

Minutes of the 585th meeting of the State Level Expert Appraisal Committee (SEAC) held on 21/01/2020 at Committee Room, Gujarat Pollution Control Board, Sector 10A, Gandhinagar.

The 585th meeting of the State Level Expert Appraisal Committee (SEAC) was held on 21st January 2020 at Committee Room, Gujarat Pollution Control Board, Sector 10A, Gandhinagar. Following members attended the meeting:

1. Dr. Dinesh Misra, Chairman, SEAC
2. Shri S. C. Srivastav, Vice Chairman, SEAC
3. Shri V. N. Patel, Member, SEAC
4. Shri A. K. Muley, Member, SEAC

The regular agenda of Appraisal, Screening & Scoping/ ToR – Reconsideration, EC – Amendment, EC – Validity Extension cases were taken up. The Committee considered the applications made by project proponents, additional details submitted as required by the SEAC/SEIAA and details furnished in the Form-1, PFR, EIA-EMP reports.

	Proposal No.	Name and Address of the Unit	Remarks
1	SIA/GJ/IND2/125337/2019	M/s. Coper Co-operative Sugar Ltd. (CCSL) Survey No. 574, 575, 576, 579, 580, 583, 164-174, 179, 180 at Post Golan – Dadariya, Ta. Valod, Dist. Tapi	Appraisal

Category of the unit : 5(g)

Project status: New

- Project proponent (PP) has submitted online application vide no. SIA/GJ/IND2/125337/2019 on dated 01/01/2020 for obtaining Environmental Clearance.
- The MoEF&CC had issued TOR to PP vide their letter dated 12/04/2019.
- Public Hearing of the Project was carried out by Gujarat Pollution Control Board on 13/09/2019 at Project Site of **M/s. M/s. Coper Co-operative Sugar Ltd. (CCSL)**, Survey No. 574, 575, 576, 579, 580, 583, 164-174, 179, 180 Village: Golan – Dadariya, Ta. Valod, Dist. Tapi.
- Project proponent has submitted EIA Report prepared by M/s. En-Vision Enviro technologies Pvt Ltd based on the TOR issued by MoEF&CC.
- This is new unit proposes for manufacturing of Molasses based Distillery with Co-generation Power Plant as tabulated below:

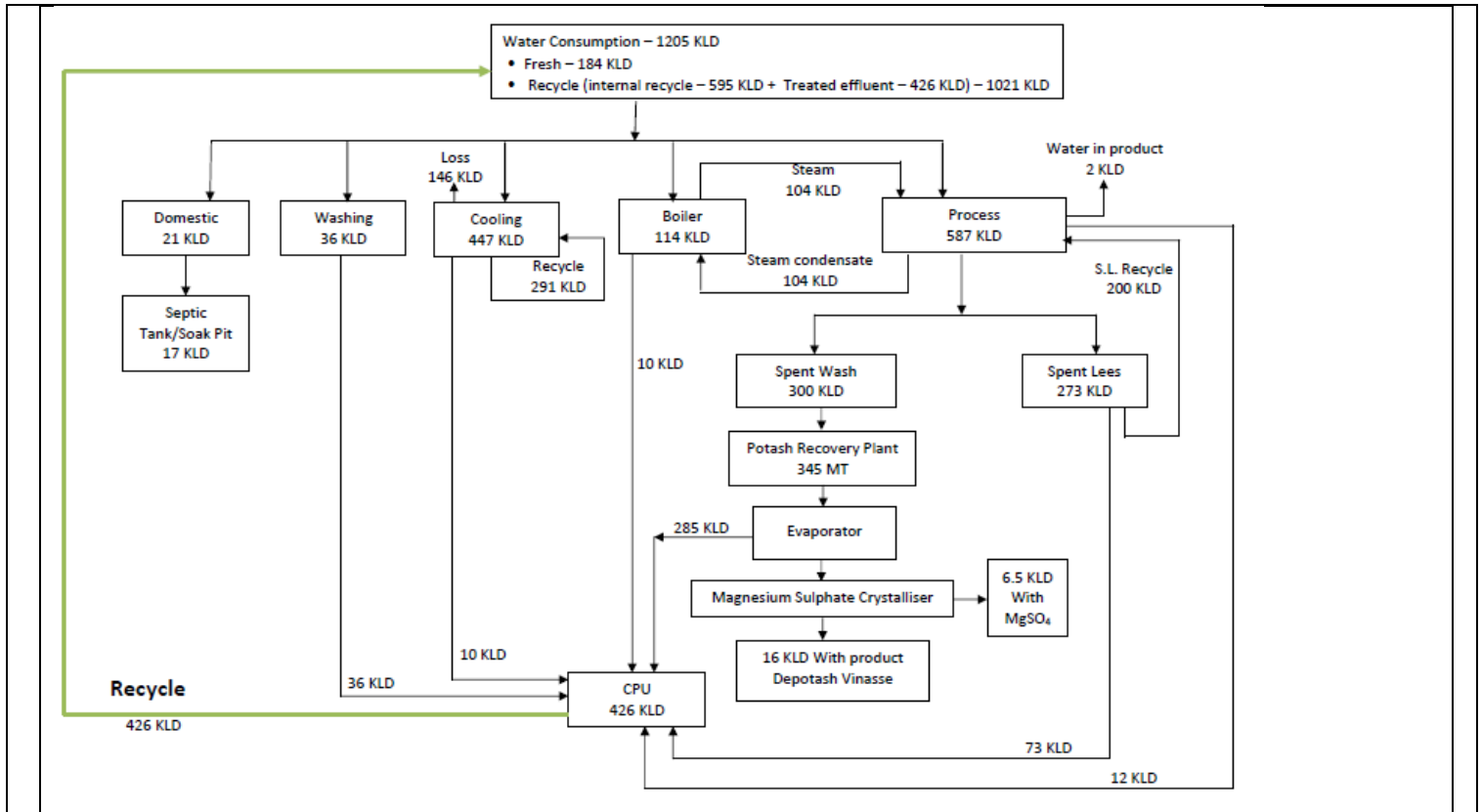
Sr. No.	Name of the Products	CAS no. /CI no.	Quantity KLPD	End-use of products
A	Product			
1	Rectified Spirit (RS) Or		30.00 KLPD	Industrial use
	Fuel Ethanol Or	64-17-5	28.57 KLPD	Blending with petrol/ Industrial use
	Anhydrous Alcohol	64-17-5	28.59 KLPD	Pharma Alcohol/Industrial Alcohols
2	Head Spirit (Impure Spirit)	--	1.5 KLPD	Industrial use as fuel or recycle for further purification
3	Fusel Oil	8013-75-0	0.086 KLPD	Industrial use as fuel
4	Depotashed Vinasse	--	40 MTPD	Cattle feed binder
5	Potassium Nitrate (KNO ₃)	7757-79-1	6.8 MTPD	<ul style="list-style-type: none"> • Fertilizer • Explosive • Propellant • Chemical
6	Magnesium Sulphate (MgSO ₄)	7487-88-9	13.6 MTPD	Fertilizer & Chemical
B	Cogeneration Power Plant	--	1 MW	--

- As per MoEF&CC's Notification issued vide S.O. 1960(E) dated 13/06/2019 all the Molasses based distilleries ≤ 100 KLD is treated as "Category B" project.
- The project falls under Category B of project activity 5(g) as per the schedule of EIA Notification 2006.
- PP was called for presentation in the SEAC meeting dated 21/01/2020.
- Salient features of the project are as under:

Sr. no.	Particulars	Details
A		
A	Total cost of Proposed Project (Rs. in Crores):	50.1057 Crores
	Details of EMP	1290.00 lacs
	Details of CER as per OM dated 01/05/2018	100.21 Lacs
B		
	Total Plot area (sq. meter)	25635 Sq. m.
	Green belt area (sq. meter)	1,68,500 Sq. m. of total CCSL premises
C		
	Employment generation	83 Nos.
D		
	Water	
i	Source of Water Supply (GIDC Bore well, Surface water, Tanker supply etc...)	Rain water Harvesting and/or Bore well

	Status of permission from the concern authority.	CGWA application has been done on 02/05/2019.																											
ii	Water consumption (KLD)																												
	<table border="1"> <thead> <tr> <th>Category</th> <th>Quantity KLD</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>(A) Domestic</td> <td>21</td> <td>Fresh water</td> </tr> <tr> <td>(B) Gardening</td> <td>0</td> <td>-</td> </tr> <tr> <td>(C) Industrial</td> <td></td> <td></td> </tr> <tr> <td>Process</td> <td>587</td> <td rowspan="5">Recycled and Fresh water</td> </tr> <tr> <td>Boiler</td> <td>114</td> </tr> <tr> <td>Cooling</td> <td>447</td> </tr> <tr> <td>Washing</td> <td>36</td> </tr> <tr> <td>Industrial Total</td> <td>1184</td> <td>--</td> </tr> <tr> <td>Total (A + B + C)</td> <td>1205</td> <td>--</td> </tr> </tbody> </table> <p>1) Total water requirement for the project: 1205 KLD</p> <p>2) Quantity to be recycled: 1021 KLD (CPU Treated – 426 KLD and internal – 595 KLD)</p> <p>3) Total fresh water requirement: 184 KLD</p> <p>(Total water requirement = Fresh water + Recycled water)</p>		Category	Quantity KLD	Remarks	(A) Domestic	21	Fresh water	(B) Gardening	0	-	(C) Industrial			Process	587	Recycled and Fresh water	Boiler	114	Cooling	447	Washing	36	Industrial Total	1184	--	Total (A + B + C)	1205	--
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iv	<p>Treatment facility within premises with capacity</p> <p>[In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc.]</p> <ul style="list-style-type: none"> ➤ Spent wash from process will be treated in evaporator after Potash recovery. ➤ Utility blow down; spent lees and washing waste water along with Condensate from evaporator 																												

	<p>will be treated in Condensate Polishing Unit (CPU).</p> <ul style="list-style-type: none"> ➤ In-house CPU (Primary, Secondary, Tertiary) having capacity 426 KLD will be installed for treatment of effluent. 				
	<p>Treatment scheme including segregation at source.</p> <ul style="list-style-type: none"> ➤ Stream segregation at source. ➤ Two stream of effluent i.e. 1) spent wash and 2) utility blow down; spent lees and washing. ➤ Utility blow down; spent lees and washing waste water will be treated in CPU. ➤ Spent wash from process will be treated in evaporator after Potash recovery. ➤ Condensate stream from evaporator of potash recovery plant will be further treated in CPU. ➤ Treated water (426 KLD) will be reuse in process. ➤ There will not be any discharge from plant; hence unit is Zero Liquid Discharge (ZLD). 				
	<p><u>Note: (In case of CETP discharge) :</u></p> <p>Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP .</p> <ul style="list-style-type: none"> ➤ Not Applicable 				
	<p><u>Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):</u></p> <ul style="list-style-type: none"> ➤ Stream segregation at source. ➤ Two stream of effluent i.e. 1) spent wash and 2) utility blow down; spent lees and washing. ➤ Effluent (426 KLD) will be treated in CPU (Primary, Secondary, Tertiary treatment) having capacity 426 KLD. ➤ Treated water (426 KLD) will be reuse hence; no water will be discharge outside the premises. 				
v	<p>Mode of Disposal & Final meeting point</p> <table border="1" style="width: 100%;"> <tr> <td style="width: 30%;">Domestic:</td> <td>Treated in septic tank/soak pit</td> </tr> <tr> <td>Industrial:</td> <td> <ul style="list-style-type: none"> ➤ Spent wash from process will be treated in evaporator after Potash recovery. ➤ Utility blow down; spent lees and washing waste water along with condensate from evaporator will be treated in CPU. </td> </tr> </table>	Domestic:	Treated in septic tank/soak pit	Industrial:	<ul style="list-style-type: none"> ➤ Spent wash from process will be treated in evaporator after Potash recovery. ➤ Utility blow down; spent lees and washing waste water along with condensate from evaporator will be treated in CPU.
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vi	<p>In case of Common facility (CF) like CETP, Common Spray dryer, Common MEE etc. Name of CF</p> <ul style="list-style-type: none"> ➤ Not Applicable <p>Membership of Common facility (CF)</p> <p>(For waste water treatment)</p> <p>Not Applicable</p>				
vii	<p>Simplified water balance diagram with reuse / recycle of waste water</p>				



viii Reuse/Recycle details (KLD)

Total reuse 426 KLD

Source of waste water for reuse with quantity in KLD (From where it is coming)	Application area with quantity in KLD (Where it is used)	Characteristics of waste water to be reused (COD, BOD, TDS etc.)	Remarks regarding feasibility to reuse i.e.
<ul style="list-style-type: none"> • Treated effluent - 426 KLD • Internal Recycle - 595 KLD 	<ul style="list-style-type: none"> • Process – 255 KLD • Washing – 15 KLD • Cooling – 156 KLD 	<ul style="list-style-type: none"> • COD – 100 mg/L • BOD – 30 mg/L • TDS – 1200 mg/L 	--

E Air

i Flue gas emission details
No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc.

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Steam Boiler (10 TPH)	45	Bagasse	120 MTPD	PM, SO ₂ , NO _x	ESP and Wet scrubber

	-																		
ii	Process gas emission details i.e. Type of pollutant gases (SO ₂ , HCl, NH ₃ , Cl ₂ , NO _x etc.) Not Applicable																		
	-																		
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1	Fermenters	CO ₂	11 m	Water Scrubber															
	-																		
	During fermentation process CO ₂ gas will be generated which will be clean through water scrubber and release through vent of 10 m height.																		
iii	Fugitive emission details with its mitigation measures: As below:																		
	<ul style="list-style-type: none"> - Raw Materials & products will be stored in designated storage area and under good storage conditions to prevent any volatilities. - Good housekeeping will be maintained in the plant. - The fugitive emissions in terms of handling losses will get reduced by proper storage and handling. - Regular monitoring of piping and fittings for checking of any leakages will be done. - Water shall be sprinkled on fly ash storage area. - Safety devices shall be provided to workers - Regular monitoring in work zone. 																		
F	Hazardous wastes (as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.																		
i	<table border="1"> <thead> <tr> <th>Sr. no.</th> <th>Type/Name of Hazardous waste</th> <th>Specific Source of generation (Name of the Activity, Product etc.)</th> <th>Category and Schedule as per HW Rules.</th> <th>Quantity (MT/Annum)</th> <th>Management of HW</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Used/ Spent Oil</td> <td>Utility</td> <td>5.1</td> <td>0.50</td> <td>Collection Storage, Transportation and disposal by sold out to registered recyclers or used for lubrication</td> </tr> <tr> <td>2</td> <td>Discarded containers/ barrels</td> <td>RM handling</td> <td>33.1</td> <td>5 nos.</td> <td>Collection, Storage, Transportation and Disposal by sold out to decontamination facility or send back to suppliers</td> </tr> </tbody> </table>	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/Annum)	Management of HW	1	Used/ Spent Oil	Utility	5.1	0.50	Collection Storage, Transportation and disposal by sold out to registered recyclers or used for lubrication	2	Discarded containers/ barrels	RM handling	33.1	5 nos.	Collection, Storage, Transportation and Disposal by sold out to decontamination facility or send back to suppliers
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	-																		

ii	Membership details of TSDf, CHWIF etc. (For HW management)	Not Applicable									
iii	Details of Non-Hazardous waste & its disposal (MSW and others)	<ul style="list-style-type: none"> • Fly ash – 243 MTPA from boiler operation will be sold to brick manufacturer • Packing material – 0.06 MTPA from raw material handling will be sold to approved scrap vendor • ETP Sludge – 9 MTPA from CPU - Treatment facility will be used as manure within premises 									
G	Solvent management, VOC emissions etc. Not Applicable										
i	Types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc. (Details in Table Format)										
	Not Applicable										
ii	VOC emission sources and its mitigation measures										
	<ul style="list-style-type: none"> • VOC emission in product storage area will be expected during handling and storage. Storage tank with adequate safety valves will be provided to avoid any leakages. Regular work place monitoring will be carried out as per requirement. 										
H	<p>➤ Details regarding storage of Hazardous chemicals</p> <table border="1"> <thead> <tr> <th>Storage details</th> <th>Name of major Hazardous chemicals</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>Storage tanks</td> <td>Ethanol Rectified Sprit Sulphuric Acid Nitric Acid</td> <td>--</td> </tr> <tr> <td>Drum/Barrel storage</td> <td>-</td> <td></td> </tr> </tbody> </table> <p>➤ Applicability of PESO : Applicable</p> <p>➤ PESO will be obtain after EC.</p>		Storage details	Name of major Hazardous chemicals	Remarks	Storage tanks	Ethanol Rectified Sprit Sulphuric Acid Nitric Acid	--	Drum/Barrel storage	-	
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Storage tanks	Ethanol Rectified Sprit Sulphuric Acid Nitric Acid	--									
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	<ul style="list-style-type: none"> • During the meeting dated 21/01/2020, technical presentation made by project proponent. • The baseline environmental quality has been assessed for various components of the environment viz. air, noise, water, biological and socioeconomic aspect. The baseline environmental study has been conducted for the study area of 10 km radial distance from project site for the March to May 2019. Ambient Air Quality monitoring was carried out for PM2.5, PM10, SO2, NO2, CO, VOC, Total HC – Methane, Total HC – Non – Methane at eight locations, including the project site. Values conform to the prescribed standards for Ambient Air Quality. The incremental Ground Level Concentration (GLC) has been computed using AERMOD. The resultant concentrations are within the NAAQS. • Risk assessment including prediction of the worst-case scenario and maximum credible accident scenarios has been carried out. The detail proposed safeguard measures including On-Site / Off-Site Emergency Plan has been covered in the RA report. • Committee noted that this proposal is for new project of Molasses based Distillery in Village: Golan – Dadariya. 										

- Committee asked to PP to explain in detail the manufacturing process involved along with its flow sheet and the source of waste generation. PP mentioned that in the whole process there is no generation of waste due to adoption of new technology for spent wash treatment by Council of Scientific and Industrial Research (CSIR), New Delhi & Central Salt and Marine Chemicals Research Institute (CSMCRI), Bhavnagar.
- Committee asked PP that at which place this technology has been successfully adopted, PP clarified that this technology has being successfully operated by Aurangabad Distillery Limited since March – 2019 and the same has been also covered in the EIA report.
- PP further explained that Aurangabad Distillery Limited has achieved ZLD norms as per the CPCB guidelines and in addition to this income gain by selling off by-product generated from it.
- PP presented that would like to install new spent wash treatment technology developed by Council of Scientific and Industrial Research (CSIR), New Delhi; Central Salt and Marine Chemicals Research Institute (CSMCRI), Bhavnagar instead of spent wash treatment through bio-methanation followed by evaporator and bio-compost, if permitted.
- PP further clarified that following additional products will be recovered through implementation of new and innovative spent wash treatment technology.

Sr. No.	Product Name	Production (MTPD)	Production (MTPM)	End Use of product/ Specification
1	Condensate Molasses Solids (CMS)	34.00	1020.00	Cattle feed ingredients
2	Potassium Nitrate (KNO ₃)	6.80	204.00	<ul style="list-style-type: none"> • Fertilizer • Explosive • Propellant
3	Magnesium Sulphate (MgSO ₄)	13.60	408.00	<ul style="list-style-type: none"> • Fertilizer
4	Water	272.70	8181.00	<ul style="list-style-type: none"> • Recycle to process

- PP mentioned that spent wash from process will be treated in evaporator after Potash recovery and Utility blow down; spent lees and washing waste water along with Condensate from evaporator will be treated in CPU.
- Committee noted that there will not be any discharge from plant and the proposed unit will be ZLD.
- PP mentioned that they have proposed one steam boiler. Fuel used will be Bagasse.
- Committee noted that PP has not address Hazardous Waste Matrix as per HWR – 2016 along with its detail characterization.
- Committee noted that PP has not satisfactorily addressed all the issued raised during Public Hearing and were asked to submit the same in tabular form along with their comments and compliance status of commitments made to Public during Public Hearing.
- Committee noted that PP has addressed generated ETP sludge from treatment into solid waste rather than hazardous waste and ask PP to clarify the same along with its characteristic. PP mentioned that their sludge generated from CPU will be used as manure however they did not have the characteristic for the same.
- Committee noted that PP has not satisfactorily addressed Specific ToR granted by MoEF&CC vide Letter No.

IA-J-11011/142/2019-IA-II(I) dated 12/04/2019.

- Committee noted that PP has not addressed Need Based CER along with EMP with Fixed Capital Cost & Recurring Cost along with its bifurcation.
- **After deliberation, SEAC unanimously decided to consider the proposal only after submission of the following details.**
 1. Revised Product Profile with input of proper unit intended to be produced along with their Quantity.
 2. Compliance of Specific ToR granted by MoEF&CC vide Letter No. IA-J-11011/142/2019-IA-II(I) dated 12/04/2019.
 3. Issues raised during Public Hearing in Tabular Form along with their comments and current Status of commitments made to Public during Public Hearing.
 4. Hazardous Waste Matrix as per HWR – 2016 along with Other Solid Waste and technical reasoning for consideration of generated ETP sludge from treatment into solid waste rather than hazardous waste along with characteristic of the same.
 5. Revised EIA Report Incorporating all the changes w.r.to Option – 2 for utilization of Spent Wash with new technology CSIR/ CSMCRI in substitution of Option – 1 of Anaerobic Digestion leading to generation of Bio-gas.
 6. Technical Justification for generation of 1 MW Power in absence of Bio Gas generation (12,000 m³/day) in line with Option – 2 for spent wash treatment along with Steam Balance and usage of fuel as bagasse (60 MTPD) along with necessary correction in EIA Report.
 7. Revised Need based CER along with EMP with Fixed Capital Cost and Recurring Cost.

2	SIA/GJ/MIS/34600/2019	M/s. Ecoli Waste Management Pvt. Ltd. Plot No. 415/Paiki, Keral GIDC, Ta. Bavla, Dist. Ahmedabad.	Appraisal
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Category of the unit: 7(da)

Project status: New

- Project proponent (PP) has submitted online application vide no. SIA/GJ/MIS/34600/2019 on dated 09/01/2020 for obtaining Environmental Clearance.
- The SEAC had recommended TOR to SEIAA and SEIAA issued TOR to PP vide their letter dated 19/06/2019.
- Project proponent has submitted EIA Report prepared by Envision Enviro Technologies Pvt. Ltd. based on the TOR issued by SEIAA.
- This is new unit proposes for Bio-Medical Waste Treatment Facilities plant tabulated as below:

Sr. No.	Description	Units (Nos.)	Capacity of facility	Capacity of Waste to be Handled		Remarks
				MTPD	MTPM	

1.	Incinerator	1	200 kg/hr	4	120	20 working hours per day and 365 days working.
2.	Incinerator	1	300 kg/hr	6	180	
3.	Autoclave OR	2	100 kg/hr. (each)	4	120	
	Microwave	1	300 kg /hr	6	180	
4.	Shredder	1	200 kg/hr	4	120	
Total				14	420	

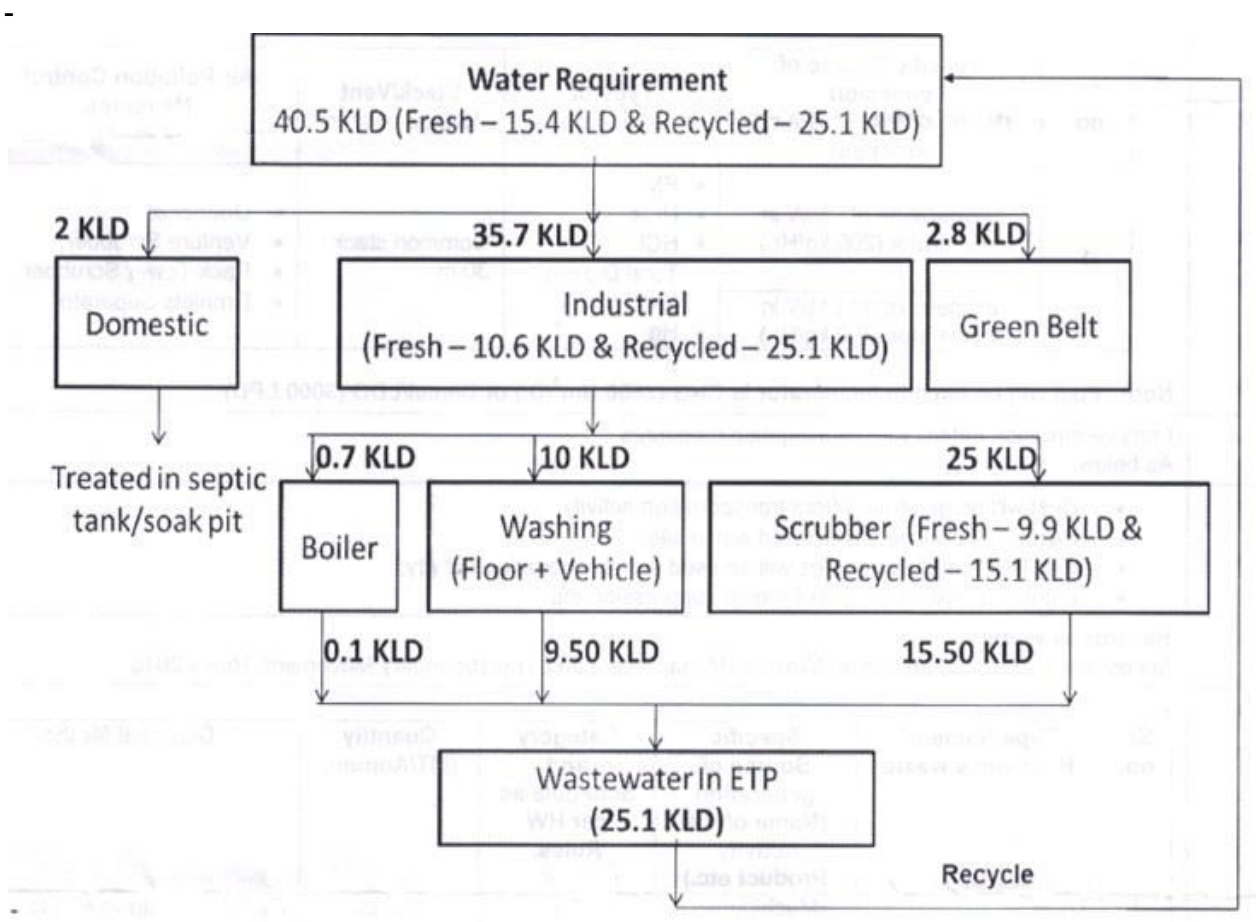
- The project falls under Category B of project activity 7(da) as per the schedule of EIA Notification 2006.
- PP was called for presentation in the SEAC meeting dated 21/01/2020.
- Salient features of the project are as under:

Sr. no.	Particulars	Details
A		
A	Total cost of Proposed Project (Rs. in Crores):	4.7 Crores
B	Total Plot area (sq. meter)	4180 Sq. m.
	Green belt area (sq. meter)	1400 Sq. m.
C	Employment generation	30 nos.
D	Water	
i	Source of Water Supply (GIDC Bore well, Surface water, Tanker supply etc...)	Water will be sourced from GIDC
	Status of permission from the concern authority.	Water supply Permission from GIDC is granted vide letter no GIDC/DEE/ODV/SUB-DN-II/340 dated 16/11/2019.
ii	Water consumption (KLD)	

Category	Quantity KLD	Remarks
(D) Domestic	2.00	Fresh water
(E) Gardening	2.80	Fresh water
(F) Industrial		
Process	0	-
Washing (floor + Vehicle)	10.00	Recycled water
Other - Boiler	0.70	Fresh water
Others - Scrubber	25.00	Recycled and Fresh water
Industrial Total	35.70	--

		Total (A + B + C)	40.50	--
	<p>4) Total water requirement for the project: <u>40.50 KLD</u> 5) Quantity to be recycled: <u>25.10 KLD</u> 6) Total fresh water requirement: <u>15.40 KLD</u></p>			
iii	Waste water generation (KLD)			
	-			
	Category	Waste water KLD	Remarks	
	(A) Domestic	1.60	Septic tank and soak pit	
	(B) Industrial			
	Process	0	--	
	Washing (floor + Vehicle)	9.50	--	
	Other - Boiler	0.1	--	
	Others - Scrubber	15.5	--	
	Total Industrial waste water	25.10	Effluent will be treated in ETP. Treated effluent will be reused within project premises.	
	Total [A + B]	26.70	--	
	-			
iv	<p>Treatment facility within premises with capacity [In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc.]</p> <ul style="list-style-type: none"> ➤ ETP of 30 KLD having primary, secondary and tertiary treatment units. 			
	<p>Treatment scheme including segregation at source.</p> <ul style="list-style-type: none"> ➤ Stream segregation at source. ➤ Industrial effluent (25.10 KLD) will be treated in ETP having primary, secondary and tertiary treatment facility. ➤ Sludge from primary settling tank will be passed through filter press and disposed to TSDF site. ➤ Treated water will be reused in scrubbing and washing purpose. ➤ There will not be any discharge from plant, hence unit is Zero Liquid Discharge (ZLD). 			
	<p><u>Note: (In case of CETP discharge) :</u> Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.</p> <ul style="list-style-type: none"> ➤ Not Applicable 			

	Brief note on adequacy of ZLD (In case of Zero Liquid Discharge): <ul style="list-style-type: none"> Wastewater streams from utility blow down and washing will be segregated at source. Effluent (25.10 KLD) will be treated in ETP having capacity 30 KLD. Treated water (25.10 KLD) will be reuse in washing (10 KLD) and scrubber (15.10 KLD). Hence no water will be discharge outside the premises. 	
v	Mode of Disposal & Final meeting point	
	Domestic:	Sewage will be disposed through septic tank & soak pit system.
	Industrial:	Unit is Zero Liquid Discharge (ZLD)
vi	In case of Common facility (CF) like CETP, Common Spray dryer, Common MEE etc. Name of CF ➤ Not Applicable	
	Membership of Common facility (CF) (For waste water treatment)	
	Not Applicable	
vii	Simplified water balance diagram with reuse / recycle of waste water	



viii	Reuse/Recycle details (KLD)			
	Total reuse <u>25.10 KLD</u>			
	Source of waste water for reuse with quantity in KLD (From where it is coming)	Application area with quantity in KLD (Where it is used)	Characteristics of waste water to be reused (COD, BOD, TDS etc.)	Remarks regarding feasibility to reuse i.e.
	Treated Ind. Effluent : 25.10 KLD	<ul style="list-style-type: none"> • Scrubber : 15.10 KLD • Washing : 10 KLD 	<ul style="list-style-type: none"> • COD < 250 mg/l • BOD < 30 mg/l • pH – 7.5 – 8.5 • TDS – 1800 -2100 mg/l 	It is suitable to use in Scrubber and for washing.
	-			
E	Air			
i	Flue gas emission details No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc.			

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Boiler (0.5 TPH)	11 m	CNG	20 Nm ³ /Day	<ul style="list-style-type: none"> • SPM • SO₂ • NO_x 	Adequate stack height for proper dispersion of pollutant.
			Diesel/LDO	400 LPH		
2	D. G. set (150 KVA)	11 m	HSD	20 LPH	<ul style="list-style-type: none"> • SPM • SO₂ • NO_x 	Adequate stack height for proper dispersion of pollutant.

Either CNG - 2800 Nm³/Day or Diesel/LDO – 3000 LPD will be used as fuel for Incinerators.

ii Process gas emission details i.e. Type of pollutant gases (SO₂, HCl, NH₃, Cl₂, NO_x etc.)

Sr. no.	Specific Source of emission (Name of the Product & Process)	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1	Incineration of BMW in Incinerator (200 kg/Hr.)	<ul style="list-style-type: none"> • PM • NO_x • HCl • Total Dioxins and Furans • Hg 	Common stack : 30 m	<ul style="list-style-type: none"> • Heat Exchanger • Dry ceramic Filters • Pack bed column • Droplets Separator

	2	Incineration of BMW in Incinerator (300 kg/Hr.)			<ul style="list-style-type: none"> • Quencher • Venture Scrubber, • Pack Tower Scrubber • Droplets Separator 												
-																	
iii	Fugitive emission details with its mitigation measures: As below:																
	<ul style="list-style-type: none"> • Dust from transportation activity and incineration ash from incinerator will be generated. • Paved internal road will be constructed within site; • Dedicated vehicles designed for BMW transportation as well as PUC certified vehicles will be used for transportation activity; • Adequate APCM will be provided to control emission. • Regular sprinkling of water for dust suppression etc. 																
F	Hazardous wastes (as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.																
i	<table border="1"> <thead> <tr> <th>Sr. no.</th> <th>Type/Name of Hazardous waste</th> <th>Specific Source of generation (Name of the Activity. Product etc.)</th> <th>Category and Schedule as per HW Rules.</th> <th>Quantity (MT/Annum)</th> <th>Disposal Method</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>					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/Annum)	Disposal Method						
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/Annum)	Disposal Method												

	1	Used oil	Machineries	5.1	650 Lit	Collection, storage and reuse as lubricants in plant within the premises only and/or send to authorized recyclers.
	2.	Incinerator Ash	Incinerator	37.2	348	Collection, storage and Send to TSDF site for land filling.
	3	ETP Sludge	ETP	35.3	240	Collection, storage and Send to TSDF site for land filling.
	4	Disinfected materials (Shredded plastic, glass etc.)	Shredding	Non-Hazardous	1428	Collection, storage and send to authorized recycler and/or TSDF site for land filling (non recyclable waste).

