mechanical Dust Collection, Dust Collector & Multi cyclone separator with Bag filter with a stack of height of 33 m will be installed for controlling the Particulate emissions (within statutory limit of 150 mg/Nm3) respectively.

Details of Process emissions generation and its management.

1) Flue Gas Stack

Sr. No.	Stack/Vent attached to	Stack Height (m)	Stack Diameter (m)	Fuel name & Quantity	Type of Emission	APCM
Existing						
1	Boiler (2 TPH)	33	0.45	Wood/Bio Coal (3 MT/day)	NOx	Mechanical Dust Collection
2	Hot Air Generator (0.3 TPH)	11	0.35	Coal/Bio Coal (800 Kg/day)	NOx	Multicyclone Separator
3	Closed Furnace	23	0.35	Wood (25 Kg/day)	Nox	Dust Collector
4	D.G. Set (250 KVA) - emergency use only	11	0.15	Diesel (360 Liter/day)	NOx	**Adequate Stack Height**
Proposed						
5	Boiler (5 TPH)	33	0.45	Coal/Bio Coal (34 MT/day)	NOx	Multicyclone Separator with Bag Filter
6	D.G. Set (500 KVA) - emergency use only	6	0.15	Diesel 750 Liter/day	NOx	Adequate Stack Height

Process Stack

S. No	VENT ATTACHED TO	VENT HEIGHT (METER)	APCM	PARAMETER	PERMISSIBLE LIMIT
Existing					

1.	Process Vent-I (attached to Drier & Cooler)	23	Multicyclone Separator	PM	150 mg/NM^3
2.	Process Vent-II (attached to Reaction Vessel)	11	Caustic Scrubber	Cl2	9 mg/Nm^3
Proposed					
3.	*Process Vent-III	12	Two Stage Water Scrubber followed by Alkali Water	HCl Cl_2 HBr	20 mg/Nm^3 9 mg/Nm^3 5 mg/Nm^3
4.	**Process Vent-IV	12	Two Stage Caustic Water Scrubber	H_2S	6 mg/Nm^3
5.	***Process Vent-V	12	Two Stage Water Scrubber followed by Alkali Water	HBr HCl SO_2	5 mg/Nm^3 20 mg/Nm^3 40 mg/Nm^3
Note: * *Attached to reactor of Meta Phenoxy Benzaldehyde (MPBD)* ** *Attached to reactor of Ethion* *** *Attached to reactor of Para Bromo fluoro Benzene, Para Nitro Benzyl Bromide, Mono Bromo Acetic Acid, Meta Bromo Nitro Benzene, Permethrin Technical*					

PP reported that 20 categories of Hazardous/Solid Wastes shall be generated from this Unit. ETP Sludge @ 24 MT/Annum, Process Waste @ 6 MT/Annum and MEE Salts @ 1020 MT/Annum will be Collected, Stored, Transported and Disposal at nearest common TSDF site. Used Oil @ 0.6 MT/Annum will be Collected, Stored, Transported & sell to registered refineries. Discarded Containers/ Barrels/ Liners @ 60 MT/Annum will be Collected, Stored, Decontaminated & Sell to GPCB authorized vendor. Date expired/ off specification pesticides @ 0.096 MT/Annum will be Collected, Stored & Re-used back in process or Transported and Disposal at CHWIF site. Distillation Residue @ 90 MT/Annum will be Collected, Stored, Transported and Disposal at CHWIF site. Hydrochloric Acid Solution (30%) @ 3636 MT/Annum, Aluminum Chloride Solution @ 7236 MT/Annum, Potassium Chloride Powder @ 1584 MT/Annum, Sodium Bromide Solution (30%) @ 1776 MT/Annum, Ortho Dichloro Benzene @ 42 MT/Annum, 10% HBr in Spent Sulphuric Acid @ 1800 MT/Annum, Dilute Sulphuric Acid (70%) @ 1320 MT/Annum, Spent Acetic Acid @ 66 MT/Annum, Sodium Dichromate @ 300 MT/Annum, Calcium Diphosphate @ 55.2 MT/Annum, Spent Trichloro Carbonilide @ 36 MT/Annum, Poly Aluminum Chloride @ 55.44MT/Annum and Spent Ethyl Acetate @ 17.64 MT/Annum will be Collected, Stored, Captive Consumption or Transported & Sell to actual user having Rule 9 Permission.

The EAC has made a deliberated on the proposal. The Committee has noted that the existing fertilizer project of the proponent required environmental clearance for its operations. The Committee has been informed that there is no window available now for consideration of such proposals. The Committee observed that the PP has been operating the unit with valid CTO from the State PCB and as such, this type of noncompliances of the Rules shall happen due to lack of knowledge and also due to absence of proper directions from the SPCBs. The Committee was of the considered view that the such proposals coming for EC shall be considered on merit on case to case basis, after taking proper action under the E(P) Act, 1986, and as per the rules/guidelines framed under the Ministry's Notification S.O.804 (E) dated 14th March, 2017.

The Committee, at the first instance opined that the matter may be examined by the Ministry and accordingly the proposal shall be considered by the EAC based on the decisions taken.

The proposal was accordingly deferred for the needful.

Agenda No. 24.9

Expansion in Manufacturing Capacity in Existing Chemical Intermediates at Plot No.26/28 A, Cawasji Patel Street, Fort, Mumbai by M/s Benzo Chem Industries Pvt. Ltd- Reconsideration of Environment Clearance

[IA/MH/IND2/103300/2019, IA-J-11011/175/2019-IA-II(I)]

The proposal was earlier considered by the EAC (Industry2) in its meeting held during 15-17 September, 2020 under Agenda item No. 23.25, and has recommended for grant of environmental clearance. It has been informed to the Committee that the project has been listed again due to technical error at the server end, and the proposal has been processed for grant of environmental clearance based on the recommendations of the Committee.

The Committee has accordingly ***noted that no action is required at this end.***

Agenda No. 24.10

Expansion of distillery for manufacture of ethanol under EBP programme and expanding distillery capacity from 120 KLD to 500 KLD at Belgaum (Karnataka) by M/s Shree Renuka Sugars Limited-Reconsideration of Environment Clearance.

[IA/KA/IND2/134412/2018, J-11011/08/2002-IAII(I)]

The project proponent and their consultant M/s. Samrakshan Swastik Manandi Arcade made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

The proposal was earlier considered by the EAC in its meeting held during 13-15 April, 2020. The additional information desired by the Committee and response from the project proponent is as under:

S. No.	Query Raised in earlier EAC meeting	Query Reply Given by PP	Observation of EAC
1.	Proof to establish that existing unit is operating with proper prior permission and to confirm that unit is not violating the provision contained in EIA Notification, 1994 and 2006. In this regard, PP needs to submit all the old CTE/CTO to verify the violation, if any. Also submit justification for carried out expansion from 60 KLD to 120 KLD in 2006 without environmental clearance.	The copies of CTE and CTO issued by KSPCB submitted by PP. M/s Shree Renuka Sugars Limited, Munoli was established 2003 with due CTE from KSPCB and Environmental Clearance for distillery of capacity 60 KLPD. The capacity was enhanced in the year 2006 with prior CTE from KSPCB considering that there is no increase in pollution load from 60 KLPD to 120 KLPD. Technical advisory committee of the KSPCB examined the proposal of installation of Reverse Osmosis Plant to reduce the spent wash generation and to keep the pollution load in consistence with 60 KLPD capacity. The TAC of KSPCB, after detailed examination of the process opined that, "the pollution control systems, existing and proposed and additional other controls, the claim of industry with regard to no increase in pollution can be affected". Accordingly, the KSPCB has accorded CTE dated 17.06.2006. Justification for distillery expansion from 60 KLD to 120 KLD in 2006 without Environmental Clearance is submitted by the Project Proponent and summarized below.	The EAC after detailed deliberation observed that there was expansion in the production capacity in 2006 by the PP without prior EC. The Committee, at the first instance opined that the matter may be examined by the Ministry.
2.	PP needs to submit the details of production since inception of the unit to verify violation, if any.	Year wise production details submitted by PP.	The EAC found the reply to be satisfactory.
3.	Commitment need to be submitted that produced	Commitment was submitted by the PP that the produced ethanol	The EAC found the reply to be

	ethanol will be sold under Ethanol Blending programme.	from expanded capacity will be sold under Ethanol Blending progamme.	satisfactory.
4.	Committee observed that the water requirement has exponentially increased from 230-2963 m3/day. PP needs to rework on water requirement and resubmit the water balance accordingly.	In the existing system, there is no boiler and cooling tower attached to distillery, the required steam and cooling water is drawn from Sugar unit. In the proposed expansion there will be boilers of 65 TPH (2 Nos) capacity and independent cooling tower. Therefore, when compared to existing water use to that of expansion there is substantial increase in the water intake. The process water requirement and water balance is also revised.	The EAC deliberated the revised water balance and permitted PP to use 3 KL of water per 1 KL of Alcohol production.
5.	Details of Permission for water withdrawal of fresh water need to be submitted.	At present the permission accorded by water resource department of Govt. of Karnataka is 400 KLD. An application is submitted to State Department of Irrigation Karnataka State for fresh water withdrawal permission is under process.	The EAC found the reply to be satisfactory.
6.	Details of CO_2 emission control plan.	PP will implement CO_2 recovery plant by capturing, storage and bottling plant for fermentation process completely.	The EAC found the reply to be satisfactory.
7.	Commitment not to use composting and submit plan for incineration to achieve the ZLD.	PP committed to incinerate the concentrated spent wash generated from expansion.	The EAC deliberated the reply and suggested that bio-composting should not be permitted. PP should incinerate the waste.
8.	Details of PESO approvals needs to be submitted.	PP has obtained the PESO license from Ministry of Commerce & Industry (Petroleum & Explosives Safety Organization).	The EAC found the reply to be satisfactory.

9.	Compliance of Ministry's Notification dated 17.01.2019 w.r.t. MoPNG letter needs to be submitted.	PP has applied to the Ministry of Petroleum and Natural Gas for issuing a certificate stating that "the proposal for enhancement of product capacity of ethanol from 120 KLPD to 500 KLPD is for the purpose of blending bio-ethanol with petrol". Commitment is submitted to the Ministry w.r.t MoPNG certificate.	The EAC found the reply to be satisfactory.
10,	Details of completed actions needs to be submitted as per commitments made in Public Hearing held in 2018.	Time bond action plan for implementation of the commitment made during Public Hearing held on 16.11.2018 is submitted.	The EAC found the reply to be satisfactory.
11.	Details of completion work of non-compliances of earlier certified compliance report submitted by the RO, MOEFCC	Regional Office has visited the project site on 06.02.2019 and CCR is issued. The compliance is reported to be satisfactory with few observation, viz., to provide ESP to the 44 TPH boiler of sugar plant before October 2019, to arrest leakage of bagasse in feeding system by June 2019 to reduce the height of stacking of bagasse and to improve RWH. PP has submitted action taken report to MoEF Regional officer to install ESP to 44 TPH boiler this boiler is attached to Sugar unit, ESP to this boiler wil be taken up during expansion, quotations are finalized. RWH roof top rain water harvesting and collection system is provided.	The EAC deliberated the reply and suggested that tank capacity for Rain Water Harvesting should be increased. However, other reply found to be satisfactory.

The proposal is for environmental clearance to the project for Expansion of distillery for manufacture of ethanol under EBP programme and expanding distillery capacity from 120 KLD to 500 KLD at Belgaum (Karnataka) by M/s Shree Renuka Sugars Limited.

The project/activity is covered under category 'A' of item 5 (g) 'Distilleries' of the schedule to the EIA Notification, 2006 and requires appraisal/approval at central level in the Ministry.

The Ministry has earlier issued Environmental Clearance vide letter no. J-11011/8/2002-IA.II(I) dated 19th September, 2002 to the Distillery unit (60 KLD) by M/s Shree Renuka Sugars Ltd., at Manoli, Taluk Saundatti, District Belgaum in Karnataka in favor of M/s Shree Renuka Sugars Ltd.

The project proponent has provided the following justification for distillery expansion from 60 KLD to 120 KLD in 2006 without Environmental Clearance, as below:

1. M/s. Shree Renuka Sugars Limited., has obtained the prior Environmental Clearance for 60 KLPD distillery from MoEF vide no. J-1011/8/2002-IA II(I) dated 19th September 2002 subsequently Corrigendum dated 24th September 2002. The distillery started operating from 2003 onwards.

2. The company made an application for Consent to Establishment from Karnataka State Pollution Control Board (KSPCB) for Expansion of the distillery from 60 KLPD to 120 KLPD claiming that there is "No Increase in Pollution Load" due to installation of RO plant, water conservation measures recycle and reuse; and effluent reduction processes that have evolved over the period which enabled us to maintain the Pollution Load / norms prescribed in the Environmental Clearance mentioned above. As this effort was qualifying with the Explanatory Note Regarding the Impact Assessment Notification 1994**.** It is to be submitted that as per the provisions in the Explanatory Note to EIA Notification 1994 for expansion and modernization of existing project/activities listed in Schedule 1 Notification, the project proponent may approach SPCB for certifying whether the proposed modernization/expansion is likely to exceed the existing pollution load or not. This explanatory note might have misread by KSPCB and as well as then the previous project authority. Accordingly, the application was made to Karnataka PCB for grant of Consent to Establish under the Water Act and the Air Act.

3. The KSPCB examined our proposal through Technical Advisory Committee (TAC) the Board in the 314th TAC meeting held on 22.12.2005, 316th TAC meeting held on 16.02.2006, 317th TAC meeting held on 22.03.2006 and finally in the 318th TAC Meeting the proposal was recommended for issue of CTE duly getting convinced that there is no increase in pollution load. KSPCBs Consent Committee has considered the to issue CTE accepting the recommendation of TAC and the 'Explanatory Note to EIA Notification 1994.' The CFE was issued on 17.06.2006 with the following conditions with relevant to expansion;

    i. Condition (i) As per Explanatory Note to EIA Notification 1994 industry has to inform MoEF about the expansion.

       Response to condition no. (i): The company has accordingly informed the Secretary EIA Division vide letter dated 07.11.2006 acknowledgement copy enclosed as exclusively mandated in explanatory note of EIA Notification 1994. For this reference there is no further communication from MoEF.

    ii. The total water consumption shall not exceed 734 KLD and trade effluent generation (spent wash) shall not exceed 360 KLD and spent lees shall not exceed 260 KLD after expansion and the spent lees should be taken to sugar plant imbibition.

iii. To establish RO plant of capacity 450 m^3 per day to treat spent wash generation from the process.
iv. If the treatment plants do not achieve the effluent standards stipulated as per the consent order or if it is found to be inadequate or if the standards are revised from time to time, then the industry shall have to modify the units so as to meet the standards with prior consent of the Board.
v. The entire compost yard to be provided with RCC line within one year.
vi. Spent wash generated is first concentrated in re-boiler and then fed to RO plant.

Response for conditions (ii) to (vi):

a) Total fresh water consumption is well within 734 KLD; it is actually 180 KLD for molasses dilution and 50 KLD for domestic consumption and the balance requirement is made up with CPU treated effluent.
b) The re-boiler and RO plant was installed to limit the generation of spent wash. However, as there was repeated fouling of membranes of RO plant was replaced with the then evolved Falling Film Evaporation System (FFES) during end of 2007 and same was informed to the Board and with the prior consent of the board vide consent valid up to 30.06.2008 issued on 19.03.2008.
c) With the installation of FFES the water consumption is reduced to 180 KLD by recycle and reuse of Condensate Polishing Unit (CPU) treated water.
d) It could be seen that, the water consumption is well within the consented quantity and within 390 m^3 per day as per the stipulation in Environmental Clearance dated 19.09.2002.
e) In the EC issued by MoEF for 60 KLD a specific condition No. A ii. It is stipulated that spent wash generated will not exceed 8 m3/ KL of RS production. It can be seen that the concentrated spent wash generation is 3KL/KL of Alcohol. Thus, the spent wash load is within the EC approved quantity.
f) ETP sludge generation is 5 ton per month and yeast sludge 0.5 ton per month it is also within 3960 MTPM mentioned in the EC dated 19.09.2002.
g) There is no additional air pollution source installed during expansion from 60 KLPD to 120 KLPD.
h) The compost yard of 14.5 acres is RCC lined with garland canal and impervious leachate collection tank.

As could be seen that after detailed deliberation in TAC meetings as indicated above the SPCB has granted Consent for Establishment for expansion of the distillery from 60 KLD to 120 KLD on 17.06.2006 duly considering the Explanatory Note to EIA Notification 1994, quote "…. the project proponent will not be required to seek Environmental Clearance but a copy of such certificates issued by the SPCB will have to be submitted to IAA for information." Accordingly, PP has brought to the notice of Environment Impact Assessment Division of MoEF about the permission granted by KSPCB on 07.11.2006. Thereafter, KSPCB is continuously grating CTO's. PP has adhered to the consent conditions issued time to time by KSPCB and have never been penalized under the Water Act, the Air Act and the Environmental Protection Act. Therefore, PP humbly submit that PP has not violated any statutory/regulatory requirements. PP never exceeded the consented production quantities. The extract of production year on year certified by Excise Department of Karnataka is also submitted.

The Member Secretary informed to the Committee that there is no window available for consideration of the projects which has increased the production capacity beyond the EC capacity. The matter may be examined by the Ministry.

The Committee observed that the PP has been operating the unit with valid CTO from the State PCB and the unit has commenced the production after taking EC in 2002 and the unit has already come under the provisions of the EIA Notification. The Committee noted that for reported expansion PP has undergone the process of examination of the proposal by the Technical Advisory Committee in the SPCB and accordingly SPCB has issued no pollution load certificate and granted CTO as per the provision/guidelines issued under EIA Notification, 1994.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA 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 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 is 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 has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan along with activities for addressing the socio-economic issues and found to be addressing the issues in the study area. The Committee has suggested that with the improved technology, the fresh water requirement shall be restricted at 3 KL/KL of distillery production. Based on the deliberations in the EAC, PP has submitted following additional information. The Committee has found the additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee.

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 examination by the Ministry on admissibility of the proposal w.r.t. expansion case, 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). Prior permission of water shall be obtained from the concerned regulatory authority/CGWA in this regard and renewed from time to time.

(iv). Project Proponent want to install incineration boiler for treatment of spent wash to ensure ZLD. As committed by PP, the spent wash/other concentrates shall be incinerated.

(v). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

(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). Process organic residue and spent carbon, if any, shall be sent to Cement/other suitable industries for its management/incinerations.

(x). 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.

(xi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xii). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, the project proponent, as committed, shall provide support for Infrastructure development in nearby villages & schools, greenbelt development in villages, healthcare facilities and infrastructure development of hospitals, skill development programs for youths and farmers in the nearby villages. The action plan shall be completed within five years as proposed. All the commitments made during public hearing shall be satisfactorily implemented.

(xiii). The project proponent shall ensure rain water harvesting system in the project area and reduce dependency on ground water.

(xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

(xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

(xvi). 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.

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

DAY 2: 21st October, 2020 (Wednesday)

Agenda No. 24.11

API Manufacturing Unit with production capacity of 180.0TPM at RS No: 3/1 & 3/2, Anumanchipalli Village, Jaggayyapeta Mandal, Krishna District, Andhra Pradesh by M/s. Orch Pharma Pvt. Ltd.-Consideration of Environment Clearance

[IA/AP/IND2/172555/2020, IA-J-11011/221/2020-IA-II(I)]

The Project Proponent and their accredited Consultant M/s. Rightsource Industrial Solutions Pvt. Ltd., gave a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal is for Environmental Clearance to the project for Establishing API Manufacturing Unit at RS No: 3/1 & 3/2, Anumanchipalli Village, Jaggayyapeta Mandal, Krishna District, Andhra Pradesh State by M/s. Orch Pharma Pvt. Ltd.

The details of products and capacity as under:

S. No.	Name of the Product	Capacity in MT/Month	CAS No	Therapeutic use
1	Aripiprazole	10.00	129722-12-9	Anti-Psychotic
2	Brexpiprazole	10.00	913611-97-9	Antipsychotic
3	Dolutegravir	10.00	1051375-16-6	Antiretroviral
4	Efavirenz	10.00	154598-52-4	Antiretroviral
5	Emtricitabine	10.00	143491-57-0	Anti retroviral
6	Etoricoxib	10.00	202409-33-4	Anti inflammatory
7	Febuxostat	10.00	144060-53-7	To treat Gout Disease
8	Imatinib Mesylate	10.00	220127-57-1	Anti-Cancer
9	Lamivudine	120.00	134678-17-4	Anti-Retroviral
10	Linezolid	20.00	165800-03-3	Antibiotic
11	Lopinavir	10.00	192725-17-0	Antiretroviral
12	Mirabegron	10.00	223673-61-8	Beta-3 adrenergic receptor agonist, Treatment for Overactive bladder
13	Prasugrel Hydrochloride	10.00	389574-19-0	Used To Prevent Thrombosis
14	Pregabalin	10.00	148553-50-8	Used to treat sinusitis
15	Ranolazine	10.00	95635-55-5	Chronic angina (chest pain)
16	Ritonavir	10.00	155213-67-5	Anti retroviral
17	Rivaroxaban	10.00	104227-87-4	Anti viral
18	Tenofovir Disoproxil Fumarate	10.00	147127-20-6	Used to treat HIV
Total (Any 6 Products will be manufactured at any given point of time)		**180.00**		

BY-PRODUCT

S. No	Name of the product	Name of the By-product	Quantity In Kg/Day
1	Aripiprazole	Sodium bromide	129.25
2	Efavirenz	Sodium acetate	103.10
3	Emtricitabine	L-Menthol	355.40
		Triethylamine Hydrochloride	263.00
4	Etoricoxib	Morpholine	152.30
5	Febuxostat	Methyl cyanide	113.80

S. No	Name of the product	Name of the By-product	Quantity In Kg/Day
		Potassium bromide	227.60
6	Lamivudine	L-Menthol	3365.60
7	Linezolid	Imidazole	539.70
8	Lopinavir	Benzyl Alcohol	191.50
		Monosodium citrate	379.20
		Potassium chloride	306.90
		Monosodium citrate	326.20
9	Mirabegron	Acetic acid	235.30
		Ammonium sulphate	256.30
10	Pregabalin	Ammonium chloride	858.00
11	Ritonavir	Sodium acetate	191.50
		4-Nitro phenol	209.50
		Sodium phosphate	68.30
12	Rivaroxaban	Potassium chloride	122.80
		Triethylamine hydrochloride	334.80
13	Tenofovir Disoproxil Fumarate	Triethylamine hydrochloride	86.00

All proposals for projects or activities in respect of Active Pharmaceutical Ingredients (API), received upto the 30th September 2020, shall be appraised, as Category "B2". All Active Pharmaceutical Ingredients (API), are listed at schedule 5(f)–Synthetic, Organic Chemicals Industry under category 'B2' as per S.O. 1223(E) dated 27.03.2020 and are appraised by SEIAA/SEAC. Due to general condition of interstate boundary Telangana - Andhra Pradesh State within 5 km from the project location, the proposed expansion project is appraised at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposed project will be established in a land area of 13.5 Acres (54632.56 Sq. m). Industry will develop greenbelt in an area of 18212.0 sqm. which is 33.33% out of 54632.56 Sqm of the total project area. The proposed project cost is about Rs. 38.0 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 298 Lakhs and the recurring cost (operation and maintenance) will be about Rs. 31 Lakhs per annum. Total Employment after expansion will be 200 persons. Industry proposed to allocate Rs. 76 Lakhs for 5 years towards Corporate Environment Responsibility.

There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. lies within 10 km distance.

The total water requirement is 409.90 m^3/day of which fresh water requirement of 294.83 m^3/day and will be met from Ground water supply. Generated effluent of 150.84 m^3/day will be treated through stripper followed by MEE/ATFD, Biological Treatment Plant followed by RO plant will be based on Zero Liquid Discharge System.

Power requirement will be 2000 KVA and will be met from Andhra Pradesh Southern Power Distribution Company Limited (APSPDCL). The unit is proposed to install 1 X 1000 KVA, 1 x 500 KVA & 1 x 380 KVA DG Sets, Stack (height 10 mts) will be provided for each as per CPCB norms to the proposed DG sets.

Boilers of 6.0 TPH & 4.0 TPH are proposed with stacks of height 35 mtrs & 30 mtrs. Cyclone separators and bag filters will be installed separately for each of the boiler for controlling the particulate emissions (within statutory limit of 115 mg/ Nm^3).

Details of Process emissions generation and its management.

S. No.	Name of the Gas	Quantity (Kg/Day)	Treatment Method
1	Carbon dioxide	3756.00	Dispersed into the atmosphere
2	Hydrogen	125.00	Diffused by using Nitrogen through Flame arrestor
3	Ammonia	194.00	Scrubbed by using chilled water media
4	Oxygen	236.00	Dispersed into the atmosphere
5	Hydrogen Bromide	605.00	Scrubbed by using C. S. Lye solution
6	Hydrogen chloride	1763.00	Scrubbed by using chilled water media
7	Sulphur dioxide	55.00	Scrubbed by using C. S. Lye solution
8	Propane	73.00	Diffused by using Nitrogen through Flame arrestor
9	Hydrogen fluoride	79.00	Scrubbed by using C. S. Lye solution
10	Dimethylamine	172.00	Scrubbed by using chilled water media

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

S. No	Name of the Waste	Quantity	Disposal Method
Hazardous Waste Details			
1	Organic solid waste (Process Residue)	9108 Kg/Day	Will be sent to Cement Industries
2	Spent Carbon	429 Kg/Day	
3	Solvent Distillation Residue	2668 Kg/Day	
4	Organic distillate from MEE Stripper	2350 Kg/Day	
5	Inorganic Solid Waste	7623 Kg/Day	Will be sent to TSDF
6	MEE Salts	4690 Kg/Day	
7	ETP Sludge	260 Kg/Day	
8	Used Oils	380 Ltrs/Annum	Will be sent to SPCB Authorized Agencies for Reprocessing/ Recycling
9	Detoxified Containers/ Container liners	900 No's / Month	After Detoxification will be sent to SPCB authorized agencies.
10	Used Lead Acid Batteries	6 No's/ Annum	Send back to suppliers for buyback of New Batteries
Solid waste details			
11	Ash from boilers	11900 Kg/Day	Will be sent to Brick Manufacturers

Public hearing is not required for the proposed project as it is coming under Category 'B2' project. It is reported that no litigation is pending against the proposal.

The EAC has deliberated on the proposal. ***The Committee has noted that the project proponent has not provided the details of the land available with them and permission for its industrial use. The Committee has also observed that the PP intends to release huge amount of CO_2 to the atmosphere and the same needs to arrested with proper pollution control devices.*** *The Committee after detailed deliberations has desired for following additional information/inputs in respect of the following:*

(i). Details of land available with the PP and permission for its Industrial use.

(ii). Details of emissions from the plant and detailed action plan for arresting the pollutants (like CO_2) at source/with proper pollution control devices.

(iii). Status of ground water extraction permission

(iv). Activities proposed for addressing the socio-economic and environmental issues in the study area with time period.

(v). Undertaking that there is no Intermediates in the list of products submitted as the instant notification 27.03.2020 is for API products.

(vi). Revised plot plan with green belt development all around the Unit.

The proposal was accordingly DEFERRED for the needful

Agenda No. 24.12

Expansion and Change in Product Mix for manufacture of Synthetic Organic Chemicals Drugs and Byproducts 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, Tamil Nadu -Consideration of Environment Clearance

[IA/TN/IND2/155475/2018, IA-J-11011/361/2018-IA-II(I)]

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 through Video Conferencing (VC).

The proposal is for environmental clearance to the project for Expansion and Change in Product Mix for manufacture of Synthetic Organic Chemicals Drugs and Byproducts 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, Tamilnadu.

All 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**)** are listed in S.N. 5**(f)** of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' and requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The details of products and capacity as under:

	Products	**Quantity (MT/Month)**	

S. No		Existing Products*	Proposed Products	Total quantity after expansion
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 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.

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 proposals. The Committee observed that the PP has been operating the unit with valid CTO from the State PCB and as such, this type of violation shall happen due to lack of knowledge and also due to absence of proper directions from the SPCBs. The Committee was of the considered view that the such proposals coming for EC shall be considered on merit on case to case basis, after taking proper action under the E(P) Act, 1986, and as per the rules/guidelines framed under the Ministry's Notification S.O.804 (E) dated 14th March, 2017.

The Committee, at the first instance opined that the matter may be examined by the Ministry and the proposal shall be considered by the EAC based on the decisions taken.

The Committee also observed that the consultant has also tried to conceal the facts and mislead the EAC/Ministry. The attitude of the consultant may be reported to QCI to debar from this sector for presenting the cases before EAC in MoEF&CC.

After detailed deliberation, the proposal was **deferred** for the needful.

Agenda No. 24.13

Production of Synthetic organic chemicals (Resins) 1000 MTPM At Proposed Manufacturing Unit at (Survey No.: 93, P-3, Behind Millennium Vitrified, Village Bhadiyad, Taluja & Distt. Morbi (Gujarat) by M/s ZIZER POLYMERS LLP- Consideration of Environment Clearance

[IA/GJ/IND2/115436/2019, IA-J-11011/258/2019-IA-II(I)]

The Project Proponent and their accredited consultant M/s T R Associates made a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal is for environmental clearance to the project for Setting up Resin manufacturing unit of capacity 1000 TPM at Survey No. 93, P-3, Behind Millennium Vitrified, Village Bhadiyad, Taluka & District Morbi, Gujarat by M/s Zizer polymers LLP.

The details of products and capacity as under:

S. No.	Product	Capacity (TPM)	CAS Number
1	Fortified Rosin	100	8050-09-7
2	Neutral Size Rosin	500	8050-09-7
3	A.K.D wax emulsion	50	144245-85-2
4	MF Resin & Fixer	90	9003-08-1
5	Water Based emulsion polymer	100	It's a group of polymers and not pure chemicals, so CAS number is not available.
6	Polyvinyl Alcohol	10	9002-89-5
7	Surface sizing agent	150	24981-13-3

Total	**1000**	**--**

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-11011/258/2019-IA-II(I) dated 18th October, 2019. Public Hearing for the project has been conducted by the State Pollution Control Board on 18/08/2020, which was presided over by the District Collector and District Magistrate. The main issues raised during the public hearing are related to the employment, health and safety of worker and about wastewater treatment. It was also informed that no litigation is pending against the proposal.

The land area available for the project is 4047 m^2. Industry will develop greenbelt in an area of 36.75 % i.e., 1487.63 m^2 out of total area of the project. The estimated project cost is Rs. 700 lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs. 28.53 lakhs and the recurring cost (operation and maintenance) will be about Rs. 27.03 lakh per annum. Total Employment will be 25 persons as direct. Industry proposes to allocate 14 Lakhs 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.

Ambient air quality monitoring was carried out at 8 locations during October to December, 2019 and the baseline data indicates the ranges of concentrations as: PM_{10} (66.28 µg/m^3 to 84.93 µg/m^3), $PM_{2.5}$ (34.4 µg/m3 to 51.28 µg/m^3), SO_2 (9.65 µg/m^3 to 21.39 µg/m^3) and NO_2 (24.91 µg/m^3 to 39.23 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.1 µg/m^3 and 0.01 µg/m^3 with respect to PM_{10} and Sox. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is estimated to be 64.85 cum/day, which includes fresh water requirement of 47.25 cum/day proposed to be met from Bore Well. Effluent of 7.15 m^3/day quantity will be treated through Effluent Treatment Plant and reused. There will be no discharge of treated/untreated waste water from the unit, and thus ensuring Zero Liquid Discharge.

Power requirement will be 125 kVA and will be met from Paschim Gujarat Vij Corporation limited (PGVCL). Industry propose one Thermic Fluid Heater of 4 Lakh Kcal/hr (fuel: Natural Gas (400 SCM/day)) & Boiler (0.6 TPH) (fuel: Natural Gas (200 SCM/day)).

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

S. No.	Name of the waste	Category	Quantity	Mode of disposal

1	Used oil	5.1	0.04 MT/Annum	Collection, storage and Use within premises as a lubricant/ sell to registered recycler
2	Discarded Plastic bags/Drums	33.1	135.80 MT/Annum	Collection, storage and decontamination or Reuse within premises/ sell to approved scrap vendor
3	ETP Sludge	35.3	0.15 MT/Annum	Collection, storage and Disposal at TSDF Site
4	Evaporation Residue	35.3	32.46 MT/Annum	Collection, storage and Disposal at TSDF Site

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/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 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 is 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 has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and found to be addressing the issues in the study area. The Committee has suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee has noted that the land has been converted for Industrial purpose.

The EAC has deliberated the proposal and has made 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 have found the proposal in order and have 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 47.25 cum/day proposed to be met from bore well/ground water. Necessary 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 in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiv). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, the project proponent, as committed, shall provide educational assistance, medical facilities, RO drinking water facility, agriculture, solar lights in Bhadiyad, Trajpar and Ravapar villages. The action plan shall be completed within three years as proposed. All the commitments made during public hearing 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. 24.14

Establishment of 2225 MT/M capacity Unit to manufacture Agrochemicals and Chemical Intermediates at Plot No. K-2/3/1 & K-2/2, Additional Mahad MIDC, Tehsil: Mahad, District: Raigad, (Maharashtra) by M/s Astec Lifesciences Ltd.- Consideration of Environment Clearance

[IA/MH/IND2/139824/2020, IA-J-11011/31/2020-IA-II(I)]

The Project Proponent and their accredited Consultant M/s Sadekar Enviro Engineers Pvt Ltd, made a detailed presentation on the salient features of the project through Video

conferencing.

The proposal is for environmental clearance to the project for Establishment of Agrochemicals and Chemical Intermediates manufacturing unit of 2225 TPM capacity at Plot No. K-2/3/1 & K-2/2, Additional Mahad MIDC, Tehsil Mahad, District Raigad, Maharashtra by M/s Astec Lifesciences Ltd.

The details of products and capacity as under:

S. No.	Product	Capacity (TPM)
1	Dinotefuran	10
2	Pyraclostrobin	25
3	Flazasulfuron (SL 160)	10
4	Trifloxystrobin	50
5	Pyridydal	50
6	Tefluthrin	50
7	Paclobutrazol	40
8	Metalaxyl-M	15
9	Benzobicyclon	20
10	Fluridone (FLR)	5
11	PCS-II (4-chloro phenyl dimethyl 2 pentanone)	75
12	Azoxystrobin	75
13	Penconazole	15
14	Imibenconazole (IBZ)	50
15	Metribuzin	75
16	Pinoxaden	25
17	Dimethachlor	50
18	Thiamethoxam	75
19	2,4-Dichloro-3,5-dinitrobenzotrifluoride	75
20	Binfenazate	50
21	Propaquizafop	50
22	difluoro benzodioxolane	50
23	Iodosulfuron	20
24	Fentrazamide	75
25	Monosulfuran	75
26	Prothioconazole	100
27	Bifenthrin	50
28	Cyflufenamid	40
29	Carfentrazone-ethyl	20
30	Quizalofop	20
31	Dimethomorph	20
32	Pyroxasulfone	15
33	Mesosulfuran	25
34	Metsulfuran	25
35	Nicosulfuran	25
36	FTR (flutriafol)	20
37	DMBA (2,6-Dimethoxy benzoic acid)	15

38	DSP (Dimethoxy sulfonyl pyrimidine)	25
39	ADMP (amino dimethoxy pyrimidine)	20
40	Bensulfuran	100
41	DCBP (dichloro butyrophenone)	100
42	PMPC (4 methyl phenacyl chloride)	20
43	Tribenuron	100
44	DCHP (Di chloro hydroxy pirazole)	20
45	CDPP (Chloro diphenyl phosphine)	20
46	MY-17Ona	10
47	AMMT (amino methoxy methyl triazine)	25
48	Fenpropymorph	100
49	Imazethapyr (IMZ)	120
50	2-Chloro-4-fluoro-5-[3-methyl-2,6-dioxo-4-(trifluoromethyl)-1,2,3,6-tetrahydropyrimidin-1-yl]benzenethiol (PDSH)	50
51	6-chloro-3-(2-cyclopropyl-6-methylphenoxy)pyridazin-4-yl morpholine-4-carboxylate (CYP)	30
	Total	**2225**

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

The Standard ToR has been issued by Ministry vide letter No.IA-J-11011/31/2020-IA-II(I) dated 19th March 2020. Public hearing is exempted as the project site is located in the notified Industrial area. It was informed that no litigation is pending against the proposal.

The land area available for the project is 37297 m^2. Industry will develop greenbelt area of 12308 m^2 to make 33 % out of total area of the project. The estimated project cost is Rs. 91.2 crore. Total capital cost earmarked towards environmental pollution control measures is Rs 11.92 Crore and the recurring cost (operation and maintenance) will be about Rs 6.59 crore per annum. Total Employment will be 50 Nos. persons as direct & 50 Nos. persons indirect after expansion. Industry proposes to allocate Rs. 1.824 Crore towards Corporate Environmental Responsibility.

There are No national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km from the project site. Kal River is flowing at a distance of 1.0 km in East 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 concentrations as: PM10 (50.7 to 82.6 µg/m^3), PM2.5 (22.2 to 35.8 µg/m^3), SO2 (18.1 to 38 µg/m^3) and NO2 (24 to 48 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.20756 µg/m^3, 11.16767 µg/m^3 and 10.2353 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 788 m^3/day of which fresh water requirement of 420 m^3/day will be met from M.I.D.C. water supply. Effluent of 508 CMD quantity will be treated through STP, MEE, ETP & RO; 368 CMD will be reused. The plant will be based on Zero Liquid discharge system.

Power requirement will be 3200 KVA and will be met from Maharashtra State Electricity Distribution Company Limited (MSEDCL). DG sets (2x500 KVA) will be set up and to be used as standby during power failure after expansion. Stack of height 10 m will be provided as per CPCB norms to the proposed DG sets. Coal/ Briquette fired boiler (20 TPH), Furnace Oil fired (10.0 Lakh Kilo Calorie/Hr & 4.0 Lakh Kilo Calorie/Hr) Thermic Fluid Heaters will be installed. Bag filter with a stack of height of 43 m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm3 for the boiler. To mitigate the process emissions, total 4 Nos. of scrubbing system will be installed; the separate stacks height of 12 m each will also be provided to disperse total emissions.

