

Minutes of the 266th meeting of the State Level Expert Appraisal Committee held on 27/11/2015 at Committee Room, Gujarat Pollution Control Board, Gandhinagar.

The 266th meeting of the State Level Expert Appraisal Committee (SEAC) was held on 27th November, 2015 at Committee Room, Gujarat Pollution Control Board, Gandhinagar. Following members attended the meeting:

1. Shri T. P. Singh, Chairman, SEAC.
2. Shri V. C. Soni, Vice Chairman, SEAC.
3. Shri R. J. Shah, Member, SEAC.
4. Dr. V. K. Jain, Member, SEAC.
5. Shri Rajesh Shah, Member, SEAC.
6. Shri V.N.Patel, Member, SEAC.
7. Shri Hardik Shah, SEAC.

The agenda of TOR/Scoping/Category 8 (a) cases and appraisal cases was taken up. Sixteen (16) cases of TOR/Scoping/Category 8 (a), Nine (9) appraisal cases and one TOR amendment case were taken up. The applicants made presentations on the activities to be carried out along with other details furnished in the Form-1 / Form-1A, EIA report and other reports.

01	Thermax Ltd.	Plot No. 903/1, GIDC Estate, Jhagadia, Bharuch,	Appraisal
<p>Project / Activity No.: 5(f)</p> <p>Project status: Expansion</p> <p>Chronology of EC Process:</p> <ul style="list-style-type: none"> • M/s: Thermax Ltd.(Unit-1) (herein after Project Proponent – PP) has submitted their application for this expansion project at MoEF vide letter dated 01/02/2012 as the project site is located within 10 KM from the critically polluted area as notified by the CPCB. • TOR awarded by MoEF vide letter dated on 20/02/2013. • PP has submitted final EIA/EMP report to MoEF&CC on 18/04/2014. • MoEF&CC has transferred this case vide F.no. J-11011/108/2013-IA II (I) dated 15/02/2015 as per amendment to EIA Notification, 2006 vide SO 1599 (E) dated 25.06.2014. As per amendment notification dated 25.06.2015, any project or activity specified in category 'B' will be appraised at the central level as category 'A' located in whole or in part within 5 km from the boundary of critically polluted areas as identified by the CPCB. The proposed project is located at a distance of 9 km from Ankleshwar Industrial Estate (Critically Polluted Area). • Final EIA Report prepared by M/s: Aqua-Air Environmental Engineers Pvt. Ltd., Surat was submitted project proponent vide their no. NIL dated 07/05/2015. • During the meeting held on 09/06/2016, the project was appraised based on the information furnished in the EIA Report and the details presented before the committee. • The study period considered for EIA was October to December 2012. Air quality monitoring was carried out at eight locations. During the study period average concentration of all the conventional and project specific parameters such as Particulate Matter (PM10), Particulate Matter (PM2.5), Sulphur Dioxide (SO2), Oxides of Nitrogen (NOx), Ozone (O3), Lead (Pb), Carbon Monoxide (CO), Ammonia (NH3), Benzene (C6H6), Benzo (a) Pyrene (BaP), Arsenic (AS), Nickel (Ni), Fluoride, HC (Methane & Non-Methane) & VOCs were well within prescribed limit at all locations. The Industrial Source Complex – Short Term (ISCST3) dispersion model is 			

a steady-state Gaussian plume model which is used for the prediction of maximum ground level concentration (GLC). Ground level concentrations calculated for proposed activities are superimposed on existing ambient air quality monitoring results and combined values are found within permissible National Ambient Air Quality Standards.