	5	Encapsulated Waste (sharps, containers of mercury waste)	Process	-	12	Collection, storage and Send to TSDF site for land filling.									
-															
ii	Membership details of TSDF, CHWIF etc. (For HW management)				Applied for the TSDF membership. Application copy is attached with EIA report.										
iii	Details of Non-Hazardous waste & its disposal (MSW and others)				Disinfected materials i.e. shredded plastic, glass etc.(1428 MTPA) will be send to authorized recycler and/or TSDF site for land filling (non recyclable waste).										
G	Solvent management, VOC emissions etc. <ul style="list-style-type: none"> ➤ Not Applicable, as proposed project is for CBWTF facility. 														
i	Types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc. (Details in Table Format)														
<ul style="list-style-type: none"> ➤ Not Applicable, as proposed project is for CBWTF facility. 															
ii	VOC emission sources and its mitigation measures														
<ul style="list-style-type: none"> ➤ Not Applicable, as proposed project is for CBWTF facility. 															
H	<ul style="list-style-type: none"> ➤ Details regarding storage of Hazardous chemicals <table border="1"> <thead> <tr> <th>Storage details</th> <th>Name of major Hazardous chemicals</th> <th>Remarks</th> </tr> </thead> <tbody> <tr> <td>Storage tanks</td> <td>None</td> <td>-</td> </tr> <tr> <td>Drum/Barrel storage</td> <td>Diesel/LDO</td> <td>Will be stored in separate storage area having fire protection system</td> </tr> </tbody> </table> <ul style="list-style-type: none"> ➤ Applicability of PESO : Not Applicable 						Storage details	Name of major Hazardous chemicals	Remarks	Storage tanks	None	-	Drum/Barrel storage	Diesel/LDO	Will be stored in separate storage area having fire protection system
Storage details	Name of major Hazardous chemicals	Remarks													
Storage tanks	None	-													
Drum/Barrel storage	Diesel/LDO	Will be stored in separate storage area having fire protection system													

- During the meeting dated 21/01/2020, technical presentation made by project proponent. They have presented as below:
- M/s. Ecoli Waste Management Pvt Ltd is involved in Common Bio medical waste treatment facility since 2001 at Saket Industrial Estate, Village: Moraiya, Ta: Sanand, Dist: Ahmedabad with capacity of 1000 kg/h & 50kg/h incinerations.
- Considering existing capacity of BMW facilities in Ahmedabad as well as projection of BMW generation for next ten years, BMW facility {incineration (100 kg/Hr.) and autoclave (50 kg/Hr.)} at Moriya village, Ahmedabad is not adequate.
- Expansion in existing BMW facility is not feasible because there is no open land for expansion as well as residential and industrial development in surrounding.
- Project proponent decided to establish new BMW facility at Kerala GIDC with higher capacity (i.e. incineration - 500 kg/Hr.; autoclave – 200 kg/Hr. and shredder – 200 kg./Hr.) considering waste collection from existing members; new members within proposed project's study area; closure or shifting of existing BMW facility etc.
- The baseline environmental quality has been assessed for various components of the environment viz. air, noise, water, biological and socioeconomic aspect. The baseline environmental study has been conducted for the study area of 10 km radial distance from project site for the period March 2019 to May 2019. Ambient Air Quality monitoring was carried out for PM10, PM2.5, SO2, NOx, CO, Hg, HCl & VOC at eight locations, including the project site. Values conform to the prescribed standards for Ambient Air Quality. The incremental Ground Level Concentration (GLC) has been computed using AERMOD. The resultant concentrations are within the NAAQS.
- Risk analysis and study have been carried out for identification of hazards, selection of maximum credible scenarios, risk mitigation measures etc.
- Total area of the plot is 4180 m² from which facility has earlier proposed 1400 m² green belt area i.e. 33.49% of total plot area.
- Committee asked PP to present Gap analysis conducted by the state pollution control board/pollution control committees w.r.to bio-medical waste generation with its projection over 10 years as a part of compliance of ToR No. 6, PP mentioned that they have approached GPCB on 20/09/2019 to issue gap analysis as per ToR requirement and response from them is awaited. Committee asked PP to get the gap analysis first from the State Pollution Control Board as per the guidelines published by CPCB and then make the presentation for appraisal as per the compliance of ToR.
- **After detailed discussion, it was decided to defer the project and consider the proposal only after Project Proponent obtains Gap Analysis from GPCB as per guidelines published by CPCB as a part of Compliance of ToR granted by SEIAA, Gujarat.**

3	SIA/GJ/IND2/19239/2017	M/s. SRF Limited D2/1 Suva, GIDC Phase II, Dahej, Taluka Vagra, Dist. Bharuch.	EC – Reconsideration
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Category of the unit: 5(f)

Project status: Expansion

- Project proponent (PP) has submitted online application vide no. SIA/GJ/IND2/19239/2017 on dated 17/09/2019 for obtaining Environmental Clearance.
- The SEAC had recommended TOR to SEIAA and SEIAA issued TOR to PP vide their letter dated 27/03/2018.
- Project proponent has submitted EIA Report prepared by Aqua Air Environmental Engineers Pvt. Ltd. based on the TOR issued by SEIAA.
- This expansion unit proposes for manufacturing of synthetic organic plant tabulated as below:

Sr. No.	Name of Product	CAS Number	Existing Capacity (MT/Annum)	Additional Capacity (MT/Annum)	Total Proposed Capacity (MT/Annum)	End Use
1	Sulphuric acid	7664-93-9	0	100000	100000	Raw Material for AHF, drying agent.
2	Dicalcium Phosphate	7757-93-9	0	50000	50000	Pharma intermediate.
3	Tetrahydrofuran	77392-70-2	0	20000	20000	Industrial Solvent and Engineering Plastic
4	Polytetrafluoroethylene	9002-84-0	0	10000	10000	Engineering and Consumer goods.
5	Bulk Chromia	-	0	100	100	Catalyst
6	Iso propyl alcohol	8013-70-5	0	50000	50000	Industrial Solvent and Pharma Intermediate.
7	Calcium Chloride	10043-52-4	0	50000	50000	Raw Material for Desiccant.
8	Chlorodifluoromethane (R22)	75-45-6	0	25000	25000	Feed for PTFE and pharma intermediates.
9	Trifluoro Acetic Acid	76-05-1	2000	0	2000	Used as a solvent or acid catalyst
10	Parabromofluorobenzene	1072-85-1	500	0	500	Intermediate use for pharmaceutical industries
11	Specialty Chemicals					
i	Tetrafluorobenzyl Alcohol	53072-18-7	25100	0	25100	Intermediate use for pharmaceutical industries
ii	Ethyldifluoroacetate	454-31-9				Intermediate use for pharmaceutical

						industries
iii	Ethyltrifluoroacetate	383-63-1				Intermediate use for pharmaceutical industries
iv	Ethyltrifluoroacetoacetate	372-31-6				Intermediate use for pharmaceutical industries
v	Amino crotonate	14205-39-1				Intermediate use for pharmaceutical industries
vi	Trifluoroacetic anhydride	407-25-0				Intermediate use for pharmaceutical industries
vii	Pentafluorobenzoic Acid	602-94-8				Intermediate use for pharmaceutical industries
viii	Pyrazole Acid	176969-34-9				Intermediate use for pharmaceutical industries
ix	Chloro trichloro Methyl - Cyclopentene	72685-38-2				Intermediate use for pharmaceutical industries
x	2-methyl-4- (1,1,1,2,3,3,3-heptafluoro-2-propyl aniline	238098-26-5				Intermediate use for pharmaceutical industries
xi	Fluoromethyl ester	-				Intermediate use for pharmaceutical industries
xii	Diphenylphenol	2432-11-3				Intermediate use for pharmaceutical industries
xiii	Tetrafluoropropene - 1234yf	754-12-1				Intermediate use for pharmaceutical industries
xiv	Isobutyl Acetophenone	38861-78-8				Intermediate use for pharmaceutical industries
xv	2-Bromo-5-fluorobenzotrifluoride	40161-55-5				Intermediate use for pharmaceutical industries
xvi	2,2-Difluoroethylamine	-				Intermediate use for pharmaceutical industries
xvii	2,3-Dichloro-5-trifluoromethyl-pyridine	69045-84-7				Intermediate use for pharmaceutical industries
xviii	N[1-{6-Chloro-3-pyridinyl)methyl)-2(1H)-pyridinylidene]-2,2,2-trifluoroacetamide	-				Intermediate use for pharmaceutical industries

xix	(1-(3-Chloropyridine-2-yl)-3-((5-(trifluoromethyl)-2H-tetrazol-2-yl)methyl)-1H pyroazol-5-carboxylic acid)	-				Intermediate use for pharmaceutical industries
xx	(N-(4-fluorophenyl)-2-hydroxy-N-isopropylacetamide	54046-89-8				Intermediate use for pharmaceutical industries
12	1,1,2,2-Tetrafluoroethyl Methyl Ether	425-88-7	4000	0	4000	Intermediate use for pharmaceutical industries
13	Hexafluoropropylene	116-15-4	1000	0	1000	Intermediate use for pharmaceutical industries
14	Ethyl Difluoroacetoacetate	352-24-9	1000	0	1000	Intermediate use for pharmaceutical industries
15	Difluoromethanesulphonylchloride	-	1000	0	1000	Intermediate use for pharmaceutical industries
16	Triflic Acid	1493-13-6	1000	0	1000	Intermediate use for pharmaceutical industries
17	Trifluoromethanesulfonic Anhydride	358-23-6	1000	0	1000	Intermediate use for pharmaceutical industries
18	Trimethylsilyl trifluoromethanesulfonate	27607-77-8	520	0	520	Intermediate use for pharmaceutical industries
19	3-Trifluoromethylacetophenone	349-76-8	1000	0	1000	Intermediate use for pharmaceutical industries
20	2,6-Dichloro-4-(trifluoromethyl) aniline	24279-39-8	1000	0	1000	Intermediate use for pharmaceutical industries
21	Cyanopyrazole	31108-57-3	2000	0	2000	Intermediate use for pharmaceutical industries
22	Trifluoromethylbenzamide	360-64-5	2000	0	2000	Intermediate use for pharmaceutical industries
23	Trifluoroacetyl chloride	354-32-5	1000	0	1000	Intermediate use for pharmaceutical industries
24	Sulphur Tetrafluoride	7783-60-0	500	0	500	Intermediate use for pharmaceutical industries
25	2-Trifluoromethyl benzoylchloride	312-94-7	1000	0	1000	Intermediate use for pharmaceutical industries
26	TrifluoroMethyl-2-EthoxyVinyl Ketone	-	1000	0	1000	Intermediate use for pharmaceutical industries

27	2-(2-Methoxy-ethoxymethyl)-6-trifluoromethyl-nicotinic acid ethyl ester	-	2000	0	2000	Intermediate use for pharmaceutical industries
28	Mefenamic Acid	61-68-7	1000	0	1000	Intermediate use for pharmaceutical industries
29	Hexafluoropropylene oxide	428-59-1	500	0	500	Intermediate use for pharmaceutical industries
30	Pentafluorophenol	771-61-9	500	0	500	Intermediate use for pharmaceutical industries
31	Monomethylhydrazine	60-34-4	4000	0	4000	Intermediate use for pharmaceutical industries
32	[3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesyl-otolyl](5-hydroxy-1-methylpyrazol-4-yl)methanone (Topramezone)	-	500	0	500	Herbicides
33	Tri Fluoro acetone	421-50-1	500	0	500	Intermediate use for pharmaceutical industries
34	Methyl tri fluoro acetate	431-47-0	500	0	500	Intermediate use for pharmaceutical industries
35	Chlorodifluoroacetic Anhydride	2834-23-3	100	0	100	Intermediate use for pharmaceutical industries
36	Bromopentafluorobenzene	344-04-7	500	0	500	Intermediate use for pharmaceutical industries
37	4-Chlorobenzotrichloride	5216-25-1	600	0	600	Intermediate use for pharmaceutical industries
38	4-Chlorobenzotrifluoride	98-56-6	600	0	600	Intermediate use for pharmaceutical industries
39	Methyl Hydroxy Pyrazole	33641-15-5	100	0	100	Intermediate use for pharmaceutical industries
40	6-Fluoro methyl indole	40311-13-5	100	0	100	Intermediate use for pharmaceutical industries
41	Difluoroethoxy ethanol	-	200	0	200	Intermediate use for pharmaceutical industries
42	5-Bromo-2,2-difluoro-1,3-benzodioxole	33070-32-5	1000	0	1000	Intermediate use for pharmaceutical industries
43	Difluorobenzodioxole methyl ester	-	20	0	20	Intermediate use for pharmaceutical

						industries
44	2-Fluoro-5-nitrobenzoic acid	7304-32-7	30	0	30	Intermediate use for pharmaceutical industries
45	5-Chloro-3-(difluoromethyl)-1-methyl-1H-pyrazole-4-carboxaldehyde	-	500	0	500	Intermediate use for pharmaceutical industries
46	3-Difluoromethyl-5-fluoro-1-methyl-1H-pyrazole-4-carboxaldehyde	-	500	0	500	Intermediate use for pharmaceutical industries
47	2,5-Dichloro-4-(1,1,2,3,3,3-hexafluoropropoxy)benz enamine	103015-84-5	500	0	500	Intermediate use for pharmaceutical industries
48	2,4,5-Trifluorophenyl acetic acid	-	50	0	50	Intermediate use for pharmaceutical industries
49	3-Aminobenzotrifluoride	98-16-8	1000	0	1000	Intermediate use for pharmaceutical industries
50	2,4-Dichloro-3,5-dinitrobenzotrifluoride	29091-09-6	1000	0	1000	Intermediate use for pharmaceutical industries
51	3-phenoxy benzaldehyde	39515-51-0	4000	0	4000	Intermediate use for pharmaceutical industries
52	3-phenoxy toluene	3586-14-9	200	0	200	Intermediate use for pharmaceutical industries
53	Methyl-2- Fluoroacrylate	2343-89-7	700	0	700	Intermediate use for pharmaceutical industries
54	Lithium tetrakis (pentafluorophenyl) borate	371162-53-7	100	0	100	Intermediate use for pharmaceutical industries
55	2-fluoro-5-bromobenzonitrile	179897-89-3	50	0	50	Intermediate use for pharmaceutical industries
56	Ethyl-Trifluoropyruvate	13081-18-0	200	0	200	Intermediate use for pharmaceutical industries
57	Isoflurane	26675-46-7	250	0	250	Intermediate use for pharmaceutical industries
58	Desflurane	57041-67-5	100	0	100	Intermediate use for pharmaceutical industries
59	Sevoflurane	28523-86-6	200	0	200	Intermediate use for pharmaceutical industries

60	Trichloroacetyl chloride	76-02-8	2000	0	2000	Intermediate use for pharmaceutical industries
61	Chlorinated Compounds					
i	Trichloroethylene	79-01-6	90000	60000	150000	RM Feed for Refrigerant.
ii	Perchloroethylene	127-18-4				RM Feed for Refrigerant and dry cleaning agent
iii	Methyl Chloride	74-87-3				RM Feed for Refrigerant
iv	Methylene dichloride	75-09-2				RM feed for refrigerant and Industrial Solvent.
v	Chloroform	67-66-3				RM feed for refrigerant and Industrial Solvent.
vi	Carbon tetrachloride	56-23-5				RM feed for Perchloroethylene , refrigerant..
62	Caustic Chlorine Plant					
	Chlorine	7782-50-5	72000	0	72000	RM feed for Trichloroethylene, Perchloroethylene , Methylene dichloride, Chloroform& Carbon tetrachloride.
	Caustic lye 47.5 %	1310-73-2	187200	0	187200	Use in pulp and paper, textiles, drinking water, soaps and detergents, and also captive use it on-site.
	Hydrochloric Acid (30-33%)	7647-01-0	21600	0	21600	Captive use it on-site
	Hydrogen	1333-74-0	2016	0	2016	Use in the chemical Industries and Captive use it on-site
63	Anhydrous Hydrofluoric acid	7664-39-3	40000	40000	80000	RM for refrigerant and fluorinated products and Metal pickling.
64	Chlorotrifluoroethane (HCFC 133a)	075-88-7	500	0	500	Refrigeration.
65	HFC Refrigerants					
		811-97-2				

i	1,1,1,2 Tetrafluroethane (HFC 134a)	354-33-6	62000	13000	75000	Refrigeration.
ii	Pentafluoroethane (HFC 125)	75-10-5				
iii	Difluoromethane (HFC - 32)	75-28-5				
iv	1,1 difluoroethane (HFC - 152a)	74-98-6				
v	Refrigerant blend of Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) (R410a)	-				
vi	Refrigerant blend of Pentafluoroethane (HFC-125) + 1,1,1-Trifluoroethane (R143a) + 1,1,1,2 Tetrafluroethane (HFC 134a) (R404a)	-				
vii	Refrigerant blend of Difluoromethane (HFC-32) + Pentafluoroethane (HFC-125) + 1,1,1,2 Tetrafluroethane (HFC 134a) (R407c)	-				
viii	Blend of 1,1-Difluoroethane (HFC-152a) + 1,1,1,2 Tetrafluroethane (HFC-134a)	-				
66	Butane (R600a)	106-97-8	1000	0	1000	Refrigeration.
67	Propane (R290)	74-98-6	1000	0	1000	Refrigeration.
68	Blend of 1-Chloro-1,1-difluoroethane (R142b) + Chlorodifluoromethane (R22)	-	500	0	500	Refrigeration.
69	Blend of 1,1,1,2 Tetrafluroethane (R134a) + Di Methyl Ether (DME)	-	500	0	500	Refrigeration.
70	R&D Product	-	2000	0	2000	Intermediate use for pharmaceutical industries
71	Hydrofluoric acid (20-70%)	7664-39-3	34641	8644	43285	Glass itching, electronic circuit cleaning, steel pickling.
72	Anhydrous Hydrochloric Acid	7647-01-0	1500	0	1500	Captive use it on-site
Total			5,87,177	4,26,744	10,13,921	

S. No	Name of Product	Existing Capacity	Additional Capacity	Total Proposed Capacity
73	Captive Power Plant	75 MW	0	75 MW

- The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006.
- PP was called for presentation in the SEAC meeting dated 09/10/2019.
- Salient features of the project are as under:

Sr. no.	Particulars	Details
A	Total cost of Proposed Project (Rs. in Crores):	Existing: 4800.00 Proposed: 1123.00 Total: 5923.00

EMP details (Capital cost & Recurring cost)

Brief details of EMP

COMPONENT	CAPITAL COST OF EMP	RECURRING COST OF EMP (per Month)
Cost	Rs. 23 Crores	Rs. 2.6 Crores

Bifurcation of EMP Cost

Sr. No	Unit	Installed Capacity (KLD)	Capital Cost (Rs. in Crores)	Operating Cost (Crores /Month)	Maintenance Cost (Crores/ Month)	Total Recurring Cost (Crores / Month)
1	Effluent Treatment Plant, RO & MEE Cost	20.614 MLD	10	0.80	0.03	0.83
2.	APCM	--	6.45	0.0125	0.0416	0.054
3.	Hazardous Waste	--	5.05	--	1.667	1.667
4.	AWH Monitoring Cost	--	0.5	--	0.0416	0.041
5.	Greenbelt	--	1	--	0.0416	0.041
	Total		23	0.95	1.8218	2.6

CER details (As per MoEF&CC OM dated 01/05/2018)

As per OM no. 22-65/2017 on dated 01/05/2018 regarding "Corporate Environment Responsibility" (CER), Brownfield projects have to contribute 0.25% of the Additional Capital Investment, the company will contribute Rs. 2.8075 (0.25%) Lakhs as funds for CER activities

Component	As per Norms	Allocation
CER	Rs. 2.8075 Crores (0.25 %)	Rs. 2.8075 Crores (0.25 %)

Activities to be carried out under CER:

FUND FOR CER ACTIVITIES		
Year	Description	Amount (INR in Crore)

	2019-2020	Intervention will continue as per the need	0.5615		
	2020-2021	Intervention will continue as per the need	0.5615		
	2021-2022	Intervention will continue as per the need	0.5615		
	2022-2023	Intervention will continue as per the need	0.5615		
	2023-2024	Intervention will continue as per the need	0.5615		
	Total		2.8075		
B	Total Plot area (sq. meter)		Existing: 11, 81, 776.0 Sq. m. Proposed: 0 Sq. m. Total: 11, 81, 776.0 Sq. m.		
	Green belt area (sq. meter)		Existing: 3, 89, 986 Sq. m. Proposed: 0 Sq. m. Total: 3, 89, 986 Sq. m.		
C	Employment generation		Permanent:2000 Contractual:500 Total:2500		
D	Water				
i	Source of Water Supply (GIDC Bore well, Surface water, Tanker supply etc...)		GIDC		
	Status of permission from the concern authority.		Obtained		
ii	Water consumption (KLD)				
	Category	Existing KLD	Proposed (Additional) KLD	Total after Expansion KLD	Remarks
	(A) Domestic	818	0	818	
	(B) Gardening	215	0	215	
	(C) Industrial				
	(i) UF RO water reused for process	5305	3930	9235	
	(ii) Cooling Tower	6036	9295	15331	
	(iii) Washings	140	60	200	
	(D) CPP				
	(a) Boiler				
	(i) Boiler for process	2691	0	2691	
	(ii) CPP	10360	0	10360	
	(iii) DM & RO Reject	5593	0	5593	
	(b) Cooling Tower	5235	0	5235	
	Sub Total of CPP	23879	0	23879	
	Total Water Consumption	36393	13285	49678	
	Water Recycle from UF&RO Treatment etc. after treatment	18460	2154	20614	
	Total Fresh Water Requirement	17933	11131	29064	
	<p>7) Total water requirement for the project: 49678.0 KLD</p> <p>8) Quantity to be recycled: 20614.0 KLD</p> <p>9) Total fresh water requirement: 29064.0 KLD</p>				
iii	Waste water generation (KLD)				

Category	Existing KLD	Proposed (Additional) KLD	Total after Expansion KLD	Remarks
(A) Domestic	650	0	650	
(B) Industrial				
(i) Process	2691	2845	5536	
(ii) Cooling Tower	1646	2535	4181	
(iii) Washing	140	60	200	
Sub Total	4477	5439	9916	
(C) CPP				
(i) Process Boiler	2691	0	2691	
(ii) CPP Boiler	10360	0	10360	
(iii) Cooling Tower	1428	0	1428	
(iv) DM & RO Reject	5593	0	5593	
Sub Total (a+b+c+d)	20072	0	20072	
Total (A+B+C)	25199	5439	30638	
Water Recycle from UF&RO Treatment etc after treatment	18460	2154	20614	
Water Reused in Gardening & Ash Quenching and Salt Generation	2230	0	2230	
Total Effluent Disposal to Sea through GIDC Common drain	4509	3285	7794	

- iv Treatment facility within premises with **capacity**
[In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc..
- In-house STP – 650 KL/Day, MEE/ ATFD – 1446 KL/Day, Biological ETP – 5519 KL/Day, Ultra filtration and Reverse Osmosis – 24253 KL/Day.
- Treatment scheme including segregation at source.
- The quantity of industrial effluent from manufacturing process and other ancillary industrial operations shall be 29989 KLD and the quantity of domestic wastewater (sewage) shall be 650 KLD.
 - 24253 KLD of industrial effluent from softener/ DM Plant reject + Boiler Blow down + Cooling tower Blow down (including Captive Power Plant) shall be sent to separate ETP (UF&RO including primary treatment). After treatment 20615 KLD the treated shall be reused in cooling tower/process and 3638 KLD RO reject, 1363 KLD used for ash quenching & 2275 KLD after confirming the GPCB discharge norms shall be discharged into deep sea via GIDC Drain..
 - The process industrial effluent of quantity 5736 KLD is treated in well-designed effluent treatment plant primary, secondary and tertiary treatment facilities and Multi Effect Evaporated plant (MEE) followed by Agitated Thin Film Dryer& Stripper. In that 217 MT Salt Generation from MEE plant will be disposed to designated secured landfill site.
 - The treated wastewater is disposed through deep sea via GIDC drain.
 - Total 7794 KLD treated (5519KLD treated industrial effluent + 2275 KLD RO reject after confirming the GPCB standard) shall be sent for disposal in to GIDC sewer line – Dahej pipeline

/ Common disposal system up to the sea for final disposal at NIO designated points.

- 650 KLD of sewage shall be treated separately to confirm the GPCB standard shall be reuse in development of greenbelt / plantation within premises and in monsoon season it shall be reuse in cooling tower/process and other process.

Note: (In case of CETP discharge) :

Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.

- Out of 30638 KL/Day treated effluent, 20614 KL/Day will be treated in UF & RO and re-used in plant premises, 2230 KL/Day will be re-used in Gardening & Ash Quenching and Salt Generation and 7794 KL/Day will be disposed off into deep sea through GIDC Drain.

Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):

- Out of 30638 KL/Day treated effluent, 20614 KL/Day will be treated in UF & RO and re-used in plant premises, 2230 KL/Day will be re-used in Gardening & Ash Quenching and Salt Generation and 7794 KL/Day will be disposed off into deep sea through GIDC Drain.

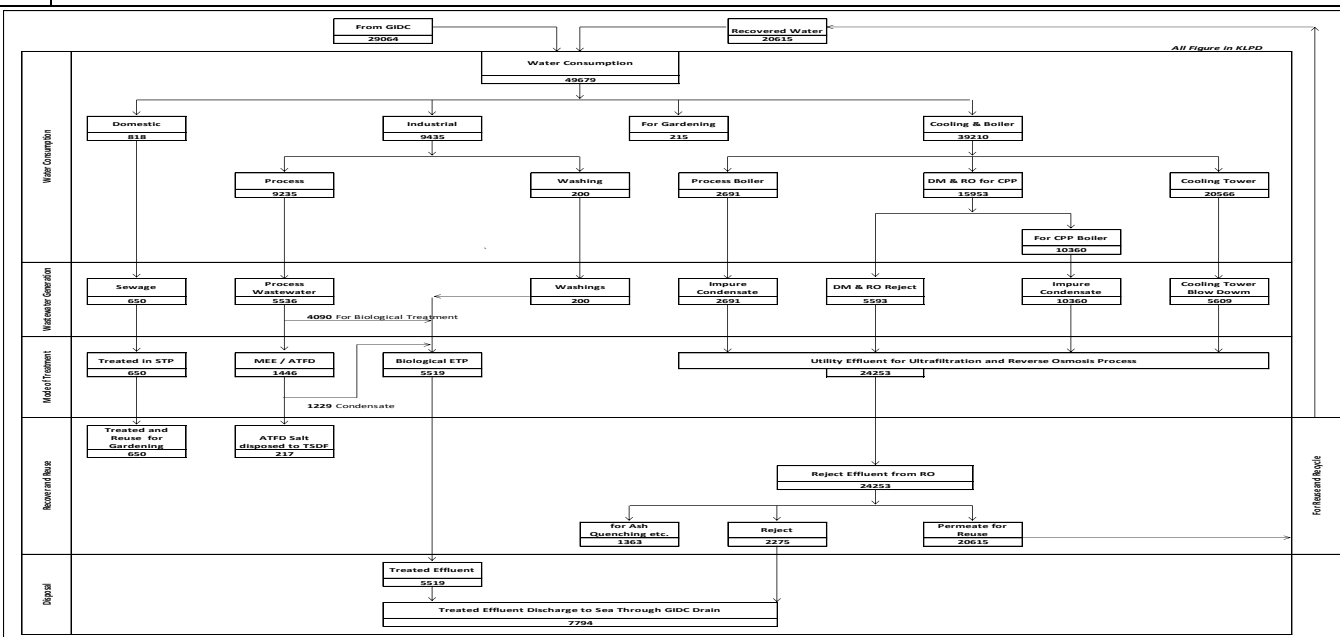
v Mode of Disposal & Final meeting point

Domestic:	650.0 KL/Day → STP and re-used in Gardening
Industrial:	Out of 30638 KL/Day treated effluent, 20614 KL/Day will be treated in UF & RO and re-used in plant premises, 2230 KL/Day will be re-used in Gardening & Ash Quenching and Salt Generation and 7794 KL/Day will be disposed off into deep sea through GIDC Drain.

vi In case of Common facility (CF) like CETP, Common Spray dryer, Common MEE, CHWIF etc.

Name of Common facility (CF)(For waste water treatment)	Deep sea discharge via GIDC Drainage line
Membership of Common facility (CF)	(For waste water treatment)
	Deep sea discharge via GIDC Drainage line vide letter no. GIDC/BRH/DEE(DRG)/376

vii **Simplified water balance diagram with reuse / recycle of waste water**



vii	Reuse/Recycle details (KLD)								
	[Source of reuse & application area]								
	Total reuse 0 KLD								
	-								
	Source of waste water for reuse with quantity in KLD (From where it is coming)	Application area with quantity in KLD (Where it is used)	Characteristics of waste water to be reused (COD, BOD, TDS etc.)			Remarks regarding feasibility to reuse i.e.			
	STP @ 650 KLD	Gardening & Ash Quenching	pH : 7 to 8.5 BOD : <20 mg/L TSS : <01 mg/L						
	RO Permeate @ 20615	Utilities	pH : 7 to 8 COD : <5 mg/L TDS : <225 mg/L						
	RO Permeate @ 1363 KLD	Ash Quenching	pH : 7 to 8 COD : <5 mg/L TDS : <225 mg/L						
E	Air								
i	Flue gas emission details								
	No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc.								
	Existing & Proposed								
	-								
	Stack No	Stack Attached to	Qty.	Capacity	Stack Ht., m	Fuel Used	Fuel Consumption (kg/hour)	APCM	Parameters
	EXISTING STACKS								
	1	Boiler	1	15 TPH	53.0	FO	1938	Adequate Stack Height	PM SO2 NOx
	2	Boiler	1	60 TPH	94.0	Coal	25000	Electrostatic Precipitator (each)	
		Boiler	1	35 TPH					
		Boiler	1	35 TPH					
	3	Boiler	1	30 TPH	63.0	FO	76042	Adequate Stack Height	
	4	Boiler	1	75 TPH (30 TPH as per Sr. No. 3 + Remaining Capacity)	120.0	Coal	31250	Electrostatic Precipitator (each)	
	6	Boiler	1	100 TPH	135.0	Coal	43750	Electrostatic Precipitator (each)	
	7	Boiler	1	100 TPH					
	8	DG Set	1	500 KW	11.0	HSD	125	Adequate Stack	

								Height
9	DG Set	1	500 KW	11.0	HSD	125		Adequate Stack Height
10	DG Set	1	840 KW	31.0	HSD	396		Adequate Stack Height
11	DG Set	1	840 KW	31.0	HSD	396		Adequate Stack Height
12	DG Set	1	4200 KVA	30.0	HSD	1250		Adequate Stack Height
13	DG Set	1	4200 KVA	30.0	HSD	1250		Adequate Stack Height
14	DG Set	1	4200 KVA	30.0	HSD	1250		Adequate Stack Height
15	Thermic Fluid Heater/Thermic Fire Heater - 1 TCE/PCE Plant	1	20 lacs Kcal/Hr	50.2	FO/ HSD/ NG	250		Efficient Heaters
16	Thermic Fluid Heater/Thermic Fire Heater - 2 TCE/PCE Plant	1	20 lacs Kcal/Hr	50.2	FO/ HSD/ NG	250		Efficient Heaters
17	Thermic Fluid Heater/Thermic Fire Heater HFC 134a Plant	1	20 lacs Kcal/Hr	50.8	FO/ HSD/ NG	250		Efficient Heaters
18	Thermic Fluid Heater/Thermic Fire Heater AHF Plant-1	1	20 lacs Kcal/Hr	46.0	FO/ HSD/ NG	250		Efficient Heaters
19	Thermic Fluid Heater/Thermic Fire Heater AHF Plant-2	1	20 lacs Kcal/Hr	46.0	FO/ HSD/ NG	250		Efficient Heaters
20	Thermic Fluid Heater/Thermic Fire Heater Difluoromethan (HFC 32)	1	20 lacs Kcal/Hr	50.8	FO/ HSD/ NG	250		Efficient Heaters
21	Hot Air Generator AHF Plant -1	1	-	45.0	FO/ HSD/ NG	833		Efficient Heaters
22	Hot Air Generator AHF Plant -2	1	-	45.0	FO/ HSD/ NG	833		Efficient Heaters
23	Fluorospar	1	-	30.0	FO/	417		Cyclone

	Drying System AHF Plant-1				HSD/NG		Separator / Bag Filter	
24	Fluorospar Drying System AHF Plant-2	1	-	30.0	FO/HSD/NG	417	Cyclone Separator / Bag Filter	
25	Thermic Fluid Heater/Thermic Fire Heater	17	20 lacs Kcal/Hr	30.0	FO/HSD/NG	4250	Efficient Heaters	
26	Dust Collectors	10	-	30.0	-	-	Bag Filter	
PROPOSED STACKS								
27	Thermic Fluid Heater/Thermic Fire Heater	10	20 lacs Kcal/Hr	30.0	FO/HSD/NG	4250	Efficient Heaters	PM SO2 NOx

ii Process gas i.e. Type of pollutant gases (SO₂, HCl, NH₃, Cl₂, NO_x etc.)

Existing & Proposed

Stack	Stack Attach To	Air Pollution Control System	Stack height in Meter	Stack Diameter in Meter	AIR EMISSION		
					POLLUTANT	CONCENTRATION	
Existing Process Stacks							
HF Plant Stack							
1	HF Plant Central Absorption System	Continuous water Circulation	30	0.08	HF	6 mg/NM ³	
TCE/PCE Plant Stacks							
2	TCE/PCE Plant (Central Absorption System)	Continuous HYPO Circulation	20	0.08	Cl ₂	9 mg/NM ³	
3	TCE/PCE Plant (Central Absorption System)	Continuous Water Circulation	30	0.08	HCl	20 mg/NM ³	
HFC Plant Stack							
4	R 134 and R 125 Plant (Central Absorption System)	Continuous Water Circulation	30	0.08	HCl	20 mg/NM ³	
Flourospeciality Plant Stacks							
5	Reactor/ Vessel (10 Nos.)- Central Absorption System	Continuous Water Circulation	30	0.08	HF	6 mg/NM ³	
					HCl	20 mg/NM ³	
6	Reactor/ Vessel (10 Nos.)- Central Absorption System	Continuous Water Circulation	30	0.08	HCl	20 mg/NM ³	
7	Reactor/ Vessel (04 Nos.)- Central Absorption System	Continuous Hypo Circulation	20	0.08	Cl ₂	9 mg/NM ³	
8	Reactor/ Vessel (02 Nos.)- Central Absorption System	Continuous Sodium Thiosulphate solution scrubbing	20	0.08	Br ₂	2 mg/NM ³	

Chlorine Plant Stacks							
9	Cl ₂ Plant after scrubber	Continuous Hypo Circulation	20	0.08	Cl ₂	9 mg/Nm ³	
10	Cl ₂ Plant after scrubber	Continuous Water Circulation	20	0.08	HCl	20 mg/Nm ³	
11	Trifluoro Acetic Acid Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HF	6 mg/NM ³	
					HCl	20 mg/NM ³	
12	Parabromofluorobenzene Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	Br ₂	2 mg/NM ³	
13	Ethyl difluoroacetate Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HF	6 mg/NM ³	
					HCl	20 mg/NM ³	
14	Ethyl trifluoroacetate Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HF	6 mg/NM ³	
15	Ethyl trifluoroacetate Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³	
16	Amino crotonate Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	NH ₃	175 mg/NM ³	
17	Pentafluorobenzoic Acid Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³	
					Cl ₂	9 mg/NM ³	
18	Pyrazole Acid Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³	
19	2-methyl-4-(1,1,1,2,3,3,3-heptafluoro-2-propyl aniline) Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³	
					Br ₂	2 mg/NM ³	
20	Tetrafluoropropene - 1234yf Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HF	6 mg/NM ³	
					HCl	20 mg/NM ³	
21	Tetrafluoropropene - 1234yf Central Absorption System	Continuous Alkali Circulation	30	0.08	Cl ₂	9 mg/NM ³	
22	Isobutyl Acetophenone Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HF	6 mg/NM ³	
23	2-Bromo-5-fluorobenzotrifluoride Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³	
					HF	6 mg/NM ³	
24	2,2-Difluoroethylamine Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³	
					HF	6 mg/NM ³	
25	1,1,2,2-Tetrafluoroethyl Methyl Ether Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³	

26	Hexafluoropropylene Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³
27	Difluoromethanesulphonylchloride Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³
					Cl ₂	9 mg/NM ³
28	Triflic Acid Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HF	6 mg/NM ³
29	Trimethylsilyl trifluoromethanesulfonate Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³
30	2,6-Dichloro-4-(trifluoromethyl) aniline Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³
					Cl ₂	9 mg/NM ³
					NH ₃	175 mg/NM ³
31	Cyanopyrazole Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³
					Cl ₂	9 mg/NM ³
					NH ₃	175 mg/NM ³
32	Trifluoromethylbenzamide Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³
					Cl ₂	9 mg/NM ³
33	Trifluoroacetyl chloride Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³
					Cl ₂	9 mg/NM ³
					HF	6 mg/NM ³
34	Sulphur Tetrafluoride Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HF	6 mg/NM ³
35	2-Trifluoromethyl benzoylchloride Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³
					Cl ₂	9 mg/NM ³
36	[3-(4,5-dihydro-1,2-oxazol-3-yl)-4-mesylo-tolyl](5-hydroxy-1-methylpyrazol-4-yl)methanone Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³
37	Methyl trifluoroacetate Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HF	6 mg/NM ³
38	Chlorodifluoroacetic Anhydride Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HF	6 mg/NM ³
39	Bromopentafluorobenzene Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	Br ₂	2 mg/NM ³
40	4-Chlorobenzotrichloride Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³
					Cl ₂	9 mg/NM ³
41	4-Chlorobenzotrifluoride	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³
					Cl ₂	9 mg/NM ³

	Central Absorption System					HF	6 mg/NM ³
42	Methyl Hydroxy Pyrazole Central Absorption System	Continuous Water + Alkali Circulation	30	0.08		HCl	20 mg/NM ³
43	6-Fluoro methyl indole Central Absorption System	Continuous Water + Alkali Circulation	30	0.08		HCl	20 mg/NM ³
44	5-Bromo-2-2-difluoro-1-3-benzodioxole Central Absorption System	Continuous Water + Alkali Circulation	30	0.08		HCl	20 mg/NM ³
						Br ₂	2 mg/NM ³
						HF	6 mg/NM ³
45	Difluorobenzodioxole methyl ester Central Absorption System	Continuous Water + Alkali Circulation	30	0.08		HCl	20 mg/NM ³
						Br ₂	2 mg/NM ³
46	3-Aminobenzotrifluoride Central Absorption System	Continuous Water + Alkali Circulation	30	0.08		HCl	20 mg/NM ³
						HF	6 mg/NM ³
47	3-phenoxy benzaldehyde Central Absorption System	Continuous Water + Alkali Circulation	30	0.08		HCl	20 mg/NM ³
48	Methyl-2-Fluoroacrylate Central Absorption System	Continuous Water + Alkali Circulation	30	0.08		HF	6 mg/NM ³
49	Desflurane Central Absorption System	Continuous Water + Alkali Circulation	30	0.08		HCl	20 mg/NM ³
						HF	6 mg/NM ³
50	Sevoflurane Central Absorption System	Continuous Water + Alkali Circulation	30	0.08		HF	6 mg/NM ³
51	Trichloroacetyl chloride Central Absorption System	Continuous Water + Alkali Circulation	30	0.08		HCl	20 mg/NM ³
						Cl ₂	9 mg/NM ³
52	Chlorotrifluoroethane (HCFC 133a) Central Absorption System	Continuous Water + Alkali Circulation	30	0.08		HCl	20 mg/NM ³
						HF	6 mg/NM ³
53	Pentafluoroethane (HFC 125) Central Absorption System	Continuous Water + Alkali Circulation	30	0.08		HCl	20 mg/NM ³
						HF	6 mg/NM ³
54	Difluoromethane (HFC - 32) Central Absorption System	Continuous Water + Alkali Circulation	30	0.08		HCl	20 mg/NM ³
						HF	6 mg/NM ³
55	Laboratory (4 Nos. absorption system)	Continuous Water + Alkali Circulation	30 each	0.08		Un known	Un known
56	Tank Farm (12 Nos. absorption system)	Continuous Water + Alkali Circulation	30 each	0.08		Un known	Un known
Proposed Process Stacks							
Sulphuric Acid Plant Stack							
1	Sulphuric Acid Plant Central Absorption System	Continuous Water + Alkali Circulation	30	0.08		SO ₂	40 mg/NM ³
Polytetrafluoroethylene (PTFE) Plant Stack							
2	Polytetrafluoroethylene (PTFE) Plant (Continuous Water + Alkali Circulation	20	0.08		HCl	20 mg/NM ³
			30	0.08		SO ₂	40 mg/NM ³

	Central Absorption System)						
Bulk Chromia Stack							
3	Bulk Chromia Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	NH ₃	175 mg/NM ³	
Isopropyl alcohol Stack							
4	Isopropyl alcohol Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	SO ₂	40 mg/NM ³	
Calcium Chloride Stack							
5	Calcium Chloride Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³	
Chlorodifluoromethane (R22) Stack							
6	Chlorodifluoromethane (R22) Central Absorption System	Continuous Water + Alkali Circulation	30	0.08	HCl	20 mg/NM ³	
					HF	6 mg/NM ³	
--							
iii	Fugitive emission details with its mitigation measures.						
	<p>Following measures will be adopted to prevent and control fugitive emissions:</p> <ol style="list-style-type: none"> 1. Airborne dust at all transfers operations/ points will be controlled either by spraying water or providing enclosures. 2. Adequate ventilation will be provided. 3. Regular maintenance of valves, pumps, flanges, joints and other equipment will be done to prevent leakages and thus minimizing the fugitive emissions of VOCs. 4. Entire process will be carried out in the closed reactors with proper maintenance of pressure and temperature. 5. Periodic monitoring of work area will be carried out to check the fugitive emission. 6. To eliminate chances of leakages from glands of pumps, mechanical seal will be provided at all solvent pumps. 7. Stand by pumps will be provided on all scrubbers. Besides, scrubbers will be equipped with on-line pH meter with hooter system for better operational control. 8. Close feeding system will be provided for centrifuges. Centrifuge and filtrate tank vents will be connected to vent chillers. 9. Minimum number of flanges, joints and valves in pipelines. 10. Regular inspection of floating roof seals and proper preventive maintenance of roofs and seals for tanks. 11. Fugitive emission over reactors, formulation areas, centrifuges, chemical loading, transfer area will be collected through hoods and ducts by induced draft and controlled by scrubber/ dust collector. 12. Dedicated scrubber will be provided are used for fugitive emissions to control. 13. For dust emissions bag filter will be provided. 14. Enclosures to chemical storage area, collection of emission from loading of raw materials in particular solvents through hoods and ducts by induced draft, and control by scrubber / dust collector to be ensured. 						
F	Hazardous waste (As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.						