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

Hazardous waste:

Hazardous Waste			
Type	**Cat**	**Qty Per Annum**	**Method of Disposal**
Used/ spent oil	5.1	12 KL	Sell to Authorized reprocessor/CHWTSDF
Evaporator Residue/Salt	37.3	1560 MT	Sent to CHWTSDF/Sale to MPCB Authorized Party/ Co-processing
Process Residue and waste	29.1	6252 MT	Sent to CHWTSDF/Sale to MPCB Authorized Party/ Co-processing
Discarded containers and liners/barrels	33.1	240 MT	Authorized reconditioners/recyclers/CHWTSDF
Spent Solvent	29.4	2400 KL	Sent to CHWTSDF/Sale to MPCB Authorized Party/ Co-processing
Contaminated cotton rags or other cleaning material	33.2	62.4 MT	Sent to CHWTSDF
Filters and filter material which have organic liquids in them	36.2	124.8 MT	Sent to CHWTSDF
Spent Carbon	36.2	31.2 MT	Sent to CHWTSDF
Chemical Sludge from Wastewater treatment	35.3	50 MT	Sent to CHWTSDF
Spent Catalyst	29.5	9.36 MT	Sold to authorized recyclers / CHWTSDF

<u>Other Hazardous Waste:</u>

Other Hazardous Waste

Sr. No.	Name of By product	Quantity MT/M	Method of disposal
1	Ammonium chloride	144.9	Will be sent to CHWTSDF / Will be reused within process / Will be sold as by product/Co-processing
2	Potassium bromide	22.0	
3	Potassium chloride	277.9	
4	Sodium Bromide	13.2	
5	Sodium bisulfite	152.31	
6	Triethyl Amine Hydrochloride	44.92	
7	Bromoborane	4.5	
8	Phosphorous Oxychloride	40.2	
9	Amidechloride	22.1	
10	Ammonium Bromide	13.7	
11	Hydrochloric Acid	745.0	
12	Aq. Ammonia	20.9	
13	Pyridine.Hcl	52.0	
14	Methanol	130.4	
15	Sodium Tugstate	1.2	
16	Ethanol	31.9	
17	Poly Aluminium Chloride	371.3	
18	Chloroform	65.7	
19	Phenol	8.8	
20	Tetra-N-Butylammonium Sulfate	2.2	
21	Magnesium chloride	38.4	
22	Disodium phosphate	38.4	
23	Sodium Formate	14.2	
24	Boric acid	2.41	
25	Sodium hydroxide	148.08	
26	Potassium Carbonate	240.46	
27	Potassium Hydroxide	24.87	
28	Caesium carbonate	8.49	
29	Triethylamine Hydrochloride	15.87	
30	Sodium Methyl Sulphate	46.84	
31	Bromo Succinamide	68.75	
32	Sodium Sulphate	10.35	
33	Sodium Acetate	2.85	
34	Tetra-n-butylammonium bromide	1.03	
35	Potassium Methyl Sulphonate	11.67	
36	Thio glutamic Acid	61.92	
37	Stannous Chloride	99.12	
38	Triethyl Ammonium Salt	19.87	
39	Phospourous chloride acid	44.65	
40	Ammonium sulfate	104.47	
41	Sodium chloroacetate	10.98	
42	Zincate chloride	15.5	
43	Sodium salt of Methyl Sulphonic Acid	11.0	
44	Sodium carbonate	21.5	

45	Sodium Chloride	410.4	
46	Diisopropylamine Hydrochloride	2.2	
47	Aq. Sulfuric Acid	31.4	
48	Triazole	25.4	
49	Urea	38.5	
50	Potassium Bicarbonate + Hydrochloric Acid	21.29	
Total		**3755.99**	

Non-Hazardous Waste:

Sr. No	Particulars	Quantity (T/A)	Method of Disposal
1	Paper waste (Boxes & bags)	156	To be sold to authorize recycler
2	Plastic waste	156	To be sold to authorize recycler
3	Scrap metal	624	To be sold to authorize recycler
4	Ash	3151.2	To be sold to brick/cement manufacturer
5	Wooden pellets	312	To be sold to authorize recycler
6	Non contaminated empty bags	124.8	To be sold to authorize recycler

E Waste:

Type – E- Waste			
Particulars	**Category**	**Quantity (MT/A)**	**Method of Disposal**
Personal Computers (Central Processing Unit with input and output devices)	ITEW2	0.1	Sale to MPCB authorised recycler / returned to manufacturer / supplier
Personal Computing: Laptop Computers (Central Processing Unit with input and output devices)	ITEW3	0.1	
Printers including cartridges	ITEW6	0.5	
Telephones	ITEW12	0.05	

Bio Medical Waste:

Bio Medical Waste	BMW Category	Quantity (MT/A)	Method of Disposal
Soiled waste (Items contaminated with blood, body fluids like dressings, plaster casts, cotton swabs and bags containing residual or discarded blood and blood components)	Yellow	6	Disposal to CBMWTF/MPCB authorised processor for Mahad region
Expired medicines (Pharmaceutical waste like antibiotics, cytotoxic drugs including all items contaminated with cytotoxic drugs or plastic ampoules)	Yellow	6	

Battery Waste:

Battery Waste	Waste Category	Quantity (T/A)	Method of Disposal
Lead batteries from D.G. Sets, UPS system	--	0.2	Returned to supplier

The EAC has made detailed deliberations on the proposal. The Committee has observed that the incremental GLCs due to the proposed project are at higher level and the project proponent needs to device suitable pollution control device to control the same. The Committee was of the view that at the first instance Coal shall not be used as fuel in the boiler. The Committee after detailed deliberations has desired for following additional information/inputs in respect of the following:

(i). Revised GLC and action plan for controlling incremental GLCs from the project.

(ii). Action plan for controlling VOC at 99.995 % needs to be submitted

(iii). Ash management plan needs to be submitted

(iv). Safety and risk analysis using advanced modelling

(v). Commitment that coal shall not be used a fuel in the boiler.

(vi). Revised water balance. Fresh water consumption shall be reduced using rain water harvesting system.

(vii). Details of hazardous substances and plan for its management.

(viii). It is observed that there were two old units earlier operated in the premises. Details of Unit and its all CTO/EC needs to be submitted.

The proposal was accordingly DEFERRED for the needful.

Agenda No. 24.15

Establish Bulk Drugs manufacturing unit at Sy No. 290& Parts, Dondapadu Village Chinthalapalem Mandal, Suryapet District, Telangana by M/s SRR Laboratories - Consideration of Environment Clearance

[IA/TG/IND2/173220/2020, IA-J-11011/225/2020-IA-II(I)]

The Project Proponent and their accredited Consultant M/s. Rightsource Industrial Solutions Pvt. Ltd., gave a detailed presentation on the salient features of the project through video conferencing (VC) and informed that:

The proposal is for Environmental Clearance to the project for Establishing API Manufacturing Unit at Sy No. 290 & Parts, Dondapadu Village Chinthalapalem Mandal, Suryapet District, Telangana State by M/s. SRR Laboratories.

The details of products and capacity as under:

S. No	Product name	Quantity (Kg/Month)	CAS No	Therapeutic category
1	Carvedilol	10000.00	72956-09-3	Antihypertensive
2	Dabigatran	5000.00	211915-06-9	Anticoagulant
3	Dapoxetine hydrochloride	5000.00	129938-20-1	Used for the treatment of premature ejaculation
4	Fexofenadine hydrochloride	10000.00	153439-40-8	Anti allergic
5	Fluconazole	10000.00	88386-73-4	Antifungal
6	Itraconazole	10000.00	84625-61-6	Antifungal
7	Ketoconazole	10000.00	65277-42-1	Antifungal
8	Lansoprazole	20000.00	103577-45-3	Anti-ulcer
9	Levocetirizine dihydrochloride	5000.00	130018-77-8	Antihistamine
10	Linagliptin	5000.00	668270-12-0	Anti diabetic
11	Linezolid	3000.00	165800-03-3	Antibiotic
12	Meropenem	5000.00	119478-56-7	Antibacterial
13	Montelukast sodium	2000.00	151767-02-1	Anti asthmatic
14	Rosuvastatin calcium	2000.00	147098-20-2	Anti lipemic agent
15	Sitagliptin Phosphate Monohydrate	5000.00	654671-77-9	Anti diabetic
16	Teneligliptin	5000.00	760937-92-6	Anti diabetic
17	Valacyclovir Hydrochloride Monohydrate	10000.00	124832-27-5	Anti Viral
18	Vildagliptin	5000.00	274901-16-5	Anti diabetic
	Total	**127000**		

BY-PRODUCTS

S. No	Name of the Product	Name of the By-Product	Quantity in Kg/Day
1	Itraconazole	Hydrobromic acid	39.25
		Hydrochloric acid	17.58
2	Ketoconazole	Hydrochloric acid	50.40
		Hydrobromic acid	60.13
4	Fluconazole	Aluminium chloride Solution	1433.33
		Triethyl amine hydrochloride	260.00
		Hydrochloric acid	256.60
5	Fexofenadine Hydrochloride	Aluminum chloride solution	218.33
		Hydrochloric acid	110.83
6	Linagliptin	Hydrochloric acid	14.71
		Hydrogen bromide	31.68

S. No	Name of the Product	Name of the By-Product	Quantity in Kg/Day
7	Levocetirizine Dihydrochloride	Hydrochloric acid	30.40
		Triethyl amine hydrogen chloride	52.90
8	Dabigartan	Hydrochloric acid	31.73
		Hydrobromic acid	28.58
9	Vildagliptin	Hydrochloric acid	43.98
10	Rosuvastatin Calcium	Hydrochloric acid	6.20
11	Dapoxetine hydrochloride	Potassium Bromide	116.25
		Succinimide	84.30
		Tartaric acid	84.00
12	Lansoprazole	Sodium acetate	284.30
		Acetic acid	208.10
		Potassium Nitrite	294.90
13	Linezolid	Imidazole	81.00

All proposals for projects or activities in respect of Active Pharmaceutical Ingredients (API), received upto the 30th September 2020, shall be appraised, as Category "B2". All Active Pharmaceutical Ingredients (API), are listed at schedule 5(f)–Synthetic, Organic Chemicals Industry under category 'B2' as per S.O. 1223(E) dated 27.03.2020 and are appraised by SEIAA/SEAC. Due to general condition of interstate boundary Telangana - Andhra Pradesh State within 5 km from the project location, the proposed expansion project is appraised at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The proposed project will be established in a land area of 8.0 Acres (32368.00 Sq. m). Industry will develop greenbelt in an area of 11093.0 Sqm which is 34.27 % out of 32368.00 Sqm of the total project area. The proposed project cost is about Rs. 15.0 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 194 Lakhs and the recurring cost (operation and maintenance) will be about Rs. 25 Lakhs per annum. Total Employment will be 90 persons. Industry proposed to allocate Rs. 30 Lakhs for 5 years towards Corporate Environment Responsibility.

There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. lies within 10 km distance.

The total water requirement is 204.44 m^3/day of which fresh water requirement of 141.30 m^3/day and will be met from Ground water supply. The industry has obtained Ground water permission from Govt. of Telangana Ground Water Department vide Letter No. 1685/GP/TSiPASS/SRPT/2018 Dated: 19.03.2019 to withdrawal of 192 KLD from borewells. Generated effluent of 79.00 m^3/day will be treated through stripper followed by MEE/ATFD, Biological Treatment Plant followed by RO plant will be based on Zero Liquid Discharge System.

Power requirement will be 2100 KVA and will be met from Telangana State Southern Power Distribution Company Limited (TSSPDCL). The unit is proposed to install 1 X 750 KVA DG Set, Stack (height 10 mts) will be provided as per CPCB norms to the proposed DG sets.

Boilers of 4.0 TPH & 3.0 TPH are proposed with stacks of height 30 mtrs each. Cyclone separators and bag filters will be installed separately for each of the boiler for controlling

the particulate emissions (within statutory limit of 115 mg/ Nm^3). Fuel briquettes will be used instead of coal for the proposed boilers of 4.0 TPH & 3.0 TPH boilers.

Details of Process emissions generation and its management.

S. No	Name of the Gas	Quantity in Kg/Day	Treatment Method
1	Carbon dioxide	280.00	Will be converted into Dry CO_2 by using suitable compressor
2	Oxygen	42.00	Dispersed into the atmosphere
3	Ammonia	16.00	Scrubbed by using Chilled water media
4	Sulfur dioxide	261.00	Scrubbed by using C. S. Lye Solution
5	Hydrogen Bromide	60.00	Scrubbed by using C. S. Lye Solution
6	Hydrogen chloride	107.00	Scrubbed by using Chilled water media
7	Hydrogen	15.00	Diffused by using Nitrogen through Flame arrestor
8	Chloromethane	7.00	Scrubbed by using C. S. Lye Solution

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

S. No	Name of the Waste	Quantity	Disposal Method
Hazardous Waste Details			
1	Organic solid waste	2515 Kg/Day	Will be sent to Cement Industries/TSDF
2	Spent Carbon	193 Kg/Day	
3	Solvent Distillation Residue	1284 Kg/Day	
4	Organic distillate from MEE stripper	1380 Kg/Day	
6	Inorganic Solid Waste	1034 Kg/Day	Will be sent to TSDF
7	MEE Salts	3285 Kg/Day	
8	ETP Sludge	160 Kg/Day	
9	Used Oils	150 Ltrs/Annum	Will be sent to SPCB Authorized Agencies for Reprocessing/ Recycling
10	Detoxified Containers/ Container liners	900 No's / Month	After Detoxification will be sent to SPCB authorized agencies
11	Used Lead Acid Batteries	2 No's/ Annum	Send back to suppliers for buyback of New Batteries
Solid waste details			
12	Ash from boilers	8225 Kg/Day	Will be sent to Brick Manufacturers

Public hearing is exempted as it is coming under Category 'B2' project. It is reported that no litigation is pending against the proposal.

Inventory of Solvents & Hazardous Chemicals:

S. No	NAME OF SOLVENT/ CHEMICAL	PHYSICAL STATE	MODE OF STORAGE	MAX. INVENTORY IN TONS	NATURE OF HAZARD	NFPA RATING
1	Methanol	Liquid	MS Tank	20	Flammable	H : 1 F: 3 R : 0
2	Toluene	Liquid	MS Tank	20	Flammable	H : 2 F: 3 R : 0
3	MDC	Liquid	MS Tank	20	Harmful	H : 2 F: 1 R : 0
4	Acetone	Liquid	MS Tank	10	Flammable	H : 1 F: 3 R : 0
5	Bromine	Gas	Glass Bottles	66 Bottles (200 Kgs)	Toxic	H: 3 F: 0 R:2
6	HCl	Liquid	PP+FRP Tank	10	Corrosive	H: 3 F: 0 R:1
7	Ammonia	Gas	Cylinders	2 Nos. (Each of 50 Kgs)	Toxic	H : 3 F: 1 R : 0
8	IPA	Liquid	MS Tank	20	Flammable	H:1 F:3 R:0
9	Hydrogen	Gas	Cylinders	60 Nos. (30 Kgs)	Explosive	H:0 F:4 R:0
10	THF	Liquid	HDPE Drums	8	Flammable	H : 2 F: 3 R: 1
11	Thionyl chloride	Liquid	HDPE Drums	2	Toxic	H:4 F:0 R:2
12	Hydrobromic acid	Liquid	HDPE Drums	2	Corrosive	H:3 F:0 R:1
13	Raney nickel	Solid	HDPE Carboys	0.1	Flammable	H:2 F:4 R:1
14	Sodium borohydride	Solid	HDPE Carboys	2.0	Flammable	H:3 F:4 R:2
15	n-Hexane	Liquid	MS Tank	10	Flammable	H:1 F:3 R:0
16	DMF	Liquid	MS Tank	20	Flammable	H:1 F:2 R:0
17	Acetic acid	Liquid	HDPE Tank	10	Corrosive	H:3 F: 2 R:0

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with PFR 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 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 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 PFR report reflects the present environmental concerns and the projected scenario for all the environmental components. The Committee deliberated on the activities proposed to address the socio-economic and environmental issues and found to be addressing the issues in the study area. The Committee has suggested that the storage of toxic/hazardous raw material shall be bare minimum in quantity and inventory. The Committee noted that the CO_2 emission is huge and needs to be controlled with proper pollution control device. The PP has committed that the C02 shall be either stored/or controlled at sources its self. The Committee has noted that the land has been converted for Industrial purpose.

The EAC has deliberated the proposal and has made 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 have found the proposal in order and have 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). Volatile organic compounds (VOCs)/Fugitive emissions shall be controlled at 99.99% with effective chillers/modern technology. CO_2 shall be either stored and sold or controlled at sources, CO_2 shall not be released to the atmosphere.

(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). Total fresh water requirement shall not exceed 141.30 cum/day proposed to be met from bore well/ground water. Necessary 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 in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiv). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan

proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide drinking water and sanitation facility, educational assistance to the schools in the nearby villages. The action plan shall be completed within five years as proposed.

(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. 24.16

Setting up of Manufacturing of Bulk Drugs unit of capacity 39 MTM by M/s Ramsay Laboratories located at Plot.No:267, Kadechur Industrial Area, Kadechur Village, Yadgir Taluk, Yadgir District, Karnataka -Consideration of Environment Clearance [IA/KA/IND2/173016/2020, IA-J-11011/224/2020-IA-II(I)]

The project proponent and their accredited consultant M/s. Rightsource Industrial Solutions Pvt. Ltd. made a detailed presentation on the salient features of the project through Video Conferencing (VC).

The proposal is for environmental clearance to the project for Setting up of Manufacturing of Bulk Drugs unit of capacity 39 MTM by M/s Ramsay Laboratories located at Plot.No:267, Kadechur Industrial Area, Kadechur Village, Yadgir Taluk, Yadgir District, Karnataka.

The details of products and capacity as under:

S. No	Product Name	Quantity in MT/Month	CAS. No.	Therapeutic uses
1	Apixaban	2.00	503612-47-3	Anti-Coagulant
2	Avanafill	1.00	330784-47-9	To treat Erectile dysfunction (Phosphodiesterase (PDE) inhibitors)
3	Cabergoline	0.10	81409-90-7	Hormone imbalance
4	Dapoxetine Hydrochloride	2.00	129938-20-1	serotonin reuptake inhibitors
5	Entecavir	3.00	142217-69-4	Anti-Retroviral
6	Etoricoxib	5.00	202409-33-4.	Anti-Inflammatory
7	Febuxostat	1.00	144060-53-7	To treat Gout Disease
8	Fingolimod Hydrochloride	0.10	162359-56	To treat Multiple sclerosis
9	Levocetirizine Dihydrochloride	4.00	130018-77-8	Anti-Histamine
10	Levothyroxine Sodium	1.00	55-03-8	To treat hypothyroidism
11	Liothyronine Sodium	1.00	55-06-1	To treat hypothyroidism
12	Montelukast sodium	2.00	51767-02-1	Anti-allergic & Asthma

S. No	Product Name	Quantity in MT/Month	CAS. No.	Therapeutic uses
13	Mycophenolate Mofetil	1.00	128794-94-5	Immunosuppressant
14	Nizatidine	15.00	76963-41-2	Anti-Ulcerative
15	Permethrin	4.00	52645-53-1	To treat Scabies (Insecticide)
16	Riluzole	2.00	1744-22-5	To treat Amyotrophic lateral sclerosis
17	Rivaroxaban	2.00	366789-02-8	Anti-Coagulant
18	Sildenafil Citrate	2.00	171599-83-0	To treat Erectile dysfunction
19	Solifenacin Succinate	2.00	42478-38-2	Muscarinic-receptor antagonist (overactive bladder infections)
20	Tadalafil	3.00	171596-29-5	To treat Erectile dysfunction
21	Tamsulosin Hydrochloride	0.50	106463-17-6	To treat prostatic hyperplasia
22	Terbinafine Hydrochloride	10.00	91161-71-6	Anti-Fungal
23	Varenicline Tartrate	2.00	375815-87-5	Anti-nicotine addiction
24	Vildagliptin	5.00	274901-16-5	Anti-Diabetic
25	Vardenafil	2.00	224785-90-4	To treat Erectile dysfunction
26	Voriconazole	2.00	137234-62-9	Anti-Fungal
Total (Any five products will be manufactured at any given point of time)		**39.00**		

List of by-products and its quantities

S. No	Name of the product	Name of the By-product	Quantity in Kg/day
1	Apixaban	Potassium chloride	36.60
		Potassium bromide	58.42
2	Dapoxetine Hydrochloride	Potassium Bromide	46.50
		Succinamide	33.73
		Tartaric acid	33.60
3	Entecavir	Benzyl alcohol	105.57
4	Etoricoxib	Aluminium hydroxide solution-(33%)	255.00
5	Febuxostat	Methyl cyanide	11.36
		Potassium bromide	22.73
6	Levo Cetirizine Dihydrochloride	Tri ethyl amine hydrochloride	55.03
7	Levothyroxine Sodium	Tri ethyl amine hydrochloride	14.20
8	Nizatidine	Phosphoric acid	268.46
		Aluminium hydroxide solution (33%)	647.48
9	Permethrin	Boric acid	27.86
10	Riluzole	Ammonium bromide	75.38
11	Rivaroxaban	Potassium chloride	24.56
		Tri ethyl amine Hydrochloride	66.96

S. No	Name of the product	Name of the By-product	Quantity in Kg/day
12	Sildenafil Citrate	Ammonium sulfate	25.04
		Ammonium chloride	20.27
		Iron oxide	26.58
13	Solifenacin Succinate	Triethylamine Hydrochloride	32.31
14	Terbinafine Hydrochloride	Potassium chloride	356.97
15	Vardenafil	Triethylamine Hydrochloride	35.74
Note: The quantity of By-products based on respective products being manufactured.			

The proposed project comes under Category 'B2' as per the Environmental Impact Assessment (EIA) Notification amendment on 27-3-2020 vide S.O. number 1533 (E), dated 14th September, 2006 and issued S.O.1223 (E), stating that all projects or activities in respect of bulk drugs manufacturing are categorized as 'B2'. But considering the project location, it is noticed that the proposed project has interstate boundary Karnataka - Telangana State within 5 km from the project location. Hence, requires appraisal at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

Total land area is 8100 sqm. Greenbelt will be developed in an area of 34.18% i.e., 2769 sqm. out of total area of the project. The estimated project cost is Rs.7.5 crore. Total capital cost earmarked towards environmental pollution control measures is Rs.147 Lakhs and the Recurring cost (operation and maintenance) will be about Rs.20Lakhs per annum. Total Employment will be 60 persons. The PP has allocated Rs. 15 lakhs towards Corporate Environmental Responsibility.

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from the project site.

Total water requirement is 125.56 m^3/day of which fresh water requirement of 97.55 m^3/day and will be met from KIADB water supply. Generated effluent of 35.26 m^3/day will be treated through stripper followed by MEE/ATFD, Biological Treatment Plant followed by RO plant will be based on Zero Liquid Discharge System/ CETP (Mother Earth, Kadechur).

Power requirement of 450 kVA will be met from Karnataka Power Corporation Limited (KPCL). The unit is proposed to install 1 X 125 kVA & 1 x 250 kVA DG Sets, Stack (height 10 mts) will be provided for each as per CPCB norms to the proposed DG sets. 2.0 TPH & 3.0 TPH boilers are proposed with stacks of height 30 mtrs each. Cyclone separators and bag filters will be installed separately for each of the boiler for controlling the particulate emissions (within statutory limit of 115 mg/ Nm^3). Fuel briquettes will be used instead of coal for the proposed boilers of 2.0 TPH & 3.0 TPH boilers.

Details of Process emissions generation and its management.

S. No.	Name of the Gas	Quantity in Kg/Day	Treatment Method
1	Carbon dioxide	281.00	**Will be converted into Dry CO_2 by using suitable compressor**
2	Hydrogen	39.00	Diffused by using Nitrogen through Flame arrestor
3	Ammonia	25.00	Scrubbed by using chilled water media
4	Oxygen	35.00	Dispersed into the atmosphere
5	Nitrogen	7.00	Dispersed into the atmosphere

S. No.	Name of the Gas	Quantity in Kg/Day	Treatment Method
6	Hydrogen Bromide	984.00	Scrubbed by using C. S. Lye solution
7	Hydrogen chloride	378.00	Scrubbed by using chilled water media
8	Sulphur dioxide	67.00	Scrubbed by using C. S. Lye solution
9	Hydrogen fluoride	9.00	Scrubbed by using C. S. Lye solution
10	Propane	15.00	Diffused into atmosphere through flame arrestor
11	Dimethylamine	64.00	Scrubbed by using chilled water media

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

S. No	Name of the Waste	Quantity	Disposal Method
Hazardous Waste Details			
1	Organic solid waste (Process Residue)	1402 Kg/Day	Will be sent to Cement Industries
2	Spent Carbon	20 Kg/Day	
3	Solvent Distillation Residue	239 Kg/Day	
4	Organic distillate from MEE Stripper	460 Kg/Day	
5	Mixed solvents	575 Ltrs/Day	
6	Inorganic Solid Waste	734 Kg/Day	Will be sent to TSDF
7	MEE Salts	2163 Kg/Day	
8	ETP Sludge	30 Kg/Day	
9	Used Oils	80 Ltrs/Annum	SPCB Authorized Agencies for Reprocessing/ Recycling
10	Detoxified Containers/ Container liners	450 No's / Month	After Detoxification will be sent to authorized agencies.
11	Used Lead Acid Batteries	4 No's/ Annum	Send back to suppliers for buyback of New Batteries
Solid waste details			
12	Ash from boilers	5950 Kg/Day	Will be sent to Brick Manufacturers

Inventory of Solvents & Hazardous Chemicals:

S. No.	NAME OF SOLVENT/ CHEMICAL	PHYSICAL STATE	MODE OF STORAGE	MAX. INVENTORY IN TONS	NATURE OF HAZARD	NFPA RATING
1	Methanol	Liquid	MS Tank	20	Flammable	H: 1 F: 3 R: 0
2	Toluene	Liquid	MS Tank	20	Flammable	H : 2 F: 3 R: 0
3	Tri ethyl amine	Liquid	HDPE Carboys	1	Flammable	H : 3 F: 3 R: 0
4	Acetone	Liquid	MS Tank	10	Flammable	H: 1 F: 3 R: 0

S. No.	NAME OF SOLVENT/ CHEMICAL	PHYSICAL STATE	MODE OF STORAGE	MAX. INVENTORY IN TONS	NATURE OF HAZARD	NFPA RATING
5	Ethyl acetate	Liquid	HDPE Carboys	3	Flammable	H : 1 F: 3 R: 0
6	HCl (30%)	Liquid	PP+FRP Tank	10	Corrosive	H: 3 F: 0 R:1
7	IPA	Liquid	HDPE Carboys	5	Flammable	H: 1 F: 3 R: 0
8	Bromine	Liquid	Glass containers	66 nos (200 kgs)	Toxic	H: 3 F: 0 R: 0
9	HBr-48%	Liquid	HDPE Carboys	0.5	Corrosive	H: 3 F: 0 R: 1
10	$Pocl_3$	Liquid	HDPE Carboys	0.5	Toxic	H : 4 F: 0 R: 2
11	Sodium methoxide	Liquid	HDPE Carboys	0.5	Flammable	H: 3 F: 3 R: 1
12	Socl2	Liquid	HDPE Carboys	1	Toxic	H : 4 F: 0 R: 2
13	Sulfuric acid	Liquid	HDPE Carboys	0.5	Corrosive	H:3 F:0 R:2
14	Ammonia	gas	Cylinders	4 nos (200 kgs)	Toxic	H : 3F: 1 R : 0
15	n-Heptane	Liquid	HDPE Carboys	1	Flammable	H: 3 F: 3 R: 0
16	THF	Liquid	HDPE Carboys	5	Flammable	H: 2 F: 3 R :1
17	Di iso propyl ether	Liquid	HDPE Carboys	2	Flammable	H: 2 F: 3 R :1
18	Hydrogen	Gas	Cylinders	40 cylinders (20 kgs)	Explosive	H: 1 F: 4 R : 0
19	Raney nickel	solid	HDPE Carboys	50 kgs	Flammable	H: 2 F: 4 R :1
20	Aceto nitrile	Liquid	HDPE Carboys	5	Flammable	H: 2 F: 3 R: 0
21	NaoH Lye	Liquid	MS Tank	10	Corrosive	H: 3 F: 0 R : 1
22	Sodium boro hydride	solid	HDPE Carboys	0.5	Flammable	H: 3 F: 3 R : 2
23	Hydrogen peroxide-35%	Liquid	HDPE Carboys	1	Strong oxidizer	H: 3 F: 0 R : 1
24	DMF	Liquid	HDPE Carboys	5	Flammable	H: 2 F: 2 R :1

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form 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. 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 project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The EAC has deliberated the proposal and has made 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 have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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 Ministry 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.

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

(v). 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 97.55 m^3/day, proposed to be met from KIADB water supply. Prior permission in this regard shall be obtained from the concerned regulatory authority.

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

(viii). 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.

(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). 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.

(xi). 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.

(xii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiii). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent. As committed, PP shall provide educational assistance to the schools/scholarship to students in the nearby villages. The action plan shall be completed within three years as proposed. Preference shall be given to local villagers for employment in the unit.

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

Reconsideration of Environmental Clearance.

Agenda No. 24.17

Expansion of existing sugar plant of capacity 12000 TCD to 16000 TCD to at Hupari Yalgad Tal Hathkanangale Kolhapur Maharashtra by M/s Jawahar Shetkari Sahkari Sakhar Karkhana Ltd - Reconsideration of Environment Clearance

[IA/MH/IND2/38479/2014, J-11011/146/2020-IA-II(I)]

The proposal was earlier considered by the EAC in its meeting held during 14-16 July, 2020. The EAC during deliberations noted that the project proponent proposed to lift fresh water from the Dudhganga river and treated effluent/cane condensate are proposed to send to nearby farm/share holders farm land. The Committee was of the view that such discharge shall lead to contamination of the farm land and the PP shall reuse the treated water and accordingly fresh water requirement shall be reduced. The Committee after detailed deliberations insisted for additional information/inputs, and response submitted by the PP are as under:

Point No. 1: Revised Water balance with complete Zero Liquid Discharge Plan. PP can drop the fresh water requirement by utilizing water from harvested rain water, cane condensate and reuse of treated water.

Clarification:
The revised water balance with complete Zero Liquid Discharge Plan is presented.

Point No. 2: Current status of court case. Details of action taken by SPCB along with copies/CTO etc.

Clarification:
Initially on 23.11.2016 a Case was filed by MPCB against Jawahar Shetkari Sahkari Sakhar Karkhana Ltd.,Hupari-Yalgud, Tal.: Hathkanangale, Dist.: Kolhapur (MS). in the Court of "Chief Judicial Magistrate, Kolhapur". Subsequently; it was transferred in the "Civil Court Senior Division, Ichalkaranji" (Taluka Hatkanangale). Thereat, the hearings under Court Case (Reg. No.244/2018) are going on. A summary sheet showing status of chronology of the hearings that took place from 13.12.2018 till 22.07.2020 is appended. As on date, no decision in said case is done.

Point No.3 : Commitment that no treated/untreated waste water shall be discharged outside the plant premises.

Clarification:
A firm commitment is given by the Management of Jawahar Shetkari Sahkari Sakhar Karkhana Ltd. that - no any treated or untreated wastewater (trade or domestic) from the

existing as well as proposed expansion projects of the Sugar Factory shall be discharged outside the Industrial premises. In fact, as directed by Hon. Committee Members in the EAC meeting of 14.07.2020; the Industry shall achieve ZLD w.r.t. its effluents while minimizing fresh water requirement substantially. More details about this planning have been presented under explanation of Point No. 1.

Point No.4 : Plan for rain water harvesting.

Clarification:
A detailed report on Rain Water Harvesting (RWH) from the Jawahar Shetkari S.S.K.L. Project has been prepared which takes in to account both roof top and surface harvesting. Further, the RWH structures and allied details are shown on the Industry's Master Layout Plan. The rainwater endowment is estimated for rooftop, paved and unpaved surface areas in the factory premises. Calculations are made for monthly and annual rainwater yield. Total building roof top surface area is 71,419 Sq. M, area of paved surfaces is 32,863 Sq.M and that of the unpaved surfaces is 92,137 Sq. M. The runoff coefficient for roof top, paved surface and unpaved surface area is 0.8, 0.6 and 0.5 respectively. The results reveals that total available quantity of rain water from the area is 1,17,513 Cu.M. / Yr. out of which 54,621 Cu.M. is from rooftop surface area, 18,850.22 Cu.M. is from paved surface area and 44,041.49 Cu.M. is from unpaved surface area. The RWH Report & Layout have been enclosed**.**

Point No.5 : Committee sought the plan for green energy viz. solar power generation (at least 2.5 MW for use in the unit).

Clarification:

The management of Jawahar Shetkari S.S.K.Ltd. has taken due cognizance of the directions given by Hon. Committee Members towards installation of 2.5 MW capacity Solar Photovoltaic Power Plant for generation & utilization of Green Energy. The infrastructure under this ambitious project will be installed on Industry's land as well as outside premises as per the feasibility towards space / land availability. Thus, both centralized as well as decentralized propositions are under way. It is contemplated that entire planning, designing, ordering, installation and commissioning of infrastructure under the proposed Solar Photovoltaic Power System shall take about 2 Years in view of the Sugar Factory's present financial condition and situation of country's economy in light of the ongoing COVID-19 pandemic.

Point No.6 : Commitment for employment to the local people along with details.

Clarification:
As informed during the EAC meeting of 14.07.2020; the management of Jawahar Shetkari S. S. K. Ltd. hereby gives a firm commitment that - after the proposed sugar factory expansion project implementation; the industry would need about 100 people under new employment generation. Thereunder, skilled and semi-skilled persons shall be required prominently. The Industry shall give 90% of the Jobs to locals under primary employment. In present sugar factory also there are 1283 employees out of which 85% are from nearby villages in a radius of 15 Km from the Industry.

Point No. 7 : Issues raised during public hearing, action plan, and as committed for utilization of Rs 5 Crore for CER, revised action plan.

Clarification:

There were no nay specific issues raised by the Public during Public Hearing. All the persons attended the hearing unanimously supported the expansion project while appreciating steps taken by the Industry towards community welfare and its contributions in social development of villages in the Sugar Factory's command area. A detailed description of issues raised by the Public during Public Hearing and response by PP along with action plan, time line and budget is presented. This was also presented during EAC meeting of 14.07.2020. Further, a planning towards expenditure of Rs.5 Cr on CER activities has also been given in the above annexure. During EAC meeting, the Committee Members directed the Industry to enhance expenditures on CER from Rs.2.6 Cr to Rs.5 Cr, which was accepted by PP at once

Point No. 8 : Earlier EC was granted in 2016. The Committee noted that there is Schedule-I species in the study area and PP has still not taken the approval of conservation plan.

Clarification:

The Wildlife Conservation Plan for Schedule-I species has been prepared and submitted to CWW; Nagpur (MS) for approval under the Sugar Factory's present expansion proposal. However, at the time of earlier EC granted in 2016; this compliance missed out inadvertently for which the PP begs pardon and commits that such things will not happen anytime in future.

Point No. 9 : Consultant needs to upload all the required details in Form 2 (Parivesh Portal), [for eg. Letter of SPCB forwarding the Public Hearing to MoEFCC at S No. 7.1 has not uploaded; In S No. 6, in place of TOR, minutes uploaded etc.]

Clarification:

A cognizance of the directions under above point has been taken. The letter related to SPCB forwarding the Public Hearing documents to MoEFCC is uploaded at Sr. No. 7.1. Also, ToRs letter w.r.t. Proposed Expansion of Sugar Factory from 12,000 TCD to 16,000 TCD is uploaded at Sr. No.. 6 of the Form 2.

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

The proposal is for environmental clearance to the project for Expansion of Sugar factory from 12,000 TCD to 16,000 TCD at Survey No. no. 315/7 to 315/15, A/P: Hupari, Taluka Hatkanangale, District Kolhapur, Maharashtra by M/s Jawahar Shetakari S.S.K.L (JSSSKL).

Details of products and by-products are as under:

Product & By-product	**Quantity**		
	Existing (12,000 TCD**)**	**Expansion (**4,000 TCD**)**	**Total (**16,000 TCD**)**
White Sugar (14.45%)*	52,050	17,340	69,390
By-product			

Molasses (4%)*	14,400	4,800	19,200
Bagasse (29.30%)*	1,05,500	35,160	1,40,660
Press mud (4%)*	14,400	4,800	19,200

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

The Standard ToR has been issued by Ministry vide letter No. F. No J-11011/38/2016-IA-II (I) dated 30th March, 2019. Public hearing for expansion project was conducted by the State Pollution Control Board on 12.12.2019, which was presided over by the District Magistrate. The major issues raised during public hearing are related to effluent generation its disposal, air pollution and its management, benefits to farmers from proposed project, employment generation, working days of industry etc.

The Ministry has issued earlier EC, vide letter No. J–11011/38/2016-IA-II (I), dated 20.12.2016 for expansion of Sugar Factory capacity from 7,500 to 12,000 TCD and SEAC & SEIAA vide letter No.: ENV (NOC) 2005/159/CR224/TC-II dated 27.08.2007 for expansion of Sugar Factory from 5000 TCD to 7500 TCD and Cogeneration Plant from 24 to 28.5 MW to M/s Jawahar Shetkari Sakhar Karkhana Ltd. (JSSSKL). The EC compliance has been inspected and certified by the Regional Officer; MoEFCC, Nagpur during his visit on 21.01.2020 and certification report dated 31.01.2020 was forwarded by the Regional Office to MoEFCC Nagpur.

Existing land area is 99.57 Ha. Existing Built- up is 23.78 Ha. No additional land area required for proposed expansion. Industry has already developed Green Belt in an area of 35 % i.e. 34.39 Ha out of total plot area. Moreover, additional Green Belt area of 5% i.e. 4.97 ha, will be developed. After expansion, the total Green Belt area would be 39.37 Ha which accounts for 40 % of total plot area. The estimated project cost is Rs.332.6 Crores including existing investment of Rs. 298.6 Crores. Total capital cost earmarked towards environmental pollution control measures under expansion is Rs. 1.10 Crores and the Recurring cost (operation and maintenance) will be about Rs. 0.12 Crores per annum. Total Employment would be 1382 persons as direct as well as indirect after expansion of projects. Industry proposes to allocate Rs. 5 Crores towards Corporate Environmental Responsibility.

There are no national parks, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 Km Study Area. River Dudhganga and Panchganga is flowing at a distance of 4 Km in South and North direction respectively.

Ambient air quality monitoring was carried out at 8 locations during January 2019 – March 2019 and submitted baseline data indicates that ranges of concentrations of PM_{10} (50.10 – 69.40 µg/m^3), $PM_{2.5}$ (12.80 – 29.80 µg/m^3), SO_2 (12.80 – 29.80 µg/m^3) and NO_x (20.10 – 35.70 µg/m^3) respectively. Incremental GLC is not done through AERMOD Software since, No new boiler will be installed under the proposed expansion of sugar factory. Hence, there will be no increase in baseline concentrations of Ambient Air.

Total water requirement for Sugar Factory after expansion of project will be 5244 CMD. Out of which, 328 CMD will fresh water from Dudhganga river while 4916 CMD will be recycled

cane condensate, ETP treated effluent and STP treated effluent to be recycled. The permission for lifting of fresh water is granted to JSSSKL by Irrigation Department; Kolhapur, Govt. of Maharashtra from the Dudhganga River.

Effluent of 1430 CMD after expansion of sugar factory operations will be treated existing in existing ETP in the JSSSKL premises which shall be duly upgraded. The ETP units comprises of namely Screen chamber & Oil & Grease trap, Equalization Tank Anaerobic Digester, Aeration Tank – I, Primary Clarifier Tank, Secondary Clarifier Tank, treated water Sump, Pressure Sand Filter, Treated water Tank. The treated effluent shall be reused within industry. As per CREP norms, 15 days storage capacity tank for treated water shall be provided on site.

Power requirement to the tune of 17 MW after expansion of project will be procured from own Co-gen Plant. Existing unit has Two DG set of capacity 515 KVA & 1320 KVA are used as standby during turbine tripping. Stack of height 6 M ARL is provided as per CPCB norms to the DG sets. Existing sugar factory unit has 20 TPH, 90 TPH & 75 TPH bagasse fired boilers. No new boiler will be installed under expansion of Sugar Factory. There are no sources of process emissions from Sugar Factory.

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

No	**Type of Waste**	**Existing** (MT/D)	**Total After Expansion** (MT/D)	**Disposal**
1	ETP sludge	3	3.5	Used as manure.

No Hazardous Waste will be generated under expansion of Sugar Factory.

There is litigation pending against existing Sugar Factory of 12,000 TCD under EPA act 1986 and EIA Notification 2006. A Court Case was filed by the MPCB for Excess Crushing happened during 2015-16 Season. Court Case No. : R.C.C/181/18/2016.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA 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 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 MPCB has filed court case against the project proponent for increasing the cane crushing without prior permission. It was noted that final decision on the matter has not been taken by the court. The project proponent has assured before the Committee that in future they shall not increase the production without taking prior permissions from the concerned authorities. The Committee has also noted that the project proponent has committed to reduce the fresh water requirement by properly utilizing the

rain water harvesting. It was brought to the notice of the Committee that the project proponent has not reduced any fresh water, and the quantity remains the same i.e 328 CMD earlier and now.

The Committee noted that the EIA/EMP report is 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 has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan along with activities for addressing the socio-economic issues and found to be addressing the issues in the study area. The Committee has found the additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee.

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 and not to send outside/used for farming.

(iii). As proposed, total fresh water requirement shall be 328 cum/day, proposed to be met from Dudhganga river. Prior permission shall be obtained from the concerned regulatory authority in this regard, and renewed from time to time.

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

(v). 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). Process organic residue and spent carbon, if any, shall be sent to Cement/other suitable industries for its incinerations/management.

(vii). Project Proponent shall reduce the quantity of effluents generation in the unit and PP shall install the effective wastewater treatment system so that Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Adequate system shall be in place for controlling the odour and mitigation measures to protect the contamination of ground/surface water.

(viii). 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.

(ix). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(x). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, the project proponent, as committed, shall provide support for clean & safe drinking water supply, non-conventional energy promotion, supply of MSW management infrastructure, medical & healthcare facilities in the nearby villages. The action plan shall be completed within five years as proposed. All the commitments made during public hearing shall be satisfactorily implemented.

(xi). The project proponent shall ensure rain water harvesting system in the project area and reduce dependency on fresh water from the river.

(xii). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

(xiii). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

(xiv). 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.