- Proposed expansion will be within the existing industry which is located in notified industrial area and thus public hearing is exempted as per MoEF&CC Office Memorandum no. J – 11013/36/2014-IA-I dated 10/12/2014.
- During the meeting on 09/06/2015, Committee noted that PP is achieving zero discharge at present and now proposes to discharge total effluent into pipeline of NCTL after treatment. On asking, PP informed that unit operates as ZLD as new Jhagadia pipeline of NCTL is not put in operation at present; however, they have obtained permission to discharge their effluent into pipeline of NCTL. Committee asked to submit the status of NCTL pipeline and membership certificate with discharge quantity. Committee noted that PP has not given stage wise characteristics of waste water effluent treatment. While discussing about action plan for odour problem of Mercaptan, PP informed that small quantity of Odorous chemicals like Mercaptan is used (2 kg / batch) with proper safety precaution and APCM provided to adsorb the odorous substance. On asking about control of fugitive emissions, PP assured that they will take all the precautionary measures to prevent and control fugitive emissions. They have proposed VOC detectors at various places to identify any fugitive emissions. After deliberation, It was unanimously decided to consider the project for appraisal only after submission of the following: (1) Justification for discharging waste water in to NCTL pipeline for proposed expansion instead of doing existing practice of ZLD by complete reuse / recycle of treated effluent within the premises. Exact quantity of treated effluent to be discharge into pipeline of NCTL, present status of NCTL pipeline and Permission letter from NCTL with quantity in KL/day. (2) Details of segregation of the wastewater streams to be carried out, if any and plans for management and disposal of different waste water streams to be generated. Stage wise qualitative and quantitative analysis of waste water to be generated from the manufacturing process of each product to be manufactured along with mass balance. (3) Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes. Details of methods to be adopted for the water conservation. (4) Details of management of the hazardous wastes to be generated from the project stating detail of Source of generation, storage area for each type of waste, its handling and its disposal. Methodology of de-contamination and disposal of discarded containers and its record keeping. Explore the possibilities for Co-Processing of the Hazardous waste prior to disposal into TSDF/CHWIF. (5) An undertaking by the Project Proponent on the ownership of the EIA report as per the MoEF&CC OM dated 05/10/2011 and an undertaking by the Consultant regarding the prescribed TORs have been complied with and the data submitted is factually correct as per the MoEF&CC OM dated 04/08/2009. (6) Copy a certified report of the latest status of compliance of the conditions stipulated in the environmental clearance for the existing operation of the project by the Regional Office of the MoEF&CC. (7) Summary & Conclusion as per the generic structure given in Appendix III A of the EIA Notification 2006.
- PP has submitted point wise reply of above mentioned queries vide letter their dated 08/09/2015, which was received on dated 16/09/2015. . (Online Proposal no.SIA/GJ/IND2/1611/2015)

Project / Activity Details:

This is an existing unit, engaged in manufacturing of Synthetic Organic Chemicals and now applied for expansion as tabulated below:

Sr. no.	Product Name	Existing (MT/Month)	Additional (MT/Month)	Total after expansion MT/Month
1.	PPG: Performance Product Group	700	-	700
2.	Paper Chemicals	1000	-	1000
3.	OFC: Oil Field Chemicals	180	-	180
4.	Construction Chemical Products	-	1500	1500
5.	Technical Grade Products -PolyNaphthalene Sulfonate (PNS) -Polymelamine Sulfonate(PMS) -PolyCarboxylate Ether (PCE)	-		
Total		1880	1500	3380

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Plot area is @ 69618 sq. m. Unit has proposed 23206 sq. m area for green belt development. Estimated cost of proposed expansion is Rs. 14 Crores. Fresh water requirement after proposed expansion will be increased from 100 KL/day to 156 KL/day (13 KL Domestic & 143 KL Industrial) which will be supplied by the GIDC. Industrial Wastewater generation after the expansion will be increased from 22 KL/day to 39 KL/day. At present unit operates as ZLD (Zero Liquid Discharge) as new Jhagadia pipeline of NCTL is not put in operation. At present unit is having Primary, Secondary & Tertiary ETP followed by RO & MEE. They have installed RO plant having capacity of 11 m³/day and MEE plant having capacity of 10 m³/day. Unit has proposed additional ETP for proposed expansion. After proposed expansion industrial and domestic wastewater will be treated in effluent treatment plants and the final treated effluent will be collected in Treated Effluent Sump (TES) before final discharge through underground pipeline of Narmada Clean Tech Ltd. (NCTL) to deep sea (Arabian Sea). There is no proposal for reuse/recycling of waste water after proposed expansion. At present unit has provided one Boiler (1 TPH) and one DG set. HSD or Natural gas is used as fuel for Boiler & DG set. Now unit has proposed one Boiler (1 TPH) & one DG set. Natural gas (3600 SCM/day) or HSD (1440 Kg/day) will be used proposed Boiler (1 TPH). One DG set (500 KVA) is proposed for