Existing & Proposed									
S. No	Name of Hazardous and Other Waste	Schedule	Category as per Rule 2016	UOM	Source of Generation	Existing	Additional	Total Proposed	Mode of disposal
1	Chemical sludge from waste water treatment	I	35.3	MTA	ETP Process	6000	4784	10784	Collection, Storage, Transportation, disposal at Co-processing/ TSDf.
2	Spent Oil	I	5.1	MTA	Lubrication of Plant Machinery / Equipment	1800	0	1800	Collection, Storage, Transportation, sell to registered re-refiners / recycler
3	Discarded containers / barrels / liners used for hazardous wastes/chemicals	I	33.1	Nos. per Year	Raw Material	1340000	0	1340000	Collection, Storage, Transportation, reuse / sell to authorize recyclers.
				Or MTA (Discarded Containers / barrels)	Raw Material	14741	0	14741	
				MTA (Discarded liners)	Raw Material	190	0	190	
4	Spent Catalyst	I	28.2	MTA	Process	2400	5502	7902	Collection, Storage, Transportation, sell to authorized recycler/ disposal at Co-processing or TSDf/ CHWIF.
5	Contaminated cotton rags or other cleaning materials	I	33.2	MTA	Machinery / Equipment Cleaning	0	50	50	Collection, Storage, Transportation, disposal at Co-

										processing or CHWIF.
6	Spent Carbon	I	28.3	MTA	Process	1212	0	1212	Collection, Storage, Transportatio n, sell to authorized recycler/ disposal at Co- processing or TSDf/ CHWIF.	
7	Off- Specification Product	I	28.4	MTA	Process	600	0	600	Collection, storage, transportatio n, disposed to Co- processing or CHWIF.	
8	Any process or distillation residue	I	28.1	MTA	Process	3200 0	113 0	33130	Collection, storage, transportatio n, disposed to Co- processing /CHWIF.	
9	Spent Solvent	I	20.2	MTA	Process	9089 2	0	90892	Collection, Storage, Transportatio n, Sell to authorized re-processor & or disposal at Co- processing & or CHWIF & or Sent for Job work to third party for recovery.	
10	Chemical sludge from waste water treatment (MEE / ATFD Salt)	I	35.3	MTA	MEE / ATFD Process	7385 8	0	73858	Collection, Storage, Transportatio n, disposal at TSDf.	
11	Inorganic Salt	I	28.1	MTA	Process	4447	141 55	18602	Collection, Storage, Transportatio n, disposal at Co- processing/ TSDf.	

12	CuCl Cake	II	8.2	MTA	Process	52	0	52	Collection, Storage, Transportation, sell to actual users / Co-processing / disposal at TSDf or CHWIF.
13	Ammonium Salt	II	A10	MTA	Process	5811	0	5811	Collection, storage, transportation, Sell to Actual users / Sent to disposal at TSDf.
14	Potassium Salt	II	B-36	MTA	Process	5061	0	5061	Collection, storage, transportation, Sell to Actual users / Sent to disposal at TSDf.
15	Sodium Salt	II	B-36	MTA	Process	4402	0	4402	Collection, storage, transportation, Sell to Actual users / Sent to disposal at TSDf.
16	Zinc Compound	I	6.1	MTA	Process	787	0	787	Collection, storage, transportation, Sell to Actual users / Sent to disposal at TSDf.
17	Hydrofluoric silic acid (15-40%)	II	Class C-2	MTA	Process	24000	23998	47998	Collection, Storage, Transportation, Sell to Actual User / end user having permission under Rule-9.
18	Sulphuric acid (70-95%)	II	B-15	MTA	Process	117932	22397	140329	
19	Hydrochloric Acid (30 - 33%)*	II	B-15	MTA	Process	912081	207288	1119369	
20	Sodium Hypochlorite	II	B-7	MTA	Process	149516	6351	155867	
21	Liquor	II	A-10	MTA	Process	6871	104	7914	

		Ammonia Solution (10-25%)					3			
22		Hydrogen bromide Solution (40-50%)	II	B-10	MTA	Process	5691	0	5691	Collection, Storage, Treatment, Reuse as Raw Material in Plant Premises.
23		Brine Sludge	I	16.3	MTA	Caustic Chlorine Plant	5500	0	5500	Collection, Storage, Transportation, disposal at TSDF
24		Fly Ash		-	MTA	Process	108000	0	108000	Sold to Brick, Tile & Cement Manufacturer as per Fly Ash Notification
25		Calcium Fluoride	II	B-10	MTA	Process	8479	10023	18502	Collection, Storage, Transportation, disposal at TSDF
26		Sodium Methoxide Solution	II	Class C-7	MTA	Process	120	0	120	Collection, Storage, Transportation, Sell to Actual User / end user having permission under Rule-9.
27		Phosphoric Acid (25-75%)	II	B-35	MTA	Process	2421	28	2449	
28		Phosphorous Trichloride	II	B-35	MTA	Process	1837	0	1837	
29		Mix of trichloroethylene & Perchloroethylene	I	20.2	MTA	Process	33395	23580	56975	
30		Gypsum	I	35.1	MTA	Process and ETP	162400	162400	324800	
31		Aluminum Trifluoride	II	C2/A72	MTA	Process	1000	1000	2000	Collection, Storage, Transportation, Sell to Actual User / end user
32		Succinimide (C4H5NO2)	I	28.1	MTA	Process	31	0	31	
33		Mix of Ethane + n-	I	28.1	MTA	Process	7327	23572	30899	

	Butane + Isobutane + (R600a) + Propane (R290)								having permission under Rule-9.
34	Calcium chloride	II	B-10	MTA	Process	176	42101	42277	
35	Ethers	I	36.1	MTA	Process	0	7000	7000	
36	Paraffinic wax	I	36.1	MTA	Process	0	10	10	
37	Hexa Fluoro Propylene	I	36.1	MTA	Process	0	2500	2500	
38	Ammonium Nitrate solution	II	A10	MTA	Process	0	1871	1871	
39	Di-Isopropyl alcohol	I	36.1	MTA	Process	0	8824	8824	
40	Carbon dioxide (As Dry Ice)	I	36.1	MTA	Process	0	19800	19800	
41	Caustic lye 47.5 %	II	Class C2	MTA	Process	0	2610	2610	
42	Fluoroform (R23)	I	28.1	MTA	Process	0	400	400	
<p>* - We have done MoUs with 35 Nos. of end users and out of 35 end users 4 (four) has applied for Rule 9 permission under Hazardous & Other Waste Rule 2016 for utilization of HCl and also requested to remaining 31 Nos. end users apply for Rule 9 permission. We are also planning to convert HCl into CaCl₂ solution and discharge in deep sea, for which we have applied NOC (CTE) at GPCB. In other words, we will either sale it or send for deep-sea disposal. Either partly or full quantity as vice-versa. To Neutralize Approx. 3000 TPD of HCl Containing 30% Weight of HCl i.e. Approximately 4000 TPD of CaCl₂ solution containing approx. 33.5% CaCl₂.</p>									
ii	Membership details of TSDF, CHWIF etc. (For HW management)				Company has obtained membership of of M/s. BEIL, Ankleshwar, M/s. SEPPL, Dahej & M/s. RSPL, Panoli.				
iii	Details of Non-Hazardous waste & its disposal(MSW and others)				<p>Bio-medical Wastes:- SRF Limited has an occupational health centre. The BMW generated, if any, is sent to an authorized common bio-medical waste incinerator. The facility already has membership of common BMW incineration facility.</p> <p>E-Wastes:- E-waste will be handled and disposed as per E-Wastes (Management and Handling) Rules, 2016. The facility already has registered as a member with authorized E- waste recycler.</p> <p>Other Non-Hazardous Solid Wastes:- Other solid</p>				

wastes include kitchen waste, cardboard, paper, plastic and garden wastes. Amongst these cardboard, paper and plastic wastes are sent to scrap dealers. Canteen waste and garden waste is used for composting. Wastes like insulation waste, thermocol waste and used PPE's are sent to common TSDF/CHWIF facility. The same practice will be continued for the proposed project.

G Solvent management, VOC emissions etc.

i Types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc.

Solvent	boiling point	melting point	Flash point	Qty per Day Consumed	Qty per Day Recovered	Qty per Day Losses	% of Recovery	% of Losses
	(°C)	(°C)	(°C)	MT	MT	MT	MT	MT
Acetic acid	118	16.6	39	24.3	23.3	1.0	95.7	4.3
Acetone	56.05	-94.7	-20	17.2	16.4	0.8	95.4	4.6
Acetonitrile	81.65	-43.8	6	0.4	0.3	0.0	95.1	4.9
Carbon tetrachloride	76.8	-22.6	--	8.1	7.7	0.4	95.2	4.8
Chloro benzene	131.7	-45.3	28	2.2	2.1	0.1	95.9	4.1
Chloroform	61.2	-63.4	--	103.6	98.9	4.8	95.4	4.6
Cyclohexane	80.7	6.6	-20	0.5	0.5	0.0	95.3	4.7
Diethylether	34.5	-116.2	-45	0.8	0.7	0.0	95.2	4.8
Dimethyl-formamide (DMF)	153	-60.48	58	16.8	16.0	0.8	95.2	4.8
Dimethyl sulfoxide (DMSO)	189	18.4	95	1.3	1.3	0.1	95.9	4.1
1,4-dioxane	101.1	11.8	12	1.6	1.5	0.1	95.4	4.6
Ethanol	78.5	-114.1	13	8.5	8.2	0.4	95.6	4.4
Ethyl acetate	77	-83.6	-4	37.3	35.7	1.6	95.7	4.3
Ethylene glycol	195	-13	111	0.8	0.8	0.0	95.8	4.2
Heptane	98	-90.6	-4	2.9	2.8	0.1	96.0	4.0
Hexane	69	-95	-22	4.1	3.9	0.2	95.2	4.8
Methanol	64.6	-98	12	109.8	106.5	3.3	97.0	3.0
Methyl t-butyl ether (MTBE)	55.2	-109	-28	4.1	3.9	0.2	95.5	4.5
Methylene chloride	39.8	-96.7	1.6	134.6	130.6	4.0	97.0	3.0
N-methyl-2-pyrrolidinone (NMP)	202	-24	91	6.2	5.8	0.3	95.1	4.9
1-propanol	97	-126	22	3.1	2.9	0.2	95.0	5.0

	Pyridine	115.2	-41.6	17	2.2	2.1	0.1	95.1	4.9
	Phenol	181.75	40.5		7.8	7.4	0.4	95.2	4.8
	Tetrahydrofuran (THF)	65	-108.4	-14	0.5	0.5	0.0	95.9	4.1
	Toluene	110.6	-93	4	42.9	41.2	1.7	96.0	4.0
	Triethyl amine	88.9	-114.7	-11	4.8	4.6	0.2	96.0	4.0
	O-xylene	144	-25.2	32	10.3	10.0	0.3	97.0	3.0
	Xylene	138.4	13.3	27	0.7	0.7	0.0	97.0	3.0

ii **VOC emission sources and its mitigation measures**

During operation stage, leakage through valves/pumps, leakage and emission from open drum containing chemicals, open feeding, storage tanks, etc. will be major sources of fugitive emissions and VOCs. Excess use of solvent/s may also results fugitive emission from the process vessels.

- Solid raw material charging will be done through closed system.
- Entire process will be carried out in the closed reactors with proper maintenance of pressure and temperature.
- Close feeding system will be provided for centrifuges. Centrifuge and filtrate tank vents will be connected to vent chillers.
- Fugitive emission over reactors, formulation areas, centrifuges, chemical loading, transfer area, will be collected through hoods and ducts by induced draft and controlled by scrubber/dust collector.
- Emphasis will be given to solvent management/solvent loss prevention.
- Control by having proper scrubbing system.
- Condenser to trap VOC.
- Enclosures to chemical storage area, collection of emission from loading of raw materials in particular solvents through hoods and ducts by induced draft, and control by scrubber/dust collector to be ensured.
- Proper maintenance schedule will be adhered to avoid emissions through flange joints, pump seals etc.
- Minimum number of flanges, joints and valves in pipelines.
- Proper gland packing will be maintained for pumps and valves and to the extent possible pumps with mechanical seal.
- All the raw materials will be pneumatically transfer to the reactor.
- All rotating equipments like pumps will be installed with mechanical seals to arrest any sort of emissions.
- A regular preventive maintenance schedule will be in place to replace or rectify all gaskets and joints etc. as a part of ISO systems to ensure no fugitive emissions take place.
- Periodic monitoring of work area will be carried out to check the fugitive emission.
- Solvent tank vents will be connected to vent chillers.
- Adequate ventilation will be provided.
- Airborne dust at all transfers operations/ points will be controlled either by spraying water or providing enclosures.
- Breather valves will be provided on solvent tanks.

H ➤ **Details regarding storage of Hazardous chemicals**

Storage details	Name of major Hazardous chemicals	Remarks
Storage tanks	Caustic Flakes, Hydrochloric Acid (30%), Sulphuric Acid (98%), Bromine, Methanol, Methylene Chloride, Ethanol, Ethyl Acetate, Oleum, Caustic Lye (48%), Toluene, Acetone, Acetic Anhydride, Mono Chlorobenzene, Dimethyl formamide, Hydrogen Fluoride, Acetyl Chloride	
Barrel storage/ Jumbo Bags	Oxalic Acid, Succinic Acid, Potassium Permanganate, Zinc Nitrate, Calcium Carbonate, Ferric Chloride, Potassium Hydroxide, Sodium Carbonate, Activated Carbon, Tri Ethyl Amine, Potassium Fluoride, Acetic Anhydride, Mix Xylene, Potassium Carbonate	
Cylinder	Chlorine, Anhydrous Ammonia, Anhydrous HCl	

➤ **Applicability of PESO** : Permission from PESO already obtained

- During the meeting dated 09/10/2019, technical presentation made by project proponent.
- The baseline environmental quality has been assessed for various components of the environment viz. air, noise, water, biological and socioeconomic aspect. The baseline environmental study has been conducted for the study area of 10 km radial distance from project site for the period October to December 2018. Ambient Air Quality monitoring was carried out for PM10, PM2.5, SO2, NOx, O3, NH3, CO& VOC at nine locations, including the project site. Values conform to the prescribed standards for Ambient Air Quality. The incremental Ground Level Concentration (GLC) has been computed using ISCST3. The resultant concentrations are within the NAAQS.
- Risk assessment including prediction of the worst-case scenario and maximum credible accident scenarios has been carried out. The detail proposed safeguard measures including On-Site / Off-Site Emergency Plan has been covered in the RA report.
- During SEAC meeting dated 09/10/2019, committee asked about legal notices issued by GPCB compliance, Technical expert of PP informed that eight show cause notices and one closure order issued by GPCB in last three years. Committees disagree with this expansion project proposal as existing unit is regularly in non-compliance. Committee deliberated on reply submitted by GPCB regarding SCN and closure order showing unit are disposing spent HCl generated from plant is in huge quantity and its disposal is mainly by selling to trading unit instead of end users having Rule- 9 permission under HWRules'2016. Committee asked about certified compliance report(CCR) of existing plant EC, technical expert of PP informed that most conditions of existing plant are compiled except one condition for which competent inspecting authority mentioned that unit have to obtain EC – Amendment for storage of Raw material for three days. Committee insisted for obtain EC-amendment for existing EC order vide letter no-J/11011/379/2016-IA II (I) dated: 19th December 2017.

- After detailed discussion, it was decided to defer the project and consider the proposal only after submission of the following documents:
 1. Submit adequate compliance report regarding closure order and SCN as unit obtained eight show cause notice (SCN) and closure order issued by GPCB in last three years. Current status of all 32 non-complying conditions shall be submitted in tabular form.
 2. Submit adequate compliance of spent HCl disposal as per Hazardous Waste Rules 2016 along with MoU for disposal of spent HCl to end-users having Rule-9 permission or Authorisation of GPCB for acceptance of spent HCl.
 3. Submit EC-amendment order as mentioned in certified compliance report(CCR) from MoEF&CC, Bhopal vide File No: 5-79/2018 (ENV)/411 dated 02/07/2019, for existing plant EC order vide letter no- J/11011/379/2016-IA II (I) dated: 19th December 2017.
- Project proponent made presentation for the above mentioned query dated 21/01/2020 for the above mentioned points.
- PP presented replied as below:
 1. PP presented point wise reply of the SCN, NOD, DIR issued by GPCB in last three years along with its compliance as on 20/01/2020 for all the condition which were not in compliance. Committee noted that PP has not given proper justification in most of the complied condition and have only written “Complied & Closed” without any proper reasoning. Committee also noted that PP approach towards environmental compliance issues is not up to the mark and the unit is in continuous violation of environmental norms both prescribed in EC & CCA. Committee asked PP to address all the issue with proper justification of the compliance along with proper reasoning.
 2. PP mentioned that they have applied to GPCB for CTE for utilization of spent HCl in-house by converting the same to calcium chloride and the application is in process. PP further explained that after proposed expansion total of 11,19,369 MT/Year of spent HCL will be generated and all of that will be utilized in-house for manufacturing of calcium chloride. PP clarified that once they will get CTE/CC&A for the same there will not be any disposal of spent HCL outside the premises neither there will be any tanker movement so compliance related to spent HCL will not be an issue. Committee noted that PP has applied CTE for the disposal of spent HCL to GPCB for in-house utilization of the same however they could not establish mathematical balance of total generation of spent HCl in line with production and total quantity of calcium chloride that will be generated from this spent HCl and its environmental sound disposal of the same.
 3. PP mentioned that they have applied for EC – Amendment in the EC granted vide Letter No. J/11011/379/2016-IA II (I) dated: 19th December 2017 by MoEF&CC for change in EC condition which in observed in non-compliance as mentioned in the Certified Compliance Report of Regional Office, Bhopal of MoEF&CC and the same has been considered in the EAC meeting dated 30th December, 2019 and the final approval is awaited from MoEF&CC. Committee noted that PP is not in full compliance of the

Environment Clearance granted by MoEF&CC vide Letter No. J/11011/379/2016-IA II (I) dated: 19th December 2017 and expansion cannot be granted until PP does not comply all the past EC condition.

- **After detailed discussion, Committee unanimously decided to consider the project only after submission of the following additional details.**

1. Point wise reply of the SCN, NOD, DIR issued by GPCB with proper justification of the compliance as on date along with proper reasoning.
2. Mathematical balance of total generation of spent HCl in line with total production after proposed expansion and total quantity of calcium chloride that will be generated from this spent HCl and its environmental sound disposal of the same.
3. Amended EC from MoEF&CC in line with the EC granted by MoEF&CC vide Letter No. J/11011/379/2016-IA II (I) dated: 19th December 2017.

4	SIA/GJ/IND2/42243/2019	M/s. Pacific Organics Pvt. Ltd. C-85, GIDC-Saykha, Taluka: Vagra, District: Bharuch.	EC – Reconsideration
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Category of the unit : 5(f)

Project status: New

- Project proponent (PP) has submitted online application vide no. SIA/GJ/IND2/42243/2019 on dated 01/10/2019 for obtaining Environmental Clearance.
- The SEAC had recommended TOR to SEIAA and SEIAA issued TOR to PP vide their letter dated 12/07/2019.
- Project proponent has submitted EIA Report prepared by M/s. Aqua Air Environmental Engineering Pvt. Ltd. based on the TOR issued by SEIAA.
- This is new unit proposes for manufacturing of synthetic organic chemical as tabulated below:

Sr. No.	Product Name	Quantity Mt/ Month	Cas No.	End Use
Group 1 - Phase Transfer Catalyst				
1	Benzyltrimethyl Ammonium Chloride/ Benzyltrimethylammonium Chloride Solution	300	56-93-9	Phase Transfer Catalyst
2	Methyl Tri Butyl Ammonium Chloride 75%		56375-79-2	Phase Transfer Catalyst
3	Methyl Tri Octyl Ammonium Chloride 85%/90%/95%		63393-96-4	Phase Transfer Catalyst
4	Benzyl Triphenyl Phosphonium Chloride		1100-88-5	Phase Transfer Catalyst

5	Benzyl Triphenyl Phosphonium Bromide		1449-46-3	Phase Transfer Catalyst
6	Ethyl Triphenyl Phosphonium Bromide		1530-32-1	Phase Transfer Catalyst
7	Ethyl Triphenyl Phosphonium Chloride		896-33-3	Phase Transfer Catalyst
8	Ethyl Triphenyl Phosphonium Iodide		4736-60-1	Phase Transfer Catalyst
9	Ethyltriphenyl Phosphonium Acetate		35835-94-0	Phase Transfer Catalyst
10	Methoxy Methyltriphenyl Phosphonium Chloride		4009-98-7	Phase Transfer Catalyst
11	Methyltriphenyl Phosphonium Bromide		1779-49-3	Phase Transfer Catalyst
12	Methyl Tri Phenyl Phosphonium Iodide		2065-66-9	Phase Transfer Catalyst
13	Methyl Tri Phenyl Phosphonium Chloride		4009-98-7	Phase Transfer Catalyst
14	Tetra Phenyl Phosphonium Bromide		2751-90-8	Phase Transfer Catalyst
15	Tetra Methyl Ammonium Hydroxide Pentahydrate		75-59-2	Phase Transfer Catalyst
16	Tri Ethyl Methyl Ammonium Chloride		10052-47-8	Phase Transfer Catalyst
17	Tri Methyl Benzyl Ammonium Dichloro Iodide		56-37-1	Phase Transfer Catalyst
18	Tetra Propyl Ammonium Hydroxide		4499-86-9	Phase Transfer Catalyst
19	Di Ethyl Di Methyl Ammonium Hydroxide		95500-19-9	Phase Transfer Catalyst
20	Tri Ethyl Methyl Ammonium Hydroxide		109334-81-8	Phase Transfer Catalyst
21	Tri Ethyl Butyl Ammonium Bromide		51-97-95-5	Phase Transfer Catalyst
22	Tetrabutyl Ammonium Acetate / Tetrabutyl Ammonium Acetate Solution		10534-59-5	Phase Transfer Catalyst
23	Tetra Butyl Ammonium Bromide/ Tetra Butyl Ammonium Bromide Solution		1643-19-2	Phase Transfer Catalyst
24	Tetra Butyl Ammonium Chloride/Tetra Butyl Ammonium Chloride Solution		1112-67-0	Phase Transfer Catalyst
25	Tetra Butylammonium Hydrogen Sulphate		32503-27-8	Phase Transfer Catalyst
26	Tetra Ethyl Ammonium Hydroxide		77-98-5	Phase Transfer Catalyst
27	Tetra Butyl Ammonium Hydroxide		2052-49-5	Phase Transfer Catalyst
28	Di Methyl Di Propyl Ammonium Hydroxide		95500-19-9	Phase Transfer Catalyst
29	Tetra Octyl Ammonium Bromide		14866-33-2	Phase Transfer Catalyst
30	Tetra Propyl Ammonium Bromide/Tetra Propyl Ammonium Bromide Solution		1941-30-6	Phase Transfer Catalyst
31	Benzyl Tri Methyl Ammonium Hydroxide		100-85-6	Phase Transfer Catalyst
32	Benzyl Tributyl Ammonium Bromide		25316-59-0	Phase Transfer Catalyst

33	Benzyl Tributyl Ammonium Chloride		23616-79-7	Phase Transfer Catalyst
34	Benzyl Tri Phenyl Phosphonium Iodide		1243-97-6	Phase Transfer Catalyst
35	Tetra Butyl Phosphonium Bromide		3115-68-2	Phase Transfer Catalyst
36	Cetyl Trimethyl Ammonium Chloride		112-02-07	Phase Transfer Catalyst
37	Cetyl Trimethyl Ammonium Bromide		57-09-0	Phase Transfer Catalyst
38	Cetyl Di Methyl Benzyl Ammonium Chloride		122-18-9	Phase Transfer Catalyst
39	Cetyl Di Methyl Benzyl Ammonium Bromide		3529-04-2	Phase Transfer Catalyst
40	Phenyl Tri Methyl Ammonium Bromide		138-24-9	Phase Transfer Catalyst
41	Tetra Ethyl Ammonium Iodide		68-0-5-3	Phase Transfer Catalyst
42	Tri Ethyl Methyl Ammonium Bromide		2700-16-5	Phase Transfer Catalyst
43	Butyl Triphenyl Phosphonium Bromide		1779-51-7	Phase Transfer Catalyst
44	Butyl Triphenyl Phosphonium Chloride		13371-17-0	Phase Transfer Catalyst
45	Tri Ethyl Benzyl Ammonium Chloride		56-37-1	Phase Transfer Catalyst
46	Cetrimide		1119-97-7	Phase Transfer Catalyst
47	Cetrimide Strong Solution 40%		1119-97-7	Phase Transfer Catalyst
48	Cetyl Pyridinium Chloride		123-03-5	Phase Transfer Catalyst
49	Tetra Ethyl Ammonium Bromide		71-91-0	Phase Transfer Catalyst
50	Tetra Ethyl Ammonium Chloride		56-34-8	Phase Transfer Catalyst
51	Benzalkonium Chloride 50% /80%		8001-54-5	Phase Transfer Catalyst
Group 2 – Bromine Derivatives				
52	Iso Propyl Bromide	200	75-26-3	Mepronil , Valerate
53	N Propyl Bromide		106-94-5	Albendazole , Sodium Valporate
54	N Butyl Bromide		109-65-9	Tetra Butyl Ammonium Bromide
55	1 Bromo 3 Chloro Propane		109-70-6	Cyclopropylamine, Refroterol
56	Hydro Bromic Acid 48%/ 62%		10035-10-6	Telmisarten
57	Hydro Bromic Acid 33% In Acetic Acid		37348-16-6	Levocitrizine
Group 3 – Intermediates				
58	2 Cyanoacetamide	100	107-91-5	Pregabilin
59	N,N, Di Iso Propyl Ethyl Amine	50	7087-68-5	Hunig's Base
60	Cyclo Propyl Amine	25	765-30-0	Ciprofloxacin
61	Meta Bromo Anisole	40	2398-37-0	Tremadol
62	Meta Chloro Anisole		2845-89-8	Tremadol
63	3-(Rs)- Carbamoylmethyl -5 Methyl Hexenoic	75	181289-15-6	Pregablin

	Acid (Rs-Cmh Acid)			
64	3-(R)- Carbamoymethyl -5 Methyl Hexenoic Acid (R-Cmh Acid)		181289-33-8	Pregablin
65	4-2- Methyl Propyl Piperidine-2,6-Dione		916982-10-0	Pregablin
66	3 -Iso Butyl Glutaric Acid		75143-89-4	Pregablin
67	2-4- Hydroxy Phenyl Ethanol	50	501-94-0	Metoprolol
68	4-2- Methoxy Ethyl Phenol		56718-71-9	Metoprolol
69	Ethyl-2-Cyno-3-Dimethylamino Acrylate	25	16849-87-9	Allopurinol
70	3-Amino-4-Carbethoxy pyrazole Sulphate Salt		6994-25-8	Allopurinol
71	N-4-Nitrophenyl Methyl Sulfonyl Pyrolidine	15	340041-91-0	Almotriptan
72	Di Ethyl Malonate And Di Ethyl Di Propyl Malonate	30	105-53-3	Sodium Valporate
73	Cis-2-Bromomethyl-1-2-2,4- Dichlorophenyl-1,3-Di-Oxolan-4-Yl Methyl Benzoate	10	61397-56-5	Ketoconazole
74	1-Acetyl-4-4-Hydroxyphenyl Piperazine	10	67914-60-7	Itraconazole
75	2-Amino-4-Hydroxy-6-2,4,5-Triamino-Chloro Methyl Pteridine	10	873397-19-4	Folic Acid
76	5-4-Bromomethyl Biphenyl-2-Yl-2-Trityl-2h-Tetrazole		133051-88-4	Candesartan
77	4-Bromomethyl-2-Cyanobiphenyl		114772-54-2	Sartans
78	2-Butyl-4-Chloro-5-Hydroxymethyl-1-2 Cyano-1,1-Biphenyl 4 Methyl 1h-Imidazole		114772-55-3	Losarten
79	Methyl N-Pentanoyl-L-Valinate		118547-11-2	Valsartan
80	5-4-Bromomethyl-1,1-Biphenyl-2-Yl-2h-Tetrazole		138402-33-2	Candesartan
81	2-4-Bromomethylphenyl Benzoic Acid Methyl Ester		114772-38-2	Telmisartan
82	1,7-Dimethyl-2-Propyl-2,5-Bi-1h-Benzimidazole	50	152628-02-9	Telmisartan
83	Carbonic Acid Cyclohexyl Ester 1-Iodo-Ethyl Ester		102672-57-1	Candesartan
84	Methy 2 -Ethoxybenzimidazole-7-Carboxylate With 3-Nitrophthalic Acid		150058-27-8	Candesartan
85	4-Hydroxymethyl-5-Methyl-2-Oxo-1,3 Dioxole		91526-18-0	Azilsartan
86	Cis-2-2,4 Dichlorophenyl-2-1h-1,2,4-Triazol-1-Ylmethyl-1,3- Dioxolan-4-Yl Methyl-4-Methylbenzenesulphonate		154003-23-3	Ketoconazole
Group 4 – Active Pharmaceutical Ingredients				
87	Pregabalin	20	148553-50-8	To Treat Epilepsy And Nerve Pain
88	Allopurinol	20	315-30-0	To Treat Gout And Kidney Stones And Uric Acid Levels
89	Lithium Carbonate	20	554-13-2	To Treat Depressive Disorder
90	Ciprofloxacin	30	85721-33-1	As Antibiotic
91	Enrofloxacin		93106-60-6	As Antibiotic
92	Telmisartan	50	144701-48-4	To Treat High Bloodpressure

93	Losartan Potassium		114798-26-4	To Treat High Bloodpressure
94	Candesartan Cilexetil		139481-59-7	To Treat High Bloodpressure
95	Azilsartan Medoxomil Potassium		147403-03-0	To Treat High Bloodpressure
96	Valsartan		137862-53-4	To Treat High Bloodpressure
97	Sodium Valporate	30	1069-66-5	To Treat Epilepsy, Migraine
98	Valporic Acid		99-66-1	To Treat Seizure Disorders
99	Folic Acid	25	59-30-3	To Treat Anaemia
100	Ketaconazole	20	65277-42-1	To Treat Fungus
101	Itraconazole		84625-61-6	To Treat Fungus
102	Metoprolol	30	37350-58-6	To Treat Hypertension
103	Mirabegron	15	223673-61-8	To Treat Overactive Bladder
Total (Products)		1250		

- The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006.
- PP was called for presentation in the SEAC meeting dated 16/10/2019.
- During the meeting dated 16/10/2019, technical presentation made by project proponent.
- The baseline environmental quality has been assessed for various components of the environment viz. air, noise, water, biological and socioeconomic aspect. The baseline environmental study has been conducted for the study area of 10 km radial distance from project site for the October to December 2018. Ambient Air Quality monitoring was carried out for PM2.5, PM10, SO2, NOx, VOC, O3 at ten locations, including the project site. Values conform to the prescribed standards for Ambient Air Quality. The incremental Ground Level Concentration (GLC) has been computed using ISCST3. The resultant concentrations are within the NAAQS.
- Risk assessment including prediction of the worst-case scenario and maximum credible accident scenarios has been carried out. The detail proposed safeguard measures including On-Site / Off-Site Emergency Plan has been covered in the RA report.
- Committee noted that this proposal is for new project of Dyes Intermediates, pharmaceutical API, Phase transfer catalyst etc. manufacturing facility at GIDC Saykha.
- While deliberating ToR compliances, Committee found discrepancy in proposed various group like dyes intermediate, API bulk drug, Bromine derivatives, phase transfer catalyst etc manufactured in proposed plot and its layout plan. Upon asking the same, PP could not give clarification satisfactorily. Committee asked about byproduct mentioned in product profile is Hazardous waste or not, PP informed that these by products are not by product and are Hazardous waste.
- Coal and diesel will be used as fuel for boiler and DG set respectively. Committee insisted for install water scrubber as APCM in addition to proposed APCM with coal fired boiler as per GPCB guideline. PP has not addressed APCM for nitration process gas emission upon asking by committee regarding concentrated nitric acid as raw material for ketaconazole, CIS-2-2,4 DICHLOROPHENYL-2-1H-1,2,4-TRIAZOL-1-YLMETHYL-1,3-DIOXOLAN-4-YL METHYL-4-METHLBENZENESULPHONATE etc.
- Committee also deliberated on area adequacy, Wastewater management, EMP, LDAR, CER, safety aspects etc. of proposed project and found PP has not submitted need based CER for proposed project.
- PP has not submitted copy of Rule- 9 permission for various hazardous waste disposal mentioned as selling

to end users having Rule-9 permission and feasibility regarding Hazardous waste disposal for co-processing like off specification products.

- After deliberation, SEAC unanimously decided to consider the proposal only after submission of the following details.
 1. Technical justification regarding nitration process involved in proposed products and revised air Matrix considering APCM for nitration process & water scrubber as APCM in addition to proposed APCM for coal fired boilers and subsequent change in EIA report.
 2. Revised product profile and Hazardous waste matrix with mentioning by product as Hazardous waste.
 3. Submit MoU for each Hazardous waste which disposal is mentioning as selling to end users having Rule-9 permission and for co-processing.
 4. Submit revised layout plant mentioning API bulk drug products manufacturing unit separate and various other group products.
 5. Submit need based CER with budgetary provisions for each CER activity.
- Project proponent made presentation for the above mentioned query dated 21/01/2020 for the above mentioned points.
- PP presented replied as below:
 1. PP stated that nitration process involved at stage - 4 in manufacturing of product (Sr no. 100: Ketoconazole). As in this particular stages product isolation not possible due to liquid oily nature of the product and hence to purify and isolate the intermediate it has to convert in a suitable salt form. Intermediate 4 is neutral in pH and hence addition of nitric acid would not form any gas/acid evolution at this particular stage. Whereas in the subsequent stage again Intermediate 5 gets dissolved in water and dioxane mixture (Salts get dissolve in water easily) and further neutralized by caustic solution to form sodium nitrate salt along with sodium salt of benzoic acid which remains in dissolve form in water and product gets precipitate out. Similar reaction mechanism will be used for product no. 86 and other products too where we will be using nitric acid which will result in product isolation subsequently giving an inorganic salt (sodium nitrate) as by-product which will be sent to TSDF for disposal and hence no emissions will be observed from the reaction. This is the reason we have not provided scrubber for NOx. PP further explained that they have made the respective change in APCM for coal fired boilers.
 2. PP presented revised product profile and Hazardous waste matrix by removing the by-product (KCl, NaBr, NH₄Br, Ethanol) from product list and adding by-product (KCl, NaBr, NH₄Br) into hazardous waste matrix.
 3. PP submitted MoU for Hazardous waste (NaBr, NH₄Br, KCl, Sodium bisulfite 22 %) which will be disposed by selling end users having Rule-9 permission.
 4. PP submitted and presented revised layout plant mentioning API bulk drug products manufacturing unit separate and various other group products.
 5. PP has submitted need based CER with budgetary provisions for each CER activity along with Gampanchayat letter.