(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. 24.18

Expansion of distillery unit from 60 KLPD to 150 KLPD & sugar unit from 7500 TCD to 12000 TCD at Ambika nagar, A/P Jagdamba Factory, Taluka Karjat, District Ahmednagar (Maharashtra) by M/s Ambalika Sugar Pvt. Ltd.- Reconsideration of Environmental Clearance

[IA/MH/IND2/153652/2020, J-11011/35/2014-IA-II(I)]

The proposal was earlier considered by the EAC in its 22nd meeting held on 19 August 2020. Additional details desired by the EAC and response submitted by the PP is as under:

S. No	Information desired by the EAC	Response by the PP
(i)	Details of products.	Detailed product list provided
(ii)	Detailed Plan for achieving complete Zero Liquid Discharge System.	To achieve zero liquid discharge following measures have been adopted for existing & proposed expansion unit by Shri Ambalika Sugar Pvt. Ltd. **Sugar unit-** Treated through extended aeration followed by tertiary treatment in CPU unit. Detailed treatment scheme given **Distillery unit-** Effluent will be taken to MEE for first step of concentration by evaporation. It will be then taken as concentrated to the incineration boiler to serve as fuel along with necessary quantity of coal. Detailed treatment scheme given
(iii)	Revised water balance with reduction in freshwater consumption (@2KL/KL of alcohol).	Revised water balance with reduction in fresh water consumption of distillery unit using alternate raw material @2KL/KL is attached
(iv)	Details of power utilization from solar sources	Details of power utilization from solar & % saving by energy conservation measures is provided
(v)	CER allocation and plan as per Ministry's OM dated 01.05.2018	CER undertaking along with year wise costing plan is provided
(vi)	Compliance status of the existing EC conditions.	Complied. • Obtained Certified EC compliance report from Regional Officer, MoEF&CC, Nagpur vide File No.EC-1085/RON/2019-NGP/6091 Dated 20th January 2020.

		• Submitted action plan against partial compliance of certified EC compliance report submitted to RO Nagpur same is provided
(vii)	PP uploaded the water approval in Regional language. The Committee also noted that PP/Consultant needs to be uploaded the legible document and in case of document issued in regional language then English translation copy needs to be uploaded.	Water approval NOC in regional language & its English translated copy is submitted
(viii)	The EAC during deliberations noted that the consultant has not prepared adequate report. The Committee also suggested that the Consultant shall do proper study and then submit the report so that proposal is not delayed.	Noted

The Project Proponent and the accredited Consultant M/s Ultra-Tech made a detailed presentation on the salient features of the project through Video conferencing.

The proposal is for environmental clearance to the project for expansion of Distillery unit from 60 KLPD to 150 KLPD & Sugar Unit from 7500 TCD to 12000 TCD at Village Ambika Nagar, A/P Jagdamba Factory, Taluka Karjat, District Ahmednagar, Maharashtra by M/s Shri Ambalika Sugar Pvt Ltd.

The details of products and capacity as under:

Product Details	Existing Quantity	Proposed Quantity	Total Quantity
Distillery (Ethanol/ENA/RS/AA/Fusel Oil)	60 KLPD	90 KLPD	150 KLPD
Cogeneration plant	38 MW	--	38 MW
Sugar Unit	7500 TCD	4500 TCD	12000 TCD

The project/activities are covered under category A of item 5 (g) 'Distilleries' and 5(j) 'Sugar 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. No.J-11011/35/2014-IA II (I)dated 18th October 2019. Based on the recommendations of the EAC in its meeting held during 21st-23rd January 2020, the Ministry vide letter dated 15th April 2020 has amended the ToR with exemption in Public consultation. It was informed that no litigation is pending against the proposal.

Ministry had issued EC earlier vide letter no. F.No. J-11011/35/2014-IA II (I); dated 14th February 2015 to the existing project of sugar unit (7500 TCD), Cogeneration Power Plant (38 MW) & Molasses based distillery unit (60 KLPD) in favour of M/s. Shri Ambalika Sugar Pvt. Ltd. Obtained Certified EC compliance report from Regional Officer, MoEF&CC, Nagpur vide File No.EC-1085/RON/2019-NGP/6091 Dated 20th January 2020. Site visit of RO was carried out on 11.12.2019. Partial compliance issued against Condition No. V, xii for Not having Website. Industry complied the partial compliance.

Existing land area is 1195440.86 m2, additional 79876.95 m2 land will be used for proposed expansion. Industry has already developed / will develop greenbelt in an area of 33 % i.e., 503619 m2 out of total area of the project. The estimated project cost is Rs 540.7241 Crore including existing investment of Rs 371.6712 crores. Total capital cost earmarked towards environmental pollution control measures is Rs 50.5 crores and the Recurring cost (operation and maintenance) will be about Rs 9.98 crores per annum.
Total Employment will be 652 persons as direct &1500-2000 persons indirect after expansion. Industry proposes to allocate Rs 1.35 crores 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. Bhima river is flowing at a distance of 6.6 Km in south direction.

Ambient air quality monitoring was carried out at Nine locations during October to December 2019 and the baseline data indicates the ranges of concentrations as: PM10 22 – 82 µg/m3), PM2.5 (21-38µg/m3), SO2 (11-21µg/m3) and NO2 (16-36µg/m3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 2.8µg/m3, 8.8µg/m3and 1µg/m3 with respect to PM10, Sox and NOx. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 5706 m3/day of which fresh water requirement for sugar unit will be 1864 m3/day and for distillery unit during season will be max 313 m3/day. Fresh water requirement will be met from Ujani Dam Management Department Bhimanagar. Effluent of quantity 1684 m3/d (Sugar unit) & 1064 m3/d (Distillery) will be treated through Condensate Polishing Unit & Spent wash of quantity 980 m3/d will be treated by Evaporation in MEE and CSW sent to incineration. The plant will be based on Zero Liquid discharge system.

Power requirement after expansion will be 18905 kVA including existing 11480kVA and will be met from existing 38 MW Co-generation unit. Existing unit has 1 No. of DG sets of 1010 kVA & 2 No of 750 kVA capacity, additionally no DG sets are used as standby during power failure. Stack (height 5m.) will be provided as per CPCB norms to the proposed DG sets.

Existing sugar unit has 90 & 110 TPH bagasse fired boiler& distillery unit has 28 TPH concentrated spent wash & coal fired boiler. Additionally, for sugar unit 40 TPH bagasse fired boiler will be installed & for proposed distillery expansion existing 28 TPH boiler upgraded to 30 TPH concentrated spent wash & coal fired boiler. Electrostatic precipitator (ESP) with a stack of height of 72 m, 78 m, 72m & 73m will be installed for boiler of capacity 90 TPH, 110 TPH, 40 TPH & 30 TPH respectively for controlling the particulate emissions within the statutory limit of 115 mg/Nm3 for the proposed boilers. Gaseous emissions from

process are mainly PM10, PM2.5, Sox, NOx, from Boiler & DG set & CO2 from fermentation process. There are three sources of CO2 namely, burning of fuel in proposed boiler, and Generation in fermentation step and ETP on biological principle.

In the boiler indicators are provided to have proper air-fuel ratio for maximum combustion efficiency. Thus CO2 will be found but not CO. the emissions are liberated at a stack height designed as per MoEF. In the surrounding, greenery is provided to absorb the residual CO2. The CO2 is generated in the biological fermentation step by the help of yeast. This fermentation tank is not kept open to sky but is kept closed, so that CO2 is collected and then scrubbed in water and after filtration it is recover bottling plant which is after which sold for commercial use. From the effluent treatment whether by aerobic/ anaerobic, CO2 is generated as an end result. As the BOD leading to is reduced by prevention and abatement method. The CO2 is controlled. The greenery maintained around is capable to reduce above. At this location there is no other CO2 liberating activity.

Existing Air pollution control measures

S. No	Source	Fuel	Pollutant	Control Equipment
1	90 TPH Boiler	Baggase	PM	72 m stack height and ESP is provided
2	110 TPH Boiler	Baggase	PM	78 m stack height and ESP is provided
3	28 TPH Incineration boiler	CSW & Coal	PM, SO2 &Nox	73 m stack height and ESP is provided
4	D. G. Sets 1 Nos of 1010 kVA & 2 No of 750 kVA	HSD	PM & SO_2	5 m Stack Height is provided 1010 kVA DG set & 2.5 m Stack Height is provided to 750 kVA DG set to each

Proposed Air pollution control measures

S. No	Source	Fuel	Pollutant	Control Equipment
1	Existing Distillery Boiler of 28 TPH will be upgraded to 30 TPH	CSW & Coal	PM, SO2 &Nox	73 m stack height already provided as per CPCB Norms with ESP to achieve maximum collection of fly ash
2	Proposed 40 TPH Boiler	Baggase	PM, SO2 &Nox	72 m stack height will be provided as per CPCB Norms with ESP to achieve maximum collection of fly ash

Details of Solid waste/ Hazardous waste generation and its management

S. No.	Type of Waste	Quantity				Treatment	Disposal	Remark
		Existing	Proposed	Total	Unit			
1	Canteen	2.0	2.0	4.0	CuM/	Compost	Own Garden	Organic

	Waste				d			
2	Domestic (Colony) Waste	4.0	1.0	5.0	CuM/d	Compost	Factory farm	Mixed
3	Press Mud	300	180	480	MT/d	Compost	Sold to farmer	Organic
4	ETP sludge	55	45	100	kg/d	--	Used as soil conditioner	Organic, Non-Haz
5	Office	2	--	2	CuM/d	--	Sales	Non-Haz.
6	Packing Sec.	1	--	1	CuM/d	--	Sales	Non-Haz.
7	Yeast Sludge	3	0.75	3.75	MT/d	Composting	On green belt	Organic, and Non-Haz.
8	Bagasse ash from Sugar &cogen Unit	60	12	72	TPD	Composting/sale	Partly for Composting & partly will be sold to brick manufacturer	Takers available
9	Incineration Boiler ash	12	150	162	TPD	Sale	Sold to farmers & brick manufacturer	Organic & high nutrient value
9	Spent oil	25	30	55	Kg/d	Burn in own boiler as fuel	Burn in own boiler as fuel	In season

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA 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 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 is 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 has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the activities for addressing the socio-economic issues and found to be addressing the issues in the study area. The Committee has found the additional information

submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee.

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. Treated effluent from the sugar unit shall be used for distillery operations and not be used for greenbelt development/farming.

(iii). As proposed, total fresh water requirement shall be 2177 cum/day, proposed to be met from Ujani Dam water supply. Prior permission shall be obtained from the concerned regulatory authority/, and renewed from time to time.

(iv). Project Proponent want to install incineration boiler for treatment of spent wash to ensure ZLD. As committed by PP, the spent wash/other concentrates shall be incinerated.

(v). Project Proponent shall reduce the quantity of effluents generation in the unit and PP shall install the effective wastewater treatment system so that Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Adequate system shall be in place for controlling the odour and mitigation measures to protect the contamination of ground/surface water.

(vi). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

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

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

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

(x). 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.

(xi). 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.

(xii). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiii). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic issues in the study area, the project proponent shall provide support for environment sustainability & rural development, health and woman empowerment, solar light to schools in the nearby villages. The action plan shall be completed within five years as proposed. All the commitments made during public hearing shall be satisfactorily implemented.

(xiv). The project proponent shall ensure rain water harvesting system in the project area and reduce dependency on dam water.

(xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

(xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

(xvii). 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.

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

Agenda No. 24.19

Proposed Expansion of Sugar 6000 TCD to 7500 TCD Sugar Plant and Molasses based Distillery 90 KLPD to 120 KLPD, located at Gut No.99, Village-Alegaon, Taluka- Daund, District-Pune State-Maharashtra by M/s Daund Sugar Pvt. Ltd- Reconsideration of Environmental Clearance

[IA/MH/IND2/132134/2017, IA-J-11011/467/2017-IA-II(I)]

The proposal was earlier considered by the EAC in its meeting held during 17-19 August, 2020. The EAC during deliberations noted that the project proponent is not achieving ZLD in letter and spirit and has proposed for bio-composting and to send treated waste water outside. It is suggested that the treated industrial effluent shall not be send outside the premises/not to be used for greenbelt inside the premises. PP can use treated domestic water for greenbelt development. The Committee has also observed that the issues raised in the public hearing required detailed deliberations along with action plan. The Committee, after detailed deliberations desired additional information/inputs. Details along with response submitted by the PP is as under:

S. No.	Information desired by the EAC	Response of the PP	Remarks of EAC
1	Plan for achieving complete Zero Liquid Discharge System	Revised plan adhering to ZLD submitted	The ZLD plan submitted by the PP is not satisfactory. PP shall submit revised plan with fresh water requirement of 3KL/KL of production. ZLD plan and water balance shall be revised accordingly.
2	This is expansion case and as per Ministry's OM May 2012, Latest certified compliance report from the Regional Office of the Ministry, and details of compliance status thereof needs to be submitted	Compliance status submitted	Compliance status along with ATR on non-complied points shall be submitted through RO of Ministry.
3	Revised water balance with reduction in freshwater consumption	Revised water balance with reduction in freshwater consumption submitted and presented	PP shall submit revised plan with fresh water requirement of 3KL/KL of production. Water balance shall be revised accordingly.

4	Details of power utilization from solar sources.	Details provided	EAC found it to be satisfactory
5	Ash management plan.	Detailed ash management system provided	EAC found it to be satisfactory
6	Public hearing issues, action plan with CER allocation as per Ministry's OM dated 01.05.2018 needs to be submitted.	Detailed action plan on public hearing issues along with CER plan submitted	PP needs to submit the proposed activities along with plan
7	PP uploaded the water approval in Regional language. The Committee also noted that PP/Consultant needs to be uploaded the legible document and in case of document issued in regional language then English translation copy needs to be uploaded.	Water approval provided in English	EAC found it to be satisfactory
8	The EAC during deliberations noted that the consultant has not prepared adequate report. The Committee also suggested that the Consultant shall do proper study and then submit the report so that proposal is not delayed.	Noted	EAC found it to be satisfactory. Committee desired that EIA/EMP/Form 2 shall be prepared in totality and with all seriousness.

The Project Proponent and their accredited Consultant M/s Mantras Green Resources 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 Sugar plant from 6000 TCD to 7500 TCD and Molasses based Distillery from 90 KLPD to 120 KLPD At Gut No.99, Village Alegaon, Taluka Daund, District Pune, Maharashtra by M/s Daund Sugar Pvt Ltd.

The details of products and capacity as under:-

S. No.	**Name of Products and By-products**	**Capacity**		
		Existing	**Proposed**	**Total**
PRODUCTS				
1.	Sugar (TCD)	6000	1,500	7,500

2.	Co-generation Power Plant (MW)	18	Nil	18
3.	Alcohol (ENA/RS/AA) (KLPD)	90	30	120
BY-PRODUCTS				
1.	Bagasse (TPD)	1680	420	2100
2.	Molasses (TPD)	270	65	335
3.	Press mud (Filter cake) (TPD)	240	60	300

The project/activities are covered under category A of item 5 (g) 'Distilleries' and 5(j) 'Sugar 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.

Standard TOR has been granted by Ministry vide letter No. IA-J11011/467/2017-IA-II (I) dated 16th November 2017. Public Hearing for the proposed project has been conducted by the State Pollution Control Board on 19th June, 2019, which was presided over by District Magistrate. The main issues raised during the public hearing are related to waste water, employment, ash management, air pollution, accidents, rain water harvesting, etc. It was also informed that no litigation is pending against the proposal.

Environmental clearance for the existing unit has been issued by the Ministry vide letter dated 22nd March, 2016.

The land area available for the project is 2,14,544 m2. Green belt will be developed in area of 1, 94,300 m2. The estimated project cost for expansion is Rs.1992.73 Lakh with existing investment of Rs.11782 Lakh. Total capital cost earmarked towards environmental pollution control measures is Rs.709 lakhs and the Annual Recurring cost will be about Rs.136 lakhs per annum. Current employment is 577 persons and new expansion will propose direct 42 persons employment. Thus total 619 persons will be employed. Industry proposes to allocate Rs.3.92 Crore towards Corporate Environmental Responsibility (CER).

There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km radial distance. Bhima River is flowing at a distance of 2.5 km in North direction is flowing in North direction.

Ambient air quality monitoring was carried at 8 sampling locations during December 2017 to February 2018. The minimum and maximum range of PM10 was 55.2 µg/m3–73.6 µg/m3, the range of PM2.5 was 16.5 µg/m3to 32.6 µg/m3, the SO2 was 11.3 µg/m3– 20.5 µg/m3, the NOx was 12.5 µg/m3– 37.2 µg/m3and CO concentrations was 0.11 to 0.88 mg/ m^3. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.4 µg/ m^3, 7.2 µg/ m^3 and 1.0 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 603 m3/day (Water requirement for sugar mill with cogeneration unit is 8225 m3/day. This much amount of water will be required only during first time use, start up after shut down later when production is on, by installing efficient water conservation measures, 4006 m3/day is recycled. Since in sugar industry water is generated due to cane crushing additional 5250 m3/day is available. In this way entire amount is available internally and 1031 m3/day is in excess. It is supplied to nearby farmers or own composing unit for irrigation and manure making. During offseason time water requirement will be 938 for operation of cogen plant. For distillery fresh water requirement will be 603 m3/day) of which fresh water requirement of 603 m3/day and will be met through Bhima River (Daund Village).

Effluent of 403m3/day from sugar, quantity will be treated through existing 750 m3/day capacity ETP plant and sober effluent from distillery 10m3/day will treated in 700 m3/day capacity ETP plant. The majority of water generated is recycled back either directly into the process or after treatment in CPU. The ETP has been designed to treat capacity 750 m3 /day of Sugar effluent and 700 m3 /day of Distillery effluent. The plant will be based on Zero Liquid discharge system.

Power requirement after expansion will be 4 MW (additional) including existing cogen plant is of 18000 KVA, is sufficient to supply power for existing as well as proposed expansion and will be met from Maharashtra State electrical distribution corporation limited (MSEDCL). Existing unit has 2 DG sets of 1010 capacity, additionally 2(All DG sets shall be HSD fired. When operated, each DG set will consume 270 liters per hour of fuel.) DG sets are used as standby during power failure. Stack (height 70m & 81m) will be provided as per CPCB norms to the proposed DG sets.

Existing sugar & cogen unit has 100 & 15 TPH Fired Boiler. Additionally 40 TPH fired boiler will be installed for Distillery Unit. ESP with a stack of height of 81m will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm3 for the proposed boilers. The critical SPM concentration in the flue gas will be less than 150.0 mg/Nm3. Majority of the particulates (about 60-70%) will have sizes in the range of 2-10 µm. The emissions are expected to have temperature in the range of 140-150°C.

The unit has installed ESP of 99.9% efficiency for control of particulate emission. It is proposing ESP of 99.9% efficiency for control of particulate emission in distillery. As steam requirement for distillery unit will be met from boiler of co-gen plant in sugar mill there will not be any air discharges on this account due to operation of distillery. The CO2 produced from fermenters after scrubbing will be bottled to avoid air pollution. Emission due to running of D G set shall be insignificant. The main raw material and product shall be brought and dispatched by road and it will be ensured that the vehicle owners must have valid PUC Certificate.

It will be ensured that vehicles are not overloaded during transportation. Dust suppression on internal roads will be done at regular intervals. Boiler ash will be transferred in closed bulkers to the end users to avoid any spillage. Better housekeeping by regular steaming of all fermentation equipment, Control of temperature during fermentation and use of efficient biocides to control bacterial contamination will help to control odor. Air Treatment Technology using Electrostatic Precipitator will manage aerial emission prior to discharge to the atmosphere via a stack. The existing stack of sugar mill plant with 72m height is

adequate for particulate dispersion during the trial period of proposed Distillery Plant. Later, a dedicated boiler of 50TPH will be used for distillery for which a stack of 60m height is proposed which is adequate to aid dispersion to the point where emissions will not impact on any receptors. Adequate green belt will be developed over an extent of 33% of total plot area (i.e. 20 Acres).

PP reported that about 960 KLD spent wash will be generated from the distillery process, that will be treated in bio-digester as primary treatment and MEE will be used for bio-compost as secondary treatment. Biocompost 300 TPD will be generated and will be sold to nearby farmers as fertilizer. Total ash generated is estimated to be around 30 TPD out of which 24 TPD will be fly ash and 6 TPD will be bottom ash and it will be collected in ash silo. Collected bottom ash will be used as manure and fly ash will be sold to brick manufacturers.

Spent Oil from the gear boxes, DG set is being reused for chains, bullock carts, and conveyor belts and if in excess is disposed to the authorized vendors as per the Hazardous Wastes (Management and Handling) Amendment Rules, 2003.

Generated waste will be deposed as per Municipal Solid Waste Management rule 2016 and its subsequent amendments. Segregated municipal solid waste shall be recycled, reused or disposed off as per norms. Bio-degradable waste from colony and canteen and garden trash will be composted & used as manure. Non-biodegradable and office waste shall be sent to authorize recycle and inert sent for low land filling. Fly ash & bottom ash generated from ESP & Boiler is collected in a silo. The ash is supplied to nearby brick manufacturers.

The EAC has deliberated on the proposal. **The Committee took serious note on the details submitted by the project proponent. The Committee noted that the PP has not reworked on the water balance and ZLD plan. It was suggested that action needs to be taken against the consultant for misleading the PP and for submission of incomplete information.** The Committee after detailed deliberations, reiterated its earlier decision and desired for the documents/information as under:

(i). Plan for achieving complete Zero Liquid Discharge System. The unit shall achieve ZLD through ETP/MEE/RO technologies.

(ii). Plan for installation of incineration boiler for treating spent wash.

(iii). Compliance status of the existing EC and ATR on non-complied points forwarded through Regional Office of the Ministry.

(iv). Revised water balance with reduction in freshwater consumption (3KL/KL of production)

(v). Public hearing issues, action plan with proposed activities to address the issues needs to be submitted.

The proposal was accordingly DEFERRED for the needful.

Amendment in Environmental Clearance

Agenda No. 24.20

Expansion of specialty Chemicals Manufacturing Unit located at Plot No.166/1-3, 171/1, 172, 167, 168, Village Padana, Gandhidham, District Kutch, Gujarat by M/s Kutch Chemicals Industries Ltd.-Extension in Environment Clearance

[IA/GJ/IND2/173541/2020 ,J-11011/531/2009-IA II (I)

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

The Ministry has granted environmental clearance vide letter dated 10th May, 2013 and amendment vide letter dated 28th March, 2017 in favour of M/s Kutch Chemicals Industries Ltd to the project for Expansion of Speciality Chemicals Manufacturing unit at Plot No.166/1-3, 171/1, 172, 167, 168, Village Padana, Gandhidham, District Kutch, Gujarat.

The project proponent has informed that all the products has not been converted into production and requested for extension of the EC for a period of three years.

The EAC has made a detailed deliberation on the proposal. The Committee has been informed that the validity of the EC is for 7 years from the date of issue and the PP has not submitted application for extension of the EC within the proper time period, i.e. on or before 10th May, 2020 or within 3 months from the date of expiry of the validity. The PP has informed the Committee that the EC was granted by the Ministry 10th May, 2013, and the Ministry has issued an OM dated 25th March, 2020 extending the validity till 30th June, 2020, and application has been submitted on 16th September, 2020, i.e. within 3 months of the extended time period. On the request of the Committee, PP has submitted an apology letter for delay in submission of the application.

The Member Secretary has informed the Committee that the Ministry issued OM dated 25th March, 2020 due to the lockout arose from corona pandemic, extending the validity of the EC expiring between 15th March, 2020 & 30th April, 2020 till 30th June, 2020, in order to ensure uninterrupted operations of such projects and activities. The justification submitted by the PP is not admissible on these grounds and submission of application is online through PARIVESH portal, which PP has failed to do in time.

The Committee, after detailed deliberations, has **recommended** for extension of validity of the EC dated 10th May, 2013 for three years till 10th May, 2023 for completion of the work as per the scope of the project. The Committee however suggested that the Ministry may take a decision on the admissibility of the proposal as per the EIA Notification, 2006.

DAY 3: 22nd October, 2020 (Thursday)

Agenda No. 24.21

Establishment of synthetic organic chemicals (Pigment Green 7) manufacturing unit located at Survey No. 111 & 112, Plot No. 7 & 8, Village: Dhanot, Ta: Kalol, Dist: Gandhinagar, Gujarat by M/s Shrey Industries -Consideration of Environment Clearance

[IA/GJ/IND2/85152/2018, IA-J-11011/369/2018-IA-II(I)]

The project proponent and their accredited Consultant M/s Bhagwati Enviro Care Pvt Ltd, made a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal is for Environmental Clearance to the project for manufacturing of Synthetic Organic Chemicals (Pigment Green 7) of 100 MTPM at Survey No. 111 & 112, Plot No. 7 & 8, Village Dhanot, Taluka Kalol, District Gandhinagar, Gujarat.

The details of products and capacity are as under:

S. No.	Product Name	Chemical Name	CAS No.	Quantity (TPM)
1.	Pigment Green 7	Phthalocyanine Green	1328-53-6	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-11011/369/2018-IA-II (I); dated 31/12/2018. Public Hearing for the project has been conducted by the Gujarat Pollution Control Board on 25.09.2019, which was presided over by the Additional Collector. The main issues raised during the public hearing are related to Effluent management & Local Employment. It was informed that no litigation is pending against the proposal.

The land area available for the project is 3366 m^2. Industry will develop greenbelt in an area of 33% i.e. 1121 m^2, out of total area of the project. The estimated project cost of proposed unit is Rs. 3.0 Crore. Total capital cost earmarked towards environmental pollution control measures is Rs. 56.5 Lakhs and the Recurring cost (operation and maintenance) will be about Rs. 195.2 Lakhs per annum. Total employment will be 17 persons as direct & 10 Persons indirect. Industry proposes to allocate Rs. 13.5 Lakhs towards Corporate Environmental Responsibility (CER).

There are no National Parks, Wildlife Sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km of the project site. Narmada Canal is flowing at a distance of 6.01 km in S direction.

Ambient air quality monitoring was carried out at 8 locations during October to December-2018 and the baseline data indicates the ranges of concentration as: PM_{10} (72.40-88.66 ug/m^3), $PM_{2.5}$ (30.41-44.77 ug/m^3), SO_2 (9.42-42.02 ug/m^3) NO_2 (12.99-49.92 ug/m^3), HCl (<1ug/m^3) and Cl_2 (< 1 ug/m^3). AAQ modeling study for point source emission indicated that the maximum incremental GLCs after the proposed project would be 0.89 ug/m^3, 0.42 ug/m^3 0.32 ug/m^3, 0.08 ug/m^3 and 0.11 ug/m^3, with respect to PM_{10}, SOx, NOx, HCl and Cl_2. The resultant concentrations are within the national ambient air quality standards (NAAQS).

Total water requirement is 84.6 m3/day of which fresh water requirement of 49 m3/day will be met from Gujarat Water Supply & Sewerage Board (GWSSB). 35.6 m3/day will be recycled/treated water. Process effluent (47.4 KLD), along with effluent from washing (5.0 KLD), utilities (1.0 KLD), scrubber (0.5 KLD) will be taken into ETP. Then it will be passed through RO. RO permeate (35.6 KLD) will be reused; RO reject (18.3 KLD) will be Spray Dried in Common Spray drying facility. The plant will be based on Zero Liquid Discharge system. Domestic effluent of 0.8 KLPD will goes to soak pit via septic tank.

Power requirement will be 150 KW and will be met from Uttar Gujarat Vij Company Ltd. (UGVCL). Unit will install one D.G. Set of 125 kVA capacity and will be used as standby during power failure. Stack (height 11 meters) will be provided as per CPCB norms to the proposed D.G. Set.

Coal/Agro waste fired Boiler (2 TPH), One Coal/Agro waste fired Hot Air Generator (2.0 Lakhs Kcal/hr.) and one LDO fired Thermic Fluid Heater (3.0 Lakhs Kcal/hr.) will be installed. Cyclone Separator and bag filter with a stack height of 30 m will be installed for controlling the particulate emissions within the statutory limit of 150 mg/Nm^3 for the proposed utilities.

Process emission generation will be from one vent attached with Process Vessel, one vent of Spin Flash Dryer. Two stage Water Scubber will be provided on reaction vessel as an APCM to control process emission. Cyclone seperator + bag filter will be provided as APCM for Spin Flash Dryer.

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

S. No	Type of Hazardous Waste	Source	Cat. No.	Quantity (per annum)	Management
1.	ETP Waste	Effluent treatment plant	35.3	72 MT	Collection, Storage, Transportation At TSDF.
2.	Dilute HCl (30%)	From Scrubber system	D-2 (Sch.I)	2220 MT	Collection, storage & disposal by selling to actual & authorized users having Rule 9 permission
3.	Aluminum Chloride	During first filtration of process	21.1	5640 MT	Collection, storage & disposal by selling to actual & authorized users having Rule 9 permission

4.	Sodium Hypochlorite	From Scrubber system	26.1	3360 MT	Collection, storage & disposal by selling to actual & authorized users having Rule 9 permission
5.	Used Oil	Lubrication of plant machineries	5.1	5 Liter	Collection, Storage & Transportation, Reuse for lubrication in plant machineries
6.	Discarded Containers/Bags	Raw material section	33.1	18 MT	Collection, Storage, Decontamination, disposal buy reuse selling to authorized recycler

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/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 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 is 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 has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and found to be addressing the issues in the study area. The Committee has suggested that the storage of toxic/hazardous raw material shall be bare minimum in quantity and inventory. The Committee has noted that the land has been converted for Industrial purpose.

The EAC has deliberated the proposal and has made 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 have found the proposal in order and have 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 49 cum/day proposed to be met from Gujarat Water Supply & Sewerage Board (GWSSB). Necessary permission in this regard shall be obtained from the concerned regulatory authority, 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 in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xiv). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, the project proponent, as committed, shall provide assistance in educational activities, drinking water, public health and family welfare, preservation of the environment in the nearby villages. The action plan shall be completed within five years as proposed. All the commitments made during public hearing 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. 24.22

Expansion of r DNA Products in Existing Manufacturing unit by M/s Sun Pharmaceutical Industries Limited located at Sy No.16, Ekrajapura, Siddlagatta, Road, Hasigala Post, Hoskote Taluk, Bangalore Rural District, Karnataka - Consideration of Environment Clearance

[IA/KA/IND2/173138/2020, IA-J11011/223/2020-IA-II(I)]

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 through Video Conferencing (VC).

The proposal is for environmental clearance to the project for expansion of r DNA Products in Existing Manufacturing unit by M/s Sun Pharmaceutical Industries Limited located at Sy No.16, Ekrajapura, Siddlagatta, Road, Hasigala Post, Hoskote Taluk, Bangalore Rural District, Karnataka.

The details of products and capacity as under:

S. No	Products	Existing Quantity per Annum	Additional Quantity per Annum	Total Quantity per Annum	Remarks
1	Heparin (Nos)	7.20 Lakhs Vials	0	7.20 Lakhs Vials	Retained
2	Hib Vaccine (Nos)	1.44 Crores Vials	0	1.44 Crores Vials	Retained
3	Typhoid Vaccine (Nos)	1.06 Crores vials	0	1.06 Crores vials	Retained
4	Ranibizumab (Nos)	0	64000 vials	64000 vials	New
5	Recombinant GL0034 Sequence Fragment (Nos)	0	125000 vials	125000 vials	New
6	Dengue Vaccine(DSV4) (Nos)	0	48,00,000 vials	48,00,000 vials	New
7	Dengue Vaccine(DENV2) (Nos)	0	48,00,000 vials	48,00,000 vials	New
8	Liraglutide	0	4000 vials	4000 vials	New

All proposals for projects or activities in respect of Active Pharmaceutical Ingredients (API), received upto the 30th September 2020, shall be appraised, as Category "B2". All Active Pharmaceutical Ingredients (API), are listed at schedule 5(f)–Synthetic, Organic Chemicals Industry under category 'B2' as per S.O. 1223(E) dated 27.03.2020 and are appraised by SEIAA/SEAC. Due to non-availability of Karnataka SEIAA/SEAC at the time of EC application submitted, the proposed expansion project is appraised at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The unit was established by M/s. Biovel Healthcare Pvt. Ltd in 2004 and M/s. Ranbaxy Laboratories Ltd. acquired the facility in 2010 and applied CTE dated 03.05.2014. In 2015, M/s. Ranbaxy Laboratories Ltd got amalgamated into M/s. Sun Pharmaceutical Industries Limited and the unit is currently running with valid Consent Order dated 24.07.2019 which is valid upto 30.06.2024. There is no change in the quantity from 2014 till date.

Total land area is 31356 sqm (7.74 Acres). No additional land will be used for proposed expansion. Industry has already developed greenbelt in an area of 53.23% i.e.16673.05 sqm. (4.12 Acres) out of total area of the project.

The estimated project cost is Rs.711 Lakhs including existing investment cost of Rs.6087 Lakhs. Total capital cost earmarked towards environmental pollution control measures is Rs.145.2 Lakhs and the Recurring cost (operation and maintenance) will be about Rs.19.4 Lakhs per annum. Total Employment will be 89 persons. Industry proposes to allocate Rs.7.25 Lakhs towards Corporate Environmental 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. Hoskote lake is at a distance of ≃7.68 km in SSW, Bdanakare Lake is at a distance of ≃13.77 km in NW.

Total water requirement is 87KLD of which fresh water requirement of 48 KLD will be met from Private tankers. Effluent of 24 KLD and sewage of 5 KLD will be treated in existing combined wastewater treatment plant of capacity 60 KLD. The treated wastewater will be recycled for green belt development.

Power requirement after expansion will be 900 kVA (No additional power requirement for expansion) and will be met from BESCOM (Bangalore Electricity Supply Company Limited). Existing unit has 1 No of 63.5 KVA, 1x 320 kVA &1 No 750 kVA DG Sets. No additional DG set will be required as the standby during power failure. Stacks height 18 m (Individual stack for 63.5 kVA DG and 320 kVA DG) and 30 m for750 kVA DG AGL) will be provided as per CPCB norms. (Individual 3 m Stack above the DG room is available for existing 63.5 kVA and 320 kVA DGs. This will be extended to 18 m stack AGL. Existing unit has 1 x 650 Kg/Hr & 1x 850 Kg/Hr Boilers. Additionally, no TFH and no boilers will be installed. Multi cyclone separator/bag filter with a common stack of height of 28 m is installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boilers. At any point of time only one boiler will be operational.

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

<table>
<tr><th colspan="7">Emission from Utilities</th></tr>
<tr><th rowspan="2">Chimney attached to</th><th colspan="6">Existing</th></tr>
<tr><th>Capacity/ KVA rating</th><th>Chimney height AGL in m</th><th>Fuel (L/Hr)</th><th>Gas Discharge (Nm3/Hr)</th><th>Pollutants</th><th>APC Measures</th></tr>
<tr><td>Boiler</td><td>650 kg/hr</td><td>28</td><td>HSD-40</td><td rowspan="2">1495.3</td><td rowspan="5">PM, SOx, NOx</td><td>28 Meter chimney height (Common Chimney)</td></tr>
<tr><td>Boiler</td><td>850 kg/hr</td><td>28</td><td>HSD-40</td></tr>
<tr><td>DG set</td><td>63.5 kVA</td><td>18</td><td>HSD-15</td><td>520.7</td><td>Acoustic enclosures</td></tr>
<tr><td>DG set</td><td>320 kVA</td><td>18</td><td>HSD-70</td><td>520.7</td><td>Acoustic enclosures</td></tr>
<tr><td>DG set</td><td>750 kVA</td><td>30</td><td>HSD-120</td><td>563.4</td><td>Acoustic enclosures</td></tr>
<tr><td colspan="6">Proposed: NIL</td><td></td></tr>
<tr><td colspan="7">Process Emissions</td></tr>
</table>

The chemicals used in process are carried out in closed loop system and will not be exposed. The room is provided with proper ventilation and AHU system with HEPA (High Efficiency Particulate Air Filters) filters of 0.5µ. HEPA filters have a minimum particulate efficiency of 99.97%.

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	Existing (Kg/day)	Proposed (Kg/day)	After expansion (Kg/day)	Method of disposal
Operation Phase-89 Nos					
1	Organic	32.04	-	32.04	Local municipal bins
2	Inorganic	21.36	-	21.36	KSPCB Authorized Recyclers

Hazardous Waste generation and Management:

Category	Description	Existing Quantity	Additional	After Expansion	Disposal method
5.1	Used spent oil	0.5 KL/A	0.5 KL/A	1.0 KL/A	Sent to KSPCB authorized re processors / recyclers
33.2	Contaminated cotton rags or other cleaning materials	0.030 MT/A	0.47 MT/A	0.50 MT/A	Sent to cement industries for co processing or KSPCB authorized incinerator
3.3	Sludge & filters contaminated with oil	0.030 MT/A	0.47 MT/A	0.50 MT/A	Sent to TSDF for landfill
33.1	Empty barrels/ containers/ liners contaminated with hazardous chemicals/ wastes	0.500 MT/A	2.0 MT/A	2.500 MT/A	Sent to KSPCB Authorised recyclers
35.3	Chemical sludge from waste water treatment	0.060 MT/A	1.94 MT/A	2.0 MT/A	Sent to cement industries for co processing/ KSPCB

Category	Description	Existing Quantity	Additional	After Expansion	Disposal method
					authorized incinerator / TSDF for secured landfill
28.6	Solvent (Ethano l& Acetonitrile)	-	2 KL/A	2 KL/A	Sent to KSPCB Authorised recyclers

Bio Medical Waste Generation and management

Cat.No (I)	Wastes Type (2)	Quantity Generated / Collected Kg/Day	Additional	Total Generated / Collected Kg/Day	Disposal Method
Yellow coloured Non Chlorinated Plastic bag	Soiled Wastes	100 Gms/Day	400 Gms/Day	500Gms/Day	Hand over the waste of this category to CBMWTF
Yellow	Chemical Liquid wastes	31.25 Ltrs/Day	-	31.25 Ltrs/Day	Disinfection by Chemical and discharge into ETP
Yellow	Microbiology, Biotechnology and other clinical laboratory wastes	13.58 kg/Day	36.42 kg/Day	50 kg/Day	Hand over the waste of this category to CBMWTF

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with 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 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 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 project, reflecting the present environmental concerns and the projected scenario for all the environmental components. The EAC has deliberated the proposal and has made 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 have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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 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.

(iii) As already committed by the project proponent, Zero Liquid Discharge shall be ensured for expansion project within 3 years 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) Occupational health centre for surveillance of the worker's health shall be set up. The health data shall be used in deploying the duties of the workers. All workers & employees shall be provided with required safety kits/mask for personal protection.

(v) 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 48 KLD, proposed to be met from bore well/ground water. The project proponent shall use fresh water through tanker supply for three (3) months only, and shall submit the application and obtain permission from concerned regulatory authority/CGWA for ground water use within 3 months.

(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.

(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 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.

(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.

(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. 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.

(xiv) As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide infrastructure to the school, Sanitation & public health in the nearby villages. The action plan shall be completed within three years as proposed. Preference shall be given to local villagers for employment in the unit. Preference shall be given to local villagers for employment in the unit.

(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. 24.23

PROPOSED 45 KLPD MOLASSES/SUGARCANE JUICE BASED DISTILLERY/ETHANOL PLANT & 20.5 MW COGENERATION PLANT Amdapur, Tal. & Dist. Parbhani, Maharashtra by M/s Shree Laxmi Narshinha Sugars LLP-Consideration of Environment Clearance

[IA/MH/IND2/173992/2020, SIA/MH/IND/49916/2020]

The Project Proponent and their accredited Consultant M/s MITCON Consultancy & Engineering Services Ltd have made a detailed presentation on the salient features of the project through video conferencing and informed that:

The proposal is for environmental clearance to the project for Setting up Molasses/ Sugarcane Juice Based Distillery/Ethanol Plant of 45 KLPD & Cogeneration Plant of 20.5 MW at Village Amdapur, Taluka & District Parbhani, Maharashtra by M/s Shree Laxmi Narshinha Sugars LLP.

The details of products and capacity as under:

Molasses/Sugarcane Juice based Distillery/ Ethanol plant	45 KLPD(ENA/RS/AA/Ethanol)
Cogeneration Plant	20.5 MW

The project/activities are covered under category B of item 5 (g) 'Distilleries' and 1 (d) 'Thermal power plant' of the Schedule to the Environment Impact Assessment Notification, 2006. Due to nonexistence of SEIAA/SEAC at Maharashtra, the project was appraised at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The project proposal was considered by the State Expert Appraisal Committee in its 179th meeting held on 20th February, 2020, and recommended Terms of References (ToRs) for the Project. The ToR has been issued vide letter No. SIA/MH/IND2/49916/2020 dated 29th May, 2020. Public Hearing for the proposed project has been conducted by the Maharashtra Pollution Control Board on 22.07.2020, which was presided over by the Additional District Magistrate. The main issues raised during the public hearing are related to queries on Noise pollution, Water pollution and air pollution Sources, Ash disposal and its management. It was informed that no litigation is pending against the proposal.

The land area available for the project is 369275.649 m^2. Industry will develop greenbelt in an area of 33% i.e. 1, 38,140.62 m^2 *out of total area of the project. The estimated project cost is Rs 115.84 Cr. Total capital cost earmarked towards environmental pollution control measures is Rs. 8.3 Cr and the recurring cost (operation and maintenance) will be about Rs. 29.0 lakhs per annum. Total Employment will be 117 persons as direct & indirect. Industry proposes to allocate Rs 1.73 crores towards Corporate Environment Responsibility.

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc., within 10 km from the project site. Godavari River is flowing at a distance of 13.0 km in South direction and Water Canal 0.53 km in SE direction.