- Committee observed reply of PP satisfactory.
- Compliance of ToR found satisfactory.
- Salient feature of the project including air, water and hazardous waste management as below (Revised):

Sr. no	Particulars	Details				
A	Total cost of Proposed Project (Rs. in Crores):	20 Crores				
ii	EMP details (Capital cost & Recurring cost)					
	Brief details of EMP					
	COMPONENT	CAPITAL COST OF EMP				
	RECURRING COST OF EMP (per Month)					
	Cost	Rs. 70 Lakhs				
		Rs. 6.66 Lakhs				
	Bifurcation of EMP Cost					
Sr. No	Unit	Installed Capacity (KLD)	Capital Cost (Rs. in Lakhs)	Operating Cost (Lakhs/Month)	Maintenance Cost (Lakhs/Month)	Total Recurring Cost (Lakhs/Month)
1	Effluent Treatment Plant	43 KLD	15	6.45	0.1	6.55
2.	APCM	--	16	0.4	0.1	0.5
3.	Hazardous Waste (Expense)	--	10	9	--	9
4.	AWH Monitoring Cost	--	10	0.1	--	0.1
5.	Greenbelt	--	8.12	0.0	0.03	0.15
	Total		59.12			16.3
iii	CER details (As per MoEF&CC OM dated 01/05/2018)					
	As per OM no. 22-65/2017 on dated 01/05/2018 regarding "Corporate Environment Responsibility" (CER), Greenfield projects have to contribute 2% of the Additional Capital Investment, the company will contribute Rs. 40.0 Lakhs as funds for CER activities					
	Component	As per Norms	Allocation			
	CER	Rs. 40 Lakhs (2 %)	Rs. 40 Lakhs (2 %)			
	Activities to be carried out under CER:					

12) Total **fresh water** requirement: 75 KLD

iii **Waste water generation (KLD)**

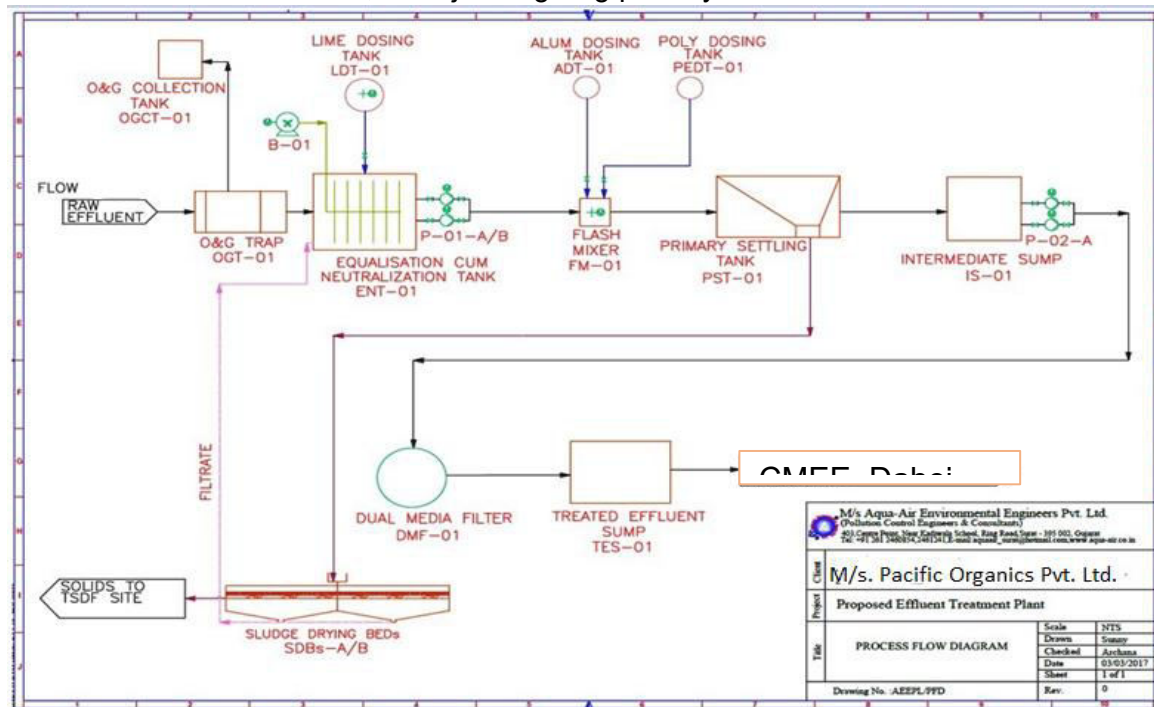
Category	Waste water KLD	Remarks
(C) Domestic	4.0	
(D) Industrial		
Process	36	
Washing	4	
Boiler	2	
Cooling	1	
Others	1.28	
Total Industrial waste water	44.28	
Total [A + B]	48.28	

iv Treatment facility within premises with **capacity**
[In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc.]

ETP: 43 KL/Day

Treatment scheme including segregation at source.

Segregation of waste stream is not required because composite effluent stream will be sent to Common MEE of M/s. BEIL, Dahej after giving primary treatment in ETP.



Note: (In case of CETP discharge) :
Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.

Not Applicable

Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):

- Industrial Effluent of 43 KL/Day is treated in Primary ETP and then sends to Common MEE of M/s. BEIL, Dahej
- 0.98 KLD out of 1.28 KLD of scrubber liquor generated will be sold under rule-9 & 0.3 KLD will

	be reused within premises.						
v	Mode of Disposal & Final meeting point						
	Domestic:	Domestic Wastewater of 4 KL/Day will be disposed through Soak Pit or Septic Tank.					
	Industrial:	<ul style="list-style-type: none"> 43 KL/Day of effluent will be treated in ETP (Consist of Primary Treatment) and Treated effluent will be send to Common MEE of M/S. BEIL, Dahej. 0.98 KLD out of 1.28 KLD of scrubber liquor generated will be sold under rule-9 & 0.3 KLD will be reused within premises. 					
vi	In case of Common facility (CF) like CETP, Common Spray dryer, Common MEE etc. , Name of CF						
	M/s. BEIL, Dahej						
	Membership of Common facility (CF) (For waste water treatment)						
	Common Multiple Effect Evaporator of M/s. BEIL, Dahej						
vii	Simplified water balance diagram with reuse / recycle of waste water						
	<p style="text-align: right;">All figures are in KL/Day</p> <pre> graph TD RawWater[Raw Water = 75.0 KL/Day] --> Domestic[Domestic = 5.0 KL/Day] RawWater --> Industrial[Industrial = 65 KL/Day] RawWater --> Gardening[Gardening = 5.0 KL/Day] Domestic --> SoakPit[4 KL/Day → Specific tank & soak pit] Industrial --> Process[Process = 48.0 KL/Day] Industrial --> Washing[Washing = 4.0 KL/Day] Industrial --> Boiler[Boiler = 6.0 KL/Day] Industrial --> Cooling[Cooling = 6.0 KL/Day] Industrial --> Scrubbing[Scrubbing = 1.0 KL/Day] Process --> ProcessRecycle[Process = 36.0 KL/Day] Washing --> WashingRecycle[Washing = 4.0 KL/Day] Boiler --> BoilerRecycle[Boiler = 2.0 KL/Day] Cooling --> CoolingRecycle[Cooling = 1.0 KL/Day] ProcessRecycle --> ETP[ETP: 43 KL/Day] WashingRecycle --> ETP BoilerRecycle --> ETP CoolingRecycle --> ETP Scrubbing --> ScrubbingRecycle[Scrubbing = 1.28 KL/Day] ScrubbingRecycle --> Sold[0.98KL/Day Sold to end users] ETP --> MEE[Common MEE M/s. BEIL, Dahej] </pre>						
viii	Reuse/Recycle details (KLD)						
	NA						
E	Air						
i	Flue gas emission details						
	No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc.						
	-						
	Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)

1	Boiler (3 TPH)	30	Briquettes of Bio- coal/Import ed coal	<u>5/4</u> <u>MT/DAY</u>	PM ≤ 150 mg/Nm ³ SO ₂ ≤ 100 ppm NOx ≤ 50 ppm	Multicyclone separator with bag filter + water scrubber
2	Boiler (1 TPH)	30	Briquettes of Bio- coal/Import ed coal	<u>1.6/1.3</u> <u>MT/DAY</u>		Multicyclone separator with bag filter
3	Thermic Fluid Heater - 2 Nos. (2 Lac KL/hr.)	30	Briquettes of Bio- coal/Import ed coal	<u>1.25/1.1</u> <u>MT/DAY</u>		
4	D.G. Set* (500 KVA)	4.5	HSD	<u>1080</u> <u>LIT/DAY</u>		Adequate Stack Height

-

ii Process gas i.e. Type of pollutant gases (SO₂, HCl, NH₃, HBr etc.)

Sr. no.	Specific Source of emission (Name of the Product & Process)	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1	Process Vent-1 (No. 56,57)	<u>HBR</u>	<u>12 M</u>	<u>TWO STAGE</u> <u>ALKALI STAGE</u> <u>SCRUBBER</u>
2	Process Vent-2 (No. 60)	<u>SO₂</u>	<u>12 M</u>	<u>TWO STAGE</u> <u>ALKALI STAGE</u> <u>SCRUBBER</u>
3	Process Vent-3 (No. 60,65)	<u>NH₃</u>	<u>12 M</u>	Two Stage Water Scrubber
4	Process Vent-4 (No. 66,71)	<u>HCL</u>	<u>12 M</u>	Two stage water scrubber

iii Fugitive emission details with its mitigation measures. As below:

- Following measures will be adopted to prevent and control fugitive emissions...**
1. Airborne dust at all transfers operations/ points will be controlled either by spraying water or providing enclosures.
 2. Raw materials loading and unloading will be done in covered area
 3. Care will be taken to store construction material properly to prevent fugitive emissions, if any.
 4. Regular maintenance of valves, pumps, flanges, joints and other equipment will be done to prevent leakages and thus minimizing the fugitive emissions of VOCs.

5. Entire process will be carried out in the closed reactors with proper maintenance of pressure and temperature.
6. Periodic monitoring of work area will be carried out to check the fugitive emission.
7. Breather valves will be provided on solvent tanks.
8. To eliminate chances of leakages from glands of pumps, mechanical seal will be provided at all solvent pumps.
9. Close feeding system will be provided for centrifuges. Centrifuge and filtrate tank vents will be connected to vent chillers.
10. Minimum number of flanges, joints and valves in pipelines.
11. Enclosures to chemical storage area, collection of emission from loading of raw materials in particular solvents through hoods and ducts by induced draft, and control by scrubber / dust collector to be ensured.
12. Adequate ventilation will be provided.
13. Periodic monitoring of work area will be carried out to check the fugitive emission as per the norms of Gujarat Factory Rules.

F **Hazardous wastes**
(as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.

i	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/Annum)	Management of HW

1	ETP SLUDGE	ETP	(SCH -I 33.1)	180	COLLECTION, STORAGE, TRANSPORTATIO N & SENT TO COMMON TSDF SITE OF M/S. SAURASHTRA ENVIRO PROJECTS PVT. LTD.
2	DISCARDED DRUMS /LINERS/BAGS	PROCESS	(SCH -I 33.1)	3900	COLLECTION, STORAGE, TRANSPORTATIO N & DISPOSAL BY SELLING TO REGISTERED RECYCLER.
3	SPENT CATALYST	FROM MANUFACTUR ING PROCESS OF PRODUCT NO 101, 103	(SCH -I 20.3)	120	COLLECTION, STORAGE, TRANSPORTATIO N AND SENT TO REGISTERED REGENERATOR HAVING PERMISSION UNDER RULE-9.
4	USED OIL	UTILITIES	(SCH -I 5.1)	105	COLLECTION, STORAGE, TRANSPORTATIO N & DISPOSAL BY SELLING TO

					REGISTERED RECYCLER.
5	SODIUM SULPHATE	FROM MANUFACTURING PROCESS OF PRODUCT NO 11,37,46,47	(SCH-I/28.1)	1400	Collection, Storage, Transportation and sell to end user who is having Rule-9 permission.
6	DISTILLATION RESIDUE	SOLVENT RECOVERY PLAN	(SCH-I/20.3)	240	COLLECTION, STORAGE, TRANSPORTATION AND SENT FOR CO-PROCESSING IN CEMENT INDUSTRIES OR DISPOSAL AT COMMON INCINERATION SITE OF M/S. SAURASHTRA ENVIRO PROJECTS PVT. LTD.
7	ORGANIC PROCESS WASTE	FROM MANUFACTURING PROCESS OF PRODUCT NO 58,60,61,62,67, 69,76,91,96,98, 101	(SCH-I/28.1)	1000	COLLECTION, STORAGE, TRANSPORTATION AND SENT FOR CO-PROCESSING IN CEMENT INDUSTRIES OR DISPOSAL AT COMMON INCINERATION SITE M/S. SAURASHTRA ENVIRO PROJECTS PVT. LTD.
8	KCL	FROM MANUFACTURING PROCESS OF PRODUCT	(SCH-I/28.1)	744	COLLECTION, STORAGE, TRANSPORTATION AND SELL TO

		NO 32 AND 39			END USER HAVING RULE-9 PERMISSION.
9	NaBr	FROM MANUFACTURING PROCESS OF PRODUCT NO 25 & SCRUBBER	(SCH-II/B36)	1550	Collection, Storage, Transportation and sell to end user who is having Rule-9 permission.
10	NH ₄ BR	FROM MANUFACTURING PROCESS OF PRODUCT NO 28	(SCH-I/28.1)	2352	Collection, Storage, Transportation and sell to end user who is having Rule-9 permission.
11	SPENT SOLVENT	PROCESS	(SCH-I/28.6)	8000	Collection, Storage, recovered through in-house distillation then reuse in process.
12	SPENT CARBON	PROCESS MANUFACTURING PROCESS OF PRODUCT NO 2	(SCH-I/28.3)	120	COLLECTION, STORAGE, TRANSPORTATION AND SENT FOR CO-PROCESSING IN CEMENT INDUSTRIES OR DISPOSAL AT COMMON INCINERATION SITE OF M/S. SAURASHTRA ENVIRO PROJECTS PVT. LTD.
13	OFF SPECIFICATION PRODUCTS	BATCH FAIL	(SCH-I/28.4)	60	COLLECTION, STORAGE, TRANSPORTATIO

						N AND SENT FOR DISPOSAL AT COMMON INCINERATION SITE OF M/S. SAURASHTRA ENVIRO PROJECTS PVT. LTD.
14	HCL (30%)	FROM SCRUBBER	(SCH-II-B-15)	126		COLLECTION, STORAGE, TRANSPORTATION AND RE USED WITHIN PREMISES. (PRODUCTS: 24 & 88)
15	LIQ AMMONIA	FROM SCRUBBER	(SCH -II-B-36)	108		COLLECTION, STORAGE AND REUSED IN MANUFACTURING PROCESS OF PRODUCT NO 72 REQUIRING 108 MT/ANNUM.
16	INORGANIC SALT	FROM PROCESS OF PRODUCT NUMBER 60,68,69,72,73, 74,75,85,88,91, 93,98,99,101, 102	(SCH - I-28.1)	6400		COLLECTION, STORAGE, TRANSPORTATION AND SENT TO COMMON TSDF SITE OF M/S. SAURASHTRA ENVIRO PROJECTS PVT. LTD.
17	SODIUM BISULFITE (22%)	FROM SCRUBBER	(SCH -II-B-36)	115		COLLECTION, STORAGE, TRANSPORTATION AND SELL TO END USER WHO IS HAVING RULE-9 PERMISSION.
ii	Membership details of TSDF, CHWIF etc. (For HW management)		Company has membership of TSDF of M/s. SEPPL, Ankleshwar dated 20/02/2019.			
iii	Details of Non-Hazardous waste		No such waste will be generated.			

	& its disposal (MSW and others)			
G	Solvent management, VOC emissions etc.			
i	Types of solvents, Details of Solvent recovery, % recovery. reuse of recovered Solvents			
	Solvent	B.P °C	V.P. (mmHg@ 25°C)	Recovery %
	IPA	82.5	43.64	97.5
	Methanol	64.7	126.87	97.0
	Toluene	110.6	23.17	98.0
	Ethyl acetate	77.1	97.717	96.5
	TEA	90	51.76	97.5
	THF	66	162.17	96
	DMF	153	3.87	98.5
	MDC	40	356.28	95.5
	Acetonitrile	81.6	88.8	97.0
	Acetone	56.1	229.469	96.0
	EDC	83.5	62.5	97.5
	N - butanol	118	6.91	98.5
	Hexane	63	151	97.0
	Ethanol	78	58.75	97.0
	Chloroform	60.5	196.67	96.5
ii	VOC emission sources and its mitigation measures			
	<p>During operation stage, leakage through valves/pumps, leakage and emission from open drum containing chemicals, open feeding, storage tanks, etc. will be major sources of fugitive emissions and VOCs. Excess use of solvent/s may also results fugitive emission from the process vessels.</p> <ul style="list-style-type: none"> • Solid raw material charging will be done through closed system. • Entire process will be carried out in the closed reactors with proper maintenance of pressure and temperature. • Close feeding system will be provided for centrifuges. Centrifuge and filtrate tank vents will be connected to vent chillers. • Fugitive emission over reactors, formulation areas, centrifuges, chemical loading, transfer area, will be collected through hoods and ducts by induced draft and controlled by scrubber/dust collector. • Emphasis will be given to solvent management/solvent loss prevention. • Control by having proper scrubbing system. • Condenser to trap VOC. • Enclosures to chemical storage area, collection of emission from loading of raw materials in particular solvents through hoods and ducts by induced draft, and control by scrubber/dust collector to be ensured. 			

- Proper maintenance schedule will be adhered to avoid emissions through flange joints, pump seals etc.
- Minimum number of flanges, joints and valves in pipelines.
- Proper gland packing will be maintained for pumps and valves and to the extent possible pumps with mechanical seal.
- All Flange joints of the pipe lines which carry solvents will be covered with flange guards.
- All rotating equipments like pumps will be installed with mechanical seals to arrest any sort of emissions.
- A regular preventive maintenance schedule will be in place to replace or rectify all gaskets and joints etc. as a part of ISO systems to ensure no fugitive emissions take place.
- Periodic monitoring of work area will be carried out to check the fugitive emission.
- Solvent tank vents will be connected to vent chillers.
- Stand by pumps will be provided on all scrubbers. Besides, scrubbers are equipped with on-line pH meter with hooter system for better operational control.
- Adequate ventilation will be provided.

H ➤ **Details regarding storage of Hazardous Chemicals**

Storage details	Name of major Hazardous chemicals	Remarks
Storage Tanks	Methanol, IPA, HCL, Acetonitrile, Toluene, Sulfuric acid, TEA, Ethyl acetate	
Drum/Barrel Storage	Chloroform, Thionyl chloride, TMA, Ethyl chloride, Acetone, Hydrobromic acid, MDC, EDC, N-propanol, Hexane, DMF, DMA, Nitric acid, Ethanol, Sodium methoxide	

➤ **Applicability of PESO:**

PESO will be obtained after getting EC/NOC.

- **After detailed deliberation, Committee unanimously decided to forward this proposal to SEIAA, Gujarat for grant of Environment Clearance.**

5	SIA/GJ/IND2/44571/2018	M/S. Pasupati Industries Plot No. 169/1/A1 Phase 1, Near Telephone Exchange, GIDC Naroda, Ahmedabad	Appraisal
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Category of the unit : 5(f)

Project status: Expansion

- Project proponent (PP) submitted online application vide no. SIA/GJ/IND2/44571/2018 dated 05/11/2019 for obtaining Environmental Clearance.
- SEIAA issued TOR to PP vide their letter dated 16/05/2019.
- Project proponent has submitted EIA Report prepared by B. S. Rana, Ahmedabad based on the TOR issued by SEIAA.

- This is an expansion project for manufacturing of synthetic organic chemical as tabulated below.

Sr. no.	Name of the Products	CAS no. / CI no.	Quantity MT/Month			End-use of the products
			Existing	Proposed	Total	
1.	MPD (Meta Phenylene Di Amine)	108-45-2	2.5	-	2.5	Dyeing & Printing
2.	Reactive Dyes (Navy Blue Rx. Yellow MUG)	Mixed Dyes	5.0	-	5.0	
REACTIVE DYES						
3.	Reactive Black 8	12225-26-2	-	400	400	
4.	Reactive Black 31	12731-63-4				
5.	Reactive Black 39	-/205071				
6.	Reactive Black 5/Mix	12225-25-1				
7.	Reactive Black WNN	Mixed Dyes				
8.	Reactive Red 3.1	23211-47-4				
9.	Reactive Red 21	11099-79-9				
10.	Reactive Red 24.1	72829-25-5				
11.	Reactive Red 31	12237-00-2				
12.	Reactive Red 45	12226-22-1				
13.	Reactive Red 111	88232-20-6				
14.	Reactive Red 120	61951-82-4				
15.	Reactive Red 141	61931-52-0				
16.	Reactive Red 195	93050-79-4				
17.	Reactive Red 198	145017-98-7				
18.	Reactive Red 218	113653-03-5				
19.	Reactive Red 222	93051-45-7				
20.	Reactive Red 223	93051-43-5				
21.	Reactive Red 245	340977-00-6				
22.	Reactive Red 250	125830-49-1				
23.	Reactive Red CD	91-56-5				
24.	Reactive Yellow 15	12226-47-0				
25.	Reactive Yellow 18	12226-48-1				
26.	Reactive Yellow 42	12226-63-0				
27.	Reactive Yellow 44	12270-91-6				
28.	Reactive Yellow 57	61969-35-5				
29.	Reactive Yellow 84	61951-85-7				
30.	Reactive Yellow 85	71872-81-6				
31.	Reactive Yellow 86	61951-86-8				
32.	Reactive Yellow 95	71838-98-7				
33.	Reactive Yellow 135	77907-38-1				
34.	Reactive Yellow 145	93050-80-7				
35.	Reactive Yellow 160	129898-77-7				
36.	Reactive Yellow 186	84000-63-5				
37.	Reactive Yellow 210	Mixed Dyes				
38.	Reactive Yellow XLR	5809-16-7				
39.	Reactive Yellow HEXL	Mixture of 59112-78-6, 77907-38-1, & 93050-80-7				
40.	Reactive Yellow HE4G	59112-78-6				
41.	Reactive Yellow W3R	12220-12-1				
42.	Reactive Yellow RR	93050-80-7				

43.	Reactive Orange 12	35642-64-9		
44.	Reactive Orange 13	12225-85-3		
45.	Reactive Orange 16	12225-83-1		
46.	Reactive Orange 35	12270-76-7		
47.	Reactive Orange 84	91261-29-9		
48.	Reactive Orange 107	90597-79-8		
49.	Reactive Orange 122	79809-27-1		
50.	Reactive Orange 2R	79809-27-1		
51.	Reactive Orange W3R	12220-12-1		
52.	Reactive Orange R	12220-12-1		
53.	Reactive Blue 13	12236-84-9		
54.	Reactive Blue 21	12236-86-1		
55.	Reactive Blue 39	12225-53-5		
56.	Reactive Blue 49	12236-92-9		
57.	Reactive Blue 160	71872-76-9		
58.	Reactive Blue 171	77907-32-5		
59.	Reactive Blue 194	93050-78-3		
60.	Reactive Blue 198	124448-55-1		
61.	Reactive Blue 203	147826-71-9		
62.	Reactive Blue 220	128416-19-3		
63.	Reactive Blue 221	93051-41-3		
64.	Reactive Blue 222	93051-44-6		
65.	Reactive Blue 250	93951-21-4		
66.	Reactive Blue FNG	Mixed Dyes		
67.	Reactive Blue XLE	2580-78-1		
68.	Reactive Brown 11	12225-68-2		
69.	Reactive Scarlet W2R	Mixed Dyes		
70.	Reactive Violet 46	-/17175		
71.	Reactive Violet ME2RL	Mixed Dyes		
72.	Reactive Magenta MERL	Mixed Dyes		
ACID DYES				
73.	Acid Black 2	80316-29-6	200	200
74.	Acid Black 113	3351-05-1		
75.	Acid Black 193	12392-64-2		
76.	Acid Black 194	61931-02-0		
77.	Acid Black 210	99576-15-5		
78.	Acid Black 234	157577-99-6		
79.	Acid Black 10BX	1820-82-5		
80.	Acid Red 97	10169-02-5		
81.	Acid Red 131	12234-99-0		
82.	Acid Orange 7	633-96-5		
83.	Acid Brown 75	8011-86-7		
84.	Acid Brown 83	13011-68-2		
85.	Acid Brown 355	60181-77-3		
86.	Acid Brown 425	119509-49-8		
SOLVENT DYES			42.5	42.5
87.	Solvent Black 5	11099-03-9		
88.	Solvent Black 7	8005-02-5		
DIRECT DYES				
89.	Direct Black 22	6473-13-8	150	150
90.	Direct Black 168	85631-88-5		
91.	Direct Black 179	143549-91-1		

92.	Direct Blue 71	4399-55-7				
93.	Direct Blue 86	1330-38-7				
94.	Direct Blue 199	12222-04-7				
95.	Direct Orange 26	3626-36-6				
96.	Direct Red 81	2610-11-9				
97.	Direct Red 80	2610-10-8				
98.	Direct Red 239	60202-35-9				
99.	Direct Red 253	12222-51-4				

INTERMEDIATES

1.	M.P.D.	108-45-2	-	50	50	Raw materials for Dyes
2.	Metanilic Acid	121-47-1				
3.	Orthanilic Acid	88-21-1				
4.	Quinizarine	81-64-1				
5.	4,4 Diamino Di Phenyl Aine Sulphate	139-65-1				
6.	2 Chloro, 5 Chloro Methyl Thiozone	70258-18-3				
7.	Meta Ureido Aniline	59690-88-9				
8.	4 NADAPSA	91-29-2				

TOTAL

7.5 842.5 850

Note: * Existing is 7.5 MT/Month, Reactive Dyes will be 400 MT/Month, Acid Dyes will be 200 MT/Month, Solvent Dyes will be 42.5 MT/Month, Direct Dyes will be 150 MT/Month, Intermediates will be 50 MT/Month. Total quantity will be 850 MT/Month.

- The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006.
- PP was called for presentation in the SEAC meeting dated 21/01/2020.
- Salient features of the project are as under:

Sr. no.	Particulars	Details
A	Total cost of Proposed Project (Rs. in Crores):	Existing: 1 Proposed: 1 Total: 2
	Details of EMP	

Brief details of EMP

Component	Capital Cost of EMP	Recurring Cost of EMP (Per Year)
Total Cost	73,00,000	64,00,000

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Operation Phase			
Sr. No.	Pollution Control Measures	Capital Cost (Rs, Lacs)	Recurring Cost per annum (Lacs)
1	Air Pollution Control	50	55
2	Water Pollution Control	11	4

3	Noise Pollution Control	2	1
4	Environment Monitoring and Management	2	1
5	Rain Water Harvesting	3	1
6	Occupational Health	2	1
7	Green Belt	3	1
	Total	73	64

-

Details of CER as per OM dated 01/05/2018

2 Lacs

Sr. No.	Activities	Social Benefits	Expenses (Rs. Lacs)
1	Greenbelt	<ul style="list-style-type: none"> • Greenery for ecological balance • Enrich local biodiversity • Control Air and Noise pollution, windbreak • Helpful to control soil erosion • Plan for plantations 	1
2	Water Utilize	• Drinking & sanitation facilities in schools of nearby villages (Muthiya, Naroda, Hansol, Bilasiya, Nana Chiloda.)	1
	Total		2

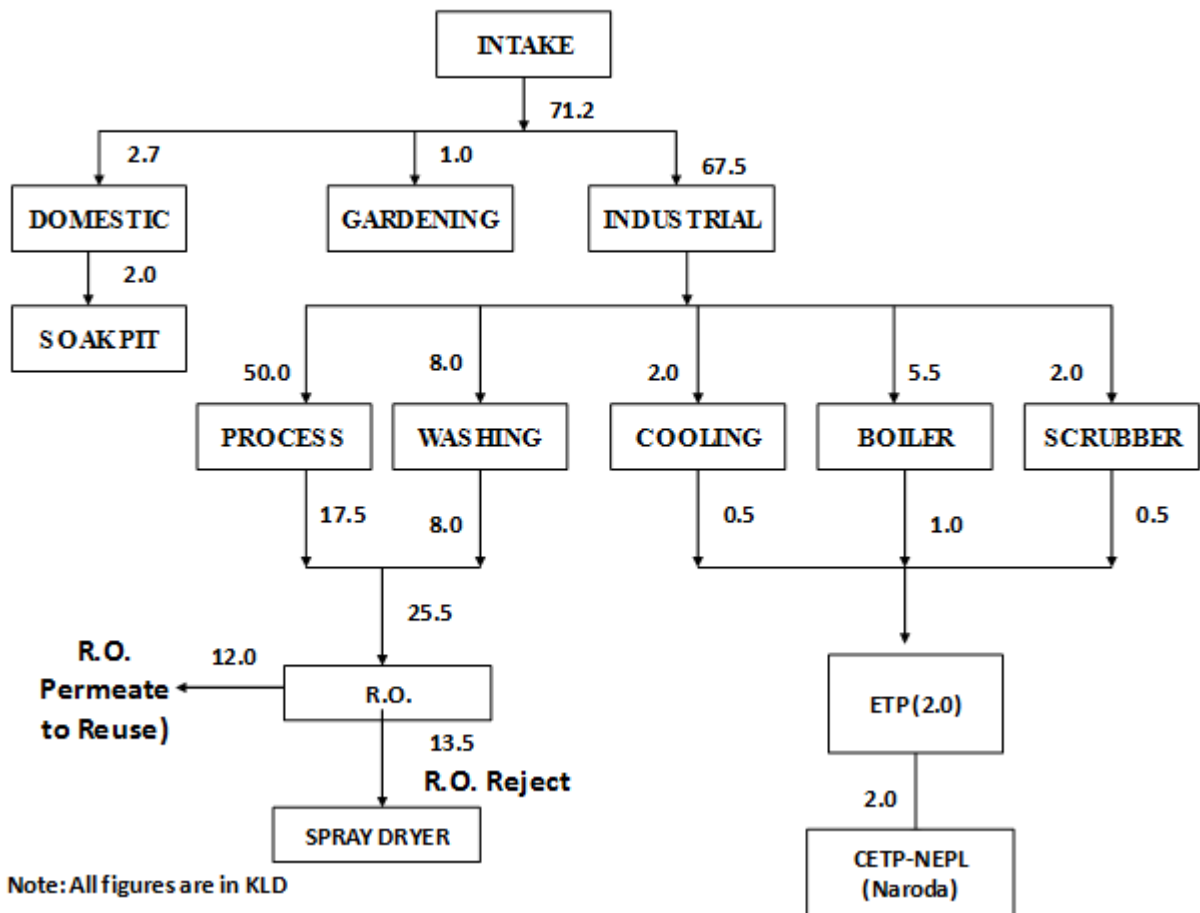
Cost in Lacs/Yr		
2019-2020	2020-2021	2021-2022
0.25 Lacs for drinking water facility provided at Naroda GIDC. _Providing drinking water facility (Water Jug) at road side.	0.6 Lacs for Education at Hansol village _With the help of local Trust (For Education) & NGO	0.4 Lacs for drinking water facility provided in Bilasiya village.
0.75 Lacs for trees Plantation (Along with Road Side) at Naroda GIDC, Muthiya Village with help of local people.	_Stationary provided at Primary School at Nana chiloda Village.	
Total: 1 Lacs	Total: 0.6 Lacs	Total: 0.4 Lacs

B	Total Plot area (sq. meter)	Existing: 3476 Sq. m. Proposed: - Sq. m. Total: 3476 Sq. m.																																																							
	Green belt area (sq. meter)	Existing: 150 Sq. m. Proposed: 372 Sq. m. Total: 522 Sq. m.																																																							
C	Employment generation	Existing: 27 Proposed: 73 Total: 100																																																							
D	Water																																																								
i	Source of Water Supply (GIDC Bore well, Surface water, Tanker supply etc.)	GIDC Supply																																																							
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	14) Quantity to be recycled : 12 KLD																																																								
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iii	Waste water generation (KLD)																																																								
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Category	Existing (KLD)	Proposed (KLD)	Total after Proposed (KLD)	Remarks
A. Domestic	0.5	1.5	2.0	Discharge To soak pit
B. Gardening	0.0	0.0	0.0	
C. Industrial				
Process	1.0	16.5	17.5	Treated in ETP and discharge to CETP as per and remaining will be recycle in process, cooling make up and washing
Washing	1.0	7.0	8.0	
Boiler	-	1.0	1.0	
Cooling	-	0.5	0.5	
Scrubber	-	0.5	0.5	
Industrial Total	2.0	25.5	27.5	
Total (A + B + C)	2.5	27.0	29.5	
<ul style="list-style-type: none"> ➤ Treatment Facility: ETP (Primary Treatment & Tertiary Treatment.) ➤ 2 KLD will be treated in ETP-2 and discharged as per CCA. ➤ 25.5 KLD of concentrated effluent will be treated in ETP-1 and send to RO. 12 KLD RO permeate will be recycled and 13.5 KLD RO reject will be spray dried in self spray dryer. ➤ Domestic waste water of 2 KLD will be discharged to the soak pit/septic tank. 				
iv	<p>Treatment facility within premises with capacity</p> <p>[In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc..]</p> <ul style="list-style-type: none"> ➤ ETP (Primary Treatment & Tertiary Treatment.) ➤ ETP-1 Capacity 30 KLD ➤ ETP-2 Capacity 2 KLD <p>Treatment scheme including segregation at source.</p> <ul style="list-style-type: none"> ➤ 2 KLD Diluted Treated effluent: CETP, Naroda Enviro Project Ltd. Naroda as per CC&A permission ➤ 25.5 KLD of concentrated effluent will be treated in ETP-1 and send to RO. 12 KLD RO permeate will be recycled and 13.5 KLD RO reject will be spray dried in self spray dryer <p><u>Note: (In case of CETP discharge):</u></p> <ul style="list-style-type: none"> ➤ Management of wastewater keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP. ➤ CETP, NEPL Naroda <p>As we are not increasing pollution load to the CETP. Also diluted stream will be treated and dispose to the CETP it will reduce the pollution load.</p> <p><u>Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):</u></p> <ul style="list-style-type: none"> ➤ NA 			
v	<p>Mode of Disposal & Final meeting point</p> <p>Domestic: 2 KLD to Soak Pit</p>			

	Industrial:	2 KLD will be discharged to CETP, NEPL as per CCA 13.5 KLD after RO will be spray dried in premises.
vi	In case of Common facility (CF) like CETP, Common Spray dryer, Common MEE, CHWIF etc. Name of Common facility (CF) (For waste water treatment)	
	➤ CF for CETP, Naroda: Naroda Enviro Project Ltd. , Naroda , Ahmedabad	
	➤ TSDF Site : SEPPL, Kutch	
	Membership of Common facility (CF) Enclosed In EIA (For waste water treatment)	
vii	Simplified water balance diagram with reuse / recycle of waste water	

WATER BALANCE DIAGRAM



vii	Reuse/Recycle details (KLD) [Source of reuse & application area]		
	Total reuse 12 KLD		
	Sources of Wastewater for reuse with quantity in KLD	Application area with quantity in KLD	Remarks regarding feasibility to reuse i.e. w/w characteristics (COD, BOD, TDS etc.)