Ambient air quality monitoring was carried out at ten locations during October to December, 2019 and the baseline data indicates the ranges of concentrations as: PM_{10} (37.4 to 58.7 µg/m^3), $PM_{2.5}$ (14.2 to 23.6 µg/m^3), SO_2 (6.1 to 15 µg/m^3) and NO_x (9.3 to 18.7 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.00178 µg/m3, 2.116 µg/m3 and 0.923 µg/m^3 with respect to PM_{10}, SO_X and NO_X. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 1137 m^3/day of which fresh water requirement of 390 m^3/day will be met from own rainwater harvesting pond of total capacity 180000 m^3/day. Effluent of 426.5m^3/day (Spent wash 400 CMD will be through Biomethanation, MEE Followed by Bio-composting) will be treated through 465 CMD Condensate Treatment Plant. The plant will be based on Zero Liquid discharge system.

Power requirement will be 8 MW and will be met from own cogeneration power plant (20.5 MW). Existing unit has 1 no. × 500 kVA DG Set. Proposed distillery unit will have 1 no. × 250 kVA DG set/s. All DG sets will be used only as standby during power failures. Stack height 11 m will be provided as per CPCB norms to the proposed DG sets.

Existing sugar unit has 2 × 32 TPH boilers. Additionally, 90 TPH boiler will be installed for Co-generation unit and 15 TPH (Incineration) boiler will be installed for proposed Distillery. Electrostatic precipitator with a stack height of 65 m will be installed for 90TPH Cogeneration boiler and 45 m Stack with Wet Scrubber will be provided with proposed Distillery boiler, for controlling of particulate emission within statutory limit of 115 mg/Nm^3 for the proposed boilers.

It was informed that the PP is having sugar unit of capacity 2500 TCD, which is in operation with CTE/CTO from the State PCB.

Details of Process emissions generation and its management

Project Activity	Anticipated pollutant	Management
Process emissions	CO_2 and Negligible VOCs	CO2 shall not be release in the air. CO2 will be either Bottling/ dry ice or it will absorb in Sodium carbonate
Stack, Fugitive emissions, material handling.	PM_{10}, $PM_{2.5}$, NO_X, SO_2, CO_2	• Existing sugar unit: 40 m stack with Wet scrubber for 2 × 32 TPH boilers. • Proposed Distillery unit: 45 m stack with Wet Scrubber for 15 TPH boiler. • Proposed Co-gen unit: 65 m stack with Electrostatic precipitator (ESP) for 90 TPH boiler.

Details of Solid waste / Hazardous waste generation and its management

S. No.	Type of waste	Quantity	Final Disposal
1.	Existing from Sugar press mud	100 TPD	Press mud will be sold to the farmer as manure.
2.	Existing from Sugar Bagasse Ash	4.2 TPD	Bagasse ash will be sold to farmer as manure.
3.	Proposed bagasse ash	20 TPD	
4.	Yeast sludge	25-30 TPD	The sludge from primary clarifies, settling tank and secondary clarifier will be sent to sludge drying beds. Sludge will be dried in natural heat of sunlight. The dried cakes will be scrapped off periodically and can be utilized for as manure or mixed with Press mud and utilized for composting
5.	ETP and CPU Sludge	30-40 TPM	
6.	Spent oil (5.1)	Negligible	Authorized recycler or burn in boiler with bagasse

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA 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 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 is 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 has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan along with activities for addressing the socio-economic issues and found to be addressing the issues in the study area. The Committee has suggested that the project proponent shall stop the bio-composting method as it is having direct impact on the ground water, odour issues, and affects the health of public in the surrounding areas and PP shall adopt incineration route for achieving complete ZLD. The Committee has appreciated the efforts of PP in meeting the fresh water requirement through rain water harvesting.

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/farming.

(iii). As proposed, total fresh water requirement shall not exceed 390 cum/day, proposed to be met from harvested rain water source.

(iv). Project Proponent shall reduce the quantity of effluents generation in the unit and PP shall install the effective wastewater treatment system so that Zero Liquid Discharge shall be ensured and no waste/treated water shall be discharged outside the premises. Adequate system shall be in place for controlling the odour and mitigation measures to protect the contamination of ground/surface water.

(v). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

(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). Process organic residue and spent carbon, if any, shall be sent to Cement other suitable industries for its incinerations/management.

(x). 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.

(xi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xii). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, the project proponent, as committed, shall provide support for LED bulb/ solar panels, water filters, drainages management in the nearby schools/villages. The action plan shall be completed within three years as proposed. All the commitments made during public hearing shall be satisfactorily implemented.

(xiii). The project proponent shall continue the rain water harvesting system in the project area and utilize for the fresh water requirement.

(xiv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

(xv). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

(xvi). 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.

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

Agenda No. 24.24

Proposed Technical Grade Pesticides &Intermediates (Insecticides, Herbicides, Fungicides) manufacturing unit tobe set-up at Plot No.: D-3l91 &. 92, Dahej GIDC Estate-III, Village: Vav,Taluka: Vagra, District: Bharuch, Gujarat by M/s MAHAMAYA LIFESCIENCES PVT. LTD. -Consideration of Environment Clearance

[Proposal No.: IA/GJ/IND2/158595/2020, F. No.: IA-J-11011/105/2020-IA-II (I)

The Project Proponent and their 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 environmental clearance to the project for Production of Technical Grade Pesticides & Intermediates of 1099 TPM within the premises at Plot No. D-3/91 & 92, Dahej GIDC Estate-III, Village Vav, Taluka Vagra, District Bharuch, Gujarat of M/s Mahamaya Lifesciences Pvt Ltd.

The details of products and capacity as under:

S. N.	Group	Name of Products	CAS No.	Quantity (MT/Month)
1.	**Insecticides**	Abamectin Tech	71751-41-2	5
2.		Acephate Tech	30560-19-1	30
3.		Alphacypermethrin Tech	67375-30-8	15
4.		Bifenthrin Tech	82657-04-3	5
5.		Chlorpyriphos Tech	002921-88-2	50
6.		Cypermethrin Tech	52315-07-8	50
7.		Deltamethrin Tech	52918-63-5	15
8.		Diafenthiuron Tech	80060-09-9	10
9.		Fipronil Tech	120068-37-3	5
10.		Flubendiamide Tech	272451-65-7	10
11.		Lambda Cyhalothrin Tech	91465-08-6	50
12.		Lufenuron Tech	103055-07-8	10
13.		Nitenpyram Tech	150824-47-8	15
14.		Permethrin Tech	52645-53-1	50
15.		PyriproxyfenTech	95737-68-1	20
16.		Clothianidin Tech	210880-92-5	10
17.		Thiamethoxam Tech	153719-23-4	10
18.		Thiocyclam Hydrogen OxalateTech	31895-22-4	5
19.		Transfluthrin Tech	118712-89-3	10
20.		Chlorantraniliprole Tech	500008-45-7	10
21.	**Herbicides**	2,4-D Technical Tech	94-75-7	25
22.		Atrazine Tech	1912-24-9	25
23.		Bipyribac-SodiumTech	125401-92-5	10
24.		Chlorimuron ethyl Tech	90982-32-4	15
25.		ClodinafopPropargyl Tech	105512-06-9	2
26.		Dicamba Tech	1918-00-9	25
27.		Fenoxaprop-P-Ethyl Tech	71283-80-2	10
28.		Glyphosate Technical	1071-83-6	50
29.		Imazethapyr Tech	81335-77-5	10
30.		Metribuzin Tech	99129-21-2	35
31.		Oxyflurofen Tech	42874-03-3	10
32.		Pendimethalin Tech	40487-42-1	30
33.		Propanil Tech	709-98-8	10
34.		Quizalofop Ethyl Tech	100646-51-3	10
35.		Metsulfuron Methyl Tech	74223-64-6	5
36.		Hexithiazox Tech	78587-05-0	15
37.		Pinoxaden Tech	243973-20-8	15

38.		Sulfosulfuron Tech	141776-32-1	2
39.	**Fungicides**	Propineb Tech	12071-83-9	20
40.		Azoxystrobin Tech	131860-33-8	25
41.		Captan Technical Tech	133-06-2	25
42.		Carbendazim Tech	10605-21-7	25
43.		Chlorothalonil Tech	1897-45-6	30
44.		Copper Oxychloride Tech	1332-65-6	25
45.		Cymoxanil Tech	57966-95-7	20
46.		Cyproconazole Tech	94361-06-5	50
47.		Difenoconazole Tech	119446-68-3	10
48.		Epoxiconazole Tech	133855-98-8	10
49.		Hexaconazole Tech	79983-71-4	20
50.		Propiconazole Tech	60207-90-1	20
51.		Tebuconazole Tech	107534-96-3	10
52.		Prothioconazole Tech	178928-70-6	10
53.		Kresoxim Methyl Tech	143390-89-0	5
54.		Mancozeb Tech	8018-01-7	10
55.		Metalaxyl Tech	70630-17-0	20
56.		Myclobutanil Tech	88671-89-0	10
57.		Thiophanate Methyl Tech	23564-05-8	10
58.		Tricyclazole Tech	41814-78-2	5
59.		Trifloxystrobin Tech	141517-21-7	5
60.		Imibenconazole Tech	86598-92-7	10
61.		Penconazole Tech	66246-88-6	10
62.	--	R & D Products	--	25
	Total			**1099**

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

The Standard Terms of References (ToRs) was issued by Ministry vide letter No. No.IA-J-11011/105/2020-IA-II (I) dated 18 May 2020. Public hearing for the project has been exempted as the project site is located in the Industrial area. It was informed that no litigation is pending against the proposal.

Existing land area is 17,492.19 m^2. Industry will develop greenbelt in an area of 33 % i.e. 5,774.44 m^2 out of total area of the project. The total estimated cost of the proposed project is Rs. 45.40 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 5.2 Crores and the Recurring cost (operation and maintenance) will be about Rs. 4.05 Crores per annum. Total Employment will be 100 persons as direct as well as other indirect employees after expansion. Industry proposes to allocate Rs 91 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 November 2019 to February 2020 and the baseline data indicates the ranges of concentrations as: PM_{10} (49 – 112 µg/m³), $PM_{2.5}$ (13 – 49 µg/m³), SO_2 (6 - 32 µg/m³) and NO_2 (12 – 36 µg/m³). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.06 µg/m³, 0.07 µg/m³ and 0.03 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 390 m³/day of which fresh water requirement of 148 m³/day will be met by GIDC. Domestic waste water (7 m³/day) will be treated in Sewage Treatment Plant. The industrial process wastewater will be segregated and will be sent to a solvent stripper followed by a Multiple Effect Evaporator (MEE). High COD/TDS effluent (process effluent 70KLD + Post ETP RO reject 43 KLD) will be evaporated in Multiple Effect Evaporator (MEE) and condensate (108) will be treated in ETP alongwith other trade effluent. The residue from the MEE (5 KLD) will be sent for incineration to Common Hazardous Waste Incineration Facility (CHWIF)site. 225 KLD low COD/TDS process water, blow down from boiler, cooling purge water, washing as well as other water and MEE condensate will be kept segregated and will then be allowed to go into an effluent treatment plant (ETP) consisting of primary, secondary and tertiary treatments. A treated effluent from the ETP will be passed through Post ETP RO and RO Permeate (140 KLD +39 KLD) will be reused in cooling tower/process and RO reject (43 KLD) will be treated in MEE. Due to the above stated process no liquid effluent will be required to be discharged and the stated process would be a ZERO LIQUID DISCHARGE (ZLD) process.

Power requirement after expansion will be 1526 KW and will be met from Dakshin Gujarat Vij Company Limited (DGVCL). Two DG sets of 500 KVA capacities each which will be used as standby during power failure/ emergency. Stack (height 15 m) will be provided as per CPCB norms to the proposed D.G. Set. Unit will have 4 TPH agro waste briquettes fired boiler with APCM of Cyclone separator & bag filter with a stack height of 33 m will be installed for controlling particulate emissions within the statutory limit for proposed boiler.

Details of Process emissions generation and its management.

S. N.	Stack/Vent attached to reactor vessel of	Stack Height (m)	Stack Dia. (m)	APCM	Expected Pollutant	Expected Emissions
1.	Lambda Cyhalothrin	11	0.15	Primary scrubber followed by a guard scrubber	HCl	20 mg/Nm3
				Venturi scrubber followed by a packed alkali scrubber	SO2	40 mg/Nm3
2.	Transfluthrin	11	0.15	Water scrubber followed by guard scrubber	HCl	20 mg/Nm3

3.	Pinoxaden	11	0.15	Water scrubber followed by guard scrubber	HCl	20 mg/Nm3
4.	Captan	11	0.15	Venturi scrubber followed by a packed alkali scrubber	Cl2	9 mg/Nm3
5.	Hexaconazole	11	0.15	Venturi scrubber followed by a packed alkali scrubber	SO2	40 mg/Nm3
				Water scrubber followed by guard scrubber	HCl	20 mg/Nm3
6.	Propiconazole	11	0.15	Water scrubber followed by guard scrubber	HCl	20 mg/Nm3
				Venturi scrubber followed by a packed alkali scrubber	HBr	30 mg/Nm3
7.	Kresoxim Methyl	11	0.15	Water scrubber followed by guard scrubber	HCl	20 mg/Nm3
8.	Tricyclazole	11	0.15	Water scrubber followed by guard scrubber	HCl	20 mg/Nm3
9.	Trifloxystrobin	11	0.15	Water scrubber followed by guard scrubber	HCl	20 mg/Nm3
10.	Imibenconazole	11	0.15	Water scrubber followed by guard scrubber	HCl	20 mg/Nm3
11.	Diafenthiuron	11	0.15	Water scrubber followed by guard scrubber	NH3	30 mg/Nm3

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

S. N.	Type of Waste	Source of Generation	Cat.	Quantity per Year	Mode of Disposal
1.	Discarded Containers / Bags / Liners	Storage & Handling of Raw Materials/Chemicals	Sch-I/33.1	2500 Nos.	Collection, Storage, Transportation, Decontamination& Disposal by selling to registered recycler.

2.	Used / Spent Oil	Machineries	Sch-I/5.1	0.86 MT	Collection, Storage, Transportation, Decontamination & Disposal by selling to registered recycler.
3.	Chemical sludge from waste water treatment	In-house ETP	Sch-I/35.3	216MT	Collection, Storage, Transportation and disposal at common nearest TSDF site
4.	MEE Bottom residue	In-house MEE Facility	Sch-I/ 37.3	375 MT	Collection, Storage, Transportation and disposal at common nearest CHWMF site
5.	Process Waste Incinerable Waste	Manufacturing Process	Sch. I/ 29.1	725MT	Collection, Storage, Transportation and disposal to approve CHWIF site for incineration or for co-processing.
	Inorganic Waste			250 MT	Collection, Storage, Transportation and disposal at common nearest TSDF site
6.	Date-expired and off-specification pesticides	Manufacturing Processes	Sch-I/ 29.3	1 MT	Will be sent to approve CHWIF site for incineration or for co-processing.
7.	Spent Solvent	Manufacturing Process	Sch. I/ 29.4	1872 MT	Collection, Storage, Transportation and disposal by selling to an authorized solvent recovery unit.
8.	Spent Catalysts	Manufacturing Process	Sch–I/ 29.5	17MT	Collection, Storage, Transportation

					Disposal at Co-processing or common incineration site.
9.	Spent Acid (30 % HCl Solution)	Scrubber	Sch-I/29.6	1012 MT	Collection, Storage and reuse in process under Rule-9.
10.	Liquor Ammonia (21%)	Scrubber	Sch-II/ Class A-A10	31 MT	Collection, Storage, Transportation & Disposal by selling to authorize end user registered under Rule-9.
11.	Sodium Hypochlorite	Scrubber	Sch-II/Class B-7	80 MT	Collection, Storage and reuse in process under Rule-9.
12.	Sodium Bromide	Scrubber	Sch-II/Class B	351MT	Collection, Storage, Transportation & Disposal by selling to authorize end user registered under Rule-9.
13.	Poly Aluminium Chloride	Manufacturing Process	Sch- II/Class B-10	365 MT	Collection, Storage, Transportation & Disposal by selling to authorize end user registered under Rule-9.
14.	Mercaptan	Manufacturing Processes	Sch- II/Class B-21	77 MT	Collection, Storage, Transportation & Disposal by selling to authorize end user registered under Rule-9.
15.	Sodium Sulphite	Scrubber	--	1455 MT	Collection, Storage, Transportation & Disposal by selling to authorize end user registered under Rule-9.

The EAC has deliberated on the proposal. **The Committee has noted that the PP proposes to set up the unit in the existing plant premises, however, couldn't provide details on the existing facilities and its permissions. The Committee has noted that the PP needs to provide a detailed management plan for handling of cyanide in the plant. It was suggested that incineration facility shall be setup for cyanide/residues.** The Committee has also noted that the PP shall undertake detailed safety and risk analysis. The Committee after detailed deliberations has desired for following additional information/inputs in respect of the following:

(i). Details of existing unit, products along with copy of CTE/CTO/EC. Status of construction activities completed, as reported in KML file.

(ii). Detailed Cyanide handling and management plan.

(iii). Installation of incineration facility for cyanide and associated residue.

(iv). Safety and risk assessment using advanced modelling

(v). Plan for raw material storage and inventory at the bare minimum

(vi). Commitment for not producing any banned pesticide. Revised product table accordingly.

The proposal was accordingly DEFERRED for the needful.

Agenda No. 24.25

PROPOSED 120.0 KLPD MOLASSES/ BASED DISTILLERY (ETHANOL) ALONG WITH 7.0 MW CO-GENERATION POWER PLANT AT VILLAGE: MAWANA, TEHSIL: MEERUT, DISTRICT: UTTAR PRADESH OF M/s MAWANA SUGARS LIMITED -Consideration of Environment Clearance

[IA/UP/IND2/98046/2019 , IA-J-11011/64/2019-IA-II(I)

The project proponent has requested to withdraw the project as PP want to revise the application as per the provisions of the EIA Notification, 2006. The Committee has accordingly decided not to consider the proposal and recommended to **RETURN** in present form as **PP want to withdraw.**

Agenda No. 24.26

Manufacturing of Pesticide, Perfumery, Flavours & Fragrance and Dyes & Intermediates At Plot No. J-19, Avadhan MIDC, Dist. Dhule, Maharashtra By M/s Goga Industries -Consideration of Environment Clearance

[IA/MH/IND2/160174/2019, IA-J-11011/292/2019-IA-II(I)]

The project proponent has requested to withdraw the project as PP want to revise the application as per the provisions of the EIA Notification, 2006. The Committee has

accordingly decided not to consider the proposal and recommended to **RETURN** in present form as **PP want to withdraw.**

Agenda No. 24.27

EXPANSION OF DYES AND DYES INTERMEDIATES (FROM12917.5 MT/MONTH TO 20708 MT/MONTH) IN EXISTINGMANUFACTURING UNIT at GIDC ESTATE, SACHIN, DISTT SURAT by M/s COLOURTEX INDUSTRIES PVT. LTD. (UNIT-1) - Consideration of Environment Clearance

[IA/GJ/IND2/174686/2017, J-11011/208/2018-IA-II(I)]

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

The proposal is for environmental clearance to the project for Expansion of Dyes and Dyes Intermediates from 12917.5 TPM to 20708 TPM in existing manufacturing unit at Block No. 272/P, 273/P, 274/P, 278/P, 283/P, 284/P, 285 to 287, 288/P, 294 to 297, 310, (Plot No. X2 (SR-48)), Plot No. 288/1, 288/2, 289/1, 289/2, 8108/2, 268/3, 364, 801, GIDC Estate Sachin, District Surat, Gujarat by M/s Colourtex Industries Pvt Ltd (Unit-1).

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 conditions (CPA within 5 km) the project was appraised at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The project proposal was granted Standard TORs by the State Level Environment Impact Assessment Authority and recommended Standard Terms of References (TORs) for the Project. The TOR has been issued vide letter No. SEIAA/GUJ/TOR/5(f)&1(d)/905/2017; dated 12th Oct, 2017 and amended vide letter No. SEIAA/GUJ/TOR/5(f)&1(d)/490/2018; dated 17th May, 2018 and SEIAA/GUJ/TOR/5(f) /429/2019; dated 12th March, 2019.

Public Hearing for the proposed project is exempted as the Unit is located in Notified Industrial Area of GIDC Sachin. It was informed that no litigation is pending against the proposal.

The Ministry has issued EC earlier vide letter no. J-11011/2015/2005-IA II.I dated 08.02.2006 for production capacity of Dyes- 3250 MT/Month, Intermediates- 5278.5 MT/Month, Ferrous Sulphate- 250 MT/Month, Specialty Chemicals- 300 MT/Month & Captive Co-generation Power Plant of 15 MW/hr and 30 TPH, letter no. SEIAA/GUJ/EC/5(f)/15/2008 dated 25/02/2008 for production capacity of Intermediates: From 5278.5 MT/Month to 5878.5 MT/Month and By Product-from 760 MT/month to 918.3 MT/month and letter no. SEIAA/GUJ/EC/5(f)&1(d)/282/2009 dated 09/11/2009 for production capacity of Dyes: From 3250 MT/Month to 4550 MT/Month, Intermediates: From 5878.5 MT/Month to 7167.5 MT/Month, API-305 MT/Month, Ferrous Sulphate including metal/mineral sulfate- from 250 MT/Month to 500 MT/Month, Formulation & Spray Drying of Disperse, Acid & Reactive Wet Press Cake :- 400 MT/Month, Captive Co-generation Power Plant from 15 MW/hr to 30

MW/hr & 30 TPH and By Products-918.3 MT/Month to 1389.05 MT/Month to the existing project in favor of M/s Colourtex Industries Ltd. (Unit-1).

Details of Certified compliance report submitted by RO, MoEF&CC. MoEFCC, Bhopal has issued Certified Compliance Report of 3 Nos. of Environmental Clearance of Existing unit vide File No. 18-A-40/2018(SEAC)/061 dated: 17/01/2019 and File No. 18-A-40/2018(SEAC)/651 dated: 10/09/2020. The Committee deliberated the compliance status and found in order.

The land area available for the project is 3, 13,617.26 m^2. Industry has developed Greenbelt in an area of 40,082 m^2 out of total area of the project. The company will further develop 14000 m^2 area as greenbelt within premises. The company will further develop additional greenbelt of 71,370 m^2 at Block No. 106, 108, 202, 203 & 204, Village: Gabheni, Dist-Surat. So, total green belt area will be 1, 25,452 m^2, which will be 40.00 % of total plot area.

The estimated project cost is Rs. 829.1481 Crores including existing investment of Rs. 447.8191 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 183.6304 Crores and the Recurring cost (operation and maintenance) will be about Rs. 306.95 Crores per annum. Total Employment will be 310 persons as direct & indirect for project. Industry proposes to allocate Rs 6.05 Crores (approx.) in next 5 years towards Corporate Environment Responsibility.

PP reported that there are no National parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. lies within 10 km distance.

Ambient air quality monitoring was carried out at 9 locations during October to December, 2019 and submitted baseline data indicates that ranges of concentrations of PM10 (76.74 – 86.59 µg/m^3), PM2.5 (42.67 – 55.96 µg/m^3), SO2 (12.93 – 25.49 µg/m^3) and NO2 (12.18 – 32.56 µg/m^3) respectively. AAQ modelling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.190 µg/m^3, 0.126 µg/m^3, 0.043 µg/m^3, 0.028 µg/m^3, 0.037 µg/m^3, 0.008 µg/m^3, 0.009 µg/m^3 and 0.000 µg/m^3 with respect to SPM, SO_2, NOx, NH_3, HCl, Cl_2, HBr & Br_2. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

The additional water required for expansion project is 1215 m^3/day. Total water requirement after expansion project will be 11,150 m^3/day, out of which fresh water requirement is of 9269 m^3/day and will be met from Own Water Supply Network, which receives water from Kakarapar canal and water from Notified Area Authority, Sachin will also be used and 1881 m^3/day MEE condensate will be reused after treatment. The company is also planning to use tertiary treated sewage water. In this regard, the company already have sent request letter to SMC to provide secondary treated sewage water. Company will install tertiary Treatment Plant for the treatment of Secondary Treated Sewage receive from SMC at their Own Water Supply Network.

Total wastewater generation will be 8921 m^3/Day. 7056 m^3/day Low COD wastewater of Colourtex Industries Pvt. Ltd. (Unit-1) and 818 m^3/day low COD wastewater of CTX Lifesciences Pvt. Ltd. will be treated in the Effluent Treatment Plant, located at Colourtex Industries Pvt. Ltd. (Unit-1). 1865 m^3/day high COD wastewater of Colourtex Industries

Pvt. Ltd. (Unit-1) and 34.5 m^3/day high COD wastewater of CTX Lifesciences Pvt. Ltd. will be treated in the Multiple Effects Evaporators & Spray Dryer / Liquid Waste Incinerator at Colourtex Industries Pvt. Ltd. (Unit-1). 1881 KL/Day MEE condensate will be reused after treatment. 157 m^3/Day Domestic wastewaters will be passed through Septic Tank and treated along with industrial effluent.

Power requirement after expansion will be 14500 KVA including existing 12500 KVA and will be met from Dakshin Gujarat Vij Co. Ltd. Existing unit has 4 DG sets of 380 KVA, 1000 KVA & 1250 KVA * 2 Nos. capacity, additionally 2 DG sets of 2000 KVA will be used as standby during power failure. Stack height will be provided as per CPCB norms to the proposed DG sets.

Existing unit has 1500 U Natural Gas/ Coal fired Thermopack-1, 35 TPH Coal fired Steam Boiler-1, 30 TPH Coal fired Steam Boiler-2, 45 Lac Kcal/hr Coal/ Lignite fired Hot Air Generator-1, 75 Lac Kcal/hr Coal/ Lignite fired Hot Air Generator-2, 45 Lac Kcal/hr Coal/ Lignite fired Hot Air Generator-3, LDO/ HSD/ Bio Diesel fired Liquid Waste Incinerator, 45 Lac Kcal/hr Coal fired Hot Air Generator-4, 75 Lac Kcal/hr Coal fired Hot Air Generator-5, 80 Lac Kcal/hr Coal fired Hot Air Generator-6.

Additionally, 45 Lac Kcal/hr Coal fired Hot Air Generator-7, 75 Lac Kcal/hr Coal fired Hot Air Generator-8, 80 Lac Kcal/hr Coal fired Hot Air Generator-9, 3000 U Natural Gas/ Coal fired Thermopack-2, 3000 U, Natural Gas/ Coal fired Thermopack-3, 70 TPH Coal fired Steam Boiler-3, 45 Lac Kcal/hr Coal fired Hot Air Generator-10 and 75 Lac Kcal/hr Coal fired Hot Air Generator-11 will be installed.

Multi dust collector & trema cyclone (3 Nos.), Multi dust collector & trema cyclone & ESP (3 Nos.), ESP (8 Nos.), Cyclone separator (1 No.), Mist Eliminator & ventury scrubber (1 No.) with a stack of height of 38 m, 38.125 m, 40m, 42 m, 45m 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.

Existing Flue Gas Stacks

Sr. No.	Source of emission with capacity	Stack Height in Meter	Name of fuel	Quantity of fuel	Type of emissions i.e. Air Pollutants	Air Pollution Control System	Emission Standards
1	Thermopack-1 (1500 U)	38.125	Natural Gas / Coal	195 NM^3/ hr/ 270 kg/hr	SPM SO2 NOx	Multi Dust Collector & Teema Cyclone	SPM: 150 mg/Nm3 SO2: 100ppm NOx: 50ppm
2	Steam Boiler-1 (35 TPH)	42	Coal	6000 Kg/hr		ESP	
3	Steam Boiler-2 (30 TPH)		Coal	5200 Kg/hr			

4	Hot Air Generator-1 (45 Lac Kcal/hr)	45	Coal/ Lignite	1020 Kg/hr/ 1505 Kg/hr		Multi Dust Collector & Trema Cyclone & ESP	
5	Hot Air Generator-2 (75 Lac Kcal/hr)		Coal/ Lignite	1640 Kg/hr/ 2445 Kg/hr		Multi Dust Collector & Trema Cyclone & ESP	
6	Hot Air Generator-3 (45 Lac Kcal/hr)		Coal/ Lignite	1020 Kg/hr/ 1505 Kg/hr		Multi Dust Collector & Trema Cyclone & ESP	
7	Liquid Waste Incinerator	40	LDO HSD Bio Diesel	700 lit/hr/ 630 lit/hr/ 630 lit/hr		Mist Eliminator & Ventury Scrubber	
8	Hot Air Generator-4 (45 Lac Kcal/hr)	45	Coal	1020 Kg/hr		ESP	
9	Hot Air Generator-5 (75 Lac Kcal/hr)		Coal	1640 Kg/hr		ESP	
10	Hot Air Generator-6# (80 Lac Kcal/hr)	35	Coal	1750 Kg/hr		Cyclone	
11	D.G. Set (380 KVA)	11	HSD	76 lit/hr		-	
12	D.G. Set (1250 KVA)	11	HSD	265 lit/hr		-	
13	D.G. Set (1000 KVA)	11	HSD	210 lit/hr		-	
14	D.G. Set (1250 KVA)	11	HSD	265 lit/hr		-	

Proposed Flue Gas Stacks

Sr. No.	Source of emission with capacity	Stack Height in Meter	Name of fuel	Quantity of fuel	Type of emissions i.e. Air Pollutants	Air Pollution Control System	Emission Standards
1	Hot Air Generator-7 (45 Lac Kcal/hr)	45	Coal	1020 Kg/hr	SPM SO2 NOx	ESP	SPM: 150 mg/Nm3 SO2: 100ppm NOx: 50ppm
2	Hot Air Generator-8 (75 Lac Kcal/hr)		Coal	1640 Kg/hr		ESP	
3	HotAir Generator-9# (80 Lac Kcal/hr)	35	Coal	1750 Kg/hr		Cyclone	
4	Thermopack-2 (3000 U)	38	Natural Gas /Coal	360 NM^3/ hr/ 720 kg/hr		Multicyclone Separator/ Teema Cyclone	
5	Thermopack-3 (3000 U)		Natural Gas /Coal	360 NM^3/ hr/ 720 kg/hr		Multicyclone Separator/ Teema Cyclone	
6	SteamBoiler-3* (70TPH)	40	Coal	14 MT/hr		ESP	
7	D.G. Set (2000 KVA)	11	HSD	420 lit/hr		-	
8	D.G. Set (2000 KVA)	11	HSD	420 lit/hr		-	
9	Hot Air Generator-10 (45 Lac Kcal/hr)	45	Coal	1020 Kg/hr		ESP	
10	Hot Air Generator-11 (75 Lac Kcal/hr)		Coal	1640 Kg/hr		ESP	

Note: # Hot Air Generator- 6 & 9 is direct fired & attached to Spray Dryer, which has further Quadruple Cyclone & Ventury Scrubber as Air Pollution Control Measures.
** When Proposed Steam Boiler of 70 TPH will be in operation, existing Steam Boilers of 30 TPH & 35 TPH will remain as stand by.*

Existing Process Stack

Sr. no.	Source of emission	Type of emission	Stack/ Vent Height (m)	Air Pollution Control Measures (APCM)	Emission Standards
1	EO storage area	EO	11	Packed Tower	Traces
2	EO storage area	EO	11	Packed Tower	Traces
3	Reaction Vessel	EO	11	Packed Tower	Traces
4	Reaction Vessel (S3) (Sulfonation& Drowning)	SO_2 HCl	20	Two Stage Alkali Scrubbing System	SO_2: 40 mg/Nm^3 HCl: 20 mg/Nm^3
5	Reaction Vessel (S3)	SO_2 HCl	20	Two Stage Alkali Scrubbing System	SO_2: 40 mg/Nm^3 HCl: 20 mg/Nm^3
6	Reaction Vessel (S4)	SO_2	11	Two Stage Alkali Scrubbing System	SO_2: 40 mg/Nm^3
7	Reaction Vessel (S4)	SO_2	11	Two Stage Alkali Scrubbing System	SO_2: 40 mg/Nm^3
8	Reaction Vessel (S4)	NOx	11	Two Stage Alkali Scrubbing System	NOx: 25 mg/Nm^3
9	Reaction Vessel (S4)	SO_2	11	Two Stage Alkali Scrubbing System	SO_2: 40 mg/Nm^3
10	Reaction Vessel (S4)	NOx	11	Two Stage Alkali Scrubbing System	NOx: 25 mg/Nm^3
11	SFD (S4)	SPM	19.5	Bag Filter	SPM: 150 mg/Nm^3
12	Reaction Vessel (S6)	SO2 HBr Br2	20	Two Stage Alkali Scrubbing System	SO_2: 40 mg/Nm^3 HBr :30 mg/Nm^3 Br2: 2 mg/Nm^3
13	Reaction Vessel (S6)	SO2 HBr Br2	20	Two Stage Alkali Scrubbing System	SO_2: 40 mg/Nm^3 HBr :30 mg/Nm^3 Br2: 2 mg/Nm^3
14	Reaction Vessel (S6)	NH3	11	Water Scrubbing System	NH_3: 175 mg/Nm^3
15	SFD-1 (S6)	SPM	25	Water Scrubber	SPM: 150 mg/Nm^3

16	SFD-2 (S6)	SPM	25	Water Scrubber	SPM: 150 mg/Nm^3
17	Reaction Vessel (S7) (Sulfonation)	SO_2 HCl	19.8	Two Stage Alkali Scrubbing System	SO_2: 40 mg/Nm^3 HCl: 20 mg/Nm^3
18	Reaction Vessel (S7) (Sulfonation)	SO_2 HCl	19.8	Two Stage Alkali Scrubbing System	SO_2: 40 mg/Nm^3 HCl: 20 mg/Nm^3
19	Chlorosulfonation (S2/p)	HCl	11	Two Stage Alkali Scrubbing System	HCl: 20 mg/Nm^3
20	Aminolysis (S2/p)	NH3	25	Water Scrubbing System	NH_3: 175 mg/Nm^3
21	Fluid bed dryer (S8)	SPM	11	Bag filter	SPM: 150 mg/Nm^3
22	Reaction Vessel (S9)	NOx, NH3, HCl	11	Alkali Scrubbing System	NOx: 25 mg/Nm^3 NH_3: 175 mg/Nm^3 HCl: 20 mg/Nm^3
23	Condensator& Chlorinator (S9)	SO2, HCl	11	Alkali Scrubbing System	SO_2: 40 mg/Nm^3 HCl: 20 mg/Nm^3
24	Spray Dryer-1 (S9)	SPM	38.058	Cyclone & Water Scrubber	SPM: 150 mg/Nm^3
25	Spray Dryer-2 (S9)	SPM	38.058	Cyclone & Water Scrubber	SPM: 150 mg/Nm^3
26	Spray Dryer-3 (S9)	SPM	38.058	Cyclone & Water Scrubber	SPM: 150 mg/Nm^3
27	Reaction Vessel (S10)	SO2, HCl NOx, Cl2	11	Two Stage Alkali Scrubbing System	SO_2: 40 mg/Nm^3 HCl: 20 mg/Nm^3 NOx: 25 mg/Nm^3 Cl_2: 9 mg/Nm^3
28	Reaction Vessel (S10)	SO2, HCl NOx, Cl2	11	Two Stage Alkali Scrubbing System	SO_2: 40 mg/Nm^3 HCl: 20 mg/Nm^3

					NOx: 25 mg/Nm^3 Cl_2: 9 mg/Nm^3
29	Reaction Vessel (S10)	HCl Cl2	11	Two Stage Alkali Scrubbing System	HCl: 20 mg/Nm^3 Cl_2: 9 mg/Nm^3
30	Reaction Vessel (S10)	HCl Cl2	11	Two Stage Alkali Scrubbing System	HCl: 20 mg/Nm^3 Cl_2: 9 mg/Nm^3
31	Spray Dryer-1 (S10)	SPM	25	Cyclone & Water Scrubber	SPM: 150 mg/Nm^3
32	Neutralizing tank at ETP	SO2, HCl	11	Single Stage Alkali Scrubbing System	SO_2: 40 mg/Nm^3 HCl: 20 mg/Nm^3
33	Spray Dryer	SPM	35	Quadruple Cyclone &Ventury Scrubber	SPM: 150 mg/Nm^3
34	Spray Dryer-4 (S 9)	SPM	40	Cyclone & Water Scrubber	SPM: 150 mg/Nm^3
35	Spray Dryer-2 (S10)	SPM	33	Cyclone & Water Scrubber	SPM: 150 mg/Nm^3
36	Spray Dryer-1 (S13)	SPM	41	Cyclone & Water Scrubber	SPM: 150 mg/Nm^3
37	Spray Dryer-2 (S13)	SPM	41	Cyclone & Water Scrubber	SPM: 150 mg/Nm^3
38	Spray Dryer-3 (S13)	SPM	41	Cyclone & Water Scrubber	SPM: 150 mg/Nm^3
39	Spin Flash Dryer *	SPM	19	Bag Filter	SPM: 150 mg/Nm^3
40	Reaction Vessel* (Diazotization)	SO_2	11	Alkali Scrubbing System	SO_2: 40 mg/Nm^3
41	Reaction Vessel* (Diazotization)	NOx	11	Alkali Scrubbing System	NOx: 25 mg/Nm^3
42	Reaction Vessel* (Diazotization)	SO_2	11	Alkali Scrubbing System	SO_2: 40 mg/Nm^3
43	Reaction Vessel* (Diazotization)	NOx	11	Alkali Scrubbing System	NOx: 25 mg/Nm^3
* As per CTE issued vide the letter no. GPCB/CCA-SRT-311(15)/ID_20632/418510 dated 25/07/2017.					

Proposed Process Stacks/Vents

S. No.	Source of emission	Type of emission	Stack/ Vent Height (meter)	Air Pollution Control Measures (APCM)	Emission Standards
1	Spray Drier-1	SPM	20	Water scrubber & cyclone.	SPM: 150 mg/Nm^3
2	Spray Drier-2	SPM	20	Water scrubber & cyclone	SPM: 150 mg/Nm^3
3	Spray Drier-3	SPM	20	Water scrubber & cyclone	SPM: 150 mg/Nm^3
4	Spray Drier-4	SPM	20	Water scrubber & cyclone	SPM: 150 mg/Nm^3
5	Spray Drier-5	SPM	20	Water scrubber & cyclone	SPM: 150 mg/Nm^3
6	Spray Drier-6	SPM	35	Quadruple Cyclone &Ventury Scrubber	SPM: 150 mg/Nm^3
7	Spin Flash Dryer	SPM	20	Bag Filter	SPM: 150 mg/Nm^3
8	Spin Flash Dryer	SPM	20	Bag Filter	SPM: 150 mg/Nm^3
9	Reaction Vessel	SO2, NOx HCl Cl2	11	Alkali Scrubbing System	SO_2: 40 mg/Nm^3 NOx: 25 mg/Nm^3 HCl: 20 mg/Nm^3 Cl_2: 9 mg/Nm^3
10	Reaction Vessel	SO2, NOx HCl Cl2	11	Alkali Scrubbing System	SO_2: 40 mg/Nm^3 NOx: 25 mg/Nm^3 HCl: 20 mg/Nm^3 Cl_2: 9 mg/Nm^3
11	Reaction Vessel	SO2, NOx HCl Cl2	11	Alkali Scrubbing System	SO_2: 40 mg/Nm^3 NOx: 25 mg/Nm^3 HCl: 20 mg/Nm^3 Cl_2: 9 mg/Nm^3
12	Reaction Vessel	SO2, NOx HCl Cl2	11	Alkali Scrubbing System	SO_2: 40 mg/Nm^3 NOx: 25 mg/Nm^3 HCl: 20 mg/Nm^3 Cl_2: 9 mg/Nm^3
13	Reaction Vessel	EO	11	Packed Tower	Traces
14	Reaction Vessel	HCl Cl2	11	Alkali Scrubbing System	HCl: 20 mg/Nm^3 Cl_2: 9 mg/Nm^3
15	Reaction Vessel	HCl Cl2	11	Alkali Scrubbing System	HCl: 20 mg/Nm^3 Cl_2: 9 mg/Nm^3
16	Reaction Vessel	NOx, NH3,	11	Alkali Scrubbing System	NOx: 25 mg/Nm^3

		HCl			NH_3: 175 mg/Nm^3 HCl: 20 mg/Nm^3
17	Condensator& Chlorinator	SO2, HCl	11	Alkali Scrubbing System	SO_2: 40 mg/Nm^3 HCl: 20 mg/Nm^3
18	Reaction Vessel	SO2, HCl	11	Alkali Scrubbing System	SO_2: 40 mg/Nm^3 HCl: 20 mg/Nm^3
19	Reaction Vessel	SO2, HCl	11	Alkali Scrubbing System	SO_2: 40 mg/Nm^3 HCl: 20 mg/Nm^3
20.	Spray Drier-7	SPM	20	Water scrubber & cyclone.	SPM: 150 mg/Nm^3
21.	Spray Drier-8	SPM	20	Water scrubber & cyclone.	SPM: 150 mg/Nm^3
22.	Spray Drier-9	SPM	20	Water scrubber & cyclone.	SPM: 150 mg/Nm^3
23.	Reaction Vessel	EO	11	Packed Tower	Traces
24.	Reaction Vessel	EO	11	Packed Tower	Traces
25.	Reaction Vessel	SO2, HCl	11	Alkali Scrubbing System	SO_2: 40 mg/Nm^3 HCl: 20 mg/Nm^3
26.	Reaction Vessel	SO2, HCl	11	Alkali Scrubbing System	SO_2: 40 mg/Nm^3 HCl: 20 mg/Nm^3
27.	Reaction Vessel	HBr Br2	11	Two Stage Alkali Scrubbing System	HBr :30 mg/Nm^3 Br2: 2 mg/Nm^3
28.	Reaction Vessel	HBr Br2	11	Two Stage Alkali Scrubbing System	HBr :30 mg/Nm^3 Br2: 2 mg/Nm^3

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

PP reported that 17 Categories of Hazardous/Solid Wastes is and shall be generated from this Unit. ETP Sludge @ 5000 MT/Month, Process Gypsum @ 4140 MT/Month and Iron Oxide Waste @ 1446 MT/Month will be Collected, Stored, Transported and Disposal by selling to Cement Manufacturing Industries in Gujarat & Other States of India (Like Orient Cement, Maharastra & Andrapradesh, Vikram Cement, Madhyapradesh, Ultratech Cement Ltd., Rajashthan Reliance Cement Co. Pvt. Ltd., Butibori etc.) and/ at TSDF of Colourtex Industries Pvt. Ltd. (TSDF Site) at Vill. Jiav and/ disposed at TSDF facility of Saurshtra Enviro Projects Pvt. Ltd., Kutch/ use for manufacturing of bricks. Organic Sludge @ 86 MT/Month will be Transferred to M/s. Colourtex Industries Pvt. Ltd. (Unit-2), Pandesara for Incineration in the Solid Waste Incinerators / Blending & transfer for Co-processing in the Cement Kiln of Cement Industries. Inorganic Salt @ 615 MT/Month will be Sell or Used as a Raw material in Reactive Dyes/ disposed off at Group Companies Own TSDF Site at Village Jiav/ TSDF Site of Saurashtra Enviro Projects Pvt. Ltd., Kutch. Incineration Ash @ 600 MT/Month, MEE Salt (Inorganic Salt) @ 5600 MT/Month will be Collected, Stored, Transported and Disposal at TSDF of Colourtex Industries Pvt. Ltd. (TSDF Site) Vill. Jiav and/ TSDF facility of Saurashtra Enviro Projects Pvt. Ltd., Kutch. Distillation Residue @ 550.8 MT/Month (327 MT/Month from Colourtex Industries Pvt. Ltd. (Unit-1) + 223.8 MT/Month from CTX Lifesciences Pvt. Ltd.) will be Received, Collected, Stored, Transported and Disposal by incineration in the common liquid waste incinerator at M/s. Colourtex Industries Pvt. Ltd. (Unit-1), Sachin as a fuel/Transfer at M/s. Colourtex Industries Pvt. Ltd.

(Unit-2) for incineration/Blending & transfer for Co-processing in the cement kiln of Cement Industries. Oily Sludge @ 3.8 MT/Month will be Collected, Stored, Transported and Disposal by incineration in own liquid waste incineration/ Transfer at Colourtex Industries Pvt. Ltd. (Unit-2), Pandesara for Incineration. Spent Catalyst @ 4 MT/Month will be sent for regeneration. Spent Solvent @ 141.6 MT/Month from CTX Lifesciences Pvt. Ltd. will be Received, Collected, Stored, Transported and Disposal by incineration in the common liquid waste incinerator at M/s. Colourtex Industries Pvt. Ltd. (Unit-1), Sachin as a fuel/Transfer at M/s. Colourtex Industries Pvt. Ltd. (Unit-2) for incineration/Blending & transfer for Co-processing in the cement kiln of Cement Industries/ Sale to Authorized Recycler. Used Oil @ 6.6 MT/Month (4.5 MT/Month from Colourtex Industries Pvt. Ltd. (Unit-1) + 2.1 MT/Month from CTX Lifesciences Pvt. Ltd.) will be Received, Collected, Stored, Transported and Disposal by selling to registered reprocessor and / Use for Lubrication within the Industry/ Burnt in the Incinerators at M/s Colourtex Industries Pvt. Ltd. (Unit-1), Sachin as a fuel. Waste/Residues Containing Oil @ 0.5 MT/Month will be Collected, Stored and Incinerated in the Incinerator. Discarded Containers & Barrels @ 105 MT/Month will be Collected, Stored and Sell to authorized Decontaminator/ Reuse, Liners @ 25 MT/Month will be Collected, Stored and Sell to authorized decontaminator / Reuse / transfer for Co-processing in the cement kiln of any Cement Industries. Spent Acid (Inorganic Acid) @ 1200 MT/Month will be Received from Colourtex Industries Pvt. Ltd. (Unit-2), Sister Concern and reuse in the process.

The list of products and capacities are as under:

S. No.	Name of the Products	Quantity (TPM)			End use of product
		Existing	Change in Quantity	Total Quantity	
1.0	**Dyes**				
1.1	**Synthetic Organic Dyes-1** • Azo Disperse Dyes 1(A1+A2) • Azo Acid & Solvent Dyes	2250	650	2900	Colourization of Textiles & Polymers
1.2	**Synthetic Organic Dyes-2** Azo Disperse Dyes –2(A3)	100	-100	0	
1.3	**Synthetic Organic Dyes-3** Anthraquinone Disperse Dyes & Vat Dyes	100	-100	0	
1.4	**Synthetic Organic Dyes-4** • Anthraquinone Acid & Solvent Dyes	25	0	25	
1.5	**Synthetic Organic Dyes-5** • Azo Reactive Dyes-1	500	200	700	
	• Solvent Dyes for Automotive		200	200	Colourization of Petoleum Products & Waxes
1.6	**Synthetic Organic Dyes-6** TPM Dyes	75	-75	0	Colourization of Textiles & Polymers
1.7	**Synthetic Organic Dyes-7**	1500	2000	3500	

	Azo Reactive Dyes-2**				
1.8	**Synthetic Organic Dyes-8** Azo Reactive Dyes-3	0	200	200	
	Total	4550	2975	7525	
2.0	**Intermediates**				
2.1	**Ethoxylated and Acetylated Tertiary Amines** (CI-101, CI-108, CI-182, CI-101A, CI-108A, CI-105, CI-104, CI-113, CI-182A, CI-307, CI-313, CI-203, CI-102)	600	300	900	Manufacturing of Dyes
2.2	**Cyanoethylated Amines (**NCEA, CEMAA, CAMA, NCENEA, CI-107, CI-208)	150	150	300	
2.3	**Textile Auxiliaries, Binders, Fixtures**** (NON IONIC/ANIONIC/ CATIONIC/ & THEIR BLENDS) (e.g. P-400, L.C. DFT, L.C. PC, L.C. HTS, L.C. NID, L.C. NOD, L.C. TFL, L.C. SCR, L.C. ASD, L.C. PES, L.C. KBI, L.C. DDO, L.C. D 45, L.C. CE, L.C. SO 600, L.C. SR 16, L.C. FBOL, L.C. LSF, L.C. CTPC, L.C. SMK LC SWL, L.C. SDBL, L.C. PB, L.C. OA, FX, WET, NZ, LCS, Adr, CRL, VI, TEA, T-96, SQ, Levofin IS, Levofin BS, LFD, FBSE, ELA, 4398, BDLS, Esr, LV, L.C.DSS, L.C.LA, L.C.MDF, L.C.CAN, L.C.C-DFX, L.C.ECA, L.C.DFL, L.C.SAR, MB070, MB030).	1500	2500	4000	Textile Processing
2.4	**Textile Finishing Chemical****	150	0	150	Textile Finishing
2.5	**Primary Amine** (Para Nitro Aniline, Meta Nitro Aniline, 2 Chloro 4 Nitro Aniline, Meta chloro Aniline, Para Anisidine, 3 Amino 4 Methoxy Acetanilide, Meta Aminio Acetanilide, DCPNA, 6 Br DNA, 6CL DNA, DB PNA, 2:6 DBPT, Metanilic Acid, MPDDSA, MAP, MAMS, CI-4102, CI-4006, CI-1010, CI-188, CBPNA, MUA, BDSA,CNBPNA))	600	0	600	Manufacturing of Dyes
2.6	**2 : 4 Dinitro Chloro Benzene**	100	-100	0	
2.7	**Anthraquinone Intermediates**	75	-75	0	
2.8	**Anthraquinone**	160	-160	0	
2.9	**Benzanthrone**	50	0	50	

2.10	**Ethylated Tertiary Amines**	200	100	300	
2.11	**Quinoline** (Dioxy Quinoline, Hydroxy Methyl Quinoline, 3-Hydroxy Quinoline)	30	0	30	
2.12	**Pyridone Derivatives** (Butyl Pyridone, Methyl Pyridone, Ethyl Pyridone, Dichloro Pyridines, Eca, Mdn)/ Alkylated Amino Pyridine	50	0	50	
2.13	**Optical Whitener (Optical Brightening Agent/ OBA)**	100	200	300	
2.14	**Dispersing Agent SCS/045/CS-28/ MN/MF****	350	650	1000	
2.15	**Disperse DDP****	1000	1000	2000	
2.16	**B.D.S.A****	17	-17	0	
2.17	**G. Base****	8	-8	0	
2.18	**(I) Naphthalene 2:7 D.S.A** **(II) E Acid** **(III) E.B.M.T.S.A.** **(IV) Benzaldehyde Ortho Sulfonic Acid**	66	-66	0	Manufacturing of Dyes
2.19	**Naphthalene Derivatives** (H-Acid, J-Acid, G Salt, Amido G Salt, K-Acid, Gamma Acid, N MJ Acid)	400	0	400	
2.20	**Vinyl Sulphone Derivatives** (Para Base Vinyl Sulphone Ester, VS, Sulpho OAVS, OAVS, PCVS, Sulpho VS, m-Base VS, O-Base VS)	800	0	800	
2.21	**D.A.S.A.**	20	0	20	
2.22	**2 NAPDSA**	10	0	10	
2.23	**4 NAPDSA**	8	0	8	
2.24	**F.C. Acid**	5	0	5	
2,25	**6 Chloro Metanilic Acid**	10	0	10	
2.26	**Nitrosylsulfuric Acid**	250	0	250	
2.27	**PZL- CHLORIDE HYDROCHLORIDE**	10	-10	0	
	Or	Or	Or		
	• **3-(PHENYL HYDRAZONE) CYCLOHEXANONE**	4.5	-4.5	0	
	• **4-OXO CARBAZOLE**	3.5	-3.5	0	
	• **4-HYDROXY CARBAZOLE**	3	-3	0	
	• **4-OXYRANYLMETHOXY CARBAZOLE**	2	-2	0	
	• **2,6-DICHLORO DIPHENYL AMINE**	10.5	-10.5	0	
	• **N-CHLOROACETYL-2,6-DICHLORO DIPHENYL AMINE**	13.5	-13.5	0	

	• **N-2,6-Dichloro phenyl-2-Indolinone**	10.8	-10.8	0	
	Total	47.8	-47.8	0	
2.28	**PHENYL ETHYL ALCOHOL**	44	-44	0	
2.29	**METHOXY ETHYL BENZENE**	36	-36	0	
2.30	**METHOXY ETHYL NITRO BENZENE**	18	-18	0	
2.31	**METHOXY ETHYL ANILINE**	15	-15	0	
2.32	**METHOXY ETHYL PHENOL**	10	-10	0	
2.33	**CPL-ME.HCL (RES)**	7	-7	0	
2.34	**CPL-TOSYLATE**	7	-7	0	
2.35	**AD-ENOL ETHER**	1.5	-1.5	0	
2.36	**AD-OXIRAN**	1.5	-1.5	0	
	Or	Or	Or		
	• **5-CHLORO-6-AMINOBENZENE-1,3-DISULFONAMIDE**	1.5	-1.5	0	
2.36.1	**5-CHLORO-6-AMINOBENZENE-1,3-DISULFONAMIDE**	18.5	-18.5	0	
2.37	**AD-LACTONE**	1.5	-1.5	0	
2.38	**SULFAPYRIDINE**	6.0	-6.0	0	
	Or	Or	Or		
	• **10-METHOXY IMINOSTILBENE**	1.7	-1.7	0	
	• **10,11-DIBROMO IMINODIBENZYL CARBONYL CHLORIDE**	3.5	-3.5	0	
	• **SCHIFF BASE**	2.5	-2.5	0	
	• **7-(4-BROMOBUTOXY)-3,4-DIHYDRO QUINOLINONE**	0.5	-0.5	0	
	Total	8.2	-8.2	0	
2.39	**Spirodiene**	5	-5	0	
2.40	**Epoxide**	5	-5	0	
2.41	**1- Amino 1-Cyano cyclopentane oxalate**	2	-2	0	
2.42	**1- Amino Cyclopentane Carboxamide**	2	-2	0	
2.43	**2- Butyl, 1,3 - Diaza spiro [4,4] non - 1-en- 4 one Hydrochloride**	2	-2	0	
2.44	**2- [N-(p- Fluorobenzyl) Amino] Ethanol**	1.5	-1.5	0	
2.45	**2- Chloromethyl 4 - (4-Fluorobenzyl) Morphelin**	1.5	-1.5	0	
2.46	**N- (2 - Morpholino methyl) phthalimide**	1.5	-1.5	0	
2.47	**N - (2- Aminomethyl) - 4 (4-fluorobenzyl) morpholine**	1.5	-1.5	0	
2.48	**Imidazomethyl Cyanobiphenyl**	0.75	-0.75	0	
2.49	**N - Acetyl Iminodibenzyl**	3.0	-3.0	0	

2.50	**3- Nitro N- Acetyl Iminodibenzyl**	1.5	-1.5	0	
2.51	**2-Chloro-5-Nitrobenzoic Acid**	7	-7	0	
2.52	**N- Methyl - 4 - Oxo Carbazole**	0.5	-0.5	0	
2.53	**Isochroman**	3	-3	0	
2.54	**Isochromanone**	3	-3	0	
2.55	**Dibenzo Suberone**	4	-4	0	
2.56	**Otrichloride**	0.75	-0.75	0	
2.57	**Otrinitrile**	0.75	-0.75	0	
2.58	5- Chloromethyl- 6- t- Butyl -2,4-Xylenol	0.75	-0.75	0	
2.59	**(6 - t Butyl -5-Hydroxy- 2, 4-diemethyl) Phenyl Acetonitrile**	0.5	-0.5	0	
2.60	**2 - (3, 5 - Dimethyl phenoxy methyl) oxirane**	1	-1	0	
2.61	**3-(3,5 - Dimethyl phenoxy) - 2 Hydropropyl amine Hydrochloride**	1	-1	0	
2.62	**4-Methyl Cyclohexanone Oxime**	1.5	-1.5	0	
2.63	**4-Methyl Cyclohexyl Amine Hydrochloride**	1.5	-1.5	0	
2.64	**Isoveratronitrile**	3.0	-3.0	0	
2.65	**N-Methyl Homoveratryl amine**	4	-4	0	
2.66	**Chloro base**	6	-6	0	
2.67	**Cyanothiophene**	1.5	-1.5	0	
2.68	**Olanzonitro**	2.5	-2.5	0	
2.69	**Olanz - amine Hydrochloride**	1.5	-1.5	0	
2.70	**3, 4 - Di chlorobenzophene**	1.0	-1.0	0	
2.71	**3 - (Ethoxy carbonyl) - 4 (3,4 - dichlorophenyl) -4 Phenyl 3 - Butenoic acid**	1.5	-1.5	0	
2.72	**4 -(3,4 - Dichlorophenyl) -4 - Phenyl -3- Butenoic acid**	4.5	-4.5	0	
2.73	**4- (3,4 -dichlorophenyl) - 4 - Phenyl butanoic acid**	1.5	-1.5	0	
2.74	**4 - (3,4 -dichlorophenyl) -4-dihydro -1 -Naphthalenone**	1.0	-1.0	0	
2.75	**2-[(amino carbonyl) amino] - 4,5 - dimethoxy benzoic acid**	4.5	-4.5	0	
2.76	**6,7 - dimethoxy - 2, 4 - dihydroxy quinazoline**	4.5	-4.5	0	
2.77	**2, 4 - Dichloro - 6,7 Dimethoxy quinazoline**	4.5	-4.5	0	
2.78	**2- Chloro- 4 - amino - 6, 7 - dimethoxy quinazoline**	4.5	-4.5	0	
2.79	**Amino Bromo Methyl Uracil (ABMU)**	10	-10	0	
2.80	**N - Methyl Uracil (NMU)**	10	-10	0	
2.81	**Carboxy Octahydroindole**	1	-1	0	

2.82	**Benzyl Ester PTS- Salt**	1	-1	0	
2.83	**Ethyl nor valinate hydrochloride**	1	-1	0	
2.84	**Carbethoxy butyl alanine**	1	-1	0	
2.85	**Octahydroindole Carboxy acid**	1	-1	0	
2.86	**4 - Hydroxybenzaldehyde Oxime**	5	-5	0	
2.87	**4 -Hydroxy benzonitrile**	5	-5	0	
2.88	**3- Nitro - 4- Hydroxy Benzonitrile**	5	-5	0	
2.89	**2- Bromo Hexanoic Acid**	3	-3	0	
2.90	**2- (2 - Formyl Phenoxy) Hexanoic Acid**	3	-3	0	
2.91	**2 - Butyl Benzofuran**	3	-3	0	
2.92	**Mannich Base Hydrochloride**	10	-10	0	
2.93	**4 - Chloro Butyryl chloride**	2.5	-2.5	0	
2.94	**4 -Chloro -1 -(4- Isobutyl phenyl) -1- Butanone**	2.5	-2.5	0	
2.95	**2,2 - Di phenyl - 4 - Piperidine Methanol**	2.5	-2.5	0	
2.96	**Terfenadone**	2.5	-2.5	0	
2.97	**Thia Dibenzo cycloheptenone**	5	-5	0	
2.98	**Thioehter**	3	-3	0	
2.99	**Benzothiophene**	3	-3	0	
2.100	**Methyl Paraben ester**	3	-3	0	
2.101	**Acid Hydrochloride**	3	-3	0	
2.102	**Acid Chloride Hydrochloride**	3	-3	0	
2.103	**Bromo methyl butane**	5	-5	0	
2.104	**Oxime**	5	-5	0	
2.105	**2-(2-chloro benzoyl)-4-chloro aniline (Methanone)**	5	-5	0	
2.106	**Methanone Oxime**	5	-5	0	
2.107	**Quinazoline-N-Oxide**	5	-5	0	
2.108	Glutarimide	4	-4	0	
2.109	**Tetra methylene glutaricacid**	4	-4	0	
2.110	**2-(2-Fluorobenzoyl) -4-Chloroaniline**	4	-4	0	
2.111	**Benzo diazepinone**	4	-4	0	
2.112	**N-(3-Chlorophenyl) Piperazine HCl**	7	-7	0	

2.113	**1-(3- Chloropropyl)-4-(3-Chlorophenyl) piperazine**	7	-7	0	
	Total	7167.5	4015.5	11183	
3.0	**Ferrous Sulphate Including Metal/ Mineral Sulfate**	500	0	500	Treatment
4.0	**Specialty Chemicals**	300	0	300	Manufacturing of Dyes & Pigments
4.1	**Antioxidant/Coating chemicals, Polymer emulsion, Adhesive/ Resins**				
5.1	**Formulation & Spray Drying of Disperse Wet Press Cake**	400	600	1000	Colourization of Textiles, Leathers & Polymers
5.2	**Formulation & Spray Drying of Acid & Reactive Dyes wpc**				
6.1	**Disperse/ Vat Dyes/Pigment Ink Formulation**	-	200	200	
6.2	**Reactive/Acid/Direct Dyes Ink Formulation**				

S. No.	Product Name	CAS No.
1.0	Dyes	
	Disperse Dyes	
1	Disperse Yellow 4	6407-80-3
2	Disperse Yellow 5	6439-53-8
3	Disperse Yellow 8	6358-49-2
4	Disperse Yellow 11	2478-20-8
5	Disperse Yellow 14	961-68-2
6	Disperse Yellow 16	4314-14-1
7	Disperse Yellow 17	32724-92-8
8	Disperse Yellow 22	23008-56-2
9	Disperse Yellow 26	16611-15-7
10	Disperse Yellow 31	4361-84-6
11	Disperse Yellow 32	71807-47-1
12	Disperse Yellow 33	12223-84-6
13	Disperse Yellow 34	22025-44-1
14	Disperse Yellow 37	5124-25-4
15	Disperse Yellow 42	5124-25-4
16	Disperse Yellow 54	7576-65-0
18	Disperse Yellow 58	12236-30-5
19	Disperse Yellow 59	70660-56-9
20	Disperse Yellow 60	15790-15-5
21	Disperse Yellow 61	4421-21-0
22	Disperse Yellow 63	52673-14-0
23	Disperse Yellow 64	10319-14-9
24	Disperse Yellow 66	12223-87-9
25	Disperse Yellow 67	43099-94-1
26	Disperse Yellow 68	21811-64-3
27	Disperse Yellow 70	12223-91-5

28	Disperse Yellow 71	12223-92-6
29	Disperse Yellow 74	12236-33-8
30	Disperse Yellow 75	12236-34-9
31	Disperse Yellow 76	12217-97-9
32	Disperse Yellow 77	22281-18-1
33	Disperse Yellow 78	12236-35-0
34	Disperse Yellow 79	12236-36-1
35	Disperse Yellow 80	12223-95-9
36	Disperse Yellow 82	27425-55-4
37	Disperse Yellow 83	12270-47-2
38	Disperse Yellow 84	12270-48-3
39	Disperse Yellow 85	61968-62-5
40	Disperse Yellow 86	67338-59-4
41	Disperse Yellow 88	18178-47-7
42	Disperse Yellow 89	12224-00-9
43	Disperse Yellow 90	6684-20-4
44	Disperse Yellow 92	14179-98-7
45	Disperse Yellow 93	41284-31-5
46	Disperse Yellow 96	61968-63-6
47	Disperse Yellow 97	842-07-9
48	Disperse Yellow 99	25857-05-0
49	Disperse Yellow 100	164578-36-3
50	Disperse Yellow 103	61968-65-8
51	Disperse Yellow 105	14121-47-2
52	Disperse Yellow 109	34759-42-7
53	Disperse Yellow 114	61968-66-9
54	Disperse Yellow 118	34613-03-1
55	Disperse Yellow 119	57308-41-5
56	Disperse Yellow 123	82944-35-2
57	Disperse Yellow 124	25744-09-6
58	Disperse Yellow 126	61968-70-5
59	Disperse Yellow 139	71872-57-6
60	Disperse Yellow 160	42757-85-7
61	Disperse Yellow 162	65777-18-6
62	Disperse Yellow 163	67923-43-7
63	Disperse Yellow 165	2097492-02-7
64	Disperse Yellow 179	22176-47-2
65	Disperse Yellow 183	71902-11-9
66	Disperse Yellow 184	71838-87-4
67	Disperse Yellow 184.1	164578-37-4
68	Disperse Yellow 186	28754-28-1
70	Disperse Yellow 198	63439-92-9
71	Disperse Yellow 199	78108-20-0
72	Disperse Yellow 200	87714-26-9
73	Disperse Yellow 201	80748-21-6
74	Disperse Yellow 202	79805-29-1
75	Disperse Yellow 204	51249-07-1

76	Disperse Yellow 210	86836-01-3
77	Disperse Yellow 211	70528-90-4
78	Disperse Yellow 212	94945-24-1
79	Disperse Yellow 216	79805-30-4
80	Disperse Yellow 218	83929-90-2
81	Disperse Yellow 219	49744-25-4
83	Disperse Yellow 226	79044-55-6
84	Disperse Yellow 227	105844-79-9
85	Disperse Yellow 228	75511-31-5
86	Disperse Yellow 229	136959-03-0
87	Disperse Yellow 230	190856-93-0
88	Disperse Yellow 231	75199-13-2
89	Disperse Yellow 232	35773-43-4
90	Disperse Yellow 233	75511-91-0
91	Disperse Yellow 235	177570-98-8
92	Disperse Yellow 236	75511-91-0
93	Disperse Yellow 237	92875-19-9
95	Disperse Yellow 241	83249-52-9
96	Disperse Yellow 242	92875-17-7
97	Disperse Yellow 244	403-190-7
98	Disperse Yellow 245	77889-90-8
99	Disperse Yellow 246	575450-77-0
100	Disperse Green 9	58979-46-7
101	Disperse Green 7	71819-65-3
102	Disperse Orange 5	6232-56-0
103	Disperse Orange 7	6492-50-8
104	Disperse Orange 8	1338441-31-8
105	Disperse Orange 10	83592-03-4
107	Disperse Orange 13	6253-10-7
108	Disperse Orange 15	6373-69-9
109	Disperse Orange 17	12223-20-0
110	Disperse Orange 19	12223-21-1
111	Disperse Orange 20	23532-29-8
112	Disperse Orange 21	12217-83-3
113	Disperse Orange 24	6925-69-5
114	Disperse Orange 25	31482-56-1
115	Disperse Orange 25.1	31464-38-7
116	Disperse Orange 28	61951-57-3
117	Disperse Orange 29	19800-42-1
118	Disperse Orange 30	5261-31-4
119	Disperse Orange 31	68391-42-4
120	Disperse Orange 32	12236-02-1
121	Disperse Orange 33	61867-93-4
122	Disperse Orange 36	31482-56-1
123	Disperse Orange 38	59948-52-6
124	Disperse Orange 41	12217-05-9
125	Disperse Orange 42	12223-25-5

126	Disperse Orange 43	12217-84-4
127	Disperse Orange 44	4058-30-4
128	Disperse Orange 45	4058-30-4
129	Disperse Orange 46	23355-64-8
130	Disperse Orange 49	12223-29-9
131	Disperse Orange 51	12236-06-5
132	Disperse Orange 52	12223-30-2
133	Disperse Orange 53	38658-94-5
134	Disperse Orange 54	12223-31-3
135	Disperse Orange 55	12270-42-7
136	Disperse Orange 56	67162-11-2
137	Disperse Orange 57	12223-32-4
138	Disperse Orange 60	12270-44-9
139	Disperse Orange 61	55281-26-0
140	Disperse Orange 62	37672-70-1
141	Disperse Orange 63	61968-39-6
142	Disperse Orange 64	71819-41-5
143	Disperse Orange 66	56509-55-8
144	Disperse Orange 71	61847-52-7
145	Disperse Orange 73	40690-89-9
146	Disperse Orange 74	62331-46-8
147	Disperse Orange 78	61968-42-1
148	Disperse Orange 79	66214-54-8
149	Disperse Orange 80	70210-10-5
150	Disperse Orange 86	2097492-86-7
151	Disperse Orange 89	66214-54-8
152	Disperse Orange 95	40690-89-9
153	Disperse Orange 96	64501-19-5
154	Disperse Orange 97	61931-35-9
155	Disperse Orange 98	51923-19-4
156	Disperse Orange 119	88650-96-8
157	Disperse Orange 127	71872-51-0
158	Disperse Orange 128	NA
159	Disperse Orange 129	NA
160	Disperse Orange 138	43047-20-7
161	Disperse Orange 139	77907-26-7
162	Disperse Orange 148	NA
163	Disperse Orange 150	NA
164	Disperse Orange 151	117216-85-0
165	Disperse Orange 152	NA
166	Disperse Orange 153	NA
167	Disperse Orange 154	125934-87-4
168	Disperse Orange 155	1375466-75-3
169	Disperse Red 2	76927-82-7
170	Disperse Red 3	4465-58-1
171	Disperse Red 4	2379-90-0
172	Disperse Red 5	3769-57-1

173	Disperse Red 6	83592-04-5
174	Disperse Red 7	4540-00-5
175	Disperse Red 8	62570-20-1
176	Disperse Red 9	82-38-2
177	Disperse Red 13	3180-81-2
178	Disperse Red 15	116-85-8
179	Disperse Red 16	6253-14-1
180	Disperse Red19	2734-52-3
181	Disperse Red20	NA
182	Disperse Red21	37220-20-5
183	Disperse Red22	2944-28-7
184	Disperse Red25	1228753-15-8
185	Disperse Red29	NA
186	Disperse Red30	3025-41-0
187	Disperse Red31	2475-43-6
188	Disperse Red32	3084-21-7
189	Disperse Red33	1228753-16-9
190	Disperse Red35	61951-62-0
191	Disperse Red41	6373-90-6
192	Disperse Red42	NA
193	Disperse Red43	12217-85-5
194	Disperse Red49	6373-93-9
195	Disperse Red50	40880-51-1
196	Disperse Red51	NA
197	Disperse Red52	104491-85-2
198	Disperse Red53	59787-78-9
199	Disperse Red54	6657-37-0
200	Disperse Red55	17869-07-7
201	Disperse Red56	12637-13-7
202	Disperse Red57	NA
203	Disperse Red58	6373-93-9
204	Disperse Red59	17869-10-2
205	Disperse Red60	17418-58-5
206	Disperse Red61	71807-43-7
207	Disperse Red62	NA
208	Disperse Red63	164578-06-7
209	Disperse Red64	6373-93-9
210	Disperse Red65	16586-43-9
211	Disperse Red66	4465-58-1
212	Disperse Red67	NA
213	Disperse Red68	61356-32-9
214	Disperse Red69	NA
215	Disperse Red70	1262788-93-1
216	Disperse Red71	17418-58-5
217	Disperse Red72	12223-39-1
218	Disperse Red73	16889-10-4
219	Disperse Red74	61703-11-5

220	Disperse Red75	61725-14-2
221	Disperse Red76	12236-07-6
222	Disperse Red77	NA
223	Disperse Red78	NA
224	Disperse Red79	NA
225	Disperse Red80	12236-08-7
226	Disperse Red 81	12223-41-5
227	Disperse Red82	30124-94-8
228	Disperse Red83	17418-58-5
229	Disperse Red84	12217-88-8
230	Disperse Red85	12217-89-9
231	Disperse Red86	81-68-5
232	Disperse Red87	12223-44-8
233	Disperse Red88	12217-04-8
234	Disperse Red89	12223-45-9
235	Disperse Red90	27767-98-2
236	Disperse Red91	34231-26-0
237	Disperse Red92	72363-26-9
238	Disperse Red93	12236-12-3
239	Disperse Red96	12223-47-1
240	Disperse Red98	61994-66-9
241	Disperse Red99	NA
242	Disperse Red107	12236-16-7
243	Disperse Red109	84560-05-4
244	Disperse Red113	12223-59-5
245	Disperse Red117	12223-59-5
246	Disperse Red118	61480-15-7
247	Disperse Red120	12236-19-0
248	Disperse Red121	12223-62-0
249	Disperse Red122	12223-63-1
250	Disperse Red125	12236-20-3
251	Disperse Red127	66795-75-3
252	Disperse Red128	12236-22-5
253	Disperse Red129	12236-23-6
254	Disperse Red131	12236-24-7
255	Disperse Red132	12223-67-5
256	Disperse Red134	12223-69-7
257	Disperse Red135	29765-00-2
258	Disperse Red136	12223-70-0
259	Disperse Red137	73384-74-4
260	Disperse Red139	71832-05-8
261	Disperse Red140	58051-97-1
262	Disperse Red141	61968-45-4
263	Disperse Red143	20339-55-3
264	Disperse Red145	25510-81-0
265	Disperse Red146	59763-30-3
266	Disperse Red152	78564-86-0

267	Disperse Red153	78564-87-1
268	Disperse Red154	73384-65-3
269	Disperse Red155	71819-69-7
270	Disperse Red156	25473-34-1
271	Disperse Red157	118548-22-4
272	Disperse Red158	61968-48-7
273	Disperse Red159	61968-49-8
274	Disperse Red160	61968-50-1
275	Disperse Red163	71819-70-0
276	Disperse Red164	80892-58-6
277	Disperse Red165	1914998-77-8
278	Disperse Red167	26850-12-4
279	Disperse Red167.1	1533-78-4
280	Disperse Red173	NA
281	Disperse Red177	68133-69-7
282	Disperse Red178	61951-63-1
283	Disperse Red179	16586-42-8
284	Disperse Red180	61951-65-3
285	Disperse Red181	86438-38-2
286	Disperse Red183	83764-36-7
287	Disperse Red184	61968-54-5
288	Disperse Red185	61901-71-1
289	Disperse Red186	NA
290	Disperse Red188	NA
291	Disperse Red189	934539-45-4
292	Disperse Red190	82230-10-2
293	Disperse Red191	103657-51-8
294	Disperse Red192	89072-61-7
295	Disperse Red193	26692-47-7
296	Disperse Red194	78564-87-1
297	Disperse Red195	NA
298	Disperse Red196	82944-36-3
299	Disperse Red197	NA
300	Disperse Red198	61968-55-6
301	Disperse Red199	6371-23-9
302	Disperse Red200	332137-64-1
303	Disperse Red201	61931-38-2
304	Disperse Red202	28462-17-1
305	Disperse Red203	61968-56-7
306	Disperse Red205	NA
307	Disperse Red207	159131-66-5
308	Disperse Red210	13301-60-5
309	Disperse Red211	12236-22-5
310	Disperse Red213	NA
311	Disperse Red214	90585-55-0
312	Disperse Red215	NA
313	Disperse Red220	65907-69-9

314	Disperse Red221	64426-35-3
315	Disperse Red224	63641-91-8
316	Disperse Red225	103938-55-2
317	Disperse Red227	224966-20-5
318	Disperse Red257	NA
319	Disperse Red258	73384-67-5
320	Disperse Red271	71832-08-1
321	Disperse Red272	80206-94-6
322	Disperse Red273	NA
323	Disperse Red274	83929-87-7
324	Disperse Red275	NA
325	Disperse Red276	71832-09-2
326	Disperse Red277	70294-19-8
327	Disperse Red278	61355-92-8
328	Disperse Red279	72827-94-2
329	Disperse Red280	NA
330	Disperse Red281	NA
331	Disperse Red282	155522-12-6
332	Disperse Red283	120797-62-8
333	Disperse Red284	NA
334	Disperse Red288	77907-27-8
335	Disperse Red302	40530-60-7
336	Disperse Red303	71872-53-2
337	Disperse Red305	89106-92-3
338	Disperse Red311	77907-28-9
339	Disperse Red312	NA
340	Disperse Red313	72827-95-3
341	Disperse Red314	NA
342	Disperse Red315	NA
343	Disperse Red316	83929-88-8
344	Disperse Red319	25510-81-0
345	Disperse Red323	73384-66-4
346	Disperse Red324	71617-28-2
347	Disperse Red329	87714-24-7
348	Disperse Red331	NA
349	Disperse Red333	110342-28-4
350	Disperse Red334	59970-81-9
351	Disperse Red336	NA
352	Disperse Red337	NA
353	Disperse Red338	63134-15-6
354	Disperse Red339	NA
355	Disperse Red340	88264-87-3
356	Disperse Red341	NA
357	Disperse Red342	NA
358	Disperse Red345	NA
359	Disperse Red353	94945-22-9
360	Disperse Red354	79300-13-3

361	Disperse Red356	159968-00-0
362	Disperse Red359	92818-48-9
363	Disperse Red361	16294-75-0
364	Disperse Red364	522-75-8
365	Disperse Red365	NA
366	Disperse Red371	881997-87-1
367	Disperse Red374	NA
368	Disperse Red376	524711-99-7
369	Disperse Red377	460987-35-3
370	Disperse Red378	947172-35-2
371	Disperse Red382	946850-26-6
372	Disperse Blue4	225918-97-8
373	Disperse Blue5	4486-13-9
374	Disperse Blue6	3443-93-4
375	Disperse Blue8	81-47-0
376	Disperse Blue9	147335-32-8
377	Disperse Blue10	885474-83-9
378	Disperse Blue11	6358-51-6
379	Disperse Blue13	NA
380	Disperse Blue14	2475-44-7
381	Disperse Blue15	6054-52-0
382	Disperse Blue19	4395-65-7
383	Disperse Blue22	6373-16-6
384	Disperse Blue23	4471-41-4
385	Disperse Blue24	3179-96-2
386	Disperse Blue27	15791-78-3
387	Disperse Blue28	6408-79-3
388	Disperse Blue31	1328-23-0
389	Disperse Blue34	4424-82-2
390	Disperse Blue38	6054-53-1
391	Disperse Blue40	3178-78-7
392	Disperse Blue54	12217-77-5
393	Disperse Blue55	6370-89-4
394	Disperse Blue56	31810-89-6
395	Disperse Blue60	12217-80-0
396	Disperse Blue61	71807-40-4
397	Disperse Blue62	53989-05-2
398	Disperse Blue71	31810-89-6
399	Disperse Blue72	81-48-1
400	Disperse Blue73	31529-83-6
401	Disperse Blue77	20241-76-3
402	Disperse Blue78	2475-44-7
403	Disperse Blue79	3618-73-3
404	Disperse Blue79.1	3618-72-2
405	Disperse Blue81	12222-79-6
406	Disperse Blue83	12222-81-0
407	Disperse Blue85	3177-13-7

408	Disperse Blue87	13418-49-0
409	Disperse Blue90	26021-20-5
410	Disperse Blue94	26021-20-5
411	Disperse Blue95	12235-97-1
412	Disperse Blue99	12217-80-0
413	Disperse Blue118	20241-77-4
414	Disperse Blue120	20241-76-3
415	Disperse Blue122	12270-38-1
416	Disperse Blue125	66693-26-3
417	Disperse Blue127	68310-48-5
418	Disperse Blue128	12270-41-6
419	Disperse Blue130	61968-27-2
420	Disperse Blue132	61902-08-7
421	Disperse Blue134	14233-37-5
422	Disperse Blue135	1228754-32-2
423	Disperse Blue139	50922-60-6
424	Disperse Blue140	NA
425	Disperse Blue141	1262789-72-9
426	Disperse Blue142	NA
427	Disperse Blue143	NA
428	Disperse Blue144	64553-76-0
429	Disperse Blue146	26931-40-8
430	Disperse Blue148	52239-04-0
431	Disperse Blue149.1	NA
432	Disperse Blue150	61951-53-9
433	Disperse Blue152	71819-61-9
434	Disperse Blue153	61815-13-2
435	Disperse Blue157	NA
436	Disperse Blue158	16618-09-0
437	Disperse Blue165	41642-51-7
438	Disperse Blue165.1	24170-60-3
439	Disperse Blue171	73299-32-8
440	Disperse Blue173	61867-90-1
441	Disperse Blue174	58694-33-0
442	Disperse Blue175	NA
443	Disperse Blue176	61968-33-0
444	Disperse Blue180	69912-84-1
445	Disperse Blue181	71872-42-9
446	Disperse Blue183	2309-94-6
447	Disperse Blue185	61968-36-3
448	Disperse Blue186	66795-74-2
449	Disperse Blue187	104491-83-0
450	Disperse Blue197	82230-08-8
451	Disperse Blue198	82230-09-9
452	Disperse Blue200	69070-68-4
453	Disperse Blue201	163751-71-1
454	Disperse Blue207	885470-94-0

455	Disperse Blue211	885473-15-4
456	Disperse Blue214	104491-84-1
457	Disperse Blue224	95078-18-5
458	Disperse Blue225	145537-86-6
459	Disperse Blue257	84931-03-3
460	Disperse Blue259	82457-20-3
461	Disperse Blue264	885473-58-5
462	Disperse Blue266	58204-91-4
463	Disperse Blue268	58049-96-0
464	Disperse Blue270	88650-95-7
465	Disperse Blue280	71902-09-5
466	Disperse Blue281	137573-90-1
467	Disperse Blue283	71819-63-1
468	Disperse Blue284	71872-43-0
469	Disperse Blue291	56548-64-2
470	Disperse Blue291.1	51868-46-3
471	Disperse Blue295	71872-47-4
472	Disperse Blue297	100358-00-7
473	Disperse Blue301	105635-65-2
474	Disperse Blue305	885473-80-3
475	Disperse Blue319	69828-87-1
476	Disperse Blue320	83929-85-5
477	Disperse Blue327	83929-86-6
478	Disperse Blue328	885474-00-0
479	Disperse Blue330	87658-81-9
480	Disperse Blue331	99148-93-3
481	Disperse Blue333	88385-23-3
482	Disperse Blue334	3176-88-3
483	Disperse Blue335	63134-10-1
484	Disperse Blue336	885474-01-1
485	Disperse Blue337	65916-12-3
486	Disperse Blue338	68900-95-8
487	Disperse Blue339	54289-46-2
488	Disperse Blue341	73275-65-7
489	Disperse Blue344	885474-07-7
490	Disperse Blue346	885474-32-8
491	Disperse Blue347	910459-93-7
492	Disperse Blue348	NA
493	Disperse Blue349	NA
494	Disperse Blue350	94945-20-7
495	Disperse Blue351	885474-33-9
496	Disperse Blue352	885474-36-2
497	Disperse Blue353	82457-22-5
498	Disperse Blue354	74239-96-6
499	Disperse Blue355	885474-48-6
500	Disperse Blue356	118578-14-6
501	Disperse Blue359	213328-78-0