	Source of Water: GIDC Supply Quantity of Wastewater reused: 12 KLD	Process: 2 KLD Cooling: 2 KLD Washing: 8 KLD	pH	7.5			
			COD (mg/L)	80			
			BOD (mg/L)	21			
			TDS (mg/L)	1500			
			TSS (mg/L)	8			
			O & G (mg/L)	0.5			
E	Air						
i	Flue gas emission details Existing & Proposed						
	-						
	Sr. no.	Source of emission With Capacity	Stack Height (meter)	Fuel Consumption	Type of emissions i.e. Air Pollutants	APCM	
				Existing	Proposed		
	1.	IBR Boiler (1 Ton) (Existing)	15	Agro Waste : 1 kg/hour or Lignite : 4 kg/hour	Agro Waste :10 kg/hour or Lignite : 50 kg/hour	Agro Waste :10 kg/hour or Lignite : 50 kg/hour	Cyclone Separator & Bag Filter
	2.	Hot Air Generator-1 4 Lac K cal. (Existing)	13		Natural Gas500 SCM/day	Natural Gas500 SCM/day	Adequate Stack Height
	3.	Hot Air Generator- 2 4 Lac K cal (Existing)	13		Natural Gas500 SCM/day	Natural Gas500 SCM/day	Adequate Stack Height
	-						
ii	Process gas i.e. Type of pollutant gases (SO ₂ , HCl, NH ₃ , Cl ₂ , NO _x etc.) Existing & Proposed						
	-						
	Sr. No.	Specific Source of emission (Name of the Product & Process)	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)		
	1	Spray Dryer (Existing 1 KL + Proposed 1.5 KL)	<10 mg/Nm ³	20	Cyclone Separator + Wet Scrubber + Secondary Scrubber		
	2	Manufacturing of Metanilic Acid, Qunizarinne, 4, 4 Diamino Di Phenyl Amine Sulphate (Proposed)	SO ₂ <40 mg/Nm ³ , HCL<20 mg/ Nm ³	20	Water Scrubber, Ventury Scrubber and Adequate Stack Height		

	-																																											
iii	Fugitive emission details with its mitigation measures.																																											
	<p>Proposed project is of manufacturing of S. O. Dyes & Intermediates. Following measures will be taken for existing & proposed project.</p> <ul style="list-style-type: none"> • Airborne dust at all transfers operations/ points will be controlled either by spraying water or providing enclosures. • Raw materials loading and unloading will be done in covered area • Regular maintenance of valves, pumps, flanges, joints and other equipment will be done to prevent leakages and thus minimizing the fugitive emissions of VOCs. • Entire process will be carried out in the closed reactors with proper maintenance of pressure and temperature. • Periodic monitoring of work area will be carried out to check the fugitive emission. 																																											
F	Hazardous waste (As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016. Existing & Proposed																																											
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	5	Evaporation Residue	Spray Drying	36.3	-	12.0	12.0	Collection, Storage, Reusing in Blending mixing of dyes	
	6	Spent Acid	Manufacturing Process Of Metanilic Acid & 4 NADAPSA	26.3	-	1200	1200	Collection, Storage, Transportation, Disposal as per authorized under rule 9	
ii	Membership details of TSDF, CHWIF etc. (For HW management)				Enclosed in EIA as Annexure XVI				
iii	Details of Non-Hazardous waste & its disposal (MSW and others)				Fly Ash will be sold to the bricks manufacturer. Paper & Plastic Waste will be sold to the authorized Recyclers				
G	Solvent management, VOC emissions etc.								
i	Types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc. (Details in Table Format)								
	No solvent generation.								
ii	VOC emission sources and its mitigation measures								
	➤ We will provide closed transferring system of raw materials during manufacturing to avoid any VOC.								
H	➤ Details regarding storage of Hazardous chemicals								
	Sr. No	Full Name of the raw material	State-Solid, liquid or gas	Storage		Quantity (MT/M)			
				No.	Packing (In KGs)				
	1	1:4 Sulpho Phenyl 3 Methyl 5 Phyazolone	solid	200	25	5			
	2	2 Ethyl Hexanol	liquid	40	25	1			
	3	2 Pyridone	solid	200	25	5			
	4	5-sulpho a. acid	solid	200	25	5			
	5	Acetic Anhydride	liquid	15	35	0.525			
	6	Ammonia Liquor	liquid	40	25	1			
	7	Aniline 2:5 Disulfonic Acid	solid	200	25	5			
	8	Caustic Soda Lye	liquid	125	40	5			
	9	Copper Sulphate	solid	40	25	1			
	10	Cyanuric Chloride	solid	400	50	20			
	11	DASDA	solid	80	25	2			
	12	Di Methyl Acetyl Succint	solid	42	240	10.08			
	13	DMAVS	liquid	40	25	1			
	14	G Salt	solid	40	25	1			

15	Gamma Acid	solid	200	25	5
16	H. Acid	solid	1000	50	50
17	K Acid	solid	1000	25	25
18	Meta Base V.S.	solid	200	25	5
19	Meta Phenylene Di Amine	solid	720	25	18
20	Meta Urido Aniline (HCL)	solid	400	25	10
21	Mono Methyl Aniline	solid	40	25	1
22	MPDSA	solid	400	25	10
23	N Methyl J Acid	solid	80	25	2
24	OAVS	solid	400	25	10
25	Orthanilic Acid	solid	200	25	5
26	Ortho Dicloro Benzene	liquid	200	25	5
27	P.N.B.C.	solid	40	25	1
28	Para Anisidine	solid	40	25	1
29	Para PhenyleneDiamine	solid	800	25	20
30	PCVS	solid	200	25	5
31	Sodium Acetate	solid	200	25	5
32	Sodium Bicarbonate	solid	2000	25	50
33	Sodium Cyanate	solid	200	25	5
34	Sodium Naphthalene Sulphonate Formaldehyd	solid	400	25	10
35	Sodium Nitrite	solid	300	50	15
36	Sulphamic Acid	solid	40	25	1
37	Sulphanilic Acid	solid	400	25	10
38	Sulpho Tobias Acid	solid	20	50	1
39	Sulpho V.S.	solid	800	25	20
40	Tobias Acid	solid	800	25	20
41	Vinyl Sulphone	solid	800	25	20
42	Anthranilic Acid	solid	200	25	5
43	Phthelic Anhydride	solid	200	25	5
44	Oleum	Liquid	2	20000	18
45	Sulphuric Acid	Liquid	2	20000	18
46	HCl 30%	Liquid	2	20000	18

➤ **Applicability of PESO** : Not applicable

- During the meeting dated 21/01/2019, technical presentation made by the Project proponent.
- During the meeting, the project was appraised based on the information furnished in the EIA Report and details presented during the meeting.
- The baseline environmental quality has been assessed for various components of the environment viz. air, noise, water, biological and socioeconomic aspect for the study area of 10 km radial distance from project site for the period November 2018 to January 2019. Ambient Air Quality monitoring was carried out for PM10, PM2.5, SO2, NOX, CO, NH3, Ozone, Pb, BaP & VOC at eight locations, including the project site. Values conform to the prescribed standards for Ambient Air Quality. The incremental Ground Level

Concentration (GLC) has been computed using AERMOD. The resultant concentrations are within the NAAQS. The modeling study proved that the air emissions from the proposed plant would not affect the ambient air quality of the region in any significant manner. The ambient air quality around the proposed project site will remain within the National Ambient Air Quality Standards (NAAQS).

- Risk assessment including prediction of the worst-case scenario and maximum credible accident scenarios has been carried out. The detail proposed safeguard measures including On-Site / Off-Site Emergency Plan has been covered in the RA report.
- During SEAC meeting on 21/01/2019, committee noted that the proposal is for expansion. This unit has valid CC&A for existing unit. Copy of CC&A, its compliance report is submitted. PP ensured that there are no court cases pending and no public complaints against the project. Source of water is GIDC. Committee noted that the proposal is for products engaged in dyeing & printing along with intermediates and in the water balance diagram PP has proposed direct RO for effluent generated from manufacturing process & washing without any conventional primary, secondary & tertiary treatment and asked PP to justify the same. PP was not be able clarify the same. Committee asked PP to show the calculation as to how they calculated the worst case scenario in their sheet along with their water consumption and waste water generation table however PP was not able to present the same satisfactorily. Committee noted that PP has not prepared the presentation properly and asked PP to rectify all the points related to water consumption, waste water generation, water balance diagram, worst case scenario and treatment proposed for the same.
- **After detailed discussion, it was decided to defer the proposal and consider the same only after submission of the following documents:**
 1. Excel Sheet showing the calculation of Worst Case Scenario in the case of both Dyeing & Printing along with Intermediate.
 2. Technical Justification for installation of Direct RO for effluent getting generated from Manufacturing Process & Washing along with proper stream segregation and characteristics.
 3. Detail calculation showing addition of waste water generation group wise for both dyeing & printing along with Intermediate.
 4. MoU for disposal of Spent Acid generated from Manufacturing Process of Metanilic Acid & 4 NADAPSA with Quantity 1200 MT/Year under Rule – 9 as per HWR – 2016 along with revised Hazardous Waste Matrix.
 5. Revised List of Flue and Process gas emission along with their respective APCM along with proper Justification.
 6. Revised Need Based CER as per OM dated 01/05/2018 along with EMP with Fixed Capital Cost and Recurring Cost.
 7. Revised EIA Report Incorporating all the changes in their Respective Chapter.

6	SIA/GJ/IND2/25698/2018	M/S. Pentagon Chemical Plot No C-46, GIDC Saykha, Ta. Vagra, Dist, Bharuch.	Appraisal
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Category of the unit : 5(f)

Project status: New

- Project proponent (PP) submitted online application vide no. SIA/GJ/IND2/25698/2018 dated 13/11/2019 for obtaining Environmental Clearance.
- SEIAA issued TOR to PP vide their letter dated 30/10/2018.
- Project proponent has submitted EIA Report prepared by M/s. Vasudev Associates, Ahmedbad based on the TOR issued by SEIAA.
- This is a new unit proposes for manufacturing of Synthetic Organic Chemical as tabulated below:

Sr. No.	Name of the Products	CAS no. /CI no.	Quantity MT/Month	End-use of products
1	Ethyl Chloride	4584-46-7	1000.00	DEMAP Mfg
2	Tri Chloro Acetaldehyde (Chloral)	75-87-6	1000.00	Perfumery Product
3	Tri Chloro Acetaldehyde Hydrate	302-17-0	50.00	Water Cleaning
4	Chloroform	67-66-3	70.00	Intermediate
5	Di Ethyl Meta Amino Phenol	91-68-9	200.00	Rhodamine Mfg
6	Para Rosa Aniline	569-61-9	250.00	Chemical Intermediate
7	Basic Magenta	209-321-2	250.00	Dyes mfg
8	Di Methyl Aniline	87-62-7	1500.00	Dyes mfg
9	Rhodamine- B 500 & Rhodamine B Base	81-88-9	100.00	Textile Dyeing
10	Metanilic Acid	121-47-1	1000.00	DEMAP mfg
11	Para amino azo benzyn 4 Sulfonic acid (PAABSA)	104-23-4	200.00	Chemical Intermediate
12	Nitro Benzene	98-95-3	500.00	Metanilic acid mfg
13	Aniline 2,5 – Di Sulfonic Acid	24605-36-5	300.00	Dyes mfg
14	Meta amino phenol	591-27-5	300.00	Herbicides mfg
15	Sodium Metabisulfite	7681-57-4	300.00	Dyes mfg
16	Poly Aluminium Chloride	1327-41-9	2000.00	ETP

17	Caustic Lye	1310-73-2	191.00	ETP & Scrubbing media
Total			9211.00	

- The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006.
- Earlier, PP was called for presentation in the SEAC meeting dated 17/12/2019.
- Committee noted that PP has not submitted Form-2, EIA report and relevant documents as per check-list.
- Looking to casual approach of project proponent (PP) as well as Consultant of the project, Committee unanimously decided to consider this proposal in one of the upcoming meeting.
- PP was called for presentation in the SEAC meeting dated 21/01/2020.
- Salient Features of the project including Water, Air and Hazardous waste management:

Sr. no.	Particulars	Details
A		
A	Total cost of Proposed Project (Rs. in Crores):	8.06 Crores
B	Total Plot area (sq. meter)	5000.00 Sq. m.
	Green belt area (sq. meter)	1687.00 Sq. m.
C	Employment generation	10
D Water		
i	Source of Water Supply (GIDC Bore well, Surface water, Tanker supply etc...)	GIDC Water Supply
	Status of permission from the concern authority.	
ii		

Category	Quantity KLD	Remarks
(J) Domestic	1.50	
(K) Gardening	3.30	Treated water 3.30 KLD used for Gardening
(L) Industrial		
Process	55.50	
Washing	0.20	
Boiler	20.00	
Cooling	2.00	
Others	1.00 (scrubbing)	
Industrial Total	78.70	Recycle 29.025 KLD used as a Industrial water
Total (A + B + C)	83.50	Recycle 32.325+ Fresh 51.175

Water consumption (KLD)

- 16) **Total water requirement** for the project: 83.50 KLD
17) Quantity to be **recycled**: 32.325 KLD
18) Total **fresh water** requirement: 51.175 KLD

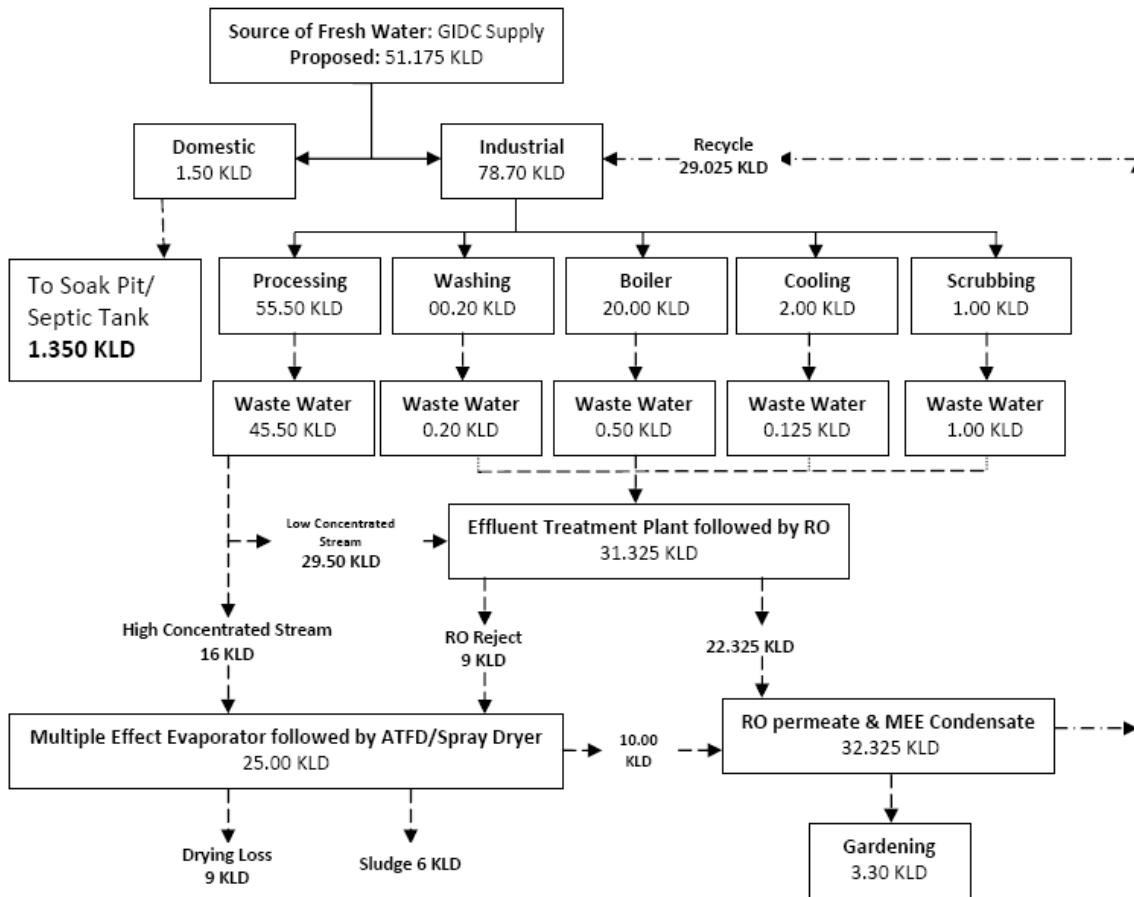
(Total water requirement = Fresh water + Recycled water)

iii **Waste water generation (KLD)**

Category	Waste water KLD	Remarks
(E) Domestic	1.350	
(F) Industrial		
Process	45.500	
Washing	0.200	
Boiler	0.500	
Cooling	0.125	
Scrubbing	1.000	
Total Industrial waste water	47.325	
Total [A + B]	48.675	

-

iv	Treatment facility within premises with capacity	
	<ul style="list-style-type: none"> ➤ In house MEE followed by ATFD/Spray Dryer, ETP Followed by RO. 	
	Treatment scheme including segregation at source.	
	<ul style="list-style-type: none"> ➤ High concentration stream treated by MEE followed by ATFD/Spray Dryer 	
<u>Note: (In case of CETP discharge) :</u>		
Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.		
<ul style="list-style-type: none"> ➤ Unit is Zero Liquid Discharge 		
<u>Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):</u>		
<ul style="list-style-type: none"> ➤ Company will treat High COD concentration stream (i.e. 16 KLD) by MEE followed by ATFD/Spray Dryer. Remaining low COD concentration stream will be treated by ETP followed by RO. ➤ Treated water will be recycling back for the Industrial Use (i.e. 29.025) and Gardening purpose (i.e., 3.30 KLD). 		
v	Mode of Disposal & Final meeting point	
	Domestic:	Soak pit/Septic tank
	Industrial:	Unit is Zero Liquid Discharge.
vi	In case of Common facility (CF) like CETP, Common Spray dryer, Common MEE etc. Name of CF	
	<ul style="list-style-type: none"> ➤ Not a member of any Common facility. 	
	Membership of Common facility (CF) (For waste water treatment)	
Not a member of any Common facility.		
vii	Simplified water balance diagram with reuse / recycle of waste water	



viii Reuse/Recycle details (KLD)

Total reuse 32.325 KLD

Source of waste water for reuse with quantity in KLD (From where it is coming)	Application area with quantity in KLD (Where it is used)	Characteristics of waste water to be reused (COD, BOD, TDS etc.)	Remarks regarding feasibility to reuse i.e.
32.325 KLD from Industrial	29.025 KLD for Industrial Use 3.30 KLD Gardening	COD<250 mg/l BOD<30 mg/l TDS<2100 mg/l	

E Air

i Flue gas emission details

No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc.

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Steam Boiler 2 MT	30	PNG: or White Coal: or Wood (Jangli/Babool):	15 SCM/Hr or 3800 kg/day or 8000 Kg/day	PM <150 mg/Nm ³ SO ₂ < 100 ppm NO _x < 50 ppm	Adequate stack height and Cyclone dust collector is provided as air pollution control system.
2	D G Set (200 KVA)	3	HSD	18 Lit/Hr.	PM <150 mg/Nm ³ SO ₂ < 100 ppm NO _x < 50 ppm	Adequate stack height and acoustic enclosure is provided and operated only during power break down.

ii Process gas emission details i.e. Type of pollutant gases (SO₂, HCl, NH₃, Cl₂, NO_x etc.)

Sr. no.	Specific Source of emission (Name of the Product & Process)	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1	Distillation Vessel	HCl	12.00	Scrubber

iii **Fugitive emission** details with its mitigation measures:

As below:

Fugitive emission could occur from the storage yard of raw materials and finished products.

Mitigations measures:

- Proper storage of Raw materials and Products.
- Ensuring closed feeding and sampling.
- Proper Ventilation system.
- Establishing SOPs for start-up, Shutdown and maintenance operational procedures.

Regular workplace monitoring and ambient air quality monitoring as per post project monitoring plan.

F Hazardous wastes

(as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.

i

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/Annum)	Management of HW
1	ETP Sludge & MEE Sludge & Dryer Sludge	Effluent Treatment Plant, MEE, Spray Dryer	35.3	300 MT/Yr	Collection, Storage, Transportation, Disposal at TSDF
2	Used Oil	Machinery	5.1	30 Lit/Year	Collection, Storage, Transportation, disposal by selling to registered recyclers.
3	Gypsum/ Lime	Process	--	625 MT/Month	Collection, Storage and Sale to Cement Company.
4	Iron Sludge	Process	26.1	600 MT/Month	Collection, Storage and Sale to Cement Company.
5	Synthetic Salt/ Salt NaCl	Process	28.1	200 MT/Month	Collection, Storage, Transportation, Disposal at TSDF or Sale to re users.
6	Distillation Residues (PRA, Basic Magenta, DMA)	Process	20.3	250 MT/Month	Collection, Storage, Transportation, Disposal at TSDF or Sale to re

						users.
	7	Spent H2SO4 acid	Process	26.3	2280 MT/Month	Collection, Storage, Transportation and Sell to actual Users and Recyclers
	8	Spent HCl acid	Process	26.3	4000 MT/Month	Collection, Storage, Transportation and Sell to actual Users and Recyclers
-						
ii	Membership details of TSDF, CHWIF etc. (For HW management)				TSDF for disposal of ETP, MEE & Dryer Sludge.	
iii	Details of Non-Hazardous waste & its disposal (MSW and others)				Stationary waste	
G	Solvent management , VOC emissions etc. Ethyl Alcohol, Mono Chloro Benzene, Methyl Alcohol, Nitro Benzene, Benzene					
i	Types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc. (Details in Table Format)					
	➤ Ethyl alcohol, Methyl Alcohol, Nitro Benzene and Benzene consumed in the process.					
	Type of Solvent		Recovery %		Use of Recovered Solvent	
	Mono Chloro Benzene		98%		Reused in next batch	
ii	VOC emission sources and its mitigation measures					
	Source: Process					
	➤ Enclosed processes.					
	➤ Minimum Joints and Flange					
	➤ Pumps with double mechanical seals					
	➤ Proper Ventilation					
	➤ PPEs					
	➤ Main heat exchanger cooling water, vent heat exchanger brine, product cooler chilled water.					
H	➤ Details regarding storage of Hazardous chemicals					
	Storage details		Name of major Hazardous chemicals		Remarks	
	Storage tanks		Ethanol			
	Drum/Barrel storage		Liquid Chlorine			
			Sulfuric Acid (98%)			
			Ortho Toludine			
			MCB			

	Aniline	
	Methanol	
	Phthalic Anhydride	
	Nitro Benzene	
	Formaldehyde	
	Benzene	
	Nitric Acid	
	Oleum	
	Sodium Hydroxide	

➤ **Applicability of PESO:** PESO is applicable.

- During the meeting dated 21/01/2020, technical presentation made by the Project proponent.
- During the meeting, the project was appraised based on the information furnished in the EIA Report and details presented during the meeting.
- The baseline environmental quality has been assessed for various components of the environment viz. air, noise, water, biological and socioeconomic aspect for the study area of 5 km radial distance from project site for the period October 2018 to December 2018. Ambient Air Quality monitoring was carried out for PM10, PM2.5, SOx, NOx, HCl, CO, Cl2 & VOCs at seven locations, including the project site. Values conform to the prescribed standards for Ambient Air Quality. The incremental Ground Level Concentration (GLC) has been computed using AERMOD. The resultant concentrations are within the NAAQS. The modeling study proved that the air emissions from the proposed plant would not affect the ambient air quality of the region in any significant manner. The ambient air quality around the proposed project site will remain within the National Ambient Air Quality Standards (NAAQS).
- Risk assessment including prediction of the worst-case scenario and maximum credible accident scenarios has been carried out. The detail proposed safeguard measures including On-Site / Off-Site Emergency Plan has been covered in the RA report.
- Committee noted that this proposal is new in GIDC Saykha. PP mentioned that source of water is GIDC. Committee noted that the product profile show by PP has products end use pertaining to Herbicides (Pesticide) manufacturing and asked PP to clarify the same. PP mentioned that Meta Amino Phenol product is not only having its end-use in Herbicides but other than that also and they have submitted the undertaking that they will not manufacture any product having Pesticide its end-use. Committee asked to make necessary correction in the product profile in line with 5(f) category. Committee asked PP to show the excel sheet pertaining to worst case scenario however PP could not show the same. Committee noted that PP has not satisfactorily address the LDAR as per Compliance of ToR. Committee also noted that PP has not properly addressed the Hazardous Waste Table as per HWR – 2016 along with its disposal and Need based CER.
- **After detailed discussion, it was decided to defer the proposal and consider the same only after submission of the following documents:**
 1. Revised Product profile as per 5(f) Category in-line with EIA Notification, 2006.
 2. Excel Sheet showing the calculation of Worst Case Scenario including Water Consumption & Waste Water generation in each Product.

3. MoU for disposal of all the Hazardous Waste under Rule – 9 as per HWR – 2016 along with revised Hazardous Waste Matrix by incorporating all the By-Product in Hazardous Waste Matrix.
4. Revised List of Flue and Process gas emission along with their respective APCM along with proper Justification.
5. Revised Need Based CER as per OM dated 01/05/2018 along with EMP with Fixed Capital Cost and Recurring Cost.
6. Leak Detection and Repairing Programme (LDAR) for all the volatile organic solvent proposed for use in-house with detailed chemical properties including vapor pressure. LDAR shall endeavor prevention of losses of solvents to the best minimum extent.
7. Safety Details covering Process, Storage, Handling, Transportation for Chlorine and Oleum including their respective SOP.
8. Revised EIA Report Incorporating all the changes in their Respective Chapter.

7	Offline Application	M/S. Rajshree Mineral Plot No. 40-A, B, Bhimpor, GMDC Road, Ta. Jhagadia, Dist. Bharuch.	Appraisal
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Category of the unit : 2(b)

Project status: New

- Project proponent (PP) has submitted offline application by submission of form-1 and PFR of proposed project on dated 05/10/2019 for obtaining Environmental Clearance.
- This is a new unit proposes for silica sand washing for mineral beneficiation as tabulated below:

Sr. no.	Name of the Products	CAS no. / CI no.	Quantity MT/Month			End-use of the products	
			Existing	Proposed	Total		
1	Washing Silica Sand	----	18000 MT/YEAR	----	18000 MT/YEAR	Product 1 –(30-40 AFS)	6000 MT –For Foundry Industries/Cermic Industries/Glass Industries
						Product 2 –(40-45 AFS, 45-50 AFS, 50-55	12000 MT –For Foundry Industries/Ceramic Industries/ Glass Industries

							AFS)	
							Product 3 –Silica Sand Waste	2000 –For Construction Landfill
			Total	18000	-----	18000		

- The project falls under Category B2 of project activity 2(b) as per the schedule of EIA Notification 2006.
- PP was called for presentation in the SEAC meeting dated 21/01/2020.
- Salient features of the project including Water, Air and Hazardous waste management:

Sr. no.	Particulars	Details
A	Total cost of Proposed Project (Rs. in Crores): One Crore Thirty Seven Lakhs	Existing: 1.37 Cr Proposed: NIL Total: 1.37 Cr
B	Brief details of CER	[Figure For Reference]

CER details (As per MoEF&CC OM dated 01/05/2018)

As per OM no. 22-65/2017 on dated 01/05/2018 regarding “Corporate Environment Responsibility” (CER), greenfield projects have to contribute 2% of the Additional Capital Investment, the company will contribute Rs. 8.0 Lakhs as funds for CER activities

Component	As per Norms	Allocation
CER		

Activities to be carried out under CER:

CER Activities	Fund (Rs.)
Provision & Installation of Water Cooler at Saykha Village	
Provision & Installation of Water Cooler at Argama Village	
Total	

C	Brief details of EMP	[Figure For Reference]
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EMP details (Capital cost & Recurring cost)

Brief details of EMP

COMPONENT	CAPITAL COST OF EMP (2019-20)	RECURRING COST OF EMP (per Month)
Cost		

Bifurcation of EMP Cost

Sr. No	Unit	Installed Capacity (KLD)	Capital Cost (Rs. in Lakhs)	Operating Cost (Lacs/Month)	Maintenance Cost (Lacs/Month)	Total Recurring Cost (Lacs/Month)
1	Effluent Treatment Plant					
2.	APCM					
3.	Hazardous Waste (Expense)					
4.	AWH Monitoring Cost					
5.	Greenbelt					
	Total					
D	Total Plot area (sq. meter)				Existing: 27200 Sq. m. Proposed: NIL Sq. m. Total: 27200 Sq. m.	
	Green belt area (sq. meter)				Existing: 8845 Sq. m. Proposed: Nil Sq. m. Total: 8845 Sq. m.	
E	Employment generation				Existing: 20 Proposed: --- Total: 20	
F	Water					
i	Source of Water Supply (GIDC Bore well, Surface water, Tanker supply etc...)				Bore well	
	Status of permission from the concern authority.				NA	
ii	Water consumption (KLD)					
			Existing KLD	Proposed (Additional) KLD	Total after Expansion KLD	Remarks

	(M) Domestic	1	0	1	
	(N) Gardening	3	0	3	
	(O) Industrial				
	Process	0	0	----	
	Washing	22	0	22	(2.0 KL Fresh + 20** KL Reuse)
	Boiler	0	0	0	
	Cooling	0	0	0	
	Others	4	0	4	
	Industrial Total	26	0	26	
	Grand Total (A+B+C)	30	0	30	
	<p>19) Total water requirement for the project: 30 KLD</p> <p>20) Quantity to be recycled: 20 KLD</p> <p>21) Total fresh water requirement: 10 KLD</p>				
iii	Waste water generation (KLD)				
	Category	Existing KLD	Proposed (Additional) KLD	Total after Expansion KLD	Remarks
	(G) Domestic	0.8	0	0.8	

	(H) Industrial				
	Process	0	0	0	
	Washing	20	0	20	Recycling and reuse in process
	Boiler	0	0	0	
	Cooling	0	0	0	
	Others	0	0	0	
	Total Industrial waste water	20.8		20.8	
iv	Treatment facility within premises with capacity [For existing and Proposed] [In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc.. ➤ Our Plant is Washing Silica Sand. Thus, Our Waste Water generation from process is totally Recycling and reuse in process. Thus, Unit will maintain Zero Discharge Unit.				
v	Mode of Disposal & Final meeting point				
	Domestic:	Soak Pit			
	Industrial:	Reused			
vi	In case of Common facility (CF) like CETP, Common Spray dryer, Common MEE, CHWIF etc. Name of Common facility ➤ Not Applicable Membership of Common facility (CF) (For waste water treatment)				

vii	Simplified water balance diagram with reuse / recycle of waste water							
We have provided and mentioned Simplified water balance diagram with reuse / recycle of waste water details in our presentation copy. Please refer it.								
vii	Reuse/Recycle details (KLD) [Source of reuse & application area]							
Total reuse 20 KLD								
		Source of waste water for reuse with quantity in KLD (From where it is coming)	Application area with quantity in KLD (Where it is used)			Remarks regarding feasibility to reuse i.e. w/w characteristics (COD, BOD, TDS etc.)		
		Process - 20 KLD	Process – 20 KLD					
G	Air							
i	Flue gas emission details No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc. Existing & Proposed							
-								
		Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
		1	NA	NA	NA	NA	NA	NA
ii	Process gas i.e. Type of pollutant gases (SO ₂ , HCl, NH ₃ , Cl ₂ , NO _x etc.) Existing & Proposed							

	-	<table border="1"> <thead> <tr> <th>Sr. no.</th> <th>Specific Source of emission (Name of the Product & Process)</th> <th>Type of emission</th> <th>Stack/Vent Height (meter)</th> <th>Air Pollution Control Measures (APCM)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> </tbody> </table>	Sr. no.	Specific Source of emission (Name of the Product & Process)	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)	1	NA	NA	NA	NA									
Sr. no.	Specific Source of emission (Name of the Product & Process)	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)																	
1	NA	NA	NA	NA																	
iii	Fugitive emission details with its mitigation measures.																				
	➤ Not Applicable																				
H	Hazardous waste (as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016. Existing & Proposed																				
i	<table border="1"> <thead> <tr> <th rowspan="2">Sr. no.</th> <th rowspan="2">Type/Name of Hazardous waste</th> <th rowspan="2">Specific Source of generation (Name of the Activity, Product etc.)</th> <th rowspan="2">Category and Schedule as per HW Rules.</th> <th colspan="3">Quantity (MT/Annum)</th> <th rowspan="2">Management of HW</th> </tr> <tr> <th>Existing</th> <th>Proposed</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> <td>NA</td> </tr> </tbody> </table>	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/Annum)			Management of HW	Existing	Proposed	Total	1	NA	NA	NA	NA	NA	NA	NA	
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/Annum)			Management of HW										
		Existing	Proposed	Total																	
1	NA	NA	NA	NA	NA	NA	NA														
ii	Membership details of TSDF, CHWIF etc. (For HW management)	Not Applicable																			
iii	Details of Non-Hazardous waste & its disposal(MSW and others)	Not Applicable																			

- During the meeting dated 21/01/2020, technical presentation made by project proponent along with technical

expert/agency M/s. Pravada Environment Solution.

- PP mentioned that proposal is for washing of silica sand in Village: Bhimpur. Committee asked PP about the proposal done in for expansion along with the justification about CC&A obtained from GPCB with Consent No. W – 22951 dated 12/09/2018. PP mentioned that they have already obtained CC&A for washing of silica sand which was revoked by GPCB due to applicability of EC. Committee asked PP to show the revoke order for the same however PP was not able to present the same.
- Committee further asked PP to show in detail the proposed location with respected to the siting criteria. PP showed the image on the google earth. Committee noted that the latitude and longitude shown in the presentation is differing from the one mentioned in the project details submitted along with Form – 1 and asked PP to clarify about the same. PP was not able to reply for the same satisfactorily.
- **After detailed discussion, Committee unanimously decided to defer the proposal and consider the same only after submission of the following documents:**
 1. Revised Project Details along with Revised Form – 1 and Presentation showing exactly the siting criteria pertaining to Human habitation.
 2. Revoke order of CC&A granted with Consent No. W – 22951 dated 12/09/2018.

8	Offline Application	M/S. Shree Ganesh Cement Plot No:201/212, GIDC-Sanala Road, Morbi	EC – Reconsideration
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Category of the unit: 3(b)

Project status: New

- This office has received an application vide their offline proposal with inward no SEAC – 2333 dated 05/11/2019 made by project proponent (PP) regarding grant of Environment Clearance [EC] with EMP report.
- Project proponent (PP) has submitted Form-1, PFR and relevant details/information.
- This is new unit proposes for “Standalone Cement Grinding” for manufacturing of cement as tabulated below:

Sr. No.	Name of the Products	Quantity MT/Month	End-use of products
1	Cement (OPC)	1,000 MT/Month (12,000 MT/Annum)	For construction and to manufacture cement blocks.

- The project falls under Category B2 of project activity 3(b) as per the schedule of EIA Notification 2006.
- PP was called for presentation in the SEAC meeting dated 04/12/2019.
- Technical presentation was made by the project proponent with consultant/expert M/s. Enviro Chem Consultancy, Rajkot during SEAC meeting dated 04/12/2019.
- Committee noted that this proposal is for new unit located in GIDC Morbi. PP mentioned that they have submitted undertaking for 90% transportation by railways however they could not justify the same properly through their presentation. Committee also noted that PP has not addressed any flue gas/process stack and further they have not addressed any hazardous waste.

- After detailed discussion, Committee unanimously decided to consider the proposal only after submission of the following documents:

1. Compliance of MoEF&CC's OM vide no. J-13012/12/2013-IA-II (I) dated 24/12/2013 for "Standalone Cement Grinding Unit" with proper Justification for carrying out transportation by railways more than 90% including both raw material and finished products. Submit authentic documents with route map.
2. Details of Process/Flue Gas Stack along with Proposed APCM for the same.
3. Source/Generation of Hazardous Waste (If any) as per Hazardous Waste Rules – 2016 covering its Collection, Storage, Transportation & Final disposal Mechanism.

- Project proponent submitted the reply on dated 30/12/2019. PP has made presentation for the above mentioned query dated 21/01/2020 for the above mentioned points.

- PP presented replied as below:

1. PP has submitted the compliance of MoEF&CC's OM vide no. J-13012/12/2013-IA-II (I) dated 24/12/2013 for "Standalone Cement Grinding Unit" with proper Justification for carrying out transportation by railways more than 90% including both raw material and finished products. 98.79 % of total transportation will be by railway and remaining 1.21 % by road. PP has presented the route map.
2. PP has presented that there is no boiler, heater or furnace hence there is no flue gas stack. PP has also presented that there is 3 process stacks each having 11 meter height attached to Clinker crusher house, cement ball mill and packing house, respectively. PP will provide bag filter as APCM to control the air pollution.
3. PP has presented that there is no any hazardous waste generated from plant hence Hazardous Waste Rules – 2016 is not applicable.

- Committee observed reply of PP satisfactory.

- Salient feature of the project including air, water and hazardous waste management (revised) as below:

Sr. no.	Particulars	Details
A	Total cost of Proposed Project (Rs. in Crores):	0.3067 Crores
	Details of EMP	

EMP details (Capital cost & Recurring cost)

Brief details of EMP

COMPONENT	CAPITAL COST OF EMP (2019-20)	RECURRING COST OF EMP (per Month)
Cost	Rs. 4.50 Lakhs	Rs. 0.14 Lakhs

Bifurcation of EMP Cost

Sr. No	Unit	Capital Cost (Rs. in Lakhs)	Operating Cost (Lacs/Month)	Maintenance Cost (Lacs/Month)	Total Recurring Cost (Lacs/Month)

1.	APCM	4.0	0.05	0.04	0.09
2.	Greenbelt	0.5	--	0.02	0.02
3.	Air Monitoring Cost	--	--	--	0.03
4.	Effluent Treatment Plant	N/A	N/A	N/A	N/A
5.	Hazardous Waste (Expense)	N/A	N/A	N/A	N/A
	Total	4.5	0.05	0.06	0.14

Details of CER as per OM dated 01/05/2018

CER details (As per MoEF&CC OM dated 01/05/2018)

As per OM no. 22-65/2017 on dated 01/05/2018 regarding "Corporate Environment Responsibility" (CER), greenfield projects have to contribute 2% of the Additional Capital Investment, the company will contribute Rs. 0.62 Lakhs as funds for CER activities

Component	As per Norms	Allocation
CER	Rs. 0.62 Lakhs (2 %)	Rs. 0.62 Lakhs (2 %)

Activities to be carried out under CER:

CER Activities	Fund (Rs.)
Provision & Installation of R.O Plant at Sanala Village	62,000
Total	62,000/-

B	Total Plot area (sq. meter)	1755 Sq. m.
	Green belt area (sq. meter)	520 Sq. m.
C	Employment generation	05 Nos.
D	Water	
i	Source of Water Supply (GIDC Bore well, Surface water, Tanker supply etc...)	G.I.D.C
	Status of permission from the concern authority.	N/A

ii Water consumption (KLD)

Category	Quantity KLD
(P) Domestic	0.50
(Q) Gardening	0.50
(R) Industrial	
Process	Nil
Washing	Nil
Boiler	Nil
Cooling	Nil
Others	Nil

		Industrial Total	Nil
		Total (A + B + C)	1.00
	<p>1) Total water requirement for the project:1.00 KLD</p> <p>2) Quantity to be recycled: Nil</p> <p>3) Total fresh water requirement: 1.00 KLD</p>		
iii	Waste water generation (KLD)		
		Category	Waste water KLD
		(I) Domestic	0.40
		(J) Industrial	
		Process	Nil
		Washing	Nil
		Boiler	Nil
		Cooling	Nil
		Others	Nil
		Total Industrial waste water	Nil
		Total [A + B]	0.40
	-		
iv	Treatment facility within premises with capacity [In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc..		
	N/A		
v	Mode of Disposal & Final meeting point		
	Domestic:	Sock pit through septic tank	
	Industrial:	N/A.	
vi	In case of Common facility (CF) like CETP, Common Spray dryer, Common MEE etc. , Name of CF		
	N/A		
	Membership of Common facility (CF) (For waste water treatment)		
	N/A		
vii	Simplified water balance diagram with reuse / recycle of waste water		
	N/A		

viii	Reuse/Recycle details (KLD)						
Total reuse NIL							
Source of waste water for reuse with quantity in KLD		Application area with quantity in KLD			Remarks regarding feasibility to reuse i.e. w/w characteristics (COD, BOD, TDS etc.)		
N/A							
E	Air						
i	Flue gas emission details No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc.						
-							
Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)	
1	No. Boiler/Furnace/DG Set/TFH						
-							
ii	Process gas i.e. Type of pollutant gases (SO ₂ , HCl, NH ₃ , Cl ₂ , NO _x etc.)						
-							
Sr. no.	Specific Source of emission (Name of the Product & Process)	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)			
1.	Clinker Crusher/ Feeder Hooper	P.M.	11 MTRS	Bag Filter (With adequate stack height and stack monitoring facility)			
2.	Cement Ball Mill and discharge tube	P.M.	11 MTRS	Bag Filter (With adequate stack height and stack			

					monitoring facility)
3.	Packing House	P.M.	11 MTRS		Bag Filter (With adequate stack height and stack monitoring facility)

-

iii **Fugitive emission** details with its mitigation measures.

As below:

N/A

F Hazardous wastes

(as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.

i.

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/Annum)	Management of HW
1				N/A	

ii Membership details of **TSDF, CHWIF** etc.
(For HW management)

N/A

iii Details of Non-Hazardous waste & its disposal (MSW and others)

N/A

G Solvent management, VOC emissions etc.

i Types of solvents, Details of Solvent recovery, % recovery. reuse of recovered Solvents

N/A

ii VOC emission sources and its mitigation measures

N/A

- **After detailed deliberation, Committee unanimously decided to forward this proposal to SEIAA, Gujarat for grant of Environment Clearance with following specific condition.**

1. PP shall carry out the pre-employment and periodic medical checkup of their employees covering lungs and X-ray test.

9	SIA/GJ/IND2/46670/2019	M/S. Think Pharma Chem Plot No.: 3407, Phase-IV, GIDC Estate Chhatral, Taluka: Kalol, District: Gandhinagar	Screening & Scoping
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Category of the unit: 5(f)

Project status: Expansion

- This office has received an application vide their online proposal no. SIA/GJ/IND2/46670/2019 dated 13/12/2019 made by project proponent (PP) regarding grant of Terms of Reference [ToR] for preparation of EIA/EMP report.
- Project proponent (PP) has submitted Form-1, PFR and relevant details/information.
- This is expansion of existing unit proposes for manufacturing of synthetic organic product as tabulated below:

Sr. no.	Name of the Products	CAS no. / CI no.	Quantity MT/Month			End-use of the products
			Existing	Proposed	Total	
1	Ferric Alum	7783-83-7	250	--	250	Water purification
2	Aluminium Sulphate	7784-31-8	100	--	100	water purification and as a mordant in dyeing and printing textiles
3	DCP (Di-calcium Phosphate Dihydrate)	7757-93-9	100	--	100	Water purification to remove dissolved organic material
4	Aluminium Hydroxide	21645-51-2	50	--	50	Used in pharma
5	Aluminium chlorohydrate solution	12042-91-0	25	--	25	Water purification to remove dissolved organic material
6	Imino Rifamycin	13292-46-1		0.5	0.5	Pharma Intermediate
7	6-(4-methoxy-3-tricyclo [3.3.1.1.]dec-	106685-40-9	--	0.5	0.5	

	1-yl phenyl naphthalene-2-carboxylic acid					
8	Methyl 6-[3-(1-adamantyl)-4-methoxyphenyl]-2-naphthoate	106685-41-0	--	0.5	0.5	
9	Intermediate of Nebivolol HCl	152520-56-4	--	0.5	0.5	
10	Intermediate of Levosulpride	181289-33-9	--	1.0	1.0	
11	1-Trityl-4-formyl imidazole or 1-Tritylimidazole-4-carboxaldehyde	331016-47-6	--	0.5	0.5	
12	Benzbromarone	3562-84-3	--	1.0	1.0	
13	Cyano Imidazole	288-32-4	--	0.5	0.5	
14	[3-Fluoro-4-(4-morpholinyl) nitrobenzene]	2689-39-6	--	0.3	0.3	
15	Benidipine HCl	91599-74-5	--	0.3	0.3	
16	3-(Carbamoyl methyl)-5-methyl hexanoic Acid	181289-33-8	--	2.0	2.0	
17	Bisphenol	80-05-7	--	10.0	10.0	
18	Benzyl Triethyl Ammonium Chloride	1112-67.0	--	200	200	
19	3,4 dimethoxy benzoic acid	93-07-2	--	2	2	
20	O Anisic Acid	579-75-9	--	2.5	2.5	
21	1,3 Propane diol	504-63-2	--	10	10	
22	Disulfiram	97-77-8	--	50	50	
Total				525	282.1	807.1

- The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006.
- PP was called for presentation in the SEAC meeting dated 21/01/2020.
- Salient features of the project including Water, Air and Hazardous waste management:

Sr. no.	Particulars	Details
---------	-------------	---------

A	Total cost of Proposed Project (Rs. in Crores):		Existing*: 0.65 Crores Proposed: 1.20 Crores Total: 1.85 lakhs Crores		
B	Total Plot area (sq. meter)		Existing*: 2502 Sq. m. Proposed: 0 Sq. m. Total: 2502 Sq. m.		
	Green belt area (sq. meter)		Existing*: 250 Sq. m. Proposed: 575 Sq. m. Total: 825 Sq. m.		
C	Employment generation		Existing*: 6 Proposed: 15 Total: 21		
D	Water				
i	Source of Water Supply (GIDC Bore well, Surface water, Tanker supply etc...)		GIDC water supply		
	Status of permission from the concern authority.		Permission obtained from GIDC		
ii	Water consumption (KLD)				
		Existing KLD	Proposed (Additional) KLD	Total after Expansion KLD	Remarks
	(S) Domestic	4	1	5	--
	(T) Gardening	2.5	1.8	4.3	--
	(U) Industrial				
	Process	Nil	1.4	1.4	--
	Washing	0.2	0.5	0.7	--
	Boiler	4.0	Nil	4.0	--
	Cooling	7.5	Nil	7.5	--
	Scrubber	Nil	0.1	0.1	

Others	--	--	--	--
Industrial Total	14.2	3.8	18	--
Grand Total (A+B+C)	18.2	4.8	23	--

1) **Total water requirement** for the project: 23 KLD

2) Quantity to be **recycled**: 0 KLD

3) Total **fresh water** requirement: 23 KLD

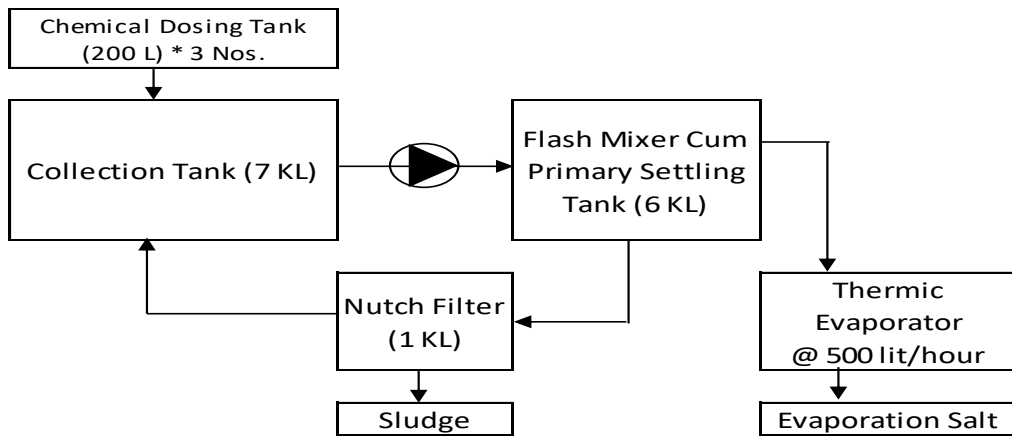
(Total water requirement = Fresh water + Recycled water)

iii **Waste water generation (KLD)**

Category	Existing KLD	Proposed (Additional) KLD	Total after Expansion KLD	Remarks
(K) Domestic	3.6	0.9	4.5	Septic tank followed by soak pit
(L) Industrial				
Process	Nil	3.4	3.4	To ETP
Washing	0.2	0.5	0.7	
Boiler	0.2	Nil	0.2	
Cooling	0.3	Nil	0.3	
Scrubber	Nil	0.1	0.1	
Others	--	--	--	
Total Industrial waste water			4.7	

iv Treatment facility within premises with **capacity**
 [In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc..
 ➤ Primary ETP: 7KLD

Treatment scheme including segregation at source.



Note: (In case of CETP discharge) :

Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.

- Effluent will be treated in in-house ETP, and it will be evaporated.

Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):

- Not Applicable, As there is in-house effluent treatment plant, which will be followed by evaporation.

v Mode of Disposal & Final meeting point

Domestic: Septic tank followed by Soak-pit

Industrial: Diluted streams will be treated in in-house ETP and treated effluent will be evaporated

vi In case of Common facility (CF) like CETP, Common Spray dryer, Common MEE, CHWIF etc.

Name of Common facility (CF) (For waste water treatment)

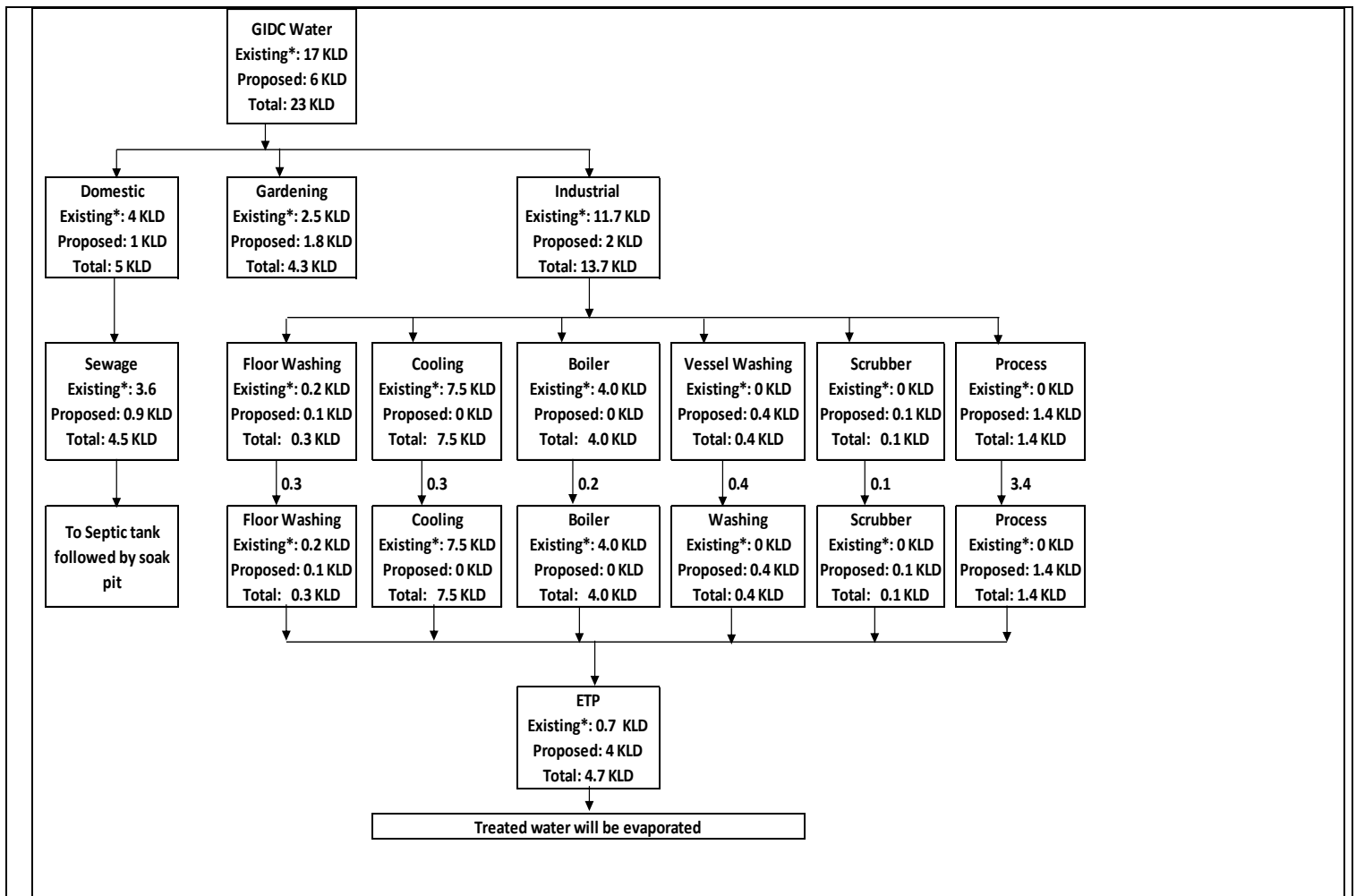
- Not Applicable

Membership of Common facility (CF)

(For waste water treatment)

Will be obtained

vii **Simplified water balance diagram with reuse / recycle of waste water**



vii	Reuse/Recycle details (KLD) [Source of reuse & application area]							
	<p>Total reuse: 0.0KLD</p> <table border="1"> <thead> <tr> <th>Source of waste water for reuse with quantity in KLD (From where it is coming)</th> <th>Application area with quantity in KLD (Where it is used)</th> <th>Characteristics of waste water to be reused (COD, BOD, TDS etc.)</th> <th>Remarks regarding feasibility to reuse i.e.</th> </tr> </thead> <tbody> <tr> <td colspan="4">Not Applicable</td> </tr> </tbody> </table>	Source of waste water for reuse with quantity in KLD (From where it is coming)	Application area with quantity in KLD (Where it is used)	Characteristics of waste water to be reused (COD, BOD, TDS etc.)	Remarks regarding feasibility to reuse i.e.	Not Applicable		
Source of waste water for reuse with quantity in KLD (From where it is coming)	Application area with quantity in KLD (Where it is used)	Characteristics of waste water to be reused (COD, BOD, TDS etc.)	Remarks regarding feasibility to reuse i.e.					
Not Applicable								
E	Air							
i	Flue gas emission details No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc. Existing & Proposed							
	-							

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Boiler (1 TPH)	12	Briquettes/ firewood	150 Kg/Hour	PM _≤ 150 mg/Nm ³ SO ₂ ≤ 100ppm NO _x ≤ 50 ppm	Multi Cyclone Separator followed by Stack
2	D.G. Set (35 KVA)	5	Diesel	5 Lit/Hour	PM _≤ 150 mg/Nm ³ SO ₂ ≤ 100ppm NO _x ≤ 50 ppm	Acoustic Enclosure

-

ii Process gas i.e. Type of pollutant gases (SO₂, HCl, NH₃, Cl₂, NO_x etc.)

Existing & Proposed

-

Sr. no.	Specific Source of emission (Name of the Product & Process)	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
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		1	Reactor	Acid Fumes	12	Alkali Scrubber	
		-					

iii **Fugitive emission** details with its mitigation measures.

➤ Standard handling practices are adopted for powdered chemical. Proper storage, charging system, handling system and online monitoring systems are provided and same will be taken care for proposed project.

F Hazardous waste
(As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.
Existing & Proposed

i					Quantity (MT/Annum)			Management of HW
	Sr. no.	Type/Name of Hazardous waste	Category and Schedule as per HW Rules.	Specific Source of generation (Name of the Activity, Product etc.)	Existing	Proposed	Total	
	1	Used /Spent Oil	5.1	Plant & machineries	0.012	0.02	0.032	Collection, storage and reused within premises as lubricant or selling to registered recycler
	2	Empty barrels/ Containers/ Liners Contaminated with Hazardous chemicals/ wastes	33.1	Raw material storage	60	15	75	transportation and disposal by selling to registered recycler
	3	Chemical Sludge from waste water treatment	35.3	Effluent treatment plant	10	14	24	Collection, storage, Transportation and disposal to approved TSDF
4	Evaporator salt	35.3	Effluent treatment plant	0	6	6	Collection, storage, Transportation	

								and disposal to approved TSDF
	5	Spent Carbon	28.2	Manu- facturing Process	0	2	2	Collection, Storage, Transportation and Disposal to CHWIF
	6	Spent Solvents	28.5	Manu- facturing Process	0	50	50	Collection, recovery and reuse in next batch or sell to common solvent distillation unit under rule-9
	7	Residue and wastes	28.1	Manu- facturing Process	0	65	65	Collection, Storage, Transportation and Disposal to CHWIF
	8	Process Sludge	17.1	Manu- facturing Process	300	0	300	Collection, storage, Transportation and disposal to approved TSDF
-								
ii	Membership details of TSDF, CHWIF etc. (For HW management)				Membership will be obtained as soon as possible			
iii	Details of Non-Hazardous waste & its disposal(MSW and others)				Not applicable			
G	Solvent management , VOC emissions etc.							
i	Types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc. (Details in Table Format)							

Sr. No.	Name Of Solvent	Recovered Quantity (MT/Month)	Fresh Quantity (MT/Month)	Recovery (%)
1	Iso Propyl Alcohol	57.65	5.71	93.4
2	Toluene	42.21	2.13	93.7
3	Methanol	9.23	0.49	95.6
4	Chloroform	3.00	0.15	95.0
5	Di Isopropyl Ether	3.00	0.17	94.5
6	Tetrahydrofuran	20.50	1.05	95.1
7	Acetic Acid	5.79	0.32	94.2
8	Methylene Di Chloride	0.06	0.003	95.7
9	Ethyl Acetate	142.06	6.86	94.9
10	Acetone	0.03	0.00	94.4
11	Di Chloro Methane	5.77	0.29	94.9
12	Triethyl Amine	1.54	0.08	95.0
13	Dimethyl Sulphoxide	7.21	0.26	96.4
14	T-Butanol	0.79	0.03	96.5
15	Ethylene di Chloride	2.68	0.17	93.8
16	p-aminobenzoic acid	4.13	0.27	93.5
17	Ethylene Glycol	0.60	0.02	96.8
18	Acetonitrite	80.00	4.72	94.1
19	4-formyl imidazole	0.46	0.03	94.4
20	Trityl Chloride	0.46	0.02	95.7
21	Methylene Chloride	5.80	0.32	93.8
22	Di-methyl formamide	2.88	0.16	94.6
23	Methyl Ethyl Ketone	7.10	0.46	93.5
Total		403.0	23.7	95

** Please refer **Annexure-1**

ii **VOC emission** sources and its mitigation measures

Storage details	Name of major Hazardous chemicals	Remarks
Storage tanks	Methanol, Toluene, Sulphuric Acid HCl etc.	---

	Drum/Barrel storage	Caustic Flakes, Activated Carbon, Sodium Sulphate, Caustic Lye etc.	--
	<ul style="list-style-type: none"> ➤ Due to Manufacturing process and solvent handling chances of VOC emissions. Entire process and material charging has been carried out in closed loop. Regular work place monitoring will be done. Standard SOP will be followed to handle powder and liquid raw materials. 		
H	<ul style="list-style-type: none"> ➤ Details regarding storage of Hazardous chemicals ➤ Applicability of PESO: PESO permission will be obtained at time of commencement of project. 		
<ul style="list-style-type: none"> • Technical presentation was made by the project proponent during SEAC meeting dated 21/01/2020. • Committee noted that this proposal is for expansion of project located in GIDC - Chhatral. PP has submitted compliance of earlier CC&A. PP mentioned that there are no any court case or public complaints pending against this unit. Source of water is GIDC. PP mentioned that effluent generated from process, washing, cooling blow down, boiler blow down & scrubber will be treated in in-house ETP consisting of Primary treatment followed by Thermic Evaporator. Committee asked PP to show material and mass balance of manufacturing process along with the product taken for worst case scenario however PP was not able to present the same. Committee asked PP to clarify that why the waste water generation is higher than water consumption and which are the products from which water/effluent is generated however PP was not able to satisfactorily address the same. PP mentioned that there will no additional fuel requirement and existing boiler will be able to cater the steam requirement. Committee asked PP to present the steam balance however PP was not able to present the steam balance. Committee noted that PP has not addressed the Hazardous Waste Matrix as per HWR – 2016. • <u>After detailed discussion, it was decided to consider the proposal only after submission of the following documents.</u> <ol style="list-style-type: none"> 1. Material balance and Mass balance of Manufacturing Process along with Product taken for Worst Case Scenario. 2. Technical Justification as to why waste water generation is higher than water consumption by mentioning the products from which water/effluent is generated. 3. Steam Balance for no increase in fuel consumption in the case of expansion along with undertaking for elimination of Fire Wood as Fuel. 4. Revised Hazardous Waste Matrix as per HWR – 2016 by incorporating Scrubber effluent in Hazardous Waste Table. 			
10	SIA/GJ/IND2/40228/2019	M/S. Indian Dyestuff Industries	ToR – Reconsideration

Plot No. 156, 157, C-1/B-2/B-3, Phase II,
GIDC-Naroda, Ahmedabad.

Category of the unit: 5(f)

Project status: Expansion

- This office has received an application vide their online proposal no. SIA/GJ/IND2/40228/2019 dated 02/09/2019 made by project proponent (PP) regarding grant of Terms of Reference [ToR] for preparation of EIA/EMP report.
- Project proponent (PP) has submitted Form-1, PFR and relevant details/information.
- This is expansion of existing unit proposes for manufacturing of synthetic organic product as tabulated below:

Sr. No.	Product Name	CAS No./C.I. No.	QTY. MT/Month			End Use
			Existing	Additional / Proposed	Total After Expansion	
1.	Reactive Orange 3RX	--	0.15	- 0.15	0.00	Dyeing Industries
2.	Reactive Orange HEZR	--	0.20	- 0.20	0.00	Dyeing Industries
3.	Reactive Navy Blue RX	--	0.30	- 0.30	0.00	Dyeing Industries
4.	Reactive Red HE8H	--	0.35	- 0.35	0.00	Dyeing Industries
5.	Reactive Black HN	12225-26-2	0.50	- 0.50	0.00	Dyeing Industries
Direct Dyes						
6.	Direct Orange 39	1325-54-8	--	50	50	Dyeing Industries
7.	Direct Black 22	6473-13-8				Dyeing Industries

8.	Direct Blue 71	4399-55-7				Dyeing Industries
9.	Direct Blue 15	2429-74-5				Dyeing Industries
10.	Direct Yellow 11	1325-37-7				Dyeing Industries
	Acid Dyes					
11.	Acid Red 97	10169-02-5				Dyeing Industries
	Reactive Dyes					
12.	Reactive Black B	12225-25-1				Dyeing Industries
13.	Reactive Orange W3R	--				Dyeing Industries
14.	Reactive Red W3R	--				Dyeing Industries
15.	Reactive Red CD	12226-03-8				Dyeing Industries
16.	Reactive Yellow ME4GL	129895-77-7				Dyeing Industries
17.	Reactive Orange 2R	79809-27-1				Dyeing Industries
18.	Reactive Golden Yellow R	--				Dyeing Industries

19.	Reactive Yellow FG	1226-63-0				Dyeing Industries
20.	Reactive Yellow MERL	93050-80-7				Dyeing Industries
21.	Reactive Blue RGB	93951-21-4				Dyeing Industries
22.	Reactive Blue 220	128416-19-3				Dyeing Industries
23.	Reactive Blue 221	93051-41-3				Dyeing Industries
24.	Reactive Blue 222	93051-44-6				Dyeing Industries
25.	Reactive Blue herd	23354-52-1				Dyeing Industries
26.	Reactive Red 195	93050-79-4				Dyeing Industries
27.	Reactive Red 194	23354-52-1				Dyeing Industries
	Liquid Dyes					
28.	Direct Red 254 Liq.	101380-00-1		50	50	Dyeing Industries
29.	Direct Orange 15 Liq.	1325-35-5				Dyeing Industries
30.	Direct Yellow 132 Liq.	61968-26-1				Dyeing Industries

31.	Direct Yellow 11 Liq.	1325-37-7				Dyeing Industries
32.	Direct Orange 39 Liq.	1325-54-8				Dyeing Industries
	Total		1.50	100	100	

Note: Existing product will be dis-continued after getting EC & NOC from GPCB for proposed expansion.

- The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006.
- PP was called for presentation in the SEAC meeting dated 10/10/2019.
- Salient features of the project including Water, Air and Hazardous waste management :

Sr. no.	Particulars	Details			
A	Total cost of Proposed Project (Rs. in Crores):	Existing: 0.35 Cr Proposed: 0.81 Cr Total: 1.16 Cr			
B	Total Plot area (sq. meter)	Existing: 836 Sq. m. Proposed: 836 Sq. m. Total: 1672 Sq. m.			
	Green belt area (sq. meter)	Existing: 50 Sq. m. Proposed: 50 Sq. m. Total: 100 Sq. m.			
C	Employment generation	Existing: 15 Proposed: 20 Total: 35			
D	Water				
i	Source of Water Supply (GIDC Bore well, Surface water, Tanker supply etc...)	GIDC Water Supply Authority			
	Status of permission from the concern authority.	Obtained			
ii	Water consumption (KLD)				
	Category	Existing Qty (KLD)	Additional Qty (KLD)	Total Qty (KLD)	Remarks
	(V) Domestic	0.70	1.00	1.70	
	(W) Gardening	--	0.32	0.32	
	(X) Industrial				
	Process	1.30	8.29	9.59	Considering maximum water consumption for product no. 06 (4.17 KLD) + product no. 31 (5.42 KLD). Total = 9.59 KLD. We have

					shown scenario after considering discontinuing of existing products.
	Washing	0.60	1.00	1.60	
	Boiler	0.50	5.00	5.50	
	Cooling	--	0.20	0.20	
	Others (Scrubber)	--	0.50	0.50	
	Industrial Total	2.40	14.99	17.39	
	Total (A + B + C)	3.10	16.31	19.41	

- 4) **Total water requirement** for the project: 19.41 KLD
5) Quantity to be **recycled**: NIL
6) Total **fresh water** requirement: 19.41 KLD

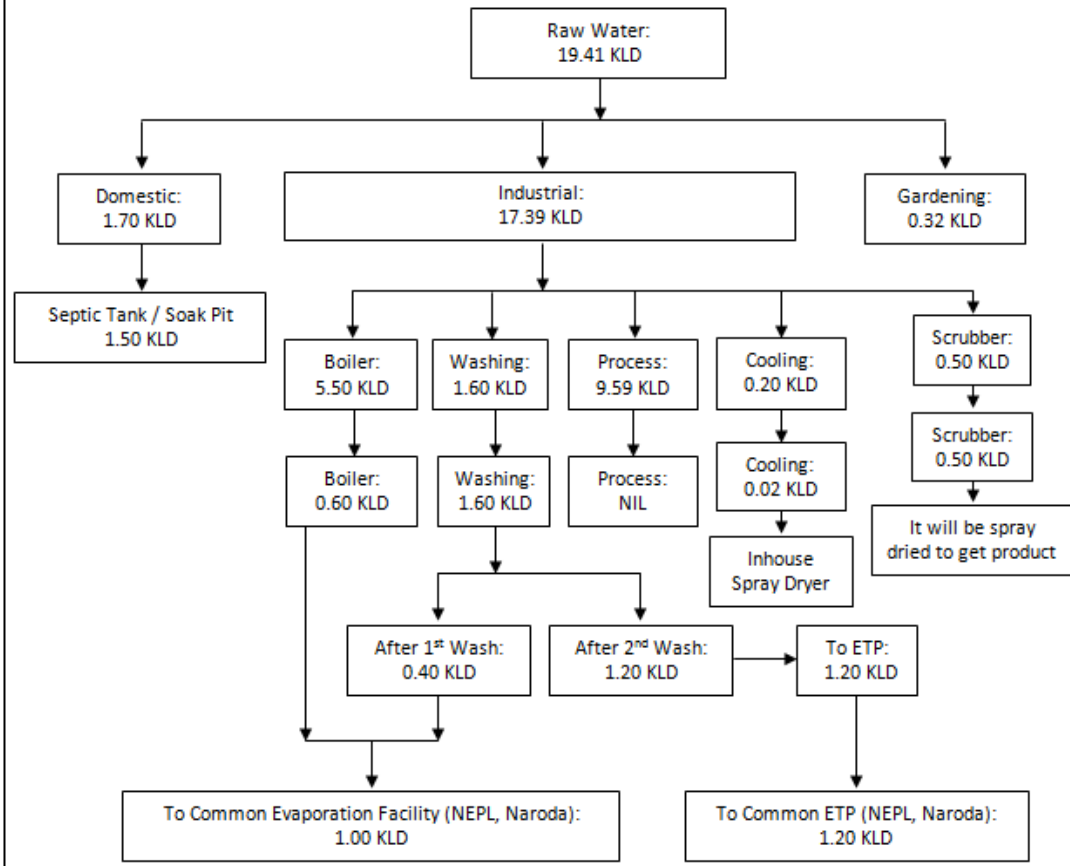
iii **Waste water generation (KLD)**

Category	Existing Qty (KLD)	Additional Qty (KLD)	Total Qty (KLD)	Remarks
(A) Domestic	0.70	0.80	1.50	Septic Tank / Soak Pit
(B) Gardening	--	--	--	
(C) Industrial				
Process	0.60	- 0.60	0.00	We have shown scenario after considering discontinuing of existing products.
Washing	0.60	1.00	1.60	1.20 KL/Day wastewater (second wash) will be treated in ETP & it will be sent to Common CETP (NEPL). 0.40 KL/Day wastewater (first wash) will be sent to common spray dryer facility operated by M/s. NEPL, Naroda for evaporation.
Boiler	--	0.60	0.60	0.60 KL/Day of boiler blow down water will be sent to common spray dryer facility operated by M/s. NEPL, Naroda for evaporation.
Cooling	--	0.02	0.02	It will be evaporated by in-house spray dryer facility
Others (Scrubber)	--	0.50	0.50	It will be spray dried to get product.
Industrial Total	1.20	1.52	2.72	
Total (A + B + C)	1.90	2.32	4.22	

- iv Treatment facility within premises with **capacity**
[In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc..
- ETP having Primary Treatment Facility
 - ETP Capacity = 3 KLD
- Treatment scheme including segregation at source.
- Existing:
 - 1.20 KL/Day wastewater (0.60 KLD from process and 0.60 KLD from washing will be treated in ETP & it will be sent to Common CETP (NEPL, Naroda).
 - Total Proposed Scenario:

	<ul style="list-style-type: none"> - 1.00 KL/Day wastewater (0.60 KLD from boiler blow down + 0.40 from washing (first wash) will be sent to Common Spray Dryer Facility operated by M/s. NEPL, Naroda for evaporation. - 1.20 KL/Day wastewater from washing (second wash) will be treated in ETP & it will be sent to Common CETP (NEPL, Naroda). - 0.02 KLD wastewater from cooling will be evaporated by inhouse spray dryer facility. - 0.50 KLD will be spray dried to get product. 				
	<p>Note: (In case of CETP discharge) : Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP. ➤ There will be no incremental load on CETP. Hence, we will Complied said direction.</p>				
	<p>Brief note on adequacy of ZLD (In case of Zero Liquid Discharge): (For waste water treatment) Not Applicable</p>				
v	<p>Mode of Disposal & Final meeting point</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 20%;">Domestic:</td> <td>1.5 KL/Day - Soak Pit/ Septic Tank</td> </tr> <tr> <td>Industrial:</td> <td> <ul style="list-style-type: none"> - 1.00 KL/Day wastewater (0.60 KLD from boiler blow down + 0.40 from washing (first wash) will be sent to Common Spray Dryer Facility operated by M/s. NEPL, Naroda for evaporation. - 1.20 KL/Day wastewater from washing (second wash) will be treated in ETP & it will be sent to Common CETP (NEPL, Naroda). - 0.02 KLD wastewater from cooling will be evaporated by inhouse spray dryer facility. - 0.50 KLD will be spray dried to get product. </td> </tr> </table>	Domestic:	1.5 KL/Day - Soak Pit/ Septic Tank	Industrial:	<ul style="list-style-type: none"> - 1.00 KL/Day wastewater (0.60 KLD from boiler blow down + 0.40 from washing (first wash) will be sent to Common Spray Dryer Facility operated by M/s. NEPL, Naroda for evaporation. - 1.20 KL/Day wastewater from washing (second wash) will be treated in ETP & it will be sent to Common CETP (NEPL, Naroda). - 0.02 KLD wastewater from cooling will be evaporated by inhouse spray dryer facility. - 0.50 KLD will be spray dried to get product.
Domestic:	1.5 KL/Day - Soak Pit/ Septic Tank				
Industrial:	<ul style="list-style-type: none"> - 1.00 KL/Day wastewater (0.60 KLD from boiler blow down + 0.40 from washing (first wash) will be sent to Common Spray Dryer Facility operated by M/s. NEPL, Naroda for evaporation. - 1.20 KL/Day wastewater from washing (second wash) will be treated in ETP & it will be sent to Common CETP (NEPL, Naroda). - 0.02 KLD wastewater from cooling will be evaporated by inhouse spray dryer facility. - 0.50 KLD will be spray dried to get product. 				
vi	<p>In case of Common facility (CF) like CETP, Common Spray dryer, Common MEE, CHWIF etc.</p> <p>Name of Common facility</p> <ul style="list-style-type: none"> ➤ Common CETP (NEPL) ➤ Common Spray Dryer Facility (NEPL) <p>Membership of Common facility (CF)</p> <ul style="list-style-type: none"> ➤ Common ETP & Spray Dryer Facility 				
vii	<p>Simplified water balance diagram with reuse / recycle of waste water</p>				
<p>Water Supply: GIDC Water Authority Water Balance Diagram:</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p style="text-align: center;">EXISTING SCENARIO:</p> <pre> graph TD RawWater[Raw Water: 3.10 KLD] --> Domestic[Domestic: 0.70 KLD] RawWater --> Industrial[Industrial: 2.40 KLD] Domestic --> ST[Septic Tank / Soak Pit 0.70 KLD] Industrial --> Process1[Process: 1.30 KLD] Industrial --> Boiler1[Boiler: 0.50 KLD] Industrial --> Washing1[Washing: 0.60 KLD] Process1 --> Process2[Process: 0.60 KLD] Boiler1 --> Boiler2[Boiler: NIL] Washing1 --> Washing2[Washing: 0.60 KLD] Process2 --> ETP[ETP: 1.20 KLD] Boiler2 --> ETP Washing2 --> ETP ETP --> CETP[To CETP of M/s. NEPL, Naroda 1.20 KLD] </pre> </div>					

TOTAL PROPOSED SCENARIO:



vii	Reuse/Recycle details (KLD) [Source of reuse & application area]								
	<table border="1"> <tr> <td data-bbox="119 1176 207 1422">NIL</td> <td data-bbox="207 1176 518 1422"> <table border="1"> <thead> <tr> <th data-bbox="207 1176 518 1355">Source of waste water for reuse with quantity in KLD</th> <th data-bbox="518 1176 885 1355">Application area with quantity in KLD</th> <th data-bbox="885 1176 1556 1355">Remarks regarding feasibility to reuse i.e. w/w characteristics (COD, BOD, TDS etc.)</th> </tr> </thead> <tbody> <tr> <td data-bbox="207 1355 518 1422">NIL</td> <td data-bbox="518 1355 885 1422">--</td> <td data-bbox="885 1355 1556 1422">--</td> </tr> </tbody> </table> </td> </tr> </table>	NIL	<table border="1"> <thead> <tr> <th data-bbox="207 1176 518 1355">Source of waste water for reuse with quantity in KLD</th> <th data-bbox="518 1176 885 1355">Application area with quantity in KLD</th> <th data-bbox="885 1176 1556 1355">Remarks regarding feasibility to reuse i.e. w/w characteristics (COD, BOD, TDS etc.)</th> </tr> </thead> <tbody> <tr> <td data-bbox="207 1355 518 1422">NIL</td> <td data-bbox="518 1355 885 1422">--</td> <td data-bbox="885 1355 1556 1422">--</td> </tr> </tbody> </table>	Source of waste water for reuse with quantity in KLD	Application area with quantity in KLD	Remarks regarding feasibility to reuse i.e. w/w characteristics (COD, BOD, TDS etc.)	NIL	--	--
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Source of waste water for reuse with quantity in KLD	Application area with quantity in KLD	Remarks regarding feasibility to reuse i.e. w/w characteristics (COD, BOD, TDS etc.)							
NIL	--	--							
E	Air								
i	Flue gas emission details No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc. Existing & Proposed								

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)		
Existing								
1	Steam Boiler (0.8 TPH)	11	Wood	500 kg/day	PM<150 mg/ Nm ³ SO ₂ < 100 ppm NO _x < 50 ppm	Adequate stack height is provided		
2	Hot Air Generator - 6 Lac K Cal	11			PM<150 mg/ Nm ³ SO ₂ < 100 ppm NO _x < 50 ppm	Adequate stack height is provided		
Total Proposed								
1	Steam Boiler (0.8 TPH)	11	Existing Wood will be switched over to	40 SCM/Day	PM<150 mg/ Nm ³ SO ₂ < 100 ppm NO _x < 50 ppm	Adequate stack height is provided		
2	Hot Air Generator (2 Nos.) - 6 Lac K Cal	11	Natural Gas (proposed)	60 SCM/Day	PM<150 mg/ Nm ³ SO ₂ < 100 ppm NO _x < 50 ppm	Adequate stack height is provided		
Note: After expansion, proposed (1 no). HAG will be used for spray dryer.								
ii	Process gas i.e. Type of pollutant gases (SO ₂ , HCl, NH ₃ , Cl ₂ , NO _x etc.) Existing & Proposed							
-								
Sr. no.	Source of emission	Type of emissions	Stack Height (meter)	Air Pollution Control Measures (APCM)				
Existing								
1	There is no process gas emission from existing project facility.							
Total Proposed								
1	Spray Dryer	PM<150 mg/ Nm ³	15.0	Cyclone separator followed by Water Scrubber				
Note: Spray dryer will be used for getting product in powder form.								
iii	Fugitive emission details with its mitigation measures.							
<ul style="list-style-type: none"> ➤ Closed Process ➤ No manual handling of consumables ➤ Minimum number of flanges ➤ Proper Ventilation ➤ Adequate PPEs 								
F	Hazardous waste (as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.) Existing & Proposed							
i	Sr. no.	Type/Name of Hazardous waste	Source of generation	Cate.	Existin g Qty	Additional Qty	Total Qty	Disposal Method

	1	ETP Sludge	ETP	SCH-I/35.3	1.20 MT/Year	2.80 MT/Year	3.00 MT/Year	Collection, Storage, Transportation & Disposal at TSDF approved by the board
	2	Used Oil	Utility	SCH-I/5.1	0.011 MT/Year	0.022 MT/Year	0.033 MT/Year	Collection, Storage, Transportation & reuse as lubricant
	3	Discarded Bags, Barrels, Carboys	Raw Mat. Supplier	SCH-I/33.1	97.20 MT/Year	55.60 MT/Year	152.80 MT/Year	Collection, Storage, Decontamination, Transportation & Disposal by selling to authorized recycler
	4	Spray Drying Residue	Spray Dryer	SCH-I/35.3	--	22.00 MT/Year	22.00 MT/Year	Product recovered from spray dryer & finally it will be sold

ii	Membership details of TSDF, CHWIF etc. (For HW management)	SEPPL
iii	Details of Non-Hazardous waste & its disposal(MSW and others)	None

G Solvent management, VOC emissions etc.

i	Types of solvents, Details of Solvent recovery, % recovery. reuse of recovered Solvents
	➤ No Solvent utilization

ii	VOC emission sources and its mitigation measures
	<ul style="list-style-type: none"> ➤ Closed Process ➤ No manual handling of consumables ➤ Minimum number of flanges ➤ Proper Ventilation ➤ Adequate PPEs

H Details regarding storage of Hazardous chemicals

- Technical presentation was made by the project proponent with consultant/expert Sunrise Environment Consultant during SEAC meeting dated 10/10/2019.
- Committee noted that this proposal is expansion case of dyes manufacturing plant located at GIDC Naroda, Ahmedabad. PP ensured that no court case or public complaint pending against PP. Plot area will increase from 836 m² to 1672 m². Upon asking PP could not explain 120 times production expansion satisfactorily.
- Existing quantity of treated effluent will be sent to M/s. NEPL, CETP. Additional quantity will be sent to common spray dryer of M/s. NEPL.
- Multi Cyclone Separator followed by water scrubber will be provided with steam boiler and HAG. There will be

no process gas emission.

- PP addressed hazardous waste management. Quantity of ETP sludge is shown only 1.70 MTPA which is not convincing in context to product profile and raw effluent characteristics.
- **After deliberation, SEAC unanimously decided to consider the proposal only after submission of the following details.**
 1. Justify extent (120 times) of project expansion. Details with respect to justification for proposed expansion:
 - (1) To address proportionate availability of space for production plant.
 - (2) To address proportionate availability of storage area for raw materials finished goods, utilities considering fire-safety norms & PESO standards and goods carrier movement within premises.
 - (3) To address proportionate captive/common infrastructure available to accommodate additional load due to proposed expansion.
 - (4) Environment impact and its mitigation measures for common/ captive infrastructure due to proposed production.
 2. Revise water balance diagram including cooling bleed off, boiler blow down, process effluent as per stoichiometry of proposed products.
 3. Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.
 4. Technical justification of no process gas emission from proposed product profile.
 5. Revise ETP sludge quantity in context to product profile and raw effluent characteristics.
- PP made presentation for the above mentioned query dated 21/01/2020 for the above mentioned points.
- PP presented replied as below:
 1. PP justified expansion scenario in additional plot purchased by incorporating process area, blander, filter press, ETP plant, ball mill, laboratory, office, raw material storage area, hazardous waste storage area, finished product area, green belt and open area demarcating availability of space for production plant, storage area for raw materials finished goods along with infrastructure available to accommodate additional load due to proposed expansion along with EMS. PP further clarified that existing product will be discontinued after getting EC and NOC for proposed expansion.
 2. PP presented revised water balance diagram including cooling bleed off, boiler blow down, process effluent as per stoichiometry of proposed products.
 3. PP submitted management of waste water keeping in view direction under section 18 (1) (b) of Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.
 4. PP showed spray dryer in process gas emission along with its respective APCM.
 5. PP submitted revised quantity of ETP sludge in context to product profile.
- Committee found reply submitted by PP is satisfactory.
- **After detailed discussion, it was decided to recommend the project to SEIAA Gujarat for grant of Terms of Reference.**
- Considering the above project details, after detailed discussion, the terms of reference (ToR) were prescribed as below and as per the standard TOR for the Synthetic Organic Chemical projects recommended by SEAC

vide letter no. EIA-10-GEN-21/1480 dated 14/09/2017 and approved by SEIAA in its 12th meeting dated 16/09/2017 for the EIA study to be done covering **10 Km** radial distance from the project boundary.

1. Details with respect to justification **for proposed expansion**: (1) To address proportionate availability of space for production plant. (2) To address proportionate availability of storage area for raw materials finished goods, utilities considering fire-safety norms & PESO standards and goods carrier movement within premises. (3) To address proportionate captive/common infrastructure available to accommodate **additional load due to proposed expansion**. (4) Environment impact and its mitigation measures for common/ captive infrastructure due to **proposed production**.
 2. Compliance of MoEFCC's OM dated 01/05/2018 regarding "Corporate Environment Responsibility" (CER). Fund allocation for Corporate Environment Responsibility (CER) shall be made as per MoEFCC's O.M. No. 22-65/2017-IA.III dated 01/05/2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report.
 3. Explore the use of renewable energy to the maximum extent possible. Details of provisions to make the project energy-efficient through energy efficient devices and adoption of modes of alternative eco-friendly sources of energy like solar water heater, solar lighting etc. Measures proposed for energy conservation.
 4. Leak Detection and Repairing Programme (LDAR) for all the volatile organic solvent proposed for use in-house with detailed chemical properties including vapor pressure. LDAR shall endeavor prevention of losses of solvents to the best minimum extent.
 5. Safety precautions including flame proof electric fittings to be taken to avoid fire hazard during unloading, storage, transportation, handling and processing of Solvents.
 6. Status of all the applicable Rules, Acts, Regulation, Clearances in a tabular form.
 7. Characteristic of effluent to be sent to Common Evaporation facility, Naroda along with its Spare Capacity.
 8. Characteristic of effluent to be sent to CETP of NEPL after proposed expansion.
- The TOR prescribed as above and as per the standard TOR approved by SEIAA and the model ToRs available in the MoEFCC's sector specific EIA Manual for '**Synthetic Organic Chemical Industry**' shall be considered as generic TORs for preparation of the EIA report in addition to all the relevant information as per the generic structure of EIA given in Appendix III in the EIA Notification, 2006.
 - Further Project Proponent may be advised to submit final EIA Report with EC application within 100 days from the date of issuance of this ToR to expedite processing of Environment Clearance application.
 - The project proponent shall have to apply for Environmental clearance through online portal <http://environmentclearance.nic.in/> along with final EIA report.

11	SIA/GJ/MIS/30108/2018	M/s. Khambhat Environ Care Association Survey No. 630 to 636, 637/23/A/3/Paiki, 637/23/A/4/Paiki & 638, Village: Kalamsar, Ta. Khambhat, Dist. Anand.	ToR – Refer Back
<ul style="list-style-type: none"> PP remained absent in the ToR – Refer Back presentation held on 21/01/2020. <u>After detailed discussion, Committee decided to defer the proposal and consider the same in one of the upcoming meeting of SEAC.</u> 			
12	SIA/GJ/IND2/46746/2019	M/s. Vidhi Specialty Food Ingredients Limited Plot no. Z/61, Z/62, Dahej SEZ, Ta.: Vagra, Dist. Bharuch.	Screening & Scoping

Category of the unit: 5(f)

Project status: New

- This office has received an application vide their online proposal no. SIA/GJ/IND2/46746/2019 dated 01/01/2020 made by project proponent (PP) regarding grant of Terms of Reference [ToR] for preparation of EIA/EMP report.
- Project proponent (PP) has submitted Form-1, PFR and relevant details/information.
- This is new unit proposes for manufacturing of synthetic organic product as tabulated below:

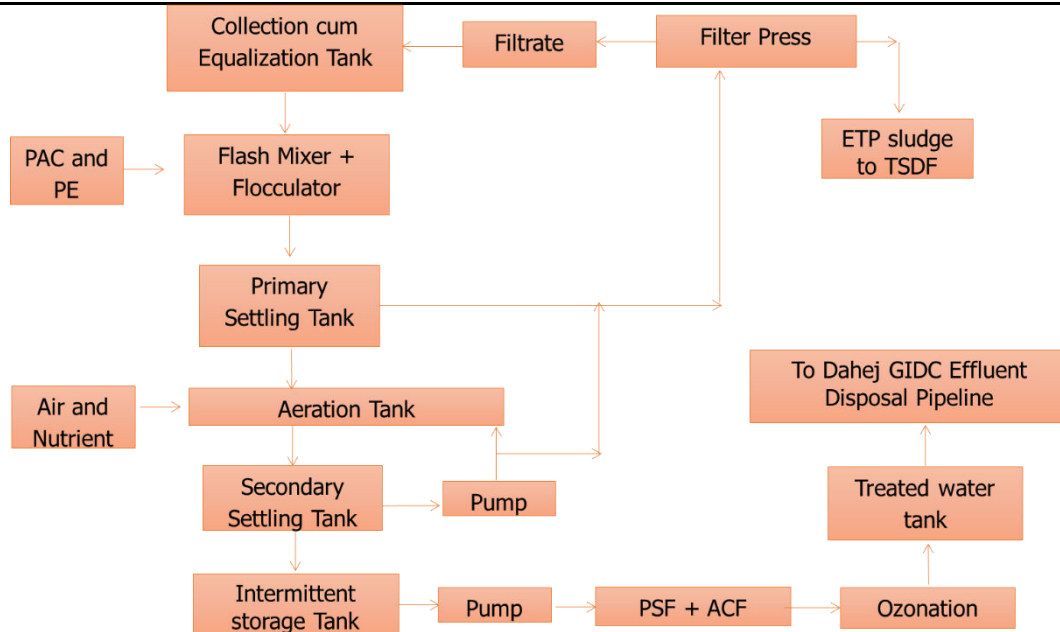
No.	Product Name	CAS Number	Capacity	End Use
			MT/Month	
[A]	FD & C Basic Colours			
1)	Tartrazine	1934-21-0	300	Food Industries
2)	Sunset Yellow	2783-94-0		
3)	Allura Red	25956-17-6		
4)	Ponceau 4R	2611-82-7		
5)	Carmoisine	3567-69-9		
6)	Amaranth	915-67-3		
7)	Chocolate Brown HT	4553-89-3		
8)	Quinoline Yellow WS	8004-92-0		
[B]	FD & C Lake Colours			
1)	Aluminium lake of Tartrazine	12225-21-7	60	Food Industries
2)	Aluminium lake of Sunset Yellow	-		
3)	Aluminium lake of Allura Red	25956-17-6		
4)	Aluminium lake of Ponceau 4R	-		
5)	Aluminium lake of Carmoisine	53026-69-9		
6)	Aluminium lake of Amaranth	-		

7)	Aluminium lake of Chocolate Brown HT	-		
Total Capacity:			360 MT/Month	

- The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006.
- PP was called for presentation in the SEAC meeting dated 01/01/2020.
- Salient features of the project including Water, Air and Hazardous waste management:

Sr. no.	Particulars	Details		
A				
A	Total cost of Proposed Project (Rs. in Crores):	15 Crores		
B	Total Plot area (sq. meter)	10060.40 Sq. m.		
	Green belt area (sq. meter)	3320 Sq. m.		
C	Employment generation	70		
D	Water			
i	Source of Water Supply (GIDC Bore well, Surface water, Tanker supply etc...)	Dahej GIDC water Supply		
	Status of permission from the concern authority.	Unit has received valid NOC from concern authority.		
ii	Water consumption (KLD)			
	Category	Quantity KLD	Remarks	
	(Y) Domestic	12	-	
	(Z) Gardening	10	-	
	(AA)		-	
	Process	346	-	
	Boiler	80	-	
	Cooling	50	-	
	Washing	20	-	
	Scrubber	10	-	
	Industrial Total	506	-	
	Total (A + B + C)	528	-	
Total water requirement for the project: 528 kL/day				
iii	Waste water generation (KLD)			
	Category	Waste water KLD	Remarks	
	(M) Domestic	10	-	
	(N) Industrial		-	
	Process	343	-	
	Boiler	10	-	
	Cooling	10	-	
	Washing	15	-	
	Scrubber	8	-	

	Total Industrial waste water	386	-
	Total [A + B]	396	-
Total wastewater generation from the project: 396 kL/day			
iv	<p>Treatment facility within premises with capacity [In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc.</p> <p>Effluent generated from the facility is collected in an effluent collection tank cum equalization tank. From here effluent is pumped to primary treatment plant consisting of Flash Mixer, Flocculation Channel and Primary Settling Tank.</p> <p>Waste water is taken to flash mixer where it is dosed with PAC for flocculation of suspended solids. From flash mixer effluent is taken at the inlet of flocculator where it is dosed with Polyelectrolyte for coagulation and for making large flocs. Flocculator is a baffle wall channel for allowing gentle mixing of waste water stream. From flocculator effluent is taken at the inlet of Primary Settling Tank. Here precipitated solids are settled under gravity. Supernatant from primary settling tank is taken at the inlet of Secondary Treatment Plant consisting of Aeration Tank.</p> <p>In Aeration Tank, soluble biodegradable component of effluent subjected to biological treatment in presence of Biomass, Nutrient and Oxygen. Air required is supplied through Air Blower and Nutrient required for process is dosed in form of DAP/Urea in Aeration Tank. Mixed liquor from Aeration Tank is taken at the inlet of secondary settling tank. Here suspended biomass is settled at bottom of secondary settling tank and recycled back to aeration tank through sludge recirculation pump. Excess biomass generated is wasted as side stream of the sludge recirculation line on periodic basis. Overflow and supernatant from the secondary settling tank is taken for tertiary treatment.</p> <p>Tertiary treatment consists of pressure sand filter and activated carbon filter. In pressure sand filter carried over suspended solids are filtered in Multigraded Sand Filter. Traces of organic impurities are adsorbed in Activated Carbon Filter as polishing treatment. Ozonation treatment will be provided after pressure sand filter and activated carbon filter as disinfectant and to reduce COD load.</p> <p>Sludge slurry generated from primary settling tank and biological treatment is collected and it will pass through filter press. Filtrate generated from filter press will taken back to equalization tank. Dried sludge will be collected, packed in HDPE bags and stored in sludge storage area for disposal to TSDF site.</p>		
	Treatment scheme including segregation at source.		



Note: (In case of CETP discharge):

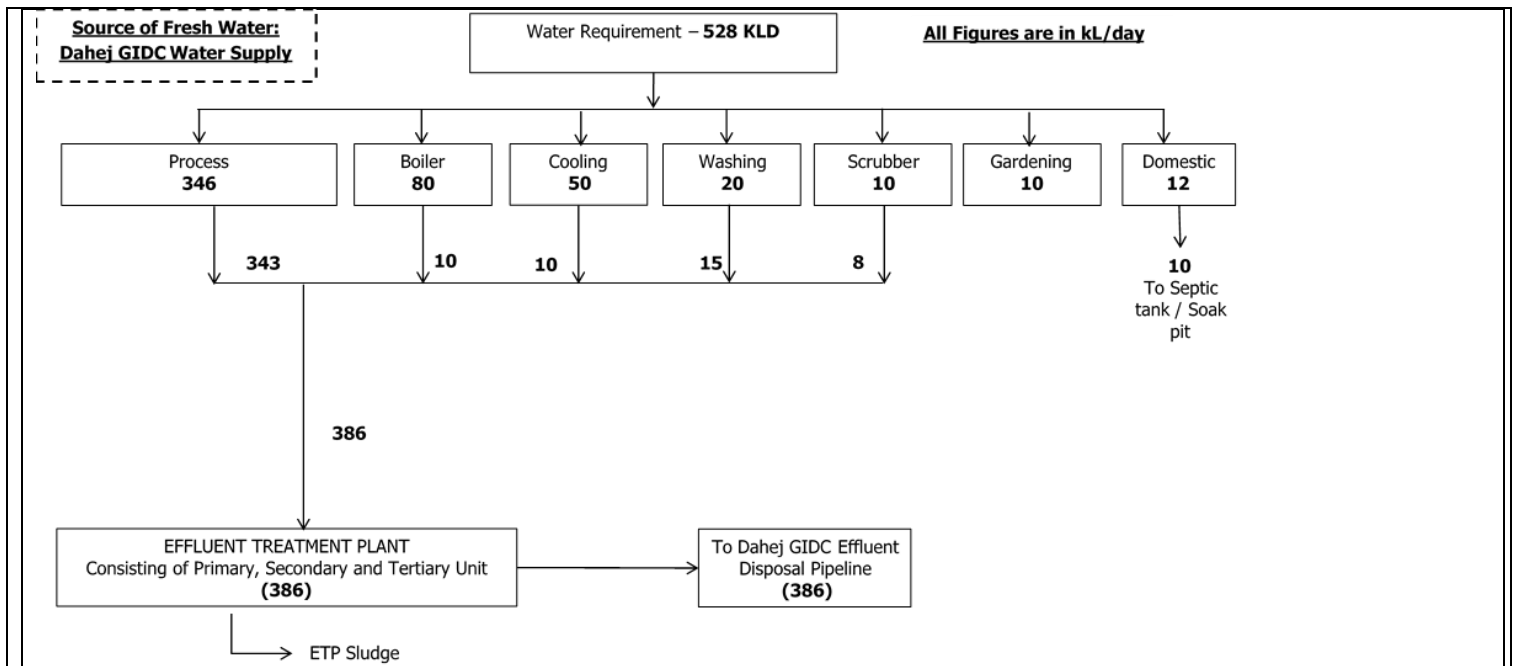
Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.

After inhouse treatment in ETP, Industry will send treated effluent to Dahej GIDC Effluent Disposal Pipeline as per their inlet norms.

Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):

➤ Not Applicable.

v	Mode of Disposal & Final meeting point	
	Domestic:	10 kL/day – shall be send to septic tank/soak pit
	Industrial:	396 kL/day – shall be send to Dahej GIDC Effluent Disposal Pipeline after primary, secondary and tertiary treatment
vi	In case of Common facility (CF) like CETP, Common Spray dryer, Common MEE etc. Name of CF ➤ NA	
	Membership of Common facility (CF) NA (For waste water treatment)	
	Unit will obtain membership letter from concern authority at earlier stage.	
vii	Simplified water balance diagram with reuse / recycle of waste water	



Characteristics of Effluent

Parameter	Unit	Before Treatment	after Primary Treatment	after Secondary Treatment	after Tertiary Treatment and Ozonation	Inlet Norms of Dahej GIDC Effluent Disposal Pipeline
pH	-	4-8	6.5-8.5	6.5-8.5	6.5-8.5	5.5-9.0
COD	mg/L	4000	2800	750	<250	250
BOD	mg/L	2500	1750	500	<100	100
Suspended Solid	mg/L	500	<100	<100	<100	100

Viii Reuse/Recycle details (KLD)
Not Applicable

E **Air**

Flue gas emission details
No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc.

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel MT/Day	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1	Boiler Capacity: 4 MT/Hr	31	Imported Coal	13.8 MT/Day	PM, SO ₂ , NO _x	Bag filter and Water Scrubber
2	Thermopack	31	Imported	11.8	PM, SO ₂ ,	Bag filter and

		Capacity: 2000 U		Coal	MT/Day	NOx	Water Scrubber
	3	DG Set Capacity: 1000 kVA (Stand By)	30	HSD	270 L/hr	PM, SO ₂ , NOx	Adequate Stack Height Provided.
-							
ii	Process gas emission details i.e. Type of pollutant gases (SO ₂ , HCl, NH ₃ , Cl ₂ , NO _x etc.)						
	Sr. No.	Specific Source of emission (Name of the Product & Process)		Type of emission		Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
	1	Spin Flash dryer		PM		Height: 12 m Dia: 500 mm	Bag filter
iii	Fugitive emission details with its mitigation measures: As below:						
-							
F	Hazardous wastes (as per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.						
-							
	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 /Annum)	Management of HW	
	1	Used Oil	From plant & machinery	5.1	2.4 MT/Year	Collection / Storage / Transportation / send to registered recycler.	
	2	Discarded barrels/ containers	From raw material packaging	33.1	1800 No./Year	Collection / Storage / Transportation / Supplier / send to registered recycler.	
	3	Liners	From raw material packaging	33.1	18 MT/Year	Collection / Storage / Transportation / Supplier / send to registered recycler.	
	4	ETP Sludge	From ETP	35.3	111.6 MT/Year	Collection / Storage / Transportation / send to CHWTSDF Site for Landfill of M/s. BEIL Infrastructure Ltd., Dahej.	
	5	Solid Waste (Inorganic)	From process of Quinoline Yellow WS	26.1	1332 MT/Year	Collection / Storage / Transportation / send to CHWTSDF Site for Landfill of M/s. BEIL Infrastructure Ltd., Dahej.	
	6	Distillation Residue	From Solvent Distillation	26.1	324 MT/Year	Collection / Storage / Transportation / send for Co - Processing based on	

						feasibility.
	7	Spent Solvent (Methanol)	From process of Quinoline Yellow WS	26.4	3024 MT/Year	Collection / Storage / Transportation / Distillation / reuse in to same process.
	8	Spent Solvent (Ortho Dichloro Benzene)	From process of Quinoline Yellow WS	26.4	3132 MT/Year	Collection / Storage / Transportation / Distillation / reuse in to same process.

ii Membership details of **TSDF, CHWIF** etc. (For HW management) M/s. BEIL Infrastructure Ltd., Dahej.

iii Details of Non-Hazardous waste & its disposal (MSW and others) Not Applicable

G Solvent management, VOC emissions etc.

Types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc. (Details in Table Format)

Sr. No.	Solvent Name	Consumption	Recovered	Recovery
		MT/Month	MT/Month	%
1	Methanol	270	252	93.33
2	Ortho Dichloro Benzene	270	261	96.67

ii VOC emission sources and its mitigation measures

➤ Details VOC

➤ **Details regarding storage of Hazardous chemicals**

Storage details	Name of major Hazardous chemicals	Remarks
Storage tanks	Sulphuric Acid	Dedicated storage tanks with separate dedicated area will be provided.
	Oleum	
	HCl	
	Nitric Acid	
Ammonia		
Drum/Barrel storage	As per requirement of raw materials	-

➤ **Applicability of PESO:**

➤ Not Applicable

- Technical presentation was made by the project proponent with consultant/expert M/s. Enpro Enviro Tech & Engineers Pvt Ltd, Surat during SEAC meeting dated 01/01/2020.
- Committee noted that this proposal is for new unit located in Dahej – SEZ. Source of water is GIDC. PP mentioned that effluent generated from process, washing, boiler blow down, cooling tower blow down and scrubber will be treated in proposed in-house ETP consisting of Primary, Secondary & Tertiary treatment and treated effluent will be disposed into Dahej, GIDC effluent disposal pipeline after meeting its norms. PP has proposed one steam boiler and one thermopack. Fuel used will be Imported Coal. PP has addressed Hazardous Waste as per HWR – 2016.
- **After detailed discussion, it was decided to recommend the project to SEIAA Gujarat for grant of**

Terms of Reference.

- Considering the above project details, after detailed discussion, the terms of reference (ToR) were prescribed as below and as per the standard TOR for the Synthetic Organic Chemical projects recommended by SEAC vide letter no. EIA-10-GEN-21/1480 dated 14/09/2017 and approved by SEIAA in its 12th meeting dated 16/09/2017 for the EIA study to be done covering **10 Km** radial distance from the project boundary.
 1. Compliance of MoEFCC's OM dated 01/05/2018 regarding "Corporate Environment Responsibility" (CER). Fund allocation for Corporate Environment Responsibility (CER) shall be made as per MoEFCC's O.M. No. 22-65/2017-IA.III dated 01/05/2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report.
 2. Explore the use of renewable energy to the maximum extent possible. Details of provisions to make the project energy-efficient through energy efficient devices and adoption of modes of alternative eco-friendly sources of energy like solar water heater, solar lighting etc. Measures proposed for energy conservation.
 3. Leak Detection and Repairing Programme (LDAR) for all the volatile organic solvent proposed for use in-house with detailed chemical properties including vapor pressure. LDAR shall endeavor prevention of losses of solvents to the best minimum extent.
 4. Safety precautions including flame proof electric fittings to be taken to avoid fire hazard during unloading, storage, transportation, handling and processing of Solvents.
 5. Status of all the applicable Rules, Acts, Regulation, Clearances in a tabular form.
 6. Characteristic of effluent to be treated in proposed ETP consisting of Primary, Secondary & Tertiary treatment along with its Adequacy.
- The TOR prescribed as above and as per the standard TOR approved by SEIAA and the model ToRs available in the MoEFCC's sector specific EIA Manual for '**Synthetic Organic Chemical Industry**' shall be considered as generic TORs for preparation of the EIA report in addition to all the relevant information as per the generic structure of EIA given in Appendix III in the EIA Notification, 2006.
- Further Project Proponent may be advised to submit final EIA Report with EC application within 100 days from the date of issuance of this ToR to expedite processing of Environment Clearance application.
- The project proponent shall have to apply for Environmental clearance through online portal <http://environmentclearance.nic.in/> along with final EIA report.

13	SIA/GJ/IND2/45450/2019	M/s. Hemani Intermediates Pvt. Ltd. Plot No.:1246,1247,1248, GIDC Sarigam, Tal: Umbergaon, Dist: Valsad.	ToR – Reconsideration
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Category of the unit: 5(f)

Project status: New

- This office has received an application vide their online proposal no. SIA/GJ/IND2/45254/2019 dated 13/11/2019 made by project proponent (PP) regarding grant of Terms of Reference [ToR] for preparation of EIA/EMP report.
- Project proponent (PP) has submitted Form-1, PFR and relevant details/information.
- This is new unit proposes for manufacturing of synthetic organic product as tabulated below:

S. No.	Product	CAS Number	Capacity, TPM	End use
1	3,3 dichlorobenzidine-2 HCl	612-83-9	200	Pigment intermediates
2	Ortho Chloro Aniline	95-51-2	18.46	Dyes intermediates
3	4B Acid	88-44-8	150	Pigment intermediates
4	2B Acid	88-51-7	50	Pigment intermediates
5	Ortho/Para Nitro Anisole	91-23-6/ 121-87-9	150	Dyes intermediates
6	Ortho /Para Anisidine	90-04-4/ 104-94-9	300	Dyes intermediates
7	Tetra Chloro Benzidine.2HCl	15721-02-5	30	Dyes intermediates
8	Pigment Violet 23	6358-30-1	20	Plastic, printing, ink, coating
9	Organic Yellow pigment (Pigment Yellow 12 Pigment Yellow 13 Pigment - Yellow 14 Pigment - Yellow 83 Pigment - Yellow 147 Pigment - Yellow 155 Pigment - Yellow 180 Pigment - Yellow 188) Organic Orange pigment (Orange 13)	6358-85-6 5102-83-0 5468-75-7 5567-15-7 4118-16-5 68516-73-4 77804-81-0 23762-68-9 6253-10-7	100	Ink, Plastic, Paint
10	2,5 Di Chloro Aniline	95-82-9	150	Dyes and pigments
11	Ortho dianisidine-2HCl	20325-40-0	50	Dyes intermediates
	Total		1218.46	

- The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006.
- PP was called for presentation in the SEAC meeting dated 17/12/2019.
- Salient features of the project including Water, Air and Hazardous waste management:

Sr. no.	Particulars	Details
A	Total cost of Proposed Project (Rs. in Crores):	Rs. 20 Crores

B	Total Plot area (sq. meter)			10745 Sq. m.
	Green belt area			3760 Sq. m.
C	Employment generation			50
D	Water			
i	Source of Water Supply (GIDC Bore well, Surface water, Tanker supply etc...)			GIDC Sarigam water supply
	Status of permission from the concern authority.			Permission issued by GIDC Vapi vide letter No. NAO/SRG/573 dated 14/10/2019
ii	Water consumption (KLD)			
		Category	Quantity KLD	Remarks
		(BB) Domestic	7.5	
		(CC) Gardening	6.0	
		(DD) Industrial		
		Process	524.15	Processing, washing and scrubber
		Washing	12.0	Floor/equipment Washing
		Boiler	140.0	
		Cooling	70.0	
		Others	10.0 + 3.91 = 13.91	Coal wetting and boiler scrubber – 10 and Lime Slurry for acid neutralization-3.91 KLD
		Industrial Total	760.06	
		Total (A + B + C)	773.56	
	<p>1) Total water requirement for the project: 773.56 KLD</p> <p>2) Quantity to be recycled: 33.91 KLD</p> <p>3) Total fresh water requirement: 739.65 KLD</p> <p>(Total water requirement = Fresh water + Recycled water)</p>			
iii	Waste water generation (KLD)			
		Category	Waste water KLD	Remarks
		(O) Domestic	6.0	

		(P) Industrial		
		Process	625.17	Processing, washing and scrubber
		Washing	12.0	Floor/equipment Washing
		Boiler	15.0	
		Cooling	7.0	
		Others	3.0	Coal wetting and boiler scrubber
		Total Industrial waste water	662.17	
		Total [A + B]	668.17	
iv	<p>Treatment facility within premises with capacity [In-house ETP (Primary, Secondary, Tertiary), MEE, Stripper, Spray Dryer, STP etc.]</p> <ul style="list-style-type: none"> ➤ ETP – 604 KLD ➤ Solvent Stripper, MEE & ATFD – 40 KLD ➤ RO – 35 KLD <p>Treatment scheme including segregation at source.</p> <ul style="list-style-type: none"> ➤ Total Industrial Waste water generation will be 662.17 m3/day mainly from process, washing, scrubber, boiler blow down and cooling tower blowdown etc. <p>From the process, average 625.17 m3/day of waste water will be generated, out of which 39.43 m3/day of concentrated effluent will be generated, which will be treated in solvent stripper, followed by MEE and ATFD. 32 m3/day of condensate from MEE will be taken to ETP. 97 m3/day effluent generated from 3,3 DCB product containing 20-22% spent sulphuric acid, which will be treated with calcium oxide. During neutralization and filtration, 75.69 m3/day of waste water will be generated, which will be taken to ETP. Balance 488.74 m3/day of normal effluent from process will be treated in ETP. Average 34 m3/day of waste water from cooling tower, boiler blow down and floor/container washing will be collected separately and treated in RO plant. 27 m3/day of RO permeate will be recycled and 7 m3/day of RO reject will be taken to ETP. 3 m3/day of waste water generated from alkali scrubber attached to coal fired boiler, which will be utilized for coal wetting. Thus total 603.43 m3/day of normal effluent will be treated in primary, secondary and tertiary ETP. Out of which 3.91 m3/day of treated effluent will be utilized to prepare lime slurry for neutralization of spent acid. Thus 599.5 m3/day of treated effluent will be discharged into CETP Sarigam through under ground effluent drainage pipe line for further treatment and disposal into Arabian Sea through closed pipe line. We have already applied for CTEP Sarigam membership for 600 m3/day of treated effluent.</p> <p><u>Note: (In case of CETP discharge) :</u> Management of waste water keeping in view direction under section 18 (1) (b) of the Water (Prevention and</p>			

Control of Pollution) act, 1974 issued by CPCB regarding compliance of CETP.: Not applicable, there is no 18(1) b condition imposed by CPCB to Sarigam CETP.

Total Industrial Waste water generation will be 662.17 m³/day mainly from process, washing, scrubber, boiler blow down and cooling tower blowdown etc. From the process, average 625.17 m³/day of waste water will be generated, out of which 39.43 m³/day of concentrated effluent will be generated, which will be treated in solvent stripper, followed by MEE and ATFD. 32 m³/day of condensate from MEE will be taken to ETP. 97 m³/day effluent generated from 3,3 DCB product containing 20-22% spent sulphuric acid, which will be treated with calcium oxide. During neutralization and filtration, 75.69 m³/day of waste water will be generated, which will be taken to ETP. Balance 488.74 m³/day of normal effluent from process will be treated in ETP. Average 34 m³/day of waste water from cooling tower, boiler blow down and floor/container washing will be collected separately and treated in RO plant. 27 m³/day of RO permeate will be recycled and 7 m³/day of RO reject will be taken to ETP. 3 m³/day of waste water generated from alkali scrubber attached to coal fired boiler, which will be utilized for coal wetting. Thus total 603.43 m³/day of normal effluent will be treated in primary, secondary and tertiary ETP. Out of which 3.91 m³/day of treated effluent will be utilized to prepare lime slurry for neutralization of spent acid. Thus 599.5 m³/day of treated effluent will be discharged into CETP Sarigam through under ground effluent drainage pipe line for further treatment and disposal into Arabian Sea through closed pipe line.

Brief note on adequacy of ZLD (In case of Zero Liquid Discharge):

➤ Not Applicable

v Mode of Disposal & Final meeting point

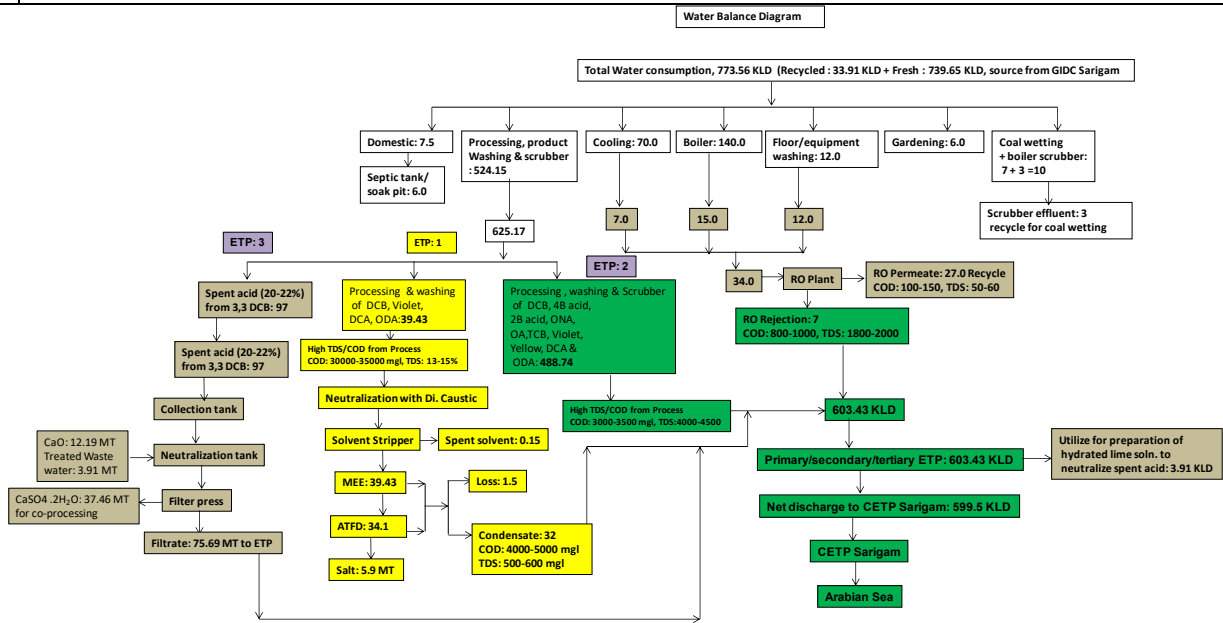
Domestic:	Domestic waste water (6 m ³ /day) will be disposed off through septic tank/soak pit.
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Industrial:	Total Industrial Waste water generation will be 662.17 m ³ /day mainly from process, washing, scrubber, boiler blow down and cooling tower blowdown etc. From the process, average 625.17 m ³ /day of waste water will be generated, out of which 39.43 m ³ /day of concentrated effluent will be generated, which will be treated in solvent stripper, followed by MEE and ATFD. 32 m ³ /day of condensate from MEE will be taken to ETP. 97 m ³ /day effluent generated from 3,3 DCB product containing 20-22% spent sulphuric acid, which will be treated with calcium oxide. During neutralization and filtration, 75.69 m ³ /day of waste water will be generated, which will be taken to ETP. Balance 488.74 m ³ /day of normal effluent from process will be treated in ETP. Average 34 m ³ /day of waste water from cooling tower, boiler blow down and floor/container washing will be collected separately and treated in RO plant. 27 m ³ /day of RO permeate will be recycled and 7 m ³ /day of RO reject will be taken to ETP. 3 m ³ /day of waste water generated from alkali scrubber attached to coal fired boiler, which will be utilized for coal wetting. Thus total 603.43 m ³ /day of normal effluent will be treated in primary, secondary and tertiary ETP. Out of which 3.91 m ³ /day of treated effluent will be utilized to prepare lime slurry for neutralization of spent acid. Thus 599.5 m ³ /day of
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treated effluent will be discharged into CETP Sarigam through under ground effluent drainage pipe line for further treatment and disposal into Arabian Sea through closed pipe line.

vi In case of Common facility (CF) like CETP, Common Spray dryer, Common MEE, CHWIF etc.
Name of Common facility (CF) (For waste water treatment)
 ➤ Treated Waste water will be sent to CETP for further treatment and disposal into Arabian Sea.
 Membership of Common facility (CF)
(For waste water treatment)
 Proponent has already applied to CETP Sarigam for effluent discharge.

vii **Simplified water balance diagram with reuse / recycle of waste water**



vii Reuse/Recycle details (KLD)
 [Source of reuse & application area]

Total reuse: 33.91 KLD

Source of waste water for reuse with quantity in KLD (From where it is coming)	Application area with quantity in KLD (Where it is used)	Characteristics of waste water to be reused (COD, BOD, TDS etc.)	Remarks regarding feasibility to reuse i.e.
RO Permeate-27 KLD	Reuse in boiler and cooling	COD:100-150 mg/l TDS:50-60 mg/l	-
Boiler scrubber-3 KLD	Reuse in coal wetting	COD:10-15 mg/l TDS:500-600 mg/l	-

		ETP-3.91 KLD	Reuse in preparation of lime slurry	COD:500-600 mg/l TDS:<2100 mg/l	-
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E Air

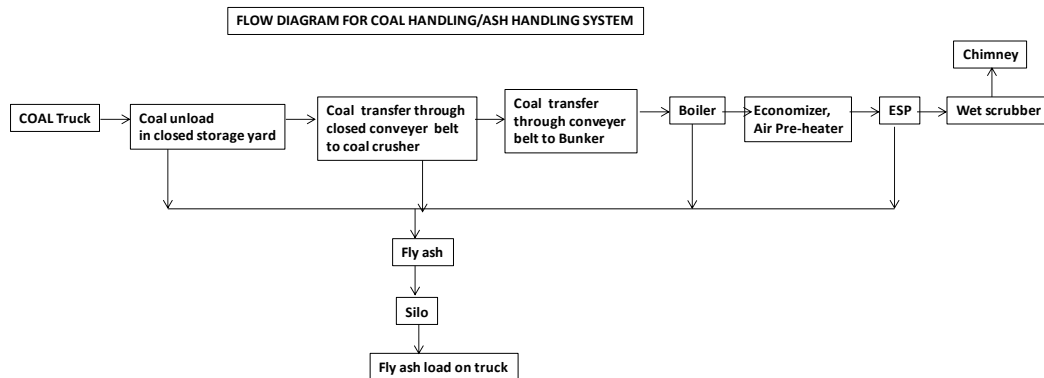
i Flue gas emission details
No. of Boilers/TFH/Furnaces/DG sets etc. with capacities viz. TPH, Kcal/hr, MT/hr, KVA etc.

Sr. no.	Source of emission With Capacity	Stack Height (meter)	Type of Fuel	Quantity of Fuel	Type of emissions i.e. Air Pollutants	Air Pollution Control Measures (APCM)
1.	Steam boiler (10 TPH)	30	Imported Coal	2000 Kg/h	PM SO _x NO _x	ESP Followed by wet scrubber
2.	Steam boiler (5 TPH)	15	Imported Coal	1000 Kg/h		MDC followed by bag filter and wet scrubber
3.	Thermic Fluid Heater (10 Lakhs kcal/h)	15	Imported Coal	250 Kg/h		MDC, bag filter followed by wet scrubber
4.	D G set (500 kVA)	11	HSD	125 kg/h		Chimney
5.	Coal Storage yard	-	-	-	PM	Closed shed, water sprinkler, wind breaking wall, RCC flooring and dust suppression system
6.	Coal Handling system	-	-	-	PM	Closed screening, coal crushing and closed conveyer
7.	Coal crusher	-	-	-	PM	Impact blade crusher, closed conveyer
8.	Fly ash handling system	-	-	-	PM	Closed Silo

Notes on coal and ash handling system: Coal received from the coal supplier through closed covered trucks. Unloaded the coal in a coal storage yard through a completely closed mechanized system. Coal storage yard provided closed shed, RCC flooring, wind breaking wall, dust suppression

system. Coal transferred from coal storage yard to coal crushing unit having closed screening, closed conveyer belt. Coal crusher having inbuilt impact blade crusher, screen conveyer and closed elevator. Required size of coal is taken to bunker followed by boiler through a closed conveyer system.

Fly ash and dust generated from the boiler, pre-heater, economizer is taken in a closed silo. As this is a complete closed and covered system hence there is no chimney is required for coal handling and fly ash handling system.



ii Process gas i.e. Type of pollutant gases (SO₂, HCl, NH₃, Cl₂, NO_x etc.)

Sr. No.	Specific Source of emission (Name of the Product & Process)	Type of emission	Stack/Vent Height (meter)	Air Pollution Control Measures (APCM)
1.	Storage tanks of Nitric acid, Sulphuric acid, hydro chloric acid	Acidic vapour	11	Two stage alkali scrubber
2.	Pulveriser	Particulate Matter	11	Cyclone separator & pulse jet bag filter
3.	Spin Flash Dryer	Particulate Matter	11	Cyclone separator & pulse jet bag filter

iii **Fugitive emission** details with its mitigation measures.

- Concrete road will be developed within plot premises to avoid fugitive dust due to vehicle movement.
- Manufacturing activity will be carried out in closed reactors/vessels and
- Regular checking and maintenance of the same will be carried out to avoid any leakages.
- All the raw materials will be stored in closed containers and in sealed bags and will be handled through closed system to avoid the handling losses.

F Hazardous waste
(As per the Hazardous and Other Wastes (Management and Transboundary Movement) Rules 2016.

i

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/Annum)	Management of HW
1)	Used oil	D G set and gearbox of reactors	Sch: I/5.1	0.1	Collection, storage, transportation and selling to authorized recycler
2)	Discarded container	Empty containers of raw materials	Sch: I/33.1	50.0	Collection, storage and Utilize for packing of hazardous waste or selling to authorized recycler after de-contamination
3)	ETP waste	Neutralization and Filtration process of effluent	Sch: I/35.3	200.0	Collection, storage, transportation and Dispose off into TSDF SEPPL, Kutch
4)	Spent Resin from D M plant	D M plant regeneration	Sch: I/35.2	2.0	Collection, storage, transportation and Dispose off into TSDF SEPPL, Kutch
5)	Used filter cloth	Filter Press	Sch: I/36.2	2.0	Collection, storage, transportation and Dispose off into TSDF SEPPL, Kutch
6)	Spent solvent	purification process	Sch:I/26.4	913.0	Recycled in process after distillation
7)	Mix solvent	Solvent stripper	Sch:I/26.4	46.8	Collection, storage, transportation and sell to authorized distillatory
8)	Salt from MEE	Evaporation of liquid effluent in MEE	Sch: I/35.3	1840.8	Collection, storage, transportation and Dispose off into TSDF SEPPL, Kutch

	9)	Process Residue	Distillation process	Sch:I/26.1	468.48	Collection, storage, transportation and sent for co-processing to cement industries
	10)	Spent Acid (80%)	From process of ortho di Anisidine	Sch:I/26.3	450	Collection, storage, (450 TPA) will be recycled in ODA
	11)	Spent acid (20-22%)	From process of 3,3 DCB	Sch:I/26.3	30276	Collection, storage, neutralization with CaO in ETP:3 to make Gypsum sludge
	12)	ETP waste (Gypsum)	Neutralization of spent acid (20-22%) generated from 3,3 DCB product	Sch: I/35.3	11687.5	Collection, storage, transportation and sell to cement industries for co-processing
	13)	Spent Catalyst	From process of 3,3 DCB, OA/PA & ortho di Anisidine	Sch:I/26.5	34.59	Collection, storage, transportation and sent to authorized regenerator
	14)	Bleed liquor from scrubber mainly salts	From common scrubber attached storage tanks	-	156	Collection, storage, treatment in MEE/ETP

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ii	Membership details of TSDF, CHWIF etc. (For HW management)	<ul style="list-style-type: none"> Proponent has already applied to M/s. RSPL Panoli and TSDF of SEPPL for Membership.
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iii	Details of Non-Hazardous waste & its disposal(MSW and others)	Fly Ash:- 1703 TPA It will be sold to brick manufacturer.
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G Solvent management, VOC emissions etc.

i Types of solvents, Details of Solvent recovery, % recovery, reuse of recovered Solvents etc. (Details in Table Format)

S. No	Product	Solvent to be used	Total Consumption, MT		Recovery, MT		Loss, MT		% Recovery
			Per tone	Per month	Per tone	Per month	Per tone	Per month	

1	3,3 dichlorobenzidine-2 HCl	Toluene	3.494	698.8	3.402	680.4	0.092	18.4	97.3
2	4B Acid	ODCB	3.5	525	3.433	514.95	0.067	10.5	98.0
3	2B Acid	ODCB	6.281	314.05	6.206	310.3	0.075	3.75	98.8
4	Ortho/Para Nitro Anisole	Methanol	1.063	159.45	0.832	124.8	0.231	34.65	78.2
5	Tetra Chloro Benzidine.2HCl	Toluene	1.333	39.99	1.267	38.01	0.066	1.98	95.04
6	Pigment Violet 23	MCB	3.775	75.5	3.45	69	0.325	6.5	91.39
		ODCB	25.885	517.7	24.76	495.2	1.125	22.5	95.6
		DEG	1.818	36.36	0.909	18.18	0.909	18.18	50
7	Yellow/orange pigment	Xylene	0.55	55	0.54	54	0.01	1	98.18
8	2,5 Di Chloro Aniline	Methanol	0.766	114.98	0.758	113.7	0.0852	1.278	98.8
9	Ortho dianisidine-2HCl	Toluene	0.66	33	0.633	31.68	0.0264	1.32	96
	Total			2569.83		2450.22		120.058	

ii **VOC emission sources and its mitigation measures**

Source:

- Process Reactor
- Raw material Handling & Storage

Mitigation Measures:

- The raw materials will be stored in closed containers and will be handled through closed system to avoid the handling losses
- Reactor and solvent handling pumps will have mechanical seals to prevent leakages. Reactors shall also be provided with breather valve to prevent losses

H ➤ **Details regarding storage of Hazardous chemicals**

Storage details	Name of major Hazardous chemicals	Remarks
Storage tanks	48 % Caustic lye, Acetic Acid, Caustic lye, Hydro chloric acid, Methanol, Mono chloro Benzene, Nitric acid	

		(60%),Ortho Di Chloro Benzene, Sulphuric acid, Toluene, Xylene	
	Drum/Barrel storage	2- Chloro Para Toludine, Benzene Sulfonyl Chloride, Carbazole, Caustic Flakes, Chloranil, Di ethyl Glycol, Di Ethyl Sulphate, Emulsifier, Para Toludine,	

➤ **Applicability of PESO:** Will be obtained after obtaining EC/CTE

- Technical presentation was made by the project proponent with consultant/expert M/s. Eco Chem Sales & Service, Surat during SEAC meeting dated 17/12/2019.
- Committee noted that this proposal is for new unit located in GIDC Sarigam. Source of water is GIDC. Committee noted that in the Product profile PP has proposed to Manufacture 3,3 DCB & Ortho di Anisidine in which Dilute Spent Acid Stream (20-25 %) is generated having Quantity 30,726 MT/Year and PP has proposed to reuse only 450 MT/Year and difference in quantity 30,276 MT/Year is going to be disposed under Rule – 9. Committee noted that considering the location of the unit there are no such actual end users on Dilute Spent Acid (20-25%) with such huge quantity which PP is going to generate in its proposed project. Further Committee also noted that Dilute Spent Acid Stream is also mismanaged considering its low cost and there are handling, transportation & disposal problems of the same.
- After detailed discussion, Committee decided to call back the Project Proponent after submission of revised proposal in Product Profile along with Form-1 & Project details Considering Sound Management of Hazardous Waste as per HWR – 2016.
- PP made presentation for the above mentioned query dated 21/01/2020 for the above mentioned points.
- PP presented replied as below:
- PP mentioned that as per their product profile they will continue to manufacture 3,3 DCB & Ortho di Anisidine and the dilute spent acid stream (20 – 25 %) generated will be utilized for making Gypsum in-house and generated gypsum will be sent to Cement industries for Co-processing for final disposal.
- PP mentioned that concentrated effluent generated from process and washing will be treated in proposed in-house ETP – 1 consisting of solvent stripper followed by MEE and ATFD, Condensate of MEE will be taken to ETP – 2 in which Low COD/TDS effluent will be treated from process and washing along with RO – Reject from utilities viz. boiler blow down, cooling tower blow down and floor/equipment washing. Finally all the treated effluent from ETP – 2 will be discharged into CETP – Sarigam after meeting its inlet norms. PP mentioned that alkali scrubber effluent will be used for coal wetting and RO – Permeate will be recycled/reused back in the process. PP mentioned that ETP – 3 will be used for neutralization of dilute spent

acid to convert into Gypsum and effluent generated from the same will be taken into ETP – 2. PP mentioned they have proposed two steam boiler and one Thermic Fluid Heater. Fuel used will be Imported Coal. PP has addressed Hazardous Waste as per HWR – 2016.

- Committee observed that PP has submitted revised proposal with revised PFR and Project details.
- Reply submitted by PP was satisfactory.
- **After detailed discussion, it was decided to recommend the project to SEIAA, Gujarat for grant of Terms of Reference.**
- Considering the above project details, after detailed discussion, the terms of reference (ToR) were prescribed as below and as per the standard TOR for the Synthetic Organic Chemical projects recommended by SEAC vide letter no. EIA-10-GEN-21/1480 dated 14/09/2017 and approved by SEIAA in its 12th meeting dated 16/09/2017 for the EIA study to be done covering **10 Km** radial distance from the project boundary.
 1. Compliance of MoEFCC's OM dated 01/05/2018 regarding "Corporate Environment Responsibility" (CER). Fund allocation for Corporate Environment Responsibility (CER) shall be made as per MoEFCC's O.M. No. 22-65/2017-IA.III dated 01/05/2018 for various activities therein. The details of fund allocation and activities for CER shall be incorporated in EIA/EMP report.
 2. Explore the use of renewable energy to the maximum extent possible. Details of provisions to make the project energy-efficient through energy efficient devices and adoption of modes of alternative eco-friendly sources of energy like solar water heater, solar lighting etc. Measures proposed for energy conservation.
 3. Leak Detection and Repairing Programme (LDAR) for all the volatile organic solvent proposed for use in-house with detailed chemical properties including vapor pressure. LDAR shall endeavor prevention of losses of solvents to the best minimum extent.
 4. Safety precautions including flame proof electric fittings to be taken to avoid fire hazard during unloading, storage, transportation, handling and processing of Solvents.
 5. Status of all the applicable Rules, Acts, Regulation, Clearances in a tabular form.
 6. Characteristic of effluent to be treated in proposed ETP – 1 & 2 along with its Adequacy.
 7. Total Quantity of Dilute Spent Acid (20 – 25 %) to be treated in ETP – 3 along with the Quantity of Gypsum generation and MoU for disposal of the same into Co-processing.
- The TOR prescribed as above and as per the standard TOR approved by SEIAA and the model ToRs available in the MoEFCC's sector specific EIA Manual for '**Synthetic Organic Chemical Industry**' shall be considered as generic TORs for preparation of the EIA report in addition to all the relevant information as per the generic structure of EIA given in Appendix III in the EIA Notification, 2006.
- Further Project Proponent may be advised to submit final EIA Report with EC application within 100 days from the date of issuance of this ToR to expedite processing of Environment Clearance application.
- The project proponent shall have to apply for Environmental clearance through online portal

<http://environmentclearance.nic.in/> along with final EIA report.

14	SIA/GJ/IND2/19194/2012	M/s. Navin Fluorine International Limited Plot No. D-2/11/A, GIDC Industrial Area, Dahej, Village: Vadadla, Ta. Vagra, Dist. Bharuch.	EC – Validity Extension
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Category of the unit: 5 (f) & 1 (d)

Project status: EC - Validity Extension

- The SEIAA, Gujarat has accorded environmental clearance to **M/s: Navin Fluorine International Limited** vide no. SEIAA/GUJ/EC/5(f) & 1(d)/43/2013 dated 04/03/2013.
- The SEIAA, Gujarat has amendment and accorded split of environmental clearance to **M/s: Navin Fluorine International Limited & M/s: Convergence Chemicals Private Limited** vide no. SEIAA/GUJ/EC/5(f) & 1(d)/1359/2018 dated 14/12/2018.
- The project proponents (PP) vide their online proposal no. SIA/GJ/IND2/19194/2012 dated 01/01/2020 submitted Form – 1. The project was taken up in the meeting of SEAC held on 21/01/2020.
- The committee found that as per the amendment of EIA Notification vides. No. S.O. 2944 (E) dated 14/09/2016, the Environmental Clearance granted for a project or activity shall be valid for a period of seven years for all the projects & activities other than river valley projects & mining projects.
- PP has applied through online for extensions of validity of Environmental Clearance obtained vide dated 01/01/2020. During the meeting Project proponent informed that they had obtained Environmental Clearance for their project of Organic product at Plot No. D-2/11/A, GIDC Industrial Area, Dahej, Village: Vadadla, Ta. Vagra, Dist. Bharuch.
- PP got the amendment and split of Environmental clearance in one EC document mainly for manufacturing of organic product on 14th December 2018 and original Environmental clearance on 4th March 2013. It was valid up to 3rd March 2020.
- PP informed that after receiving EC, they had decided to execute the project in a phased manner owing to the big size of project recurring huge capital allocation. Accordingly, NFIL has executed Phase – I in the spirit of Make in India campaign.
- PP explained that Phase – I products are manufactured for exports with international regulatory standards like US-FDA or GMP.
- PP further clarified that during planning for Phase-II, products does not required the international regulatory standards. Hence, isolation of Phase – I & Phase – II was planned from the operational point.
- PP further mentioned that to generate & capital synergy, 49% of the stake in Phase – I project is accorded to M/s. Piramal Enterprises Ltd. and the joint venture (Phase – I) is now named as **M/s. Convergence Chemicals Pvt. Ltd. (CCPL)** which will cater to international market.
- PP explained that Phase – II of the project will be developed by **M/s. Navin Fluorine International Limited (NFIL)**, which will cater the domestic market only.

- PP clarified that Phase – I project was isolated, which is already developed and called as **M/s. Convergence Chemicals Pvt. Ltd. (CCPL)** & Phase – II project will be developed independently by **M/s. Navin Fluorine International Limited (NFIL)**, for which EC validity extension is intended.
- PP presented that Phase – II project is green field at present and Google image with demarcated boundary was also indicated.
- PP mentioned that being an independent entity after obtaining the EC amendment for (split); the project required to be executed under the name of NFIL, which is green field at present and planned to be develop within the extended validity of 3 years as follows.

Sr. No.	Activity	Time Schedule	
		Activity to be started	Activity to be completed
1	OSBL work	April-2020	December-2020
2	MPP - 1 & 2 Plant erection	September-2020	December-2021
3	Other plants	January-2021	January-2023

- PP mentioned that there will be no any change in production capacity from Environment Clearance granted & other aspect from the EC amendment for (split) obtained.
- Committee noted that the Environmental Clearance granted by SEIAA, Gujarat vide dated 04/03/2013 was valid for 5 years i.e. up to 03/03/2018. As per the provisions of amendment in EIA notification vide SO 1141 (E), dated 14/09/2016, the validity of EC will become 7 years i.e. up to 3rd March, 2020. The proponent has made online application on 01/01/2020 with Form-1 i.e. applied within 90 days of validity period of Environmental Clearance dated 04/03/2013.
- **After examining the records and refereeing to the EIA notification 2006 as amended on 14/09/2016, Committee decided to recommend the proposal for extension of validity of EC granted to M/s. Navin Fluorine International Limited (NFIL) by SEIAA, Gujarat vide no. SEIAA/GUJ/EC/5(f) & 1(d)/43/2013 dated 04/03/2013 for further three years. i. e. up to 03/03/2023. All other conditions mentioned in the said Environmental Clearance and its respective amendment remained unchanged.**

15	SIA/GJ/IND2/123850/2019	M/s. Meghmani Speciality Chemicals LLP Plot no. CH-22, GIDC Estate, Dahej, Tehsil: Vagra, Dist. Bharuch.	EC – Amendment
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Category of the unit : 5(f)

Project status: New

- This is a proposed unit engaged in manufacturing of “Synthetic Organic Chemicals” which was accorded Environmental Clearance vide letter no. SEIAA/GUJ/EC/5(f)/512/2019 dated: 25/03/2019.
- Environmental Clearance was granted with a condition as mentioned below: (For which amendment sought):

Based on the above request for change in EC conditions

Sr. no.	Condition no. in which changes proposed	As per EC	As per proposed amendment	Justification
	Product Table	Product Table-1 given below	Product Table1A as per EC Amendment given below table-1.	Unit will discontinue EC Products sr.NoB-1, 2, 3,4,5,6, 16 as per EC. And addition of some new products as per given below table 1-A.
1	A-1,9	Entire quantity of Spent Sulphuric acid (30-45%) (1980 MT/Month) generated from manufacturing process of PBVS,PCVS,DMAVS,OAVS,SOAVS and SVS Shall be completely reuse in manufacturing process of H-Acid plant within premises.	Entire quantity of Spent Sulphuric acid (30-45%) (1980 MT/Month) will be zero.	The quantum of Spent Sulphuric acid (30-45%) will be zero as the products namely PBVS, PCVS, DMAVS, OAVS, SOAVS and SVS will be eliminated.
2	A-1,10	Entire quantity of Spent Hydrochloric Acid(30%)(180 MT/Month) generated from manufacturing process of PBVS,PCVS,DMAVS, OAVS, MUA, Bromamine acid, BCMB Shall be completely reuse in manufacturing process of Dyes plant within premises.	Quantity of Spent Hydrochloric Acid will be reduced to 95 MT/Month & will be generated from MUA, Bromamine acid, BCMB. It will be reused in manufacturing process of Dyes plant within premises/sale to authorized recycler having permission under rule-9	The quantum of Spent Sulphuric acid (30-45%) will be reduced as the products namely PBVS, PCVS, DMAVS, OAVS, SOAVS and SVS will be eliminated and will be generated from MUA, Bromamine acid, BCMB.
3	A-2,20	Total water requirement for the project shall not exceed 1237 KLD. Unit shall reuse 248 KLD treated waste water in industrial utilities within premises. Hence, fresh water requirement shall be met through GIDC supply only. Prior permission from the concerned authority shall be obtained for withdrawal of water.	Total water requirement for the project will not exceed 1219 KLD. Unit will reuse 165 KLD treated waste water in industrial utilities within premises. Hence, fresh water requirement will be met through GIDC supply only. Prior permission from the concerned authority will	Due to the reduction in production quantum of dye intermediates, the total water requirement will be reduced.

			be obtained for withdrawal of water.	
4.	A-2,21	The quantity of industrial effluent generation from the project shall not exceed 896 KLD.	The quantity of industrial effluent generation from the project shall not exceed 713 KLD.	Due to the reduction in production quantum of dye intermediates, the total water requirement will be reduced.
5.	A-2,22	<p>Unit shall segregate industrial effluent generation from the project into 3 different streams.</p> <p>A. Stream 1: Industrial effluent generated from process, washing, utility, laboratory of Dyes & OB Plant. The quantity of stream-1 shall not exceed 349 KLD.</p> <p>B. Stream-2 Low concentration industrial effluent generated from washing, scrubber, and utility of dye intermediates plant. The quantity of stream-2 shall not exceed 151 KLD.</p> <p>C. Stream-3 High concentration industrial effluent generated from process of dyes intermediate plant, The quantity of stream-3 shall not exceed 396 KLD</p>	<p>No change</p> <p>B.Stream-2 Low concentration industrial effluent generated from washing, scrubber, and utility of dye intermediates plant. The quantity of stream-2 will not exceed 141 KLD.</p> <p>Stream-3 High concentration industrial effluent generated from process of dyes intermediate plant, The quantity of stream-3 shall not exceed 203 KLD</p>	<p>No change</p> <p>Due to the reduction in production quantum of dye intermediates, washing effluent will be reduced.</p> <p>Due to the reduction in production quantum of dye intermediates, the effluent quantity will be reduced.</p>
6.	A-2,23	Unit shall provide 2 separate ETP consists of primary, secondary and tertiary treatment units having capacity: ETP:1 600 KLD, ETP-2 :300 KLD. Unit shall provide MEE-1 of capacity 1.5 KL/Hr for Glabur's salt recover and MEE-2 of capacity 15 KL/Hr for ETP-2 treated effluent.	Unit will provide 2 separate ETP consists of primary, secondary and tertiary treatment units having capacity: ETP:1 600 KLD, ETP-2 :300 KLD. Unit will provide one MEE of capacity 15 KL/Hr for ETP-2 treated effluent.	Production of all VS derivatives will be zero; hence there will be no EO condensate generation. Therefore MEE-1 for GS recovery is not required.
7.	A-2,26	The quantity of treated effluent discharged to GIDC drainage for deep sea disposal shall not exceed 520 KLD.	The quantity of treated effluent discharged to GIDC drainage for deep sea disposal shall not exceed 510 KLD.	Due to the reduction in production quantum of dye intermediates, the effluent quantity will be reduced.

8.	A-2,27	Out of stream-3, EO condensate 48 KLD shall be sent to MEE-1 for Glauber salt recovery.	To be removed	Production of all VS derivatives will be zero; hence there will be no EO condensate generation therefore MEE-1 for GS recovery is not required.
9.	A-2,28	Remaining 260 KLD (after recovery of H2SO4-66 KLD and drying loss-22 KLD) of stream-3 and condensate of MEE-1 (40 KLD) shall be treated in ETP-2 followed by MEE-2	Process effluent 203 KLD from dyes intermediate plant shall be treated in ETP-2 followed by MEE (Cap. 15 KL/Hr)	Production of all VS derivatives will be zero.
10.	A-2,29	Condensate of MEE-2 (248 KLD) shall be reused in industrial utilities within premises and concentrate of MEE-2 (52 KLD) shall be spray dried in in-house spray dryer.	Condensate of MEE (165 KLD) will be reused in industrial utilities within premises and concentrate of MEE (38 KLD) will be spray dried in in-house spray dryer.	Due to the reduction in production quantum of dye intermediates, the effluent quantity will be reduced.
11.	A-3,34**	Unit shall provide adequate APCM and stack height with process gas generation sources as mentioned in EC Vide letter No. SEIAA/GUJ/5(f)/512/2019 on dated 25 th March 2019	<ul style="list-style-type: none"> • Stack attached to Isolator/sulphonator/ Nitrator(H-Acid)- will be removed • Stack attached to Neutralizer - will be removed • Stack attached to Sulphonation Vessels (V.S) and its derivatives plants- will be removed • Unit Proposes 2 additional process stacks. • OB-1 Reactor with APCM as alkali scrubber and stack height 15 m. • Amino anthra quinone reactor with APCM Water scrubber and stack height 15 m. 	<ul style="list-style-type: none"> • No H-Acid production • No H-Acid production • No VS production <p>Due to addition of Product OB-1 and Amino anthra quinone.</p>

12.	A-4,42**	All the hazardous waste management shall be taken care as mentioned in EC Vide letter No. SEIAA/GUJ/5(f)/512/2019 on dated 25 th March 2019	<p>A. Haz. Waste to be removed</p> <ol style="list-style-type: none"> 1) Gypsum from Process- 1270 MT/Month 2) Nitrosyl (NaNO₂)-150 MT/Month 3) Acetic Acid-41 MT/Month 4) Glauber's Salt-240 MT/Month 5) Spent Acid (30-40 %) (H₂SO₄)-1980 MT/Month <p>B. Haz. Waste to be added.</p> <ol style="list-style-type: none"> 1) NaHS (40%)- 90 MT/Month 2) Spent Acid (H₂SO₄) (12%)- 110 MT/Month 3) Zinc Chloride (20% Solution) - 498 MT/Month 4) HBr (20-25%) And/or Recovered bromine- 65 MT/Month And/or 15 MT/Month 5) Sodium Thiosulphate Solution- 240 MT/Month 6) Dilute H₂SO₄ (70%) (By-Product)-1237 MT/Month <p>C. Haz. Waste with reduced/Revised quantity</p> <ol style="list-style-type: none"> 1) Salt from Spraydryer- 120 MT/Month 2) Gypsum from ETP – 1330 MT/ Month 3) Iron sludge- 310 MT/Month 4) Disc. Containers/ barrels/Liners 3500 nos./Month 5) Hydrochloric acid (30%)- 95 MT/month 6) SBS (23%)- 190 MT/Month 7) Distillation residue- 285 MT/Month 	Due reduction in overall production capacity with addition of new products and Removal of products viz. H-Acid & VS
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- Product profile: (As per EC)

	Product Name	CAS/CI No.	Qty (MT/Month) As per EC Letter No. SEIAA/GU/ EC/5(f)/512/ 2019 Dated 25/03/2019	End-Use of Product
A	Reactive Dyes	--		Dyeing & Printing
1.	Reactive Black			
a.	A. Reactive Black B		400	
b.	Reactive Black Mix WNN/R/G/XLW/DN/ GHF/CL5/GR/GF			
2.	Reactive Yellow			
a.	Reactive Yellow 3 RX		250	
b.	Reactive Yellow 4GL			
c.	Reactive Yellow XL			
3.	Reactive Orange			
a.	Reactive Orange H2R	12225-85-3	50	
b.	Reactive Orange 2 RX			
c.	Reactive Orange 3R	12225-83-1		
d.	Reactive Orange WNN			
e.	Reactive Orange CD			
4.	Reactive Red			
a.	Reactive Red CD		200	
b.	Reactive Red 5 BX			
c.	Reactive Red 3 GX			
d.	Reactive Red RGB (Blending)			
e.	Reactive Red crimson HEXL			
f.	Reactive Red Rubin XL			
g.	Reactive Red BS	88232-20-6		
h.	Reactive Red RB	145017-98-7		
i.	Reactive Red 2 GX			
5	Reactive Blue			
a.	Reactive Navy Blue RGB 100		100	
b.	Reactive Navy Blue GG			
c.	Reactive Blue BB			
d.	Reactive Blue 3 GX			
e.	Reactive Blue BFN (Blending)			
f.	Reactive Blue BRX			
Reactive Dyes TOTAL (A)			1000	
B	Optical Brightening Agent	--		Detergent whitener, paper-whitening and fiber brighting
1.	Optical Brightening Agent - 2 B		15	
2.	Optical Brightening Agent - BSU		100	

3.	Optical Brightening Agent - DMX		350	
4.	Optical Brightening Agent - BBU		50	
5.	Optical Brightening Agent - BA		50	
6.	Optical Brightening Agent - DT		185	
TOTAL (B)			750	
C	Dye Intermediates			
1	PBVS	2494-89-5	200	Dyeing and printing
2	PCVS	21635-69-8	20	
3	DMAVS	26672-24-2	20	
4	OAVS	26672-22-0	25	
5	SOAVS		25	
6	SVS	3039-83-6	25	
7	MUA	59690-88-9	30	
8	MPDSA	88-63-1	25	
9	Bromamine Acid	116-81-4	20	
10	Sulpho Tobias Acid	171570-11-9	20	
11	Gamma Acid	90-51-7	25	
12	NMJ Acid	22346-43-6	10	
13	K - Acid	118-03-6	40	
14	BCMB		150	
15	OSB		200	
16	H-Acid	90-20-0	165	
17	DASDA	81-11-8	200	
TOTAL (C)			1200	
TOTAL (A+B+C)			2950	

• **Product profile: (As per EC Amendment)**

	Product Name	CAS/CI No.	Existing Qty (MT/Month) As per EC Letter No. SEIAA/GU/EC/5(f)/512/2019 Dated 25/03/2019	Proposed Additional Quantity (MT/Month)	Total Qty After Amendment (MT/Month)
A	Reactive Dyes	--			
1.	Reactive Black				
a.	A. Reactive Black B		400	0	400
b.	Reactive Black Mix WNN/R/G/XLW/DN/GHF/CL5/GR/GF				
2.	Reactive Yellow				
a.	Reactive Yellow 3 RX		250	0	250
b.	Reactive Yellow 4GL				
c.	Reactive Yellow XL				
3.	Reactive Orange				

a.	Reactive Orange H2R	12225-85-3	50	0	50
b.	Reactive Orange 2 RX				
c.	Reactive Orange 3R	12225-83-1			
d.	Reactive Orange WNN				
e.	Reactive Orange CD				
4.	Reactive Red		200	0	200
a.	Reactive Red CD				
b.	Reactive Red 5 BX				
c.	Reactive Red 3 GX				
d.	Reactive Red RGB (Blending)				
e.	Reactive Red crimson HEXL				
f.	Reactive Red Rubin XL				
g.	Reactive Red BS	88232-20-6			
h.	Reactive Red RB	145017-98-7			
i.	Reactive Red 2 GX				
5	Reactive Blue		100	0	100
a.	Reactive Navy Blue RGB 100				
b.	Reactive Navy Blue GG				
c.	Reactive Blue BB				
d.	Reactive Blue 3 GX				
e.	Reactive Blue BFN (Blending)				
f.	Reactive Blue BRX				
Reactive Dyes TOTAL (A)			1000	0	1000
B	Optical Brightening Agent	--			
1.	Optical Brightening Agent -2 B		15	0	15
2.	Optical Brightening Agent - BSU		100	0	100
3.	Optical Brightening Agent - DMX		350	0	350
4.	Optical Brightening Agent - BBU		50	0	50
5.	Optical Brightening Agent - BA		50	0	50
6.	Optical Brightening Agent - DT		185	0	185
TOTAL (B)			750	0	750
C	Dye Intermediates				
1	NMJ Acid	22346-43-6	10	0	10
2	Sulpho Tobias Acid	171570-11-9	20	0	20
3	Gamma Acid	90-51-7	25	0	25
4	MPDSA	88-63-1	25	0	25
5	MUA	59690-88-9	30	0	30
6	K - Acid	118-03-6	40	0	40
7	BCMB		150	0	150

8	OSB		200	0	200
9	DASDA	81-11-8	200	0	200
10	PCVS	21635-69-8	20	-20	0
11	DMAVS	26672-24-2	20	-20	0
12	OAVS	26672-22-0	25	-25	0
13	SOAVS		25	-25	0
14	SVS	3039-83-6	25	-25	0
15	H-Acid	90-20-0	165	-165	0
16	PBVS	2494-89-5	200	-200	0
17	Bromamine Acid	116-81-4	20	80	100
18	1 Amino Anthraquinone	82-45-1	0	25	25
19	OB-1	1533-45-5	0	100	100
20	OAP	95-55-6	0	125	125
TOTAL (C)			1200	-150	1050
TOTAL (A+B+C)			2950	-150	2800

- At the time of EC process, unit had submitted the proposal to manufacture products like H-Acid: 165 MT/month and all VS Derivatives: 315 MT/month as per EC letter No.: SEIAA/GUJ/EC/5(f)/512/2019 dated 25/03/2019.
- PP Presented for the EC – Amendment Presentation in SEAC meeting dated 21/01/2020.
- PP mentioned that from existing EC, 150 MT/Month products of **Dye Intermediates** will be removed and revised quantity will be 1050 MT/Month from 1200 MT/Month and three new products will be added viz (1) 1 Amino Anthraquinone; (2) OB – 1; (3) OAP and increment of Bromamine Acid from 20 to 80 MT/Month. So, there will be overall decrease in manufacturing quantity of organic products.
- PP further mentioned that unit will discontinue EC products of **Dye Intermediates** group viz; PCVS, DMAVS, OAVS, SOAVS, SVS, PBVS and H – Acid as per EC – 2019 due to the current market scenario.
- PP further clarified that due to EC amendment; there will be change in product profile, raw material consumption, water consumption, process gas emission and hazardous waste generation.
- Committee deliberated on the presentation made by PP and noted that unit is proposing three new products in the group of dye intermediate group along with increase in production of one product by removing all the products of H – Acid and VS derivatives. Committee further noted that PP has not submitted product wise water
- **After detailed deliberation, Committee unanimously decided to consider the proposal only after submission of proper technical presentation matching with the EC – Amendment criteria as per the EC granted vide letter no. SEIAA/GUJ/EC/5(f)/512/2019 dated: 25/03/2019 by SEIAA, Gujarat along with following documents.**
 1. Product wise water consumption, waste water generation, fuel consumption, process emission, hazardous waste generation in tabular form along with revised EIA report in line with the EC granted and proposed

amendment.

2. Complete water balance diagram including reuse/recycle in line with the EC granted and proposed amendment.
3. Statement showing that there is "No Increase in Pollution Load" in line with EIA Notification of MoEF&CC vide S.O. 236(E) dated 16th January, 2020

Meeting ended with thanks to the Chair.

Minutes approved by:

1.	Dr. Dinesh Misra, Chairman, SEAC	
2.	Shri S. C. Srivastav, Vice Chairman, SEAC	
3.	Shri V. N. Patel, Member, SEAC	
4.	Shri. A. K. Muley, Member, SEAC	