502	Disperse Blue360	885474-63-5
503	Disperse Blue361	93686-63-6
504	Disperse Blue362	NA
505	Disperse Blue364	108948-37-4
506	Disperse Blue365	108948-36-3
507	Disperse Blue366	84870-65-5
508	Disperse Blue367	105076-77-5
509	Disperse Blue368	96293-52-6
510	Disperse Blue369	122063-39-2
511	Disperse Blue370	106359-94-8
512	Disperse Blue371	885474-68-0
513	Disperse Blue372	NA
514	Disperse Blue373	51868-46-3
515	Disperse Blue374	885474-73-7
516	Disperse Blue375	885474-74-8
517	Disperse Blue376	885474-75-9
518	Disperse Blue377	67674-26-4
519	Disperse Blue378	885474-76-0
520	Disperse Blue379	NA
521	Disperse Blue380	1107654-03-4
522	Disperse Violet1	128-95-0
523	Disperse Violet2	885475-19-4
524	Disperse Violet3	12768-88-6
525	Disperse Violet4	1220-94-6
526	Disperse Violet5	
527	Disperse Violet6	6471-02-9
528	Disperse Violet7	NA
529	Disperse Violet8	82-33-7
530	Disperse Violet9	81-42-5
531	Disperse Violet12	3266-98-6
532	Disperse Violet13	6374-02-3
533	Disperse Violet15	62649-65-4
534	Disperse Violet16	885475-20-7
535	Disperse Violet17	116-82-5
536	Disperse Violet18	NA
537	Disperse Violet23	19286-75-0
538	Disperse Violet24	NA
539	Disperse Violet26	6408-72-6
540	Disperse Violet27	19286-75-0
541	Disperse Violet28	81-42-5
542	Disperse Violet31	6408-72-6
543	Disperse Violet33	66882-16-4
544	Disperse Violet35	12236-27-0
545	Disperse Violet36	12223-75-5
546	Disperse Violet47	61968-58-9
547	Disperse Violet48	61968-59-0
548	Disperse Violet56	115902-06-2

549	Disperse Violet57	1594-08-7
550	Disperse Violet58	NA
551	Disperse Violet59	NA
552	Disperse Violet60	NA
553	Disperse Violet63	64294-88-8
554	Disperse Violet69	885475-82-1
555	Disperse Violet77	77538-14-8
556	Disperse Violet88	91254-13-6
557	Disperse Violet91	68391-47-9
558	Disperse Violet93	122463-28-9
559	Disperse Violet93.1	122463-28-9
560	Disperse Violet94	100358-02-9
561	Disperse Violet98	24112-48-9
562	Disperse Violet99	NA
563	Disperse Violet100	NA
564	Disperse Violet101	NA
565	Disperse Violet102	NA
	Acid Dyes	
566	Acid Yellow1	846-70-8
567	Acid Yellow3	95193-83-2
568	Acid Yellow4	6359-74-6
569	Acid Yellow5	1324-04-5
570	Acid Yellow7	2391-30-2
571	Acid Yellow8	141513-91-9
572	Acid Yellow9	2706-28-7
573	Acid Yellow10	21542-82-5
574	Acid Yellow11	6359-82-6
575	Acid Yellow12	6359-84-8
576	Acid Yellow14	6359-97-3
577	Acid Yellow17	6359-98-4
578	Acid Yellow18	6359-54-2
579	Acid Yellow19	12220-64-3
580	Acid Yellow20	8005-93-4
581	Acid Yellow23	1934-21-0
582	Acid Yellow24	887-79-6
583	Acid Yellow29	6359-91-7
584	Acid Yellow34	6359-90-6
585	Acid Yellow35	61902-28-1
586	Acid Yellow36	587-98-4
587	Acid Yellow38	13390-47-1
588	Acid Yellow40	6372-96-9
589	Acid Yellow41	6359-55-3
590	Acid Yellow42	6375-55-9
591	Acid Yellow44	2429-76-7
592	Acid Yellow48	6359-99-5
593	Acid Yellow49	69762-08-9
594	Acid Yellow54	10127-05-6

595	Acid Yellow59	5601-29-6
596	Acid Yellow61	12217-38-8
597	Acid Yellow 62	1325-37-7
598	Acid Yellow65	6408-90-8
599	Acid Yellow72	52584-47-1
600	Acid Yellow73	518-47-8
601	Acid Yellow78	12220-56-3
602	Acid Yellow79	72828-69-4
603	Acid Yellow83	142106-28-3
604	Acid Yellow96	61901-50-6
605	Acid Yellow98	6421-60-9
606	Acid Yellow99	10343-58-5
607	Acid Yellow104	72496-90-3
608	Acid Yellow105	25807-51-6
609	Acid Yellow110	72479-28-8
610	Acid Yellow112	12220-75-6
611	Acid Yellow116	12239-18-8
612	Acid Yellow117	6459-70-7
613	Acid Yellow114	61901-51-7
614	Acid Yellow119	12220-76-7
615	Acid Yellow127	73384-78-8
616	Acid Yellow129	41741-86-0
617	Acid Yellow133	488555-25-5
618	Acid Yellow135	12235-21-1
619	Acid Yellow137	72827-84-0
620	Acid Yellow151	12715-61-6
621	Acid Yellow153	6826-59-1
622	Acid Yellow155	12220-81-4
623	Acid Yellow158:1	908584-95-2
624	Acid Yellow159	12235-22-2
625	Acid Yellow162	5601-29-6
626	Acid Yellow165	12235-26-6
627	Acid Yellow166	71033-19-7
628	Acid Yellow167	12220-87-0
629	Acid Yellow172	15792-51-5
630	Acid Yellow185	99148-51-3
631	Acid Yellow184	70267-73-1
632	Acid Yellow194	61814-52-6
633	Acid Yellow196	NA
634	Acid Yellow199	70865-20-2
635	Acid Yellow200	6359-95-1
636	Acid Yellow204	61814-53-7
637	Acid Yellow207	73507-13-8
638	Acid Yellow208	77031-25-5
639	Acid Yellow215	NA
640	Acid Yellow216	71872-28-1
641	Acid Yellow219	63405-85-6

642	Acid Yellow220	70851-34-2
643	Acid Yellow221	61814-59-3
644	Acid Yellow228	82323-97-5
645	Acid Yellow230	72827-87-3
646	Acid Yellow 231	NA
647	Acid Yellow 232	83027-57-0
648	Acid Yellow233	216240-88-9
649	Acid Yellow235	125408-78-8
650	Acid Yellow 236	77907-21-2
651	Acid Yellow 241	85049-62-3
652	Acid Yellow 242	157629-95-3
653	Acid Yellow 246	119822-74-1
654	Acid Yellow250	215313-35-2
655	Acid Yellow 254	NA
656	Acid Yellow 256	881851-49-6
657	Acid Yellow262	476173-64-5
658	Acid Blue1	129-17-9
659	Acid Blue3	3536-49-0
660	Acid Blue6	6222-42-0
661	Acid Blue7	3486-30-4
662	Acid Blue9	3844-45-9
663	Acid Blue13	5863-53-6
664	Acid Blue15	5863-46-7
665	Acid Blue22	28631-66-5
666	Acid Blue23	33340-33-9
667	Acid Blue25	6408-78-2
668	Acid Blue29	5850-35-1
669	Acid Blue40	6424-85-7
670	Acid Blue 41	2666-17-3
671	Acid Blue43	2150-60-9
672	Acid Blue45	2861-02-1
673	Acid Blue47	4403-89-8
674	Acid Blue48	1324-77-2
675	Acid Blue62	4368-56-3
676	Acid Blue80	4474-24-2
677	Acid Blue83	6104-59-2
678	Acid Blue89	10359-95-2
679	Acid Blue90	6104-58-1
680	Acid Blue92	3861-73-2
681	Acid Blue103	6483-73-4
682	Acid Blue104	6505-30-2
683	Acid Blue113	3351-05-1
684	Acid Blue117	10169-12-7
685	Acid Blue118	6406-32-2
686	Acid Blue127	6471-01-8
687	Acid Blue129	6397-02-0
688	Acid Blue138	1324-53-4

689	Acid Blue145	6408-80-6
690	Acid Blue158	6370-08-7
691	Acid Blue158.1	6370-12-3
692	Acid Blue161	12392-64-2
693	Acid Blue171	75314-27-1
694	Acid Blue183	12217-22-0
695	Acid Blue185	12234-64-9
696	Acid Blue193	12392-64-2
697	Acid Blue200	61723-99-7
698	Acid Blue 201	12219-29-3
699	Acid Blue 202	12643-05-9
700	Acid Blue204	61724-00-3
701	Acid Blue207	12219-41-9
702	Acid Blue220	12219-31-7
703	Acid Blue221	12219-32-8
704	Acid Blue225	80010-51-1
705	Acid Blue229	70247-75-5
706	Acid Blue230	12269-82-8
707	Acid Blue236	12219-41-9
708	Acid Blue239	72391-24-3
709	Acid Blue254	61967-88-2
710	Acid Blue258	52270-63-0
711	Acid Blue260	67827-60-5
712	Acid Blue264	39315-90-7
713	Acid Blue268	71838-55-6
714	Acid Blue270	61967-89-3
715	Acid Blue274	61967-92-8
716	Acid Blue276	NA
717	Acid Blue277	25797-81-3
718	Acid Blue278	61931-04-2
719	Acid Blue279	61967-94-0
720	Acid Blue280	39279-67-9
721	Acid Blue281	226923-51-9
722	Acid Blue283	142985-50-0
723	Acid Blue284	61814-66-2
724	Acid Blue285	NA
725	Acid Blue288	61967-95-1
726	Acid Blue290	39280-53-0
727	Acid Blue296	61967-96-2
728	Acid Blue317	68541-71-9
729	Acid Blue321	NA
730	Acid Blue324	88264-80-6
731	Acid Blue327	77907-14-3
732	Acid Blue348	1393829-02-1
733	Acid Blue 350	138067-74-0
734	Acid Violet1	6441-91-4
735	Acid Violet3	1681-60-3

736	Acid Violet5	13390-46-0
737	Acid Violet17	4129-84-4
738	Acid Violet19	3244-88-0
739	Acid Violet21	5905-37-3
740	Acid Violet34	6408-63-5
741	Acid Violet36	1323-87-1
742	Acid Violet42	6408-73-7
743	Acid Violet43	4430-18-6
744	Acid Violet 46	61724-44-5
745	Acid Violet 48	72243-90-4
746	Acid Violet54	70210-05-8
747	Acid Violet55	NA
748	Acid Violet56	6408-02-2
749	Acid Violet78	50525-58-1
750	Acid Violet90	61916-41-4
751	Acid Violet109	72391-23-2
752	Acid Orange3	6373-74-6
753	Acid Orange5	554-73-4
754	Acid Orange7	633-96-5
755	Acid Orange8	5850-86-2
756	Acid Orange10	1936-15-8
757	Acid Orange10.1	83898-22-0
758	Acid Orange12	1934-20-9
759	Acid Orange17	52749-23-2
760	Acid Orange19	3058-98-8
761	Acid Orange20	523-44-4
762	Acid Orange24	1320-07-6
763	Acid Orange28	5863-95-6
764	Acid Orange33	6507-77-3
765	Acid Orange56	6470-20-8
766	Acid Orange58	NA
767	Acid Orange60	30112-70-0
768	Acid Orange61	6408-33-9
769	Acid Orange62	12262-17-8
770	Acid Orange63	15792-50-4
771	Acid Orange67	12220-06-3
772	Acid Orange74	10127-27-2
773	Acid Orange80	12643-06-0
774	Acid Orange82	12217-03-7
775	Acid Orange86	51147-75-2
776	Acid Orange94	70161-18-1
777	Acid Orange95	6507-77-3
778	Acid Orange107	12220-08-5
779	Acid Orange116	12220-10-9
780	Acid Orange122	73507-06-9
781	Acid Orange124	12234-97-8
782	Acid Orange127	72765-52-7

783	Acid Orange128	12269-97-5
784	Acid Orange134	NA
785	Acid Orange142	61901-39-1
786	Acid Orange144	61814-64-0
787	Acid Orange154	56819-40-0
788	Acid Orange156	68555-86-2
789	Acid Orange159	82944-40-9
790	Acid Orange160	82944-41-0
791	Acid Orange162	73612-40-5
792	Acid Orange168	55613-78-0
793	Acid Red1	3734-67-6
794	Acid Red6	6245-59-6
795	Acid Red8	4787-93-3
796	Acid Red9	8003-59-6
797	Acid Red10	5850-95-3
798	Acid Red14	3567-69-9
799	Acid Red18	2611-82-7
800	Acid Red27	915-67-3
801	Acid Red29	4197-07-3
802	Acid Red35	6441-93-6
803	Acid Red37	6360-07-2
804	Acid Red42	6360-10-7
805	Acid Red44	2766-77-0
806	Acid Red52	3520-42-1
807	Acid Red57	12217-34-4
808	Acid Red66	4196-99-0
809	Acid Red88	1658-56-6
810	Acid Red97	10169-02-5
811	Acid Red99	3701-40-4
812	Acid Red111	6358-57-2
813	Acid Red119	70210-06-9
814	Acid Red127	61724-32-1
815	Acid Red131	70210-37-6
816	Acid Red134	6459-69-4
817	Acid Red135	6459-69-4
818	Acid Red136	851608-33-8
819	Acid Red137	6222-63-5
820	Acid Red138	15792-43-5
821	Acid Red141	5850-93-1
822	Acid Red145	6598-62-5
823	Acid Red151	6406-56-0
824	Acid Red179	6408-34-0
825	Acid Red182	50525-57-0
826	Acid Red183	63148-53-8
827	Acid Red184	6370-15-6
828	Acid Red186	52677-44-8
829	Acid Red194	11075-30-2

830	Acid Red195	2220-24-5
831	Acid Red211	12239-05-3
832	Acid Red249	6416-66-6
833	Acid Red252	70209-97-1
834	Acid Red260	52333-30-9
835	Acid Red261	61931-17-7
836	Acid Red263	12239-09-7
837	Acid Red274	84083-07-8
838	Acid Red266	57741-47-6
839	Acid Red278	71819-56-2
840	Acid Red296	38833-00-0
841	Acid Red299	67674-28-6
842	Acid Red301	12220-30-3
843	Acid Red307	12220-35-8
844	Acid Red315	70209-87-9
845	Acid Red316	12220-38-1
846	Acid Red336	12239-11-1
847	Acid Red337	67786-14-5
848	Acid Red341	61847-62-9
849	Acid Red357	61951-36-8
850	Acid Red359	61814-65-1
851	Acid Red360	61968-06-7
852	Acid Red361	32846-21-2
853	Acid Red362	61814-58-2
854	Acid Red364	71838-40-9
855	Acid Red399	91254-09-0
856	Acid Red405	83833-37-8
857	Acid Red407	72017-66-4
858	Acid Red 414	152287-09-7
859	Acid Red415	220323-37-5
860	Acid Red416	NA
861	Acid Red418	84136-00-5
862	Acid Red 419	1222085-93-9
863	Acid Red425	151499-54-6
864	Acid Red426	118548-20-2
865	Acid Red428	NA
866	Acid Red 447	664997-38-0
867	Acid Green1	19381-50-1
868	Acid Green3	4680-78-8
869	Acid Green4	25424-72-0
870	Acid Green5	5141-20-8
871	Acid Green9	4857-81-2
872	Acid Green12	10241-21-1
873	Acid Green16	12768-78-4
874	Acid Green19	5850-34-0
875	Acid Green20	5850-39-5
876	Acid Green23	NA

877	Acid Green25	4403-90-1
878	Acid Green27	6408-57-7
879	Acid Green28	73398-32-0
880	Acid Green35	10241-27-7
881	Acid Green40	70161-19-2
882	Acid Green40.1	70161-19-2
883	Acid Green41	4430-16-4
884	Acid Green68.1	61901-32-4
885	Acid Green73	72403-66-8
886	Acid Green80	12219-98-6
887	Acid Green104	73297-10-6
888	Acid Green106	88506-44-9
889	Acid Green107	NA
890	Acid Green108	71872-22-5
891	Acid Green109	85407-92-7
892	Acid Green111	1422368-31-7
893	Acid Green112	NA
894	Acid Brown2	3626-41-3
895	Acid Brown4	5858-51-5
896	Acid Brown13	6373-79-1
897	Acid Brown14	5850-16-8
898	Acid Brown15	5850-15-7
899	Acid Brown17	3564-15-6
900	Acid Brown44	12238-96-9
901	Acid Brown45	12219-54-4
902	Acid Brown46	12238-97-0
903	Acid Brown53	12238-98-1
904	Acid Brown58	70210-34-3
905	Acid Brown64	NA
906	Acid Brown70	NA
907	Acid Brown73	NA
908	Acid Brown75	8011-86-7
909	Acid Brown77	NA
910	Acid Brown78	Na
911	Acid Brown83	13011-68-2
912	Acid Brown84	13011-69-3
913	Acid Brown88	6222-56-6
914	Acid Brown97	108347-99-5
915	Acid Brown98	72479-34-6
916	Acid Brown100	61724-08-1
917	Acid Brown101	61724-09-2
918	Acid Brown105	8003-78-9
919	Acid Brown106	61724-11-6
920	Acid Brown119	6428-27-9
921	Acid Brown121	6487-04-3
922	Acid Brown122	6487-05-4
923	Acid Brown127	12238-99-2

924	Acid Brown159	61901-21-1
925	Acid Brown160	61724-12-7
926	Acid Brown161	61724-13-8
927	Acid Brown163	8011-86-7
928	Acid Brown165	61724-14-9
929	Acid Brown167	150632-90-9
930	Acid Brown184	NA
931	Acid Brown188	71949-32-1
932	Acid Brown191	70210-24-1
933	Acid Brown194	72496-92-5
934	Acid Brown213	6416-67-7
935	Acid Brown214	37372-87-5
936	Acid Brown216	8007-63-4
937	Acid Brown235	70210-23-0
938	Acid Brown248	12239-00-8
939	Acid Brown282	70236-60-1
940	Acid Brown283	70815-17-7
941	Acid Brown284	12219-67-9
942	Acid Brown289	52587-68-5
943	Acid Brown290	12234-74-1
944	Acid Brown298	12234-78-5
945	Acid Brown304	12234-80-9
946	Acid Brown311	12234-86-5
947	Acid Brown314	72480-58-1
948	Acid Brown324	61901-27-7
949	Acid Brown348	72827-72-6
950	Acid Brown349	72827-73-7
951	Acid Brown354	71799-43-4
952	Acid Brown355	84989-26-4
953	Acid Brown357	61814-63-9
954	Acid Brown358	61967-98-4
955	Acid Brown364	NA
956	Acid Brown365	63641-88-3
957	Acid Brown384	90294-42-1
958	Acid Brown395	Na
959	Acid Brown402	127830-16-4
960	Acid Brown404	NA
961	Acid Brown408	148849-14-3
962	Acid Brown409	NA
963	Acid Brown413	146836-85-3
964	Acid Brown414	1422363-74-3
965	Acid Brown417	NA
966	Acid Brown418	83562-89-4
967	Acid Brown419	NA
968	Acid Brown420	NA
969	Acid Brown422	126851-39-6
970	Acid Brown425	119509-49-8

971	Acid Brown427	134687-45-9
972	Acid Brown428	134687-46-0
973	Acid Brown429	134687-47-1
974	Acid Brown430	NA
975	Acid Brown431	1422365-03-4
976	Acid Brown432	94933-05-8
977	Acid Brown433	NA
978	Acid Brown434	126851-40-9
979	Acid Brown435	NA
980	Acid Brown436	NA
981	Acid Brown437	84843-07-2
982	Acid Brown438	84843-06-1
983	Acid Brown439	NA
984	Acid Brown441	NA
985	Acid Brown442	NA
986	Acid Brown443	NA
987	Acid Brown444	NA
988	Acid Brown445	NA
989	Acid Brown447	NA
990	Acid Brown448	NA
991	Acid Brown449	NA
992	Acid Brown450	114599-15-4
993	Acid Brown452	1422366-76-4
994	Acid Brown453	NA
995	Acid Black1	1064-48-8
996	Acid Black2	8005-03-6
997	Acid Black21	10142-78-6
998	Acid Black24	3071-73-6
999	Acid Black26	6262-07-3
1000	Acid Black31	6222-55-5
1001	Acid Black41	5850-37-3
1002	Acid Black50	12217-15-1
1003	Acid Black52	70236-49-6
1004	Acid Black52.1	86543-84-2
1005	Acid Black58	12218-94-9
1006	Acid Black60	12218-95-0
1007	Acid Black60.1	120668-30-6
1008	Acid Black63	32517-36-5
1009	Acid Black82	6408-06-6
1010	Acid Black84	6408-22-6
1011	Acid Black94	6358-80-1
1012	Acid Black107	70236-55-4
1013	Acid Black132	27425-58-7
1014	Acid Black164	12238-86-7
1015	Acid Black172	57693-14-8
1016	Acid Black180	11103-91-6
1017	Acid Black194	61931-02-0

1018	Acid Black197	77031-15-3
1019	Acid Black207	84145-95-9
1020	Acid Black210	85223-29-6
1021	Acid Black213	55039-14-0
1022	Acid Black220	152287-07-5
1023	Acid Black222	158827-89-5
1024	Acid Black232	NA
1025	Acid Black233	NA
1026	Acid Black234	157577-99-6
1027	Acid Black235	1893430-37-9
1028	Acid Black236	NA
1029	Acid Black255	6358-80-1
1030	Direct Red80	2610-10-8
1031	Direct Red81	2610-11-9
1032	Direct Blue71	4399-55-7
1033	Direct Black80	8003-69-8
1034	Direct Orange34	12222-37-6
1035	Direct Orange39	1325-54-8
1036	Direct Blue199	90295-11-7
1037	Direct Yellow 11	83155-77-5
1038	Direct Yellow 12	2870-32-8
1039	Direct Yellow 44	8005-52-5
1040	Direct Blue86	1330-38-7
1041	Direct Blue87	1330-39-8
1042	Direct Black19	6428-31-5
1043	Direct Black22	6473-13-8
1044	Direct Black118	12217-54-8
1045	Acid Mordent brown1	NA
1046	Acid Mordent brown79	NA
1047	Acid Mordent blue13	NA
1048	Acid Mordent Red5	NA
1049	Acid Mordent black9	NA
1050	Acid Mordent black11	NA
	Reactive Dyes	
1051	Reactive Yellow2	50662-99-2
1052	Reactive Yellow7	12226-46-9
1053	Reactive Yellow15	12226-47-0
1054	Reactive Yellow17	20317-19-5
1055	Reactive Yellow18	12226-48-1
1056	Reactive Yellow22	14552-81-9
1057	Reactive Yellow24	12226-51-6
1058	Reactive Yellow25	72139-14-1
1059	Reactive Yellow27	12226-54-9
1060	Reactive Yellow37	85940-63-2
1061	Reactive Yellow39	70247-70-0
1062	Reactive Yellow42	12226-63-0
1063	Reactive Yellow57	61969-35-5

1064	Reactive Yellow77	85854-36-0
1065	Reactive Yellow81	59112-78-6
1066	Reactive Yellow84	61951-85-7
1067	Reactive Yellow 84A	NA
1068	Reactive Yellow85	71872-81-6
1069	Reactive Yellow86	70865-29-1
1070	Reactive Yellow95	89923-43-3
1071	Reactive Yellow105	73398-37-5
1072	Reactive Yellow125	4988-30-1
1073	Reactive Yellow135	77907-38-1
1074	Reactive Yellow143	75268-65-4
1075	Reactive Yellow145	73612-28-9
1076	Reactive Yellow160	129898-77-7
1077	Reactive Yellow167	115682-10-5
1078	Reactive Yellow176	140876-15-9
1079	Reactive Yellow181	130201-53-5
1080	Reactive Yellow185	111211-44-0
1081	Reactive Yellow186	84000-63-5
1082	Reactive Yellow187	NA
1083	Reactive Yellow201	NA
1084	Reactive Yellow203	NA
1085	Reactive Yellow204	NA
1086	Reactive Yellow205	1021942-10-8
1087	Reactive Yellow206	195739-93-6
1088	Reactive Green12	72152-45-5
1089	Reactive Green19	61931-49-5
1090	Reactive Green19A	NA
1091	Reactive Green21	61969-09-3
1092	Reactive Green22	NA
1093	Reactive Green24	NA
1094	Reactive Green26	NA
1095	Reactive Green27	669078-76-6
1096	Reactive Red2	17804-49-8
1097	Reactive Red3:1	92307-87-4
1098	Reactive Red11	12226-08-3
1099	Reactive Red21	11099-79-9
1100	Reactive Red24	70210-20-7
1101	Reactive Red29	94006-25-4
1102	Reactive Red31	12237-00-2
1103	Reactive Red35	12226-12-9
1104	Reactive Red43	64181-81-3
1105	Reactive Red45	70210-46-7
	Reactive Red 45.1	73816-74-7
1106	Reactive Red49	12237-02-4
1107	Reactive Red65	70210-40-1
1108	Reactive Red66	70210-39-8
1109	Reactive Red69	12239-69-9

1110	Reactive Red74	12270-82-5
1111	Reactive Red76	12270-84-7
1112	Reactive Red78	70224-86-1
1113	Reactive Red83	70210-00-3
1114	Reactive Red84	85187-33-3
1115	Reactive Red106	105635-66-3
1116	Reactive Red116	70210-01-4
1117	Reactive Red123	68959-17-1
1118	Reactive Red120	61951-82-4
1119	Reactive Red136	83137-15-9
1120	Reactive Red141	71002-20-5
1121	Reactive Red147	71902-16-4
1122	Reactive Red152	83137-16-0
1123	Reactive Red158	64104-00-3
1124	Reactive Red159	69553-32-8
1125	Reactive Red174	77907-36-9
1126	Reactive Red180	98114-32-0
1127	Reactive Red183	76416-02-9
1128	Reactive Red184	70833-54-4
1129	Reactive Red194	23354-52-1
1130	Reactive Red195	89157-03-9
1131	Reactive Red198	78952-61-1
1132	Reactive Red198A	111211-40-6
1133	Reactive Red218	84045-65-8
1134	Reactive Red238	116912-36-8
1135	Reactive Red245	130201-57-9
1136	Reactive Red249	NA
1137	Reactive Red250	669081-51-0
1138	Reactive Red264	915026-98-1
1139	Reactive Red271	NA
1140	Reactive Red278	1315342-23-4
1141	Reactive Orange4	70616-90-9
1142	Reactive Orange12	70161-14-7
1143	Reactive Orange13	70616-89-6
1144	Reactive Orange14	12225-86-4
1145	Reactive Orange16	20262-58-2
1146	Reactive Orange20	12225-91-1
1147	Reactive Orange29	12225-98-8
1148	Reactive Orange35	70210-13-8
1149	Reactive Orange38	12270-79-0
1150	Reactive Orange64	72828-73-0
1151	Reactive Orange68	71838-94-3
1152	Reactive Orange69	61969-17-3
1153	Reactive Orange72	71902-15-3
1154	Reactive Orange84	68110-30-5
1155	Reactive Orange86	83929-91-3
1156	Reactive Orange91	63817-39-0

1157	Reactive Orange94	129651-47-4
1158	Reactive Orange95	89923-44-4
1159	Reactive Orange96	90597-78-7
1160	Reactive Orange107	94158-82-4
1161	Reactive Orange121	NA
1162	Reactive Orange122	216082-23-4
1163	Reactive Orange123	NA
1164	Reactive Orange131	449181-62-8
1165	Reactive Orange133	335322-13-9
1166	Reactive Orange201	NA
1167	Reactive Brown2	70210-17-2
1168	Reactive Brown7	93783-57-4
1169	Reactive Brown8	12225-65-9
1170	Reactive Brown9	12225-66-0
1171	Reactive Brown10	70788-63-5
1172	Reactive Brown11	70161-16-9
1173	Reactive Brown17	12225-72-8
1174	Reactive Brown18	12225-73-9
1175	Reactive Brown19	61969-04-8
1176	Reactive Brown20	61951-78-8
1177	Reactive Blue4	13324-20-4
1178	Reactive Blue5	16823-51-1
1179	Reactive Blue8	70236-50-9
1180	Reactive Blue13	14692-76-3
1181	Reactive Blue19	2580-78-1
1182	Reactive Blue21	85650-98-2
1183	Reactive Blue25	85567-04-0
1184	Reactive Blue26	12225-43-3
1185	Reactive Blue28	12225-46-6
1186	Reactive Blue38	12236-90-7
1187	Reactive Blue41	72214-17-6
1188	Reactive Blue49	72927-99-2
1189	Reactive Blue50	70210-42-3
1190	Reactive Blue59	12270-71-2
1191	Reactive Blue69	70209-99-3
1192	Reactive Blue71	12677-15-5
1193	Reactive Blue81	75030-18-1
1194	Reactive Blue89	61968-98-7
1195	Reactive Blue116	61969-03-7
1196	Reactive Blue140	71872-74-7
1197	Reactive Blue171	77907-32-5
1198	Reactive Blue177	86595-77-9
1199	Reactive Blue182	68912-12-9
1200	Reactive Blue184	70528-89-1
1201	Reactive Blue194	93050-78-3
1202	Reactive Blue198	84434-51-5
1203	Reactive Blue203	84229-70-9

1204	Reactive Blue204	85153-92-0
1205	Reactive Blue209	110493-61-3
1206	Reactive Blue220	101678-62-0
1207	Reactive Blue221	84057-71-6
1208	Reactive Blue225	108624-00-6
1209	Reactive Blue222	93912-64-2
1210	Reactive Blue223	NA
1211	Reactive Blue224	122390-99-2
1212	Reactive Blue235	106404-06-2
1213	Reactive Blue238	149315-83-3
1214	Reactive Blue248	1270957-42-0
1215	Reactive Blue250	1180130-98-6
1216	Reactive Blue268	863505-53-7
1217	Reactive Violet1	70880-03-4
1218	Reactive Violet2	8063-57-8
1219	Reactive Violet4	12769-08-3
1220	Reactive Violet5	12226-38-9
1221	Reactive Violet13	12270-87-0
1222	Reactive Violet14	12270-88-1
1223	Reactive Violet33	69121-25-1
1224	Reactive Violet34	83381-97-9
1225	Reactive Violet40	NA
	Solvent Dyes	
1226	Solvent Yellow 14	842-07-9
1227	Solvent Yellow 18	6407-78-9
1228	Solvent Yellow 16	4314-14-1
1229	Solvent Yellow 21	5601-29-6
1230	Solvent Yellow 25	37219-73-1
1231	Solvent Orange 60	6925-69-5
1232	Solvent Orange 62	52256-37-8
1233	Solvent Orange 63	16294-75-0
1234	Solvent Orange 86	81-64-1
1235	Solvent Orange 105	31482-56-1
1236	Solvent Violet 14	8005-40-1
1237	Solvent Violet 26	2872-48-2
1238	Solvent Violet 36	61951-89-1
1239	Solvent Violet 47	81-63-0
1240	Solvent Blue 4	6786-83-0
1241	Liquid Red 1	92257-31-3
1242	Liquid Yellow 1	29190-28-1 +
1243	Automate Black 1XS	74499-36-8 +
1244	Automate Blue 8A	74499-36-8
1245	Automate Blue 8AHF	74499-36-8
1246	Solvent Yellow 33	8003-22-3
1247	Solvent Yellow 40	61813-78-3
1248	Solvent Yellow 42	NA
1249	Solvent Yellow 43	19125-99-6

1250	Solvent Yellow 44	2478-20-8
1251	Solvent Yellow 56	2481-94-9
1252	Solvent Yellow 62	61901-95-9
1253	Solvent Yellow 77	2832-40-8
1254	Solvent Yellow 79	12237-31-9
1255	Solvent Yellow 82	12227-67-7
1256	Solvent Yellow 85	12271-01-1
1257	Solvent Yellow 88	61931-55-3
1258	Solvent Yellow 93	4702-90-3
1259	Solvent Yellow 95	54466-36-3
1260	Solvent Yellow 98	12671-74-8
1261	Solvent Yellow 114	7576-65-0
1262	Solvent Yellow 124	34432-92-3
1263	Solvent Yellow 126	61968-70-5
1264	Solvent Yellow 131	71819-82-4
1265	Solvent Yellow 135	68427-35-0
1266	Solvent Yellow 141	83929-90-2
1267	Solvent Yellow 142	NA
1268	Solvent Yellow 160.1	35773-43-4
1269	Solvent Yellow 163	13676-91-0
1270	Solvent Yellow 171	27425-55-4
1271	Solvent Yellow 172	80748-21-6
1272	Solvent Yellow 179	80748-21-6
1273	Solvent Orange 7	3118-97-6
1274	Solvent Orange 23	NA
1275	Solvent Orange 54	12237-30-8
1276	Solvent Orange 56	13463-42-8
1277	Solvent Orange 59	61969-46-8
1278	Solvent Orange 107	NA
1279	Solvent Red 1	6535-42-8
1280	Solvent Red 2	5098-94-2
1281	Solvent Red 3	6535-42-8
1282	Solvent Red 8	33270-70-1
1283	Solvent Red 23	85-86-9
1284	Solvent Red 24	85-83-6
1285	Solvent Red 26	4477-79-6
1286	Solvent Red 49	509-34-2
1287	Solvent Red 52	81-39-0
1288	Solvent Red 68	NA
1289	Solvent Red 89	61725-81-3
1290	Solvent Red 91	61901-92-6
1291	Solvent Red 92	61901-93-7
1292	Solvent Red 111	82-38-2
1293	Solvent Red 119	12237-27-3
1294	Solvent Red 122	12227-55-3
1295	Solvent Red 125	12271-00-0
1296	Solvent Red 127	77496-01-6

1297	Solvent Red 130	71839-77-5
1298	Solvent Red 135	71902-17-5
1299	Solvent Red 149	21295-57-8
1300	Solvent Red 155	110616-99-4
1301	Solvent Red 175	ENCS No. 5-5084
1302	Solvent Red 179	6829-22-7
1303	Solvent Red 196	52372-36-8
1304	Solvent Red 197	52372-39-1
1305	Solvent Violet 1	6421-64-3
1306	Solvent Violet 2	61725-86-8
1307	Solvent Violet 8	52080-58-7
1308	Solvent Violet 11	128-95-0
1309	Solvent Violet 13	81-48-1
1310	Solvent Blue 18	2475-45-8
1311	Solvent Blue 35	17354-14-2
1312	Solvent Blue 36	14233-37-5
1313	Solvent Blue 37	3861-73-2
1314	Solvent Blue 38	1330-38-7
1315	Solvent Blue 48	61711-30-6
1316	Solvent Blue 58	29887-08-9
1317	Solvent Blue 59	6994-46-3
1318	Solvent Blue 60	NA
1319	Solvent Blue 67	81457-65-0
1320	Solvent Blue 68	4395-65-7
1321	Solvent Blue 68	4395-65-7
1322	Solvent Blue 78	2475-44-7
1323	Solvent Blue 93	2475-44-7
1324	Solvent Blue 97	32724-62-2
1325	Solvent Blue 98	71819-49-3
1326	Solvent Blue 102	15403-56-2
1327	Solvent Blue 104	116-75-6
1328	Solvent Blue 108	ENCS # 5-3129
1329	Solvent Blue 109	ENCS # 5-5132
1330	Solvent Blue 122	67905-17-3
1331	Solvent Green 3	128-80-3
1332	Solvent Green 7	6358-69-6
1333	Solvent Green 20	28198-05-2
1334	Solvent Green 28	71839-01-5
1335	Solvent Black 7	68389-53-7
1336	Solvent Black 13	NA
1337	Solvent Black 27	12237-22-8
1338	Solvent Black 28	12237-23-9
1339	Solvent Black 29	61901-87-9
1340	Solvent Black 35	61931-53-1
1341	Solvent Black 29	61901-87-9
1342	Solvent Black 45	94765-62-5
1343	Solvent Black 46	65294-17-9

1344	Automate Blue 9HF	29887-08-9 +
1345	Automate Brown 2XS	74499-36-8 +
1346	Automate Brown 2HF XS	74499-36-8 +
1347	Automate Green MX	74499-36-8 +
1348	Automate Green HF MX	74499-36-8 +
1349	Marker 1	111850-24-9
1350	Marker 2	124719-26-2
1351	Marker 3	64742-94-5
1352	Marker 4	NA
1353	Marker 5	NA
1354	Marker 6	111850-24-9 +
1355	Marker 8	NA
1356	Automate Yellow 8HF	29190-28-1 +
1357	Automate Bronze 1XS	29190-28-1 +
1358	Automate Orange 2XS	29190-28-1 +
1359	Automated Red GXS	92257-31-3 +
1360	Automate Orange 2HFXS	92257-31-3 +
1361	Automate Purple XS	92257-31-3 +
1362	Automate Red 10BXS	92257-31-3 +
1363	Automate Red 9BHF	92257-31-3 +
1364	Automate Red IKHF	92257-31-3 +
1365	Automate Red IKHF D50	92257-31-3 +
1366	Liquid Red Dye #3	92257-28-8
1367	Marker 6	111850-24-9 +
1368	Mod "0" Powder	70879-65-1 +
1369	Mod "0" WPC	70879-65-1 +
1370	Mod "12" Powder	70879-65-1 +
1371	Liquid Red 1	92257-31-3
1372	Liquid Red 2	70879-65-1 +
1373	Liquid Yellow 1	29190-28-1 +
1374	Liquid Red 3	92257-28-8
1375	Liquid Red 4	NA
1376	Liquid Red 5	NA
1377	Marker 7	56358-17-9
1378	Liquid Blue 4	NA
1379	Liquid Yellow 2	97660-72-5
1380	TBPAA 2	108313-21-9
1381	Automate Red PB XF	92257-28-8 +
1382	Automate Blue RB	295800-70-3
1383	Automate Blue RB 2	295800-70-3 +
	Vat Dyes	
1384	Vat Yellow 2	129-09-9
1385	Vat Yellow 33	12227-50-8
1386	Vat Yellow 46	40783-05-9
1387	Vat Orange 1	1324-11-4
1388	Vat Orange 2	1324-35-2
1389	Vat Orange 9	128-70-1

1390	Vat Orange 11	2172-33-0
1391	Vat Orange 15	2379-78-4
1392	Vat Orange 29	71459-28-4
1393	Vat Red 10	2379-79-5
1394	Vat Red 13	4203-77-4
1395	Vat Violet 1	1324-55-6
1396	Vat Violet 9	1324-17-0
1397	Vat Violet 13	4424-87-7
1398	Vat Blue 4	81-77-6
1399	Vat Blue 6	130-20-1
1400	Vat Blue 16	6424-76-6
1401	Vat Blue 18	1324-54-5
1402	Vat Blue 19	1328-18-3
1403	Vat Blue 20	116-71-2
1404	Vat Blue 22	6373-20-2
1405	Vat Green 1	128-58-5
1406	Vat Green 3	3271-76-9
1407	Vat Green 9	6369-65-9
1408	Vat Green 26	NA
1409	Vat Brown 3	131-92-0
1410	Vat Brown 11	NA
1411	Vat Brown 33	70210-15-0
1412	Vat Black 16	1328-19-4
1413	Vat Black 25	4395-53-3
1414	Vat Black 27	2379-81-9
1415	Vat Black 34	12271-03-3

S. No.	Product Name	CAS No.
2.0	**Intermediates**	
2.1	**Ethoxylated and Acetylated Tertiary Amines**	
	CI-101	92-00-2
	CI-101 A	26692-46-6
	CI-108	91-99--6
	CI-108 A	21615-36-1
	CI-182	120-07-0
	CI-182 A	19249-34-4
	CI-105	92-02-4
	CI-104	28505-89-7
	CI-113	92-50-2
	CI-307	23128-51-0
	CI-313	22588-78-9
	CI-102	92-64-8
	CI-203	22031-33-0
2.2	**Cyanoethylated Amines**	
	CI-107	148-69-6

	CI-208	1555-66-4
	CEMAA	21678-63-7
	NCEA	1075-76-9
	CAMA	26408-28-6
	NCENEA	148-87-8
2.3	**Textile Auxiliaries, Binders, Fixtures**	
	Levocol P-400	25322-68-3
	Levocol DFT	61791-12-6 +
	Levocol PC	61791-12-6 +
	Levocol HTS	61791-12-6 +
	Levocol NID	9016-45-9 +
	Levocol NOD	NA
	Levocol TFL	9016-45-9 +
	Levocol SCR	9016-45-9 +
	Levocol ASD	9016-45-9 +
	Levocol PES	5949-29-1 +
	Levocol KBI	8002-33-3 +
	Levocol DDO	64742-53-6 +
	Levocol D-45	501-24-6 +
	Levocol CE	NA
	Levocol SO 600	67701-03-5 +
	Levocol SR 16	NA
	Levocol FBOL	9016-45-9 +
	Levocol LSF	61791-12-6 +
	Levocol CTPC	NA
	Levocol SMK	NA
	Levocol SWL	9016-45-9 +
	Levocol SDBL	5949-29-1 +
	Levocol PB	5949-29-1 +
	Levocol OA	7775-09-9
	Levocol FX	61791-12-6 +
	Levocol WET	9002-92-0 +
	Levocol NZ	9016-45-9 +
	Levocol LCS	9016-45-9 +
	Levocol ADR	NA
	Levocol CRL	61791-12-6 +
	Levocol VI	9016-45-9 +
	Levocol TEA	141-43-5 +
	Levocol T-96	141-43-5 +
	Levocol SQ	2809-21-4 +
	Levofin IS	NA
	Levofin BS	NA
	Levofin LFD	9002-92-0 +
	Levofin FBSE	NA
	Levofin ELA	NA
	Levocol 4398	5949-29-1

	Levocol BDLS	NA
	Levocol ESR	9002-92-0 +
	Levocol LV	68439-49-6
	Levocol DSS	9016-45-9 +
	Levocol LA	61791-12-6 +
	Levocol MDF	NA
	Levocol CAN	72-92-9 +
	Levocol C-DFX	NA
	Levocol ECA	NA
	Levocol DFL	61791-12-6 +
	Levocol SAR	1310-73-2 +
	Levocol MB070	112-53-8 +
	Levocol MB030	112-53-8 +
2.4	**Textile Finishing Chemicals**	
2.5	**Primary Amine**	
	Para Nitro Aniline	106-47-8
	Meta Nitro Aniline	99-09-2
	2-Chloro 4-Nitro Aniline	121-87-9
	Meta Chloro Aniline	108-42-9
	Para Anisidine	104-94-9
	3-Amino 4-Methoxy Acetanilide	6375-47-9
	Meta Amino Acetanilide	102-28-3
	DCPNA	99-30-9
	6-Bromo DNA	1817-73-8
	6-Chloro DNA	3531-19-9
	DBPNA	827-94-1
	2-6 DBPT	6968-24-7
	Metanilic Acid	121-47-1
	MPDDSA	137-50-8
	MAP	591-27-5
	CI-1010	6968-24-7
	MUA	25711-72-2
	MAMS, CI-4102, CI-4006, CBPNA, CI-188, CNBPNA	NA
	BDSA	117-61-3
2.6	**Anthraquinone Intermediates**	82-45-1; 40898-13-3; 81-64-1; 116-81-4; 116-82-5; 98210-99-2; 81-41-4; 5327-72-0; 81-55-0; 128-81-4; 117-57-7; 82-44-0, 129-44-2, 82-46-2, 82-43-9, ++
2.7	**Benzanthrone**	82-05-3
2.8	**Ethylated Tertiary Amines**	
	CI-110E	186453-43-0
	CI-110P	92-50-2
	CI-218	26322-20-3
	CI-304	21608-06-0

	CI-309	51868-45-2
	CI-311	19433-94-4
	CI-312	19433-93-3
	CI-314	92408-44-1
	CI-319	53733-94-1
	CI-322	61038-96-8
	CI-353	22185-75-7
	CI-359	6375-46-8
	CI-363	26841-42-9
	DEMAP	91-68-9
	DEMT	91-67-8
	E.B.A.	92-59-1
	EBMT	119-94-8
	MEA	141-43-5
	DEA	91-66-7
	MEMT	102-27-2
	CI-243, CI-244, CI-301, CI-242, CI-263, CI-266, CI-252, CI-257, CI-607,CI-315, CI-151, CI-118, CI-210, MEAMA, MEMAA	NA
2.9	**Quinoline**	
	DioxyQuinoline	91-22-5
	3-Hydroxy Quinoline	117-57-7
	Hydroxy Methyl Quinoline	1677-46-9
2.10	**Pyridone derivatives**	
	Butyl Pyridone	39108-47-9
	Methyl Pyridone	39621-10-8
	Ethyl Pyridone	28141-13-1
	Dichloro Pyridines	110-86-1
	ECA	105-56-6
	MDN	109-77-3
	Alkylated Amino Pyridine	NA
2.11	**Optical Whitener (Optical Brightening Agent/ OBA)**	13001-40-6
2.12	**Dispersing Agent - SCS**	71342-95-5
	Dispersing Agent - O45	8061-51-6
	Dispersing Agent - CS-28	8061-51-6
	Dispersing Agent - MN	36290-04-7
	Dispersing Agent - MF	36290-04-7
2.13	**Dispersing DDP**	36290-04-7
2.14	**Naphthalene Derivatives**	
	H-Acid	90-20-0
	J-Acid	134-47-4
	G-Salt	842-19-3
	Amido G-Salt	
	K-Acid	5398-34-5

	Gamma Acid	90-51-7
	NMJ Acid	22346-43-6
2.15	**Vinyl Sulphone Derivatives**	
	Para Base Vinyl Sulfone Ester	2494-89-5
	VS	2494-89-5
	Sulpho OAVS	121-88-0
	OAVS PCVS	10079-20-6
	Sulpho VS	42986-22-1
	M-Base VS	2494-88-4
	o-Base VS	81092-83-3
2.16	**D.A.S.A.**	16803-97-7
2.17	**2 NAPDSA**	135-11-5
2.18	**4 NAPDSA**	91-29-2
2.19	**F.C. Acid**	119-70-0
2.20	**6 Chloro Metanilic Acid**	98-36-2
2.21	**Nitrosylsulfuric Acid**	7782-78-7
3.0	**Ferrous Sulphate including Metal/ Mineral Sulfate**	7782-63-0
4.0	**Speciality Chemicals**	Severals
4.1	Antioxidant/Coating chemicals, Polymer emulsion, Adhesive/	Severals
	Resins	Severals
5.1	**Formulation & Spray Drying of Disperse Wet Press Cake**	N.A.
5.2	**Formulation & Spray Drying of Acid & Reactive Dyes wpc**	N.A.
6.1	**Disperse/ Vat Dyes/Pigment Ink Formulation**	N.A.
6.2	**Reactive/Acid/Direct Dyes Ink Formulation**	N.A.

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/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 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 is 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 has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee considering the location of the project in the CPA, was of the view that coal shall not be used as fuel. Considering the submission of the PP regarding moisture content in the briquette during monsoon season/non availability of gas, the Committee has suggested for use of coal during non-availability of gas/monsoon season (if briquette is used). The Committee has also noted that the stack height proposed is less and suggested to increase the height above roof top, and also advised PP to follow the norms. The Committee has also deliberated on the action plan and found to be addressing the socio-economic issues in the study area. The Committee has suggested that the storage of toxic/explosive raw material shall be bare minimum in quantity and inventory. The Committee has suggested the PP to amend the CTO/EC issued to M/s CTX Life Science Pvt. Ltd, regarding treatment of effluent in the unit of M/s Colourtex Industries Pvt. Ltd, and do not try to regularize the effluent management along with the present proposal. Based on the suggestions of the Committee, the PP has submitted an undertaking as under:

(i) No banned products in India will be manufactured at our unit M/s. Colourtex Industries Pvt. Ltd. (Unit-1) located at Block No. 272/P, 273/P, 274/P, 278/P, 283/P, 284/P, 285 To 287, 288/P, 294 to 297, 310, (Plot No. X2 (Sr-48)), Plot No. 288/1, 288/2, 289/1, 289/2, 8108/2, 268/3, 364, 801, GIDC Estate, Sachin, Dist: Surat – 394 230.

(ii) The products mentioned in EIA Report in Chapter-2, From Page No. 2-35 to Page No. 2-74, Executive Summary and EC Presentation No. 24.27 dated 22/10/2020 are same and only the mentioned products will be manufactured.

(iii) The Company will use 30 % Natural Gas and 70 % Coal (required heat value input) for the proposed flue gas stacks provided for availability of Natural Gas or PP will use Imported coal.

(iv) The Company is using surface water for all operational activities. The company will plan to recycle 75 % of treated effluent within 5 years to reduce surface water usage by 75 %. Alternatively, the company will use 100 % treated sewage as raw water and eliminate use of surface water within 5 years.

The EAC has deliberated the proposal and has made 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 have found the proposal in order and have 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). The project proponent shall use natural gas/briquette as fuel in the plant for different utilities. Imported coal (with Sulphur content less than 0.5%) shall be used only during non-availability of gas and briquette, for a maximum period of one month.

(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). Total fresh water requirement shall not exceed 9269 cum/day proposed to be met from own water supply/Kakarapar canal/GIDC Sachin. Necessary permission in this regard shall be obtained from the concerned regulatory authority, and renewed from time to time.

(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. 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.

(xv). As proposed, at least Rs. 4.05 Lakhs shall be utilized toward conservation plan for Schedule I species, in consultation with State Forest/Wildlife Department.

(xvi). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic issues in the study area, the project proponent, as committed, shall provide educational assistance, preventive health care, avenue plantation, skill development in the nearby Schools/villages. The action plan shall be completed within five years as proposed.

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

(xviii). No banned products shall be manufactured.

Reconsideration of Environmental Clearance.

Agenda No. 24.28

Manufacturing of various Insecticides for veterinary animal health & household use@ 757.2 MT/Annum at Plot No. 18, Survey No. 300, Village: Indrad, Ta: Kadi, Dist: Mehsana (Gujarat) by M/s SYNERGIA SCIENCES PVT. LTD- Reconsideration of Environment Clearance

[IA/GJ/IND2/105675/2019, IA-J-11011/187/2019-IA II (I)]

The proposal was earlier considered by the EAC in its meetings held during 13-15 April, 2020 and 17-19 August, 2020. The EAC in the last meeting after detailed deliberations, suggested the Ministry/Project proponent to obtain the clarification from the DM/SPCB that whether the public hearing presided over by the District Magistrate / District Collector / Deputy Commissioner or his or her representative not below the rank of an Additional District Magistrate or not.

The project proponent has now informed that Public Hearing held on 10/01/2020 was presided over by Mrs. Ketki Vyas (as representative of District Magistrate, Mehsana), who was authorized by the Collector & District Magistrate, Mehsana to preside over the public hearing as Additional District Magistrate, Mehsana. Letter issued from District Magistrate Office, Mehsana regarding the same has been submitted.

The project proponent and their accredited consultant M/s Bhagwati Enviro Care 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 Insecticides for veterinary animal health & household use at Plot No. 18, Survey No. 300, Village Indrad, Taluka Kadi, District Mehsana, Gujarat by M/s Synergia Sciences Pvt Ltd.

The details of products and capacity are as under:

Product Code	Products		Capacity (TPA)
A1	Transfluthrin	&/OR	240.0
A2	Imiprothrin MUP	&/OR	
A3	Meperfluthrin	&/OR	
A4	Metofluthrin	&/OR	
A5	Dimefluthrin	&/OR	
A6	Permethrin Tech.		
B	Flumethrin MB		18.0
C1	Icaridin	&/OR	300.0
C2	Amitraz		
D	S-Trans Cypermethric Acid (STCMA)		187.2
E	R&D and Pilot Plant		12.0
		Total	**757.2**

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

The Standard ToR has been issued by Ministry vide letter No. IA-J-11011/197/2019-IA-II(I); dated 27th June 2019. Public hearing for the proposed project has been conducted by Gujarat Pollution Control Board on 10th January, 2020, which was presided over by the Sub Divisional Magistrate. The main issues raised during the public hearing are related to environmental pollution, health & safety, employment opportunities and Social welfare activities. It was informed that there is no litigation pending against the proposal.

The land area available for the project is 5,769.28 m^2 Industry will develop Greenbelt in an area of 33.28 % i.e. 1,920 m^2 out of total area of the project. The estimated project cost is Rs. 40 Crores. Total capital cost earmarked towards environmental pollution control measures is Rs. 3.40 Crore and the Recurring cost (operation and maintenance) will be about Rs. 4.25 crore/annum. Total Employment will be 120 persons. Industry proposes to allocate Rs. 80 Lakhs towards Corporate Environment Responsibility (CER).

There are no National parks, Wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 km distance from project site. River Sabarmati is flowing at a distance of 26 km in ESE direction.

Ambient air quality monitoring was carried out at 8 locations during October to December 2018 and the baseline data indicated the ranges of concentration as: PM_{10} (71.80-88.66 µg/m^3), $PM_{2.5}$ (30.41-44.77 µg/m^3), SO_2 (14.25-34.49 µg/m^3), NO_2 (23.00-40.04 µg/m^3), and CO (93.73-154.39 µg/m^3). AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the proposed project would be 0.466 µg/m^3, 1.571 µg/m^3 and 0.119 µg/m^3 with respect to PM_{10}, SO_2 and NO_x. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement will be 137 m^3/day of which fresh water requirement of 71 m^3/day will be met from own Borewell. Effluent of 68.5 m^3/day quantity will be treated through Stripper, Primary, Secondary & Tertiary ETP followed by RO & MEE. Plant will be based on Zero Liquid Discharge system. During initial phase of the project, high concentrated effluent after primary treatment will be sent for Common Spray Drying at Chhatral Enviro Management System Pvt. Ltd. till the effluent quantity reaches 15 m^3/day which is located at about 1 km distance from project site. As the project gradually advances and effluent generation increases beyond 15 m^3/day, unit will switch over to in-house MEE for effluent treatment and Zero Liquid Discharge.

Power requirement will be 625 kVA (550 KW) will be met from Uttar Gujarat Vij Company Ltd. (UGVCL). One DG set of 500 kVA capacity will be used as standby during power failure. Stack (height 11 m) will be provided as per CPCB norms. Multicyclone separator followed by common bag filter with a stack height of 20 m will be installed to 2 TPH capacity of steam boiler and multicyclone separator with a stack height of 15 m will be installed to 1 Lac Kcal/hr capacity thermic fluid heater for controlling the Particulate emission within the statutory limit of 150 mg/Nm^3.

Process emission generation will be in the form of HCl and SO_2 gas from proposed project. Water scrubber followed by two stage alkali scrubbers will be provided for control of HCl and SO_2 emission.

Hazardous waste to be generated from proposed project will be managed as per Hazardous & Other Wastes (Management & Transboundary Movement) Rules, 2016 as follows.

Type of waste	Category	Quantity per Annum	Method of Disposal
ETP Sludge	Sch-I 35.3	60 MT	Collection, Storage, Transportation, Disposal by land filling at TSDF
MEE Salt		780 MT	
Process waste (Inorganic)	Sch-I 29.1	16.5 MT	
Spent Carbon	Sch-I 29.1	32.5 MT	Collection, Storage, Transportation and Disposal co-processing **OR** disposal by incineration at CHWIF
Distillation Residue	Sch-I 36.2	37 MT	
Spent Catalyst (2.5% Pd on Carbon & 5% Ruthenium on Carbon)	Sch-I 29.5	8 MT	Collection, Storage, Decontamination and send back to manufacturer for reactivation
Spent / Mix Solvent	Sch-I 29.4	907 MT	Collection, Storage and In-house recovery by distillation **OR** send for off-site distillation **OR** send to GPCB authorized end-users
Spent Hydrochloric Acid (30%)	Sch-II B15	356 KL	Collection, Storage and sell to GPCB authorized end-users having permission under Rule 9 **OR** send to ETP for further treatment.
Discarded Drums / Bags	Sch-I 33.1	5 MT	Collection, Storage, Decontamination and Disposal by selling to scrap dealers
Spent Oil / Used Oil	Sch-I 5.1	0.5 KL	Collection, Storage, Transportation, sell to registered Re-processor / MoEF&CC approved recyclers **OR** Reuse as Lubricant within premises

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/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 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 is 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 has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, activities proposed in the study area based on the public hearing and socio-economic status of the region and found to be addressing the issues in the study area. The Committee has suggested that the storage of toxic/hazardous raw material shall be bare minimum in quantity and inventory. The Committee has noted that the Industry proposed Rs 2.5 Lakhs towards Conservation Plan.

The Committee noted that the Public hearing conducted by the GPCB on 10/1/2020 was presided over by the Prant Officer and Sub Divisional Magistrate kadi as representative of District Magistrate and District Collector Mehsana. The District Magistrate vide order dated 2/9/2020 has issued an amendment order authorizing the SDM with retrospective effect to appear as ADM, Mehsana for the purpose of said public hearing. The Committee observed that the matter is purely administrative in nature and the Ministry may take a decision on the admissibility of the public hearing as per the provisions of the EIA Notification, 2006.

The Committee noted that the proposal was first considered by the EAC in its meeting held on 13-15 April, 2020, wherein the EAC observed that the fresh water is proposed to be met from ground water source, however the area falls under critical as per the CGWA and orders of Hon'ble NGT. The EAC suggested PP to find out alternate source of fresh water and submit plan to achieve Zero Liquid Discharge and accordingly revise the EIA/EMP Report. In response of the same the PP has informed the EAC in its meeting held during 17-19 August, 2020 that fresh water will be sourced from Gujarat Water Supply & Sewerage Board. The project proponent also confirmed that the plant will be based on Zero Liquid Discharge system. Whereas, now the PP has again proposed for extraction of ground water. The Committee took serious note on the conduct of the PP and desired for stern action against the Consultant for misleading the Committee to recommend the project. The Committee has found the other additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee.

The EAC has deliberated the proposal and has made 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 have found the proposal in order and have 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/explosive 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). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(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). Total fresh water requirement shall not exceed 71 cum/day proposed to be met from Gujarat Water Supply & Sewerage Board. Necessary permission in this regard shall be obtained from the concerned regulatory authority.

(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. 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.

(xv). As proposed, Industry shall allocate Rs.2.5 lakhs towards Conservation Plan for Schedule-I species in consultation with State Forest/Wildlife Department.

(xvi). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the public hearing, socio-economic and environmental issues in the study area, the project proponent shall provide assistance in educational and skill development, health, water and sanitation, infrastructure development in the nearby schools and villages. The action plan shall be completed within five years as proposed. All the commitments made during public hearing shall be satisfactorily implemented.

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

Agenda No. 24.29

Change in product mix of manufacturing drugs and drug intermediates, fermentation based products and custom synthesis of organic compounds both from R & D and pilot plant by M/s Anthem Biosciences Private Ltd located at 49, F1 & F2, Bommasandra Industrial area, phase-1, Bengaluru, Bangalore Urban, Karnataka- Reconsideration of Environment Clearance

[IA/KA/IND2/155602/2013, IA-J-11011/148/2020-IA-II(I)]

The project proponent and their consultant M/s. Environmental Health and Safety Consultants Pvt. Ltd. made a detailed presentation through Video Conferencing (VC) on the salient features of the project.

The proposal was earlier considered by the EAC in its meeting held during 14-16 July, 2020. The additional information desired by the Committee and response from the project proponent is as under:

S. No.	Query Raised in earlier EAC meeting	Query Reply Given by PP	Observation of EAC
1.	The Committee noted that as the project location comes under critically polluted area and PP is not proposing the complete ZLD. PP want to transfer the effluent through tankers.	PP committed to install a ZLD facility within the site. The techno-feasibility of installing a ZLD has been evaluated and the concept layout of the ZLD plant along with the revised water balance chart is submitted. In view of the installation of ZLD at the premises, PP would require to enhance the quantities of Hazardous waste. Additional 2 boilers of capacity 850 kg/hr each is envisaged for the operation of MEE and ATFD for the implementation of ZLD.	The EAC deliberated the matter and found the reply to be satisfactory.
2.	As per provisions of OM dated 31.10.2019 (CPA), the PP should come with the compliances of the said OM.	Status of compliance to O.M dated 31.10.2019 is submitted.	The EAC deliberated the matter and found the reply to be satisfactory.
3.	Committee noted that PP is proposing green belt outside of the unit, As per provisions of OM dated 31 10.2019 (CPA), the PP should come with the 40 % of green belt. The Committee observed that the land area is not enough for proposed expansion, greenbelt and to achieve ZLD.	Currently, 33% of the area has been designated for the green belt activities. Additional 7% of the greenbelt development will be undertaken within the premises. Planed to achieve this by relocating the area earmarked for parking etc. Proposed green belt area of 40% within the site and additional 7% greenbelt development plan is submitted.	The EAC deliberated the matter and found the reply to be satisfactory.

4.	The PP shall first conduct an alternate site analysis or to choose another location for the project as in this small plot such project does not seem feasible.	As recommended by the committee, PP had evaluated feasibility of an alternate site in and around and did not find any vacant site available for sale Moreover, it may be noted that there is hardly any increase in the production capacity and the proposal is only for change in product mix. There is no addition of any new process equipment. Hence, the requirement of an additional site may not be relevant and is not feasible.	The EAC deliberated the matter and found the reply to be satisfactory.

The proposal is for environmental clearance to the project for Change in product mix of manufacturing drugs and drug intermediates, fermentation based products and custom synthesis of organic compounds both from R & D and pilot plant by M/s Anthem Biosciences Private Ltd located at 49, F1 & F2, Bommasandra Industrial area, phase-1, Bengaluru, Bangalore Urban, Karnataka.

The details of products and capacity as under:

S. No	Product Details	Existing Quantity, Kg/month	Proposed Quantity Kg/month	Total Quantity Kg/month
1	Custom synthesis of organic compounds from pilot plant	1000	1560	2560
2	Custom synthesis of organic compounds from R&D	15	35	50
3	Gamma Glutamyl Cysteine	500	-495	5
4	Ibuprofen Piconol	200	-200	0
5	L-Methyl Folate Calcium	50	0	50
6	Levocloperastine Fendizoate	500	-500	0
7	MK-4	25	-20	5
8	Vitamin K2-7 (Menaquinone-7)	10	10	20
9	Phenoxy Benzyl Amine HCl	10	0	10
10	PIMOZIDE	10	0	10
11	Pyridoxal-5-Phosphate(P5P)	500	-400	100
12	Valganciclovir Hydrochloride	100	-50	50
13	Tolcopone	100	-50	50
14	Antabine	150	-150	0
15	PRO Q 10	500	-500	0
16	Resargin	100	-75	25
17	Calcium Folinate	Nil	25	25
18	Ormeloxifene Hydrochloride	Nil	50	50
19	Bempedoic acid	Nil	50	50

20	Pyrroloquinoline Quinone Bis Sodium (PQQ)	Nil	50	50
21	Cabergoline	Nil	5	5
22	Tocotrienol	Nil	50	50
23	Isomyosamine	Nil	25	25
24	Pioglitazone hydrochloride	Nil	100	100
25	EnQ 10	Nil	100	100
26	Maxfol	Nil	25	25
27	S-Equol	Nil	25	25
28	Voglibose	Nil	100	100
29	Pemetrexed disodium heptahydrate	Nil	50	50
30	Bortezomib I. P	Nil	1	1
Fermentation based products				
31	Trastuzumab	Nil	5	5
32	Rituximab	Nil	5	5
33	Adalimumab	Nil	5	5
34	Bevacizumab	Nil	5	5
35	Bacillus Mesentericus	Nil	10	10
36	Bascillus Claussi	Nil	100	100
37	Lactobascillus Acidophillus	Nil	10	10
38	Lactobascillus Rhamnosus	Nil	10	10
39	Bifidobacterium Longum	Nil	10	10
40	Bifidobacterium Bifidum	Nil	10	10
41	Bifidobacterium Lactis	Nil	10	10
	Production capacity (Kgs/month)	**3770**		**3771**
			Production capacity	**3.771 MT/Month**

All 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) are listed in S.N. 5(f) of Schedule of Environment Impact Assessment (EIA) Notification under category 'A' to be appraised at Central level in the Ministry. However, the project is located inside the critically polluted area.

The project proposal was considered by Karnataka State level expert Appraisal Committee in its 219th SEAC meeting held during 27th March 2019 and recommended terms of references (TORs) for the project. The TOR has been issued by Karnataka State Environment Impact Assessment Authority vide letter dated 21.05.2019.

State Environment Impact Assessment Authority – Karnataka had issued EC earlier vide letter dated 03.10.2013 to the existing project "Expansion of the existing R&D unit and production of drugs, dietary supplements & custom synthesis of organic compounds both

from R&D and pilot plant at Plot No. 49, Bommasandra Industrial Area Phase-I, Hosur Road, Bangalore in favour of M/s. Anthem Biosciences Pvt. Ltd.

Certified compliance report obtained from RO, MoEF & CC as per the site visit dated 27.02.2019 reported that, the compliance to the various conditions of Environmental Clearance is Satisfactory.

Total land area is 20,222 sqm, no additional land is required for proposed expansion (Expansion will be within the premises). Industry has already developed greenbelt in an area of 33 % i.e. 6672.68 sqm out of total area 20,222 sqm of the project. 7% additional greenbelt development i.e., 1416 sqm is proposed within the project site in consultation with Forest Department.

The estimated project cost is Rs.69 Crores (for expansion investment is Rs.9 Crores) including existing investment of Rs.60 Crores. For the proposed expansion, total capital cost earmarked towards environmental pollution control measures is Rs.5 Crores and the Recurring cost (operation and maintenance) will be about Rs.70 Lakhs per annum. Total employment will be 1000 nos (Existing-400 nos and Additional 600 nos after the expansion). Industry proposes to allocate Rs.18.00 Lakhs towards Corporate Environmental Responsibility.

Bannerghatta National Park is located at a distance of 9.56 km from project site towards SW direction. Kammasandra Lake is at a distance of 1.25 kms in NE direction.

Ambient air quality monitoring was carried out at 8 locations during March 2019 to May 2019 and submitted baseline data indicates that ranges of concentrations of PM10 (57.9 µg/m3- 91.3 µg/m3), PM2.5 (21.6 µg/m3 – 41.4 µg/m3), SO2 (8.27 µg/m3-20.32 µg/m3) and NO2 (13.91 µg/m3-28 µg/m3) respectively. AAQ modeling study for the point source emissions indicates that the maximum incremental GLC after the proposed project would be 0.087 µg/m3, 8.481 µg/m3 and 16.942 µg/m3 with respect to PM10, SO2 and NO2 respectively. The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement is 207 KLD and of which fresh water requirement of 112 KLD will be met from KIADB and the balance 95 KLD will be recycled. Thus, 46% of the total water will be recycled. Effluent of 112 KLD (Low TDS Effluent -90 KLD & High TDS Effluent - 22KLD) will be treated based on Zero Liquid discharge system. Lean effluent will be treated in 130 KLD ETP followed by RO. RO permeate shall be recycled for utilization in cooling tower, boiler and toilet flush. High TDS effluent will be treated in 25 KLD stripper followed by Multiple Effect Evaporator (MEE) and ATFD.

Power requirement after expansion will be 2980 kVA including existing 1980kVA which will be met from Bangalore Electricity Supply Company Limited (BESCOM). Existing unit has 4 Nos DG set of 2X500 kVA & 2X1010 kVA capacity, No additional DG sets are required. DG sets are used as standby during power failure. Stack (height 7 mt ARL and 22m AGL) provided as per CPCB norms to the existing DG sets.

Existing unit has no boiler but only thermic fluid heaters. In the current proposal 400 Kg/hr, 600 Kg/hr, 4 Nos. x 850Kg/hr PNG+ HSD fired Boilers will be installed. Stack height of 7.5 mt ARL each respectively will be installed for the proposed boilers. Out of 4 nos x 850 kg/hr, 2 nos of 850 kg/hr boiler is required for the operation of stripper and Multiple Effect Evaporator (MEE)

Details of Process emissions generation and its management is given below in table: Existing Emission Details

Sl.No	Description	Chimney height provided above ground level (AGL)/Above roof level (ARL)	Constituents controlled in the emission	Tolerance limits mg/Nm^3	Air pollution control equipment installed
1	DG set of 500 KVA	7 m ARL	SO_2	-	Acoustic enclosure
2	DG set of 500 KVA	7 m ARL	SO_2	-	Acoustic enclosure
3	DG set of 2x1010 KVA	22m AGL each	NO_x	710	Acoustic measures
			NMHC	100	
			PM	75	
			CO	150	
4	Thermic Fluid heaters of 1 Lac Kilo Calories (0.6 TPH)	32 m AGL	PM	150	Chimney
5	Thermic Fluid heaters of 2 Lac Kilo Calories		PM	150	Chimney
6	Fume cupboard-I (R & D)	3m ARL	Acid Mist	35	Scrubber
7	Fume cupboard-II (Pilot plant)	3m ARL	Acid Mist	35	Scrubber
8	Scrubber for Reactors	3m ARL	Acid Mist	35	Scrubber
9	Scrubber for Reactors	3m ARL	Acid Mist	35	Scrubber
10	Scrubber for Reactors	3m ARL	Acid Mist	35	Scrubber
11	Scrubber for Reactors	3m ARL	Acid Mist	35	Scrubber

Proposed Emission Details

Sl.No	Description	Minimum chimney height to be provided Above roof level (ARL)	Constituents to be controlled in the emission	Air pollution control equipment to be installed
1	400 Kg/hr boiler	7.5 m ARL	PM, $SO_{X,}$ NO_X	Adequate Chimney height
2	600 Kg/hr boiler	7.5 m ARL	PM, $SO_{X,}$ NO_X	
3	4 X 850 kg/hr boiler	7.5 m ARL each	PM, $SO_{X,}$ NO_X	
4	Reactor	3 m ARL	Acid Mist	Scrubber
5	Reactor	3 m ARL	Acid Mist	Scrubber
6	Reactor	3 m ARL	Acid Mist	Scrubber
7	Reactor	3 m ARL	Acid Mist	Scrubber

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

Solid Waste Management

Description of waste	Existing Quantity	After Expansion Quantity	Mode of disposal
Domestic solid Waste	3 MT/month	4.5 MT/month	• Dry waste such as used paper, used cartons, wooden waste is handed over to BBMP empanelled organization. • The vegetable (organic) waste is handed over to the piggeries. • STP sludge of 0.73MT/annum will be reused for gardening purpose

Hazardous Waste Management

S. No	Description of the Hazardous waste	Unit of Measurement	Existing Qty. available as per HWM Authorization	Proposed Qty. after expansion	Disposal Mechanism
1	Used Oil/lubricant from DG sets & Machinery	KL/Annum	2	8	To KSPCB authorized incinerator
2	Waste residues containing oil (DG set filters & oil-soaked cotton waste)	MT/Annum	0	1	To KSPCB authorized incinerator
3	Spent Solvents	KL/Annum	673	2600	To KSPCB authorized recycler
4	Distillation Residue	MT/Annum	3.936	4	To KSPCB authorized incinerator
5	Process Residue Waste	MT/Annum	15.2	200	To KSPCB authorized incinerator
6	Spent Catalyst	MT/Annum	0.0012	1	To KSPCB authorized incinerator
7	Off specification products	MT/Annum	0	20	To KSPCB authorized incinerator
8	Spent Carbon	MT/Annum	3.6	20	To KSPCB authorized incinerator
9	Discarded PVC Containers, MS	MT/Annum	1500 Nos/Annum	1500 Nos/Annum	To KSPCB authorized

S. No	Description of the Hazardous waste	Unit of Measurement	Existing Qty. available as per HWM Authorization	Proposed Qty. after expansion	Disposal Mechanism
	Barrels, Glass Bottles, HDPE and PVC Bags			(Discarded containers) + 1500 kg/Annum (HDPE and PVC bags)	recyclers for discarded containers
10	ETP Sludge (chemical sludge from ETP)	MT/Annum	2	1650	To KSPCB authorized landfill
11	Date expired products	MT/Annum	0	5	To KSPCB authorized incinerator
12	Chemical containing residue arising from decontamination	MT/Annum	0	0.5	To KSPCB authorized incinerator
13	Multiple effect Evaporator Salts from ATFD	MT/Annum	0	800	Authorized TSDF /Co Processing

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/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 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 is 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 has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the action plan and CER plan and found to be addressing the issues in the study area. The EAC has deliberated the proposal and has made 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 have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

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) 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.

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

(v) 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 112 KLD, proposed to be met from KIADB. 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.

(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 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.

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

(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.

(xvi) The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. 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.

(xvii) As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide educational assistance to educational institutions, support/award to school children, social welfare/tree plantation in the nearby villages. The action plan shall be completed within five years as proposed. Preference shall be given to local villagers for employment in the unit. Preference shall be given to local villagers for employment in the unit.

(xiii) 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. 24.30

Establishment of 100 KLPD Molasses Based Distillery by M/s Deccan Sugar Private Limited, located at Deorao Patil Nagar, Mangrul, Post Belora, Tal. & Dist. Yavatmal, Maharashtra - Consideration of Environment Clearance [IA/MH/IND2/95900/2019, IA-J-11011/53/2019-IA-II(I)]

The proposal was earlier considered by the EAC in its meeting held during 15-17 September, 2020. The Committee, after detailed deliberations, has decided to defer the proposal and suggested the Consultant to come out with facts and never misguide the PP. EAC also suggested that the proposal of Category B can only be appraised at Central Level when the

tenure of SEIAA expired. The Committee suggested to check the tenure of SEIAA and if expired after this present EAC meeting, may be included in the next agenda.

The project proponent has informed that the tenure of Maharashtra SEAC/SEIAA has completed and requested to consider the proposal at central level.

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

The proposal is for Environmental Clearance (EC) to the project for establishment of 100 KLPD Molasses based distillery at Gat No. 52/1, 53, 54, 55, 58, 61, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 87, 88, 89, 90, 91, 92, 93, 94, 95, 120/1, 121/1, 126, 127, 128, 129, 130, 131, 141, 147 Deorao Patil Nagar Post Belora, Taluka Yavatmal , District Yavatmal, Maharashtra by M/s Deccan Sugar Private Limited(DSPL).

The details of products and capacity are as under:

Industrial Unit	Description	Quantity
Distillery (100 KLPD)	**Product**	
	Rectified Spirit/ Ethanol/ ENA	3,000 KL/M
	Electricity	4 MWH
	By-product	
	Carbon Di-oxide (CO_2) Gas	2,265 MT/M
	Fusel Oil (0.2%)	10 KL/M

The project/activities are covered under category B of item 5 (g) 'Distilleries' of the Schedule to the Environment Impact Assessment Notification, 2006. Due to nonexistence of SEAC/SEIAA at Maharashtra, the project was appraised at central level by the sectoral Expert Appraisal Committee (EAC) in the Ministry.

The Standard ToRs has been issued by Ministry vide letter No. F. No J-11011/53/2019-IA-II (I) dated 12th March, 2019. Public hearing for the project was conducted by the SPCB on 11.12.2019, which was presided over by the Additional District Magistrate. Issues were raised mainly w.r.t effluent generation its management, employment generation, Benefits to farmers and villagers, etc. It was informed thar no litigation is pending against the proposal.

The land area available for the project including the existing sugar unit area is 9,13,000 m^2. Industry has already developed Green Belt in an area of 73,040 M^2 (8% out of total plot area). Moreover, additional Green Belt area of 2,30,247 M^2 (25% out of total plot area will be developed. After establishment of distillery, the total Green Belt area would be 3,03,287 M^2 which accounts for 33 % of total plot area. The estimated proposed project cost is Rs.152 Crores. Total capital cost earmarked towards environmental pollution control measures under distillery is Rs. 40.50 Crores and the Recurring cost (operation and maintenance) will be about Rs. 4.13 Crores per annum. Total Employment under proposed project would be 99 persons as direct as well as indirect after establishment of projects. Industry proposes to allocate Rs.3.80 Crores towards Corporate Environmental Responsibility.

There are no National parks, Wildlife sanctuary, Biosphere Reserves, Tiger/Elephant Reserves, Wildlife Corridors etc. within 10 Km Study Area. Aran River is flowing at a distance of 2.4 Km in NW to SE.

Ambient air quality monitoring was carried out at 8 locations during February – April 2019 and submitted baseline data indicates that ranges of concentrations of PM_{10} (50.00 – 69.70 µg/m^3), $PM_{2.5}$ (14.00 – 24.40 µg/m^3), SO_2 (15.00 – 28.80 µg/m^3) and NO_x (20.00 – 28.50 µg/m^3) respectively. AAQ modeling study for point source emissions indicates that the maximum incremental GLCs after the establishment project would be 1.44 µg/m^3 PM_{10} (towards South East side), 0.358 µg/m^3 $PM_{2.5}$ (towards South East side), 4.02 SO_2 µg/m^3 (towards South East side) and 1.44 µg/m^3 NO_x (towards South East side). The resultant concentrations are within the National Ambient Air Quality Standards (NAAQS).

Total water requirement for Distillery project will be 1415 CMD. Out of which, 618 CMD will fresh water from Goki dam left canal on river Aran while 794 CMD will be CPU treated effluent and 3 CMD will be STP treated effluent to be recycled. The effluent generated from 100 KLPD distillery would be in the form of raw spentwash to the tune of 800 M^3/Day. Here, raw spentwash shall be concentration in Multiple (Five) Effect Evaporator (MEE). Concentrated spentwash to the tune of 160 M^3/Day (1.6 KL/KL of alcohol against norm of 8 KL/KL of alcohol) shall be incinerated in incineration boiler. The project shall achieve ZLD.

Power requirement for proposed distillery will be 2 MW will be procured from incineration boiler turbine. DG set of 625 KVA capacity will be installed as standby during power failure. Stack of height 5 M ARL is provided as per CPCB norms to the DG sets. One 35 TPH boiler will be installed in distillery. Spentwash and coal fired boiler will be installed. ESP with a stack of height of 63 M will be installed for controlling the particulate emissions within the statutory limit of 115 mg/Nm^3 for the proposed boiler.

The CO_2 generation shall take place in fermenters of the distillery. CO_2 to the tune of 76 MT/Day shall be released from 100 KLPD distillery plant. CO_2 shall be bottled and supplied to manufacturers of beverages.

No hazardous waste is generated through proposed Distillery Unit. Details of Solid waste/ Hazardous waste generation and its management.

No.	**Unit**	**Waste Type**	**Quantity (**MT/M)	**Disposal**
1.	Distillery	Yeast Sludge	480	Incinerated in proposed distillery boiler
		CPU sludge	24	
		Boiler Ash	1440	Captive Brick / Cement Industry

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA 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 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 is 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 has found the baseline data and incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan along with activities for addressing the socio-economic issues and found to be addressing the issues in the study area. The Committee noted that the PP proposes to have fresh water requirement at 2.7 KL/KL of alcohol. The Committee also suggested the PP to have captive brick manufacturing unit for effective management and the PP has agreed for the same. The Committee found the additional information submitted by the project proponent to be satisfactory and addressing the issues raised by the Committee.

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). As proposed, total fresh water requirement shall be 618 cum/day, proposed to be met from water supply from Goki dam left canal in Aran river. Prior permission shall be obtained from the concerned regulatory authority in this regard, and renewed from time to time.

(iv). Project Proponent want to install incineration boiler for treatment of spent wash to ensure ZLD. As committed by PP, the spent wash/other concentrates shall be incinerated.

(v). CO_2 generated from the process shall be bottled/made solid ice and utilized/sold to authorized vendors.

(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). Process organic residue and spent carbon, if any, shall be sent to Cement/ other suitable industries for its incinerations/management.

(x). 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.

(xi). The green belt of at least 5-10 m width shall be developed in nearly 33% of the total project area, mainly along the plant periphery. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department. Records of tree canopy shall be monitored through remote sensing map.

(xii). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the public hearing and socio-economic issues in the study area, the project proponent shall provide support for arrangement of drinking water supply infrastructure, afforestation, rural sanitation, drip irrigation, provision of solar street light in the nearby villages. The action plan shall be completed within five years as proposed. All the commitments made during public hearing shall be satisfactorily implemented.

(xiii). As proposed, Industry shall allocate Rs. 0.30 crore towards Conservation Plan for Schedule-I species in consultation with State Forest/Wildlife Department.

(xiv). The project proponent shall ensure rain water harvesting system in the project area and reduce dependency on ground water.

(xv). There shall be adequate space inside the plant premises earmarked for parking of vehicles for raw materials and finished products, and no parking to be allowed outside on public places.

(xvi). Storage of raw materials shall be either stored in silos or in covered areas to prevent dust pollution and other fugitive emissions.

(xvii). 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.

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

Agenda No. 24.31

Augmentation of specialty chemicals from 11,000 to 22,000 TPA within the existing plant at Konnagar, Hooghly District (West Bengal) by M/s Nalco Water India Limited - Reconsideration of Environmental Clearance

[IA/WB/IND2/60903/2016 dated 17 June 2019, J- 11011/360/2016-IA.II(I)]

The proposal was earlier considered by the EAC in its meetings held on 29-31 July 2019 and 11-13 May, 2020. The Committee in the last meeting while recommending the proposal for environmental clearance has observed various deficiencies in documents and information. The Ministry during examination of the proposal has asked the PP to submit the information and desired that the details shall be examined by the EAC.

The project proponent and their consultant made a detailed presentation on the salient features of the project through video conferencing and informed that:

The project was considered during 19th EAC meeting held on 12th May 2020 for Environmental Clearance. After detailed deliberations committee recommended this project subject to submission of below clarifications (ADS):

1. Action plan to meet the norms for 33% greenbelt as per the TOR. Plantation outside the factory premises just to meet the norms shall not serve the purpose.
2. Specific product details in each category, as per the schedule of the EIA notification, 2006.
3. Toxicity details of individual products/chemicals.
4. Action plan for controlling incremental GLC. The reported incremental GLCs due to the proposed project at a higher level need re-verification.;
5. Existing ground water extraction permission, and justification, if not obtained; and
6. Detailed effluent management plan conforming to Zero liquid discharge. Commitment that there shall be no discharge of treated/untreated wastewater from the unit, and thus ensuring Zero liquid discharge.

The proposal was considered by the 17th Expert Appraisal Committee (Industry-2) meeting held during 26st - 29th December, 2016 respectively and issued Terms of Reference (ToR) for the project vide letter F.No. J-11011/360/2016-IA-II (I), dated 28th February, 2017.

The plant was established in the year 1988, obtained industrial license from Department of Industrial Development, New Delhi vide letter no: CIL:215(8B) / Regn. No. 1261(86)/IL/MRTP/SCS, dated 12th September 1988. And also obtained No Objection Certificate (NOC) from West Bengal Pollution Control Board, Calcutta in Environment concerns vide letter no: 565-10/WPB-S (11), dated 7th June, 1988. We do not have any prior EC as plant was established in 1988-89.

The total land available for the existing plant is about 2.02 ha (5.0 acres). The proposed capacity augmentation project is within the premises of existing and operating plant. No additional land acquisition involved.

Industry has already been developed greenbelt @ 0.65 Acre in the existing land & is developing a further green belt @1.5 acre on the external lease land in nearby area of same locality to cover more than 33% green belt.

The estimated cost of the project is about Rs. 10 crores and proposes to spend about Rs 3.25 crore towards environmental protection measures in a phase wise manner with a recurring cost of Rs. 10 lakhs per year.

Total 33 nos. of skilled and unskilled manpower will be employed. No major construction activity involved. Majority of labour will be employed from the nearby villages. Total expenditure in the last three years is about 49.1 lacs towards Corporate Social Responsibility.

There are no national parks, wildlife sanctuaries, biosphere reserves, Tiger/elephant reserves, wildlife corridors within 10 km distance from the project site. Hooghly river is flows at 1.3 km, east from the project site.

Ambient air quality monitoring was carried out at 8 locations during the period of 1st December 2016 to 28th February, 2017. And baseline data indicated the ranges of concentrations as PM_{10} (45.8 $\mu g/m^3$), $PM_{2.5}$ (24.8 $\mu g/m^3$), SO_2 (14.6 $\mu g/m^3$) and NO_2 (18.3 $\mu g/m^3$). Air dispersion modeling studies were conducted considering the emission from point sources (steam generators & DG sets). The predicted incremental Ground Level Concentrations (GLC'S) of PM_{10}, SO_2 & NO_x with control measures were found to be 0.24 $\mu g/m^3$, 0.45 $\mu g/m^3$ and 0.30 $\mu g/m^3$ respectively.

The resultant (baseline + incremental) GLC's of PM_{10}, SO_2 & NO_x after expansion were found to be 46.04 $\mu g/m^3$, 15.05 $\mu g/m^3$ and 18.60 $\mu g/m^3$ respectively. The resultant concentrations are expected to be well within the limits of National Ambient Air Standards (NAAQS).

Water requirement of our existing plant is @ 65 m^3/day out of which @ 45 m^3/day comes from bore well installed within the plant premises and the balance 20 m^3/day comes as recycled water from Effluent treatment plant (ETP) after necessary treatment. For proposed capacity expansion from 11,000 TPA to 22,000 TPA, we need additional water @ 45 m^3/day and the total water requirement will be @110 m^3/day out of which @ 56 m^3/day will come from existing bore well, @ 40 m^3/day will come as recycled water from Effluent treatment plant (ETP) after necessary treatment and remaining @ 14 m^3/day will come from rainwater reuse (Project is under progress).

Commitment to Zero Liquid Discharge:

Proposed investment of about Rs. 2.7 crores for implementation of the concept of Zero Liquid Discharge. We commit that no wastewater (treated/untreated) will be discharged outside the plant. The treated water will be 100% utilised within the plant.

Water Conservation Measures:

Detailed studies have been carried out by M/S Retas Enviro Solutions Private Limited, New Delhi for installation of roof top rainwater collection, storage, and reuse at plant. As per the observations of study approximate water savings will be about 5000 m^3/annum. The project is under progress with an investment @ Rs 55 Lakh – expected to be commissioned in September 2020.

Current effluent generation from our existing plant is @ 37 m^3/day and additional @ 24 m^3/day will be generated from proposed capacity augmentation project. The total effluent (@ 61 m^3/day) will be treated in our existing ETP and treated water will be utilized in the plant operations like our existing practice on the concept of zero liquid discharge to outside water bodies.

The power requirement for the proposed expansion will be about 20,00,000 KWh unit per year which will be sourced from Calcutta Electricity Supply Corporation. To support the safe operations during power failure, 1 no of D.G set (1010 KVA) is also provided.

Management of Process emissions: Our process does not have any by-product for emission. Any vapour from raw materials are completely absorbed in caustic / water scrubbing system. These are very effectively scrubbed in water and alkali scrubbers.

Solid Waste Generation & Management: ETP sludge of 1 ton/month will be generated and disposed to WBPCB authorised dealers (WBWML). General polymeric waste – rinse water for latex polymers – stored in HDPE Tote and disposed to WBPCB authorised dealers (WBWML).

Public Hearing has been conducted by WBSPCB on 09.08.2018 at Konnagar, Hooghly district, West Bengal. And the major issues are related to land, environment management, traffic, employment & CSR activities which has been planned with a time bound action plan.

Obtained No Objection Certificate (NOC) from West Bengal Pollution Control Board, Calcutta in Environmental concerns vide letter no: 565-10/WPB-S (11)/88, dated 7th June, 1988. Renewal of Consent to Operate from West Bengal Pollution Control Board vide letter no: 292/PCB/HGY/R/85-97 dated 27th June 2017.

CER:

As discussed during EAC meeting dated 12th May, 2020, NALCO Water India Limited commits to spend 1 crore INR towards Corporate Environmental Responsibility (CER) spend during execution of capacity expansion project of Konnagar plant, in period 2020-2023. This would be spent broadly under the potential projects in below mentioned areas:

1. Water conservation & clean water for the community
2. Sanitation & hygiene
3. Tree plantations in forest area
4. Solar power/solar lighting system to community.

Litigations: No litigations involved pertaining to project.

The details of products and capacity augmentation:

Sr. No.	Products	Existing as per current CTO		Proposed increase	Total (Existing + Proposed)
		Ton per month (maximum)	Ton per year (maximum), **(##)**	Ton per year	Ton per year
1	Water Treatment Chemicals	600	6600	4400	11000
2	Industrial Additives	250	2750	3750	6500
3	Oil Field Chemical	150	1650	2850	4500
Total		1000	11000	11000	22000

Note: (##) In our all old consent to operate (CTO) till issue dated June 24, 2011 by WBPCB , the volume was mentioned in Ton per year and the total volume was mentioned as 11, 000 Ton per year but in next CTO, dated September 24, 2014 by WBPCB, the volume mentioned in Ton per month instead of Ton per year with some changes of product mix but the yearly maximum volume restricted to 11,000 ton per year only based on old consent and as permitted by ministry of Industries, Govt. of India , dated September 12, 1988 (CIL No. : 215(88) / Regn. No. 1261(86)/IL/MRTP/SCS. In short, the maximum permitted capacity per month is 1000 Ton but maximum permitted capacity per year is limited to 11000 Ton only as per our earlier consent.

1. Water Treatment Chemicals (WTC) in Tons per year.

MIN#	**Product details/ Commercial name**	**Existing capacity of WTC (6600 TPA)**	**Proposed Expansion of WTC (4400 TPA)**	**Total capacity of WTC after expansion (11000 TPA)**	**Category**	**Application**	**Major Component of RMS**
E10M2	88001 / DVS4U032	203	103	305	WTC	Flotation	Oleic Acid Methyl Ester
K14B2	88003	948	648	1597	WTC	Flotation	Oleic Acid Methyl Ester
L95T5	82	46	46	92	WTC	Fuel Treatments	Ammonium Chloride, Vaccum Salt, Sodium Nitrate , Copper Oxychloride, Magnesium

MIN#	Product details/ Commercial name	Existing capacity of WTC (6600 TPA)	Proposed Expansion of WTC (4400 TPA)	Total capacity of WTC after expansion (11000 TPA)	Category	Application	Major Component of RMS
							Carbonate, Magnesium Nitrate Hexahydrate
Q80R7	2580 PULV	30	30	60	WTC	Internal Treatments	Sodium Tri-Polyphosphate , Sodium Lignosulphonate
M13B4	82 PLUS	43	43	86	WTC	Fuel Treatments	Ammonium Chloride , Vaccum Salt , Sodium Nitrate , Magnesium Carbonate , Magnesium Nitrate Hexahydrate
Y87X9	7569 / 6602	148	48	196	WTC	Process Foam Control	Voranol
W78H5	2000 / INTAC LIQ	125	75	200	WTC	Multi functionals; Closed Systems	Water, CAUSTIC SOLUTION , LIGHT SODA ASH , BORAX, SODIUM METASILICATE PENTAHYDRA , CAUSTIC SODA FLAKES ,SODIUM NITRITE , SODIUM NITRATE
Y78U9	356 / 2556	102	52	154	WTC	Condensate Treatments	Water, CYCLOHEXYLAMINE , MORPHOLINE
A00U1	PC-77	70	45	114	WTC	Membrane Treatme	Water , SODIUM METABISULPHITE ANHY , CITRIC

MIN#	Product details/ Commercial name	Existing capacity of WTC (6600 TPA)	Proposed Expansion of WTC (4400 TPA)	Total capacity of WTC after expansion (11000 TPA)	Category	Application	Major Component of RMS
						nt Cleaners	ACID ANHYDROUS , LIQUOR AMMONIA
A00W5	PC-191T	258	58	316	WTC	Membrane Treatment Antiscalants	Water , PTSA SOD SALT
A82E0	2548	133	53	186	WTC	Oxygen Scavenger / Passivation	Sodium Potassium Bi-Sulphite , Water , Copper Sulphate
F78L7	7330 / 2593 / 7647	157	57	214	WTC	Biocontrol; Single Function	Kathone, Water
F78Y6	2584 / 8735	38	38	75	WTC	Boiler pH Adjustments	Caustic Solution , Potassium Hydroxide , Water
G03Q5	22341	53	53	106	WTC	Internal Treatments	Water, SODIUM TRI-POLYPHOSPHATE
K01J2	90001	43	43	86	WTC	Biocontrol; Single Function	Water , BARDAC
L04C0	3DT230	62	62	124	WTC	CW Multifunctionals; Open Systems	Water , Phosphoric Acid , Sulphuric Acid, Tolytrizole , Benzotriazole, Ptsa Sod Salt, Hydrogen Peroxide
M99E1	PC-67	58	58	115	WTC	Membrane Treatme	Water , Sodium Dodecyl Benzene Sulphonate

MIN#	Product details/ Commercial name	Existing capacity of WTC (6600 TPA)	Proposed Expansion of WTC (4400 TPA)	Total capacity of WTC after expansion (11000 TPA)	Category	Application	Major Component of RMS
						nt Cleaners	
N08B2	TRAC109	104	54	158	WTC	Multifunctional; Closed Systems	Water , CAUSTIC SODA FLAKES , BORAX, SODIUM NITRITE , TOLYTRIZOLE
T74A6	2510 / 7320 / PC-11	85	35	121	WTC	Biocontrol; Single Function	Dbnpa, Water, Phosphoric Acid
Z79X8	7408	48	48	96	WTC	WWT Miscellaneous	Water , SODIUM METABISULPHITE ANHY
A82X6	2100	44	44	88	WTC	Multifunctional; Closed Systems	Water, CAUSTIC SODA FLAKES ,SODIUM NITRITE , SODIUM NITRATE
B05T2	3DT120	237	137	374	WTC	Scale; Single Function	Water, High Strength Polymer
D85R3	7308 / 8549	103	43	147	WTC	CW Multifunctional; Open Systems	Water, EONP , EPOXYL
F81E6	1250	14	14	29	WTC	Oxygen Scavenger / Passivation	Water , CARBOHYDRAZIDE
G03C1	PC-391T	52	52	103	WTC	Membrane Treatment Antiscalants	Water , PTSA SOD SALT

MIN#	Product details/ Commercial name	Existing capacity of WTC (6600 TPA)	Proposed Expansion of WTC (4400 TPA)	Total capacity of WTC after expansion (11000 TPA)	Category	Application	Major Component of RMS
H02N0	77393	31	1	31	WTC	Biocontrol; Single Function	Water, GLUCOPON
H11B4	7401	124	74	199	WTC	Scale; Single Function	Solution Polymer, Water
J07D2	5711	273	23	296	WTC	Condensate Treatments	Water , LIQUOR AMMONIA , MONOETHENOLAMINE
J09B0	3DT105	140	60	199	WTC	Corrosion; Single Function	Water , PHOSPHORIC ACID , ZINC OXIDE
P05H8	3DT121	103	103	206	WTC	Scale; Single Function	Water , High Strength Polymer, Ptsa Sod Salt
P91H5	1742	51	51	102	WTC	Internal Treatments	Water , SODIUM TRIPOLYPHOSPHATE, CAUSTIC SOLUTION
Q05H2	3DT129 / 3DT229	165	135	300	WTC	CW Multifunctional; Open Systems	Zinc Chloride, Phosphoric Acid , Ptsa Sod Salt , Water
R-155	R-155 / 8507	390	40	430	WTC	Boiler Miscellaneous	Water , CAUSTIC SODA FLAKES
R-4324	3DT199 / 73199	33	33	66	WTC	Corrosion; Single Function	Water , CAUSTIC SOLUTION , BENZOTRIAZOLE
T84B8	1800	95	45	139	WTC	Condensate Treatments	Water , METHOXYPROPYLAMINE , MONOETHENOLAMINE , CYCLOHEXYLAMINE

MIN#	Product details/ Commercial name	Existing capacity of WTC (6600 TPA)	Proposed Expansion of WTC (4400 TPA)	Total capacity of WTC after expansion (11000 TPA)	Category	Application	Major Component of RMS
V04S0	CB-70	29	29	58	WTC	Biocontrol; Single Function	Water , SODIUM BROMIDE LIQUID , CAUSTIC SOLUTION , SULPHAMIC ACID
W91Q6	8185 / DT-1140	169	69	239	WTC	WWT Coagulation	Solution Polymer , Aluminum Chlorohydrate
X15K1	3DT404	112	32	145	WTC	CW Multifunctional; Open Systems	Water , Caustic Solution , Dicarboxylic Fatty Acid , Benzotriazole 99% , High Strength Polymer , Caustic Solution , Sulphuric Acid
X15Y6	3DT449	56	36	92	WTC	CW Multifunctional; Open Systems	Water , Caustic Solution , Pbtc , High Strength Polymer
D00B6	PC-55	10	10	20	WTC	Membrane Treatment Biocides	Water , SODIUM NITRATE , KATHONE
F79H6	4221 / ELIMINOX / EC1017A	59	59	118	WTC	Oxygen Scavenger / Passivation	Water , CARBOHYDRAZIDE
G03B5	PC-510T	36	36	73	WTC	Membrane Treatment	Water , PBTC , ACRYLIC POLYMER , CAUSTIC SOLUTION

MIN#	Product details/ Commercial name	Existing capacity of WTC (6600 TPA)	Proposed Expansion of WTC (4400 TPA)	Total capacity of WTC after expansion (11000 TPA)	Category	Application	Major Component of RMS
						Antiscalants	
G90X9	8338	197	97	295	WTC	Multifunctionals; Closed Systems	Caustic Solution , Sodium Nitrite , Borax , Sodium Nitrate , Water
L03E8	PC-1020T	109	109	217	WTC	Membrane Treatment Antiscalants	Water , HEDP SOLUTION , CAUSTIC SOLUTION
L04L4	3DT133	15	15	30	WTC	CW Multifunctional; Open Systems	Water , Solution Polymer, High Strength Polymer
M05B5	TRAC108	49	49	98	WTC	Multifunctionals; Closed Systems	Water , CAUSTIC SOLUTION , BORAX , BENZOTRIAZOLE 99% , SODIUM NITRITE
M16B7	3DT437	41	41	81	WTC	Scale; Single Function	High Strength Polymer , Benzotriazole
N02K7	NALPREP IV	7	33	40	WTC	CW Miscellaneous	Water , CAUSTIC SOLUTION , SODIUM HEXAMETAPHOSPHATE
R-2167	1336 / 3DT198	13	38	50	WTC	Corrosion ; Single Function	Water , CAUSTIC SOLUTION , TOLYTRIZOLE
R-811	7396	10	40	50	WTC	Corrosion ; Single Function	Water, TETRA POTASIUM PYRO PHOSPHATE
R07Q3	TRAC107 PLUS	13	35	48	WTC	Multifunctionals;	Water , CAUSTIC SOLUTION ,

MIN#	Product details/ Commercial name	Existing capacity of WTC (6600 TPA)	Proposed Expansion of WTC (4400 TPA)	Total capacity of WTC after expansion (11000 TPA)	Category	Application	Major Component of RMS
						Closed Systems	PTSA SOD SALT , BORAX
S83T1	7357	6	33	40	WTC	Corrosion ; Single Function	Water , SODIUM MOLYBDATE
T84K8	7392	6	34	40	WTC	CW Multifunctionals; Open Systems	Water , CITRIC ACID ANHYDROUS , PHOSPHORIC ACID , ZINC OXIDE , PHOSPHORIC ACID
T99P7	BT-4000	12	38	50	WTC	Internal Treatments	Water , SODIUM TRIPOLYPHOSPHATE, CAUSTIC SOLUTION
Y99D0	CS1	30	30	60	WTC	Scale; Single Function	Water , SODIUM TRIPOLYPHOSPHATE, SODIUM HEXAMETAPHOSPHATE
T76R6	8940	23	23	47	WTC	Industrial Facility Cleaners/ Finishes	Hydrochloric Acid ,Rhodine
T84H1	1700 / EC3243A	21	29	50	WTC	Oxygen Scavenger / Passivation	Water , DIETHYLETHANOLAMINE , ERYTHROBIC ACID
H78T0	7208	28	28	56	WTC	Internal Treatments	Water , CAUSTIC SODA FLAKES , SODIUM TRIPOLYPHOSPHATE
T81W3	74710 / 7342	15	34	50	WTC	Biocontrol; Single Function	Water , SODIUM BROMIDE LIQUID

MIN#	Product details/ Commercial name	Existing capacity of WTC (6600 TPA)	Proposed Expansion of WTC (4400 TPA)	Total capacity of WTC after expansion (11000 TPA)	Category	Application	Major Component of RMS
E03V2	3DT179	2	47	50	WTC	CW Multifunctionals; Open Systems	Solution Polymer , Ptsa Sod Salt , Water
H02X1	3DT184	4	24	29	WTC	Corrosion ; Single Function	Water , PHOSPHORIC ACID
L08X1	1393T	9	39	48	WTC	Scale; Single Function	Hedp Solution , Ptsa Sod Salt
S96D5	BT-3000	6	46	51	WTC	Internal Treatments	Water , SODIUM TRI-POLYPHOSPHATE , CAUSTIC SOLUTION
A81S6	2001 / INTAC CLR	30	30	60	WTC	Cleaners, Solvents, Detergents	Water , CAUSTIC SOLUTION , BORAX, SODIUM NITRITE , TOLYTRIZOLE , THIOGLYCOLIC ACID
K02W1	81612	47	17	63	WTC	Process Miscellaneous	Water, TERRIC G9A6
E02G8	85700	169	89	258	WTC	Process Flocculation	Water , SODIUM HYPOCHLORITE, COPPER SULFATE PENTAHYDRATE , DEXTRAN , CAUSTIC SOLUTION , SULPHURIC ACID
F82N2	8312	21	41	62	WTC	Air Washers /	Water , POTASSIUM HYDROXIDE

MIN#	Product details/ Commercial name	Existing capacity of WTC (6600 TPA)	Proposed Expansion of WTC (4400 TPA)	Total capacity of WTC after expansion (11000 TPA)	Category	Application	Major Component of RMS
						Scrubbers	
K18V2	752SG	18	118	136	WTC	Scale Control / Dispersants	Water , DEXTRAN , SODIUM HYPOCHLORITE, CAUSTIC SOLUTION , SULPHURIC ACID
K18X6	85734HC	97	59	156	WTC	Process Flocculation	Water, Flocculant
E01S7	74824	21	79	100	WTC	Process Biocontrol	Kathone, Water
E09C4	RA-500 / 64575	261	61	322	WTC	Dust Control	White Mineral Oil, Fatty Oil
G09C1	76400	26	46	72	WTC	Process Biocontrol	Dbnpa , Diethylene Glycol
H11C4	60120	135	54	190	WTC	Scale Control / Dispersants	Water ,PVOH , KATHONE
X95E8	2610	19	19	38	WTC	Cleaners, Solvents, Detergents	Water , Formaldehyde, Polymer With Urea , Alkoxylated Fatty Alcohol
T80J2	8252	11	81	92	WTC	Fuel Treatments	Heavy Aromatic Naphtha

MIN#	Product details/ Commercial name	Existing capacity of WTC (6600 TPA)	Proposed Expansion of WTC (4400 TPA)	Total capacity of WTC after expansion (11000 TPA)	Category	Application	Major Component of RMS
T88U1	8315	47	67	114	WTC	Air Washers / Scrubbers	Water , CAUSTIC SODA FLAKES , PBTC

2. Oil Field Chemicals (OFC) in Ton per year.

MIN	Product	Existing capacity of OFC (1650 TPA)	Proposed Expansion of OFC (2850 TPA)	Total capacity of OFC after expansion (4500 TPA)	Product Category	Application	Major Components Of RMS
F85F9	EC1021 A / 5186	55	145	200	OFC	Process Corrosion	Heavy Aromatic Naphtha . Imidazoline
F75J1	5403	89	239	327	OFC	Fuel Corrosion Inhibitors	-
Z98P7	EC3278 A / EC3268 A	94	94	188	OFC	Antifoulants	Heavy Aromatic Naphtha , Methacrylate Copolymer
G97M8	85643	212	412	623	OFC	Crystal growth modifier	Process Oil , Oxo Bottom Alcohol , Tall Oil Fatty Acid
G97R0	85633	416	616	1032	OFC	Crystal growth	Process Oil , Oxo Bottom Alcohol , Tall Oil Fatty Acid

MIN	Product	Existing capacity of OFC (1650 TPA)	Proposed Expansion of OFC (2850 TPA)	Total capacity of OFC after expansion (4500 TPA)	Product Category	Application	Major Components Of RMS
						modifier	
F84P9	EC3019A	5	45	50	OFC	Antifoulants	Heavy Aromatic Naphtha, Hydrotreated Heavy Paraffinic Distillate
F85D3	EC1020A / 5185 / EC1020B	17	33	50	OFC	Process Corrosion	Heavy Aromatic Naphtha, Imidazoline
V96M5	EC9149A	7	93	100	OFC	Process Foam Control	Heavy Aromatic Naphtha, Silicone Fluid
M96D5	EC3214A / EC3296A	5	45	50	OFC	Antifoulants	Heavy Aromatic Naphtha, Polymer Intermediate
N94A3	EC3332A / 71D5PLUS	20	30	50	OFC	Antifoulants	Mineral Seal Oil , Paraffin Wax , Stearic Acid , Ppg-4000 , Gp4dot , Alfol 610afc , Pr-4465 , Low Odour Parafinnic Solv Lops
A00S1	EC3397A / EC3362A	47	97	144	OFC	Antifoulants	Water , Anti-Flocculant (4-Hydroxy-2,2,6,6-Tetramethylpiperidyl-1-Oxyl)
E98J2	EC1405A / EC1485A	4	47	50	OFC	Process Corrosion	Water , METHOXYPROPYLAMINE , MONOETHENOLAMINE

MIN	Product	Existing capacity of OFC (1650 TPA)	Proposed Expansion of OFC (2850 TPA)	Total capacity of OFC after expansion (4500 TPA)	Product Category	Application	Major Components Of RMS
T10U7	88150 / DVS4O010	49	149	198	OFC	Flotation	High Strength Polymer ,Water
C19C2	EC2745A	6	44	50	OFC	Desalting	Poly(Tea) Methyl Chloride Quat, Water
F75S8	EC1007A	5	45	50	OFC	Corrosion Inhibitor	Water , MORPHOLINE
H94H5	EC2040A	24	43	68	OFC	Desalting	Monoethylene Glycol , Water
H94N0	EC3037A EC5205A	4	45	50	OFC	Antifoulants	Low Odour Parafinnic Solv Lops , Phenylene Diamine
M03G4	EC2472A	65	65	130	OFC	Desalting	Heavy Aromatic Naphtha
V92S6	EC3051A / EC3087A / EC3289A	74	74	147	OFC	Antifoulants	Heavy Aromatic Naphtha
E11B3	EC8073A	18	33	50	OFC	Desalting	Heavy Aromatic Naphtha
T82H7	EC1018A / EC1005A / EC8005A	38	61	100	OFC	Process Corrosion	Water , MONOETHENOLAMINE , METHOXYPROPYLAMINE
X12H4	EC2730A	201	200	402	OFC	Desalting	Ethylen Glycol Monobutyl Ether , Lnr Do-decylbenzene sulfonic acid , Water
Z04N5	EC1023N / EC3403A	195	195	390	OFC	Process Corrosion	Heavy Aromatic Naphtha, Alkyl Phosphate

3. Industrial Additives (IA) in Ton per year.

MIN#	Product commercial name	Existing Capacity of IA (2750 TPA)	Proposed Expansion of IA (3750) TPA	Total Capacity of IA after expansion (6500 TPA)	Product Category	Application	Major Component Of RMS
D04C0	D04C0	128	351	480	IA	Product Intermediate	Water, Caustic Solution, Acrylic Acid, Sodium Persulfate
V00S9	3DT180	105	205	310	IA	Corrosion; Single Function	Water , MALEIC ANNHYDRIDE , SODIUM BROMIDE LIQUID, AMMONIUM PER SULPHATE,SODIUM HYPO PHOSPHITE, AMMONIUM PER SULPHATE, CAUSTIC SOLUTION
A82J3	2225 / 625 / 7763 / 85810 / 8873 / DV115/3616	107	143	250	IA	WWT Flocculation	Water , LIQUID ACRYLAMIDE , ACRYLIC ACID , CAUSTIC SOLUTION, LOW ODOUR PARAFINNIC SOLV LOPS, VAZO
D95Q5	2495	195	255	450	IA	WWT Coagulation	Water, CAUSTIC SOLUTION , ACRYLIC ACID, SODIUM FORMATE,
P05Y9	82220 / 82250 / 82296	211	291	501	IA	Process Flocculation	Water, CAUSTIC SOLUTION , ACRYLIC ACID , LIQUID

MIN#	Product commercial name	Existing Capacity of IA (2750 TPA)	Proposed Expansion of IA (3750) TPA	Total Capacity of IA after expansion (6500 TPA)	Product Category	Application	Major Component Of RMS
							ACRYLAMIDE, SODIUM FORMATE, LOW ODOUR PARAFINNIC SOLV LOPS , VAZO
B05B1	82230 / 82258	277	277	555	IA	Process Flocculation	Water, LIQUID ACRYLAMIDE , CAUSTIC SOLUTION , ACRYLIC ACID , SODIUM FORMATE , LOW ODOUR PARAFINNIC SOLV LOPS , VAZO
B07M4	847 / DVS4F043	12	57	70	IA	Functional RDF Chemistries	Water, LIQUID ACRYLAMIDE , HYDROCHLORIC ACID,AMMONIUM PER SULPHATE, SODIUM BI SULPHITE, OXALIC ACID
J04F3	85252RRA	251	349	600	IA	Process Flocculation	Water, Acrylic Acid , Liquor Ammonia , Liquid Acrylamide, Low Odour Parafinnic Solv Lops ,Oelic Acid ,Catalyst , Sodium Hypo Phosphite ,Ammonium Thiocyanate
M92D3	9779 / 85110	677	1077	1753	IA	Process Flocculation	Water , ACRYLIC ACID , LIQUOR AMMONIA , LOW

MIN#	Product commercial name	Existing Capacity of IA (2750 TPA)	Proposed Expansion of IA (3750) TPA	Total Capacity of IA after expansion (6500 TPA)	Product Category	Application	Major Component Of RMS
							ODOUR PARAFINNIC SOLV LOPS , OELIC ACID , VAZO, AMMONIUM THIOCYANATE
F83E4	7530 / 7128/ 04IND004 / 04IND005	28	122	150	IA	Process Flocculation	Water, LIQUID ACRYLAMIDE , ADIPIC ACID , SODIUM FORMATE ,SODIUM CHLORIDE , CAUSTIC SOLUTION , LOW ODOUR PARAFINNIC SOLV LOPS , VAZO
S00U0	01PF067 / 61720 / 82254 / 71305	39	112	150	IA	Process Flocculation	Liquid Acrylamide , Water , Adipic Acid , Sodium Chloride , Caustic Solution , Sulphuric Acid 98% , Low Odour Parafinnic Solv Lops , Vazo
Y99D1	CATFLOC T / 8102 PLUS	91	61	152	IA	WWT Coagulation	Water, AMMONIUM PER SULPHATE , CAUSTIC SOLUTION
T74F5	7607 , 7733 , 8100	251	171	423	IA	WWT Coagulation	Water ,LIQUOR AMMONIA , DIMETHYL AMINE, EPICHLOROHYDRINE , CAUSTIC

MIN#	Product commercial name	Existing Capacity of IA (2750 TPA)	Proposed Expansion of IA (3750) TPA	Total Capacity of IA after expansion (6500 TPA)	Product Category	Application	Major Component Of RMS
							SOLUTION , HYDROCHLORIC ACID
T76Q3	8105 / 7655	378	279	657	IA	Process Coagulation	Water , DIMETHYL AMINE, EPICHLOROHYDRINE , CAUSTIC SOLUTION , HYDROCHLORIC ACID

Product expansion summary:

Product Category	Existing capacity , TPA	Proposed capacity for expansion, TPA	Total capacity after expansion, TPA
Water treatment chemicals (WTC)	6600	4400	11000
Oil field Chemicals (OFC)	1650	2850	4500
Industrial additives (IA)	2750	3750	6500
Total	11000	11000	22000

The EAC, constituted under the provision of the EIA Notification, 2006 and comprising of Experts Members/domain experts in various fields, have examined the proposal submitted by the Project Proponent in desired form along with EIA/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 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 is 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 has found the baseline data and

incremental GLC due to the proposed project within NAAQ standards. The Committee has also deliberated on the public hearing issues, action plan and CER plan and found to be addressing the issues in the study area and the issues raised during the public hearing. Additional information submitted by the project proponent to be satisfactory and addressing the concerns of the Committee.

The EAC has deliberated the proposal and has made 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 have found the proposal in order and have recommended for grant of Environmental Clearance (EC).

The EAC, after detailed deliberations, **recommended** the project for grant of environmental clearance subject to submission of name of products, 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/explosive 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). Implementation of outcome of Process safety and risk assessment studies which carried out by using advanced models, and the mitigating measures shall be undertaken/implemented accordingly.

(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 99.997% with effective chillers/modern technology.

(xi). Total fresh water requirement shall not exceed 56 cum/day, proposed to be met from ground water. Prior permission in this regard shall be obtained from the concerned regulatory authority/CGWA.

(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, in downward wind direction, and along road sides etc. As proposed, the greenbelt can be developed in the additional acquired area. Selection of plant species shall be as per the CPCB guidelines in consultation with the State Forest Department.

(xv). As per the Ministry's OM dated 30.09.2020 superseding the OM dated 01.05.2018 regarding the Corporate Environmental Responsibility, and as per the action plan proposed by the project proponent to address the public hearing, socio-economic and environmental issues in the study area, the project proponent, as committed, shall provide assistance (Water conservation & Clean water for the community, Sanitation & Hygiene, Tree plantations in forest area, Solar power / solar lighting system to community) and other issues raised during public consultation/hearing and requirement of local authorities. Preference shall be given to local villagers for employment in the unit. The action plan shall be completed within three years as

proposed. All the commitments made during public hearing shall be satisfactorily implemented.

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

Agenda No. 24.32 : Any other Items with permission of the Chair

Agenda No. 24.32 .1

Expansion of sugar cane crushing capacity (10000 TCD to 20000 TCD), Co-generation Power Plant (44 to 75 MW), Scrapping of 30 KLPD Distillery Unit and Setting up of a new Distillery unit of 155 KLPD in the existing premises at Village Ugar khurd, Taluk Athani, District Belgaum (Karnataka) by M/s The Ugar Sugar Works Ltd - Amendment in EC

[IA/KA/IND2/109487/2019, J-11011/315/2012-IA.II (I)]

The proposal for amendment in the Environmental Clearance granted by the Ministry vide letter dated 15th June, 2017 to the project for Expansion of sugar cane crushing capacity (10000 TCD to 20000 TCD), Co- generation Power Plant (44 to 75 MW), Scrapping of 30 KLPD Distillery Unit and Setting up of a new Distillery unit of 155 KLPD in the existing premises at Village Ugar khurd, Taluk Athani, District Belgaum, Karnataka in favour of M/s The Ugar Sugar Works Ltd, was earlier considered by the EAC (Industry-2) in its meeting held during 14-16 July, 2020 in the Ministry.

The project proponent has requested for amendment in the EC in respect of spent wash treatment and disposal by allowing concentration followed by drying to make spent wash powder in place of concentration followed by incineration. The Committee, after detailed deliberations and justifications submitted by the project proponent has recommended for amendment in the EC.

During examination of the proposal in the Ministry, it was desired to know the justification for permitting drying. Accordingly, the proposal is placed before the Committee now. The Committee during deliberations noted the detailed justification submitted by the PP as under:

The Ministry vide letter dated 15th June, 2017 has granted EC to the project for Expansion of sugar cane crushing capacity (10000 TCD to 20000 TCD), Co- generation Power Plant (44 to 75 MW), Scrapping of 30 KLPD Distillery Unit and Setting up of a new Distillery unit of 155 KLPD in the existing premises at Village Ugar khurd, Taluk Athani, District Belgaum, Karnataka in favour of M/s The Ugar Sugar Works Ltd.

As per the said EC, it was suggested to have spent wash treatment through concentration followed by incineration to achieve ZLD.

The methodology in the existing distillery is spentwash bio-metahanation, concentration in MEE and then drying to make powder. However, in light of high cost of incineration boiler & benefits experienced by PP in the powder making; it was decided to go for spentwash powder making under expansion also.

In the existing unit, Molasses (by-product of Sugar Factory) is used as a Raw Material & Spentwash (solids @ 10-12%) is generated. The solids not being easily settable & removable and due to their high organic contents (65-70%); in most distilleries, spentwash was initially used in making bio-compost along with pressmud (another by-product of sugar factory) thereby eventually forming compost (75-80% solids). Thus, a ZLD could be achieved.

However, it takes 8 to 10 weeks to complete the bio-composting process in which handling; storage; spraying of spentwash during composting involved critical & skillful operations. They were not possible at all sites with efficient process & dedicated results delivered. Due to low pH, high organic contents and very high volumes of spentwash (8 KL/KL of Alcohol); molasses distilleries have always faced problems in the spentwash management.

In recent days with advancement of technologies; efficient, effective and faster spentwash treatment & disposal methodologies have been introduced. The same contemplating - (1) incineration, and (2) concentration followed by drying (for powder making) - can destroy the spentwash in 4 to 5 hours thereby converting it in to inert ash (12% solids) or organic and N, P & K rich powder (95-98% solids).

In the proposed project, the spentwash shall be eventually converted in to dry powder (95-98% solids). This shall be achieved by installing 5 Effect MEE, Spray Dryer and CPU for condensate treatment and its full recycle. In Molasses Distillery; formation of Spentwash Powder results in to ZLD with 100% recycle of condensate from the MEE. Under spentwash powder making; the fresh water consumption shall come down to 2 to 3 lit/ lit of Alcohol (norm 10 KL/KL) due to extraction of moisture from spentwash and its recycle. This is essentially a breakthrough in spentwash treatment & disposal economics with quicker paybacks for costs of equipment & machinery involved.

For the new MEE & Spray Dryer infrastructure; the Industry shall invest about Rs.7.5 Cr. Steam requirement @ 10 TPH & Power @ 1100 KW.

Process : Raw Spentwash (10 to 12% Solids) – Bio-methanation – Storage in 5 Days' Tank – Concentration in MEE (30 to 40% Solids) – Drying of Concentrated Spentwash in Spray Dryer – Spentwash Powder (95 to 98% Solids) as Manure / Pelletilization / Cement Plants. This Powder has good organic content hence could be used as manure (value addition). As a result of high organics; Calorific Value is also good & thus it can support combustion. Good shelf life (1 Year). Can be applied to farms in precise dosages. Spentwash Powder is an excellent Fertilizer with 15-17% Potash & more than 20% Organic Carbon. Govt. of India has recognized this as a Fertilizer under Fertilizer Control order.

The Committee during deliberations noted that the project is achieving Zero Liquid Discharge System through treatment of spentwash in MEE and drying concentrated spentwash in Spray Dryer to make spentwash Powder (95 to 98% Solids) to utilize it as Manure / Pelletilization/ Cement Plants. This method, in turn utilize the spentwash/effluent to produce value added product, in place of completing burning in the incineration. The Committee also observed that the Spentwash concentration & drying involves low CAPEX & OPEX as compared to Incineration Infrastructure.

The Committee after detailed deliberations reiterated its ***recommendation*** *for treatment of spentwash in spray dryer to achieve Zero Liquid Discharge system in the unit and amendment in the EC dated 15th June, 2017 accordingly.*

Agenda No. 24.32 .2

Applicability of provisions of EIA Notification, 2006 on proposed unit of M/s Datta Chemicals located at G-231, RIICO Industrial Area, Karoli, Bhiwadi, District Alwar, Rajasthan - Clarification regarding

The Member Secretary informed to the Committee that Policy Division of IA Sector has forwarded the request of Member Secretary, Rajasthan State Pollution Control Board (RSPCB) on 07.10.2020 for deliberation with EAC (Industry 2) regarding the applicability of EC for Fractional Distillation Unit as tenure of Policy Committee has expired.

M/s Datta Chemicals proposed to setup a plant for recovery of different grades of pentane through fractional distillation process. M/s Datta Chemicals has claimed that fractional distillation process does not under the ambit of EIA Notification, 2006.

The EAC has deliberated on the proposal. The Committee, considering the information provided by the SPCB, has opined that ***fractional distillation unit does not require EC as per the provisions contained in the EIA Notification, 2006 as there is no chemical reactions involved in the process.***

The meeting ended with thanks to the Chair.

*****

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

(iii) 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).

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

(v) 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.

(vi) 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.

(vii) 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 (both in hard copies as well as by e-mail) 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.

(viii) 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.

(ix) 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.

(x) 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.

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

***

Annexure-I

List of the Expert Appraisal Committee (Industry-2) members participated during Video Conferencing (VC) meeting

S. No.	Name and Address	Designation
1.	Dr. J. P. Gupta	Chairman
2.	Shri R. K. Singh	Member
3.	Shri Ashok Agarwal	Member
4.	Shri S.C. Mann	Member
5.	Dr. Y.V. Rami Reddy	Member
6.	Dr. T. K. Joshi	Member
7.	Dr. J. S. Sharma	Member
8.	Dr. Saloni Goel	Member
9.	Dr. T. Indrasena Reddy	Member
10.	Dr. Uma Kapoor	Member
11.	Shri Dinabandhu Gouda, CPCB	Member
12.	Sh. Sanjay Bist, IMD	Member
13.	Dr. R. B. Lal, Scientist 'E'/Additional Director, MoEFCC	Member Secretary
MoEFCC		
14.	Dr. E.P. Nobi	Research Officer
15.	Mr Ritin Raj	Research Assistant
16.	Mr Kanika Teja	Research Assistant

*****

Annexure-II

Approval of EAC Chairman

Re: Zero Draft Minutes of the 24th EAC (Industry 2 Chemical Sector) meeting held during October 20-22, 2020

From : jpglobalconsultinggroup@gmail.com Thu, Oct 29, 2020 03:18 PM

Subject : Re: Zero Draft Minutes of the 24th EAC (Industry 2 Chemical Sector) meeting held during October 20-22, 2020

To : Additional Director MoEFCC Dr R B LAL <rb.lal@nic.in>

Dear Dr R B Lal,
The minutes stand approved.

With Kindest Regards,
Dr J P Gupta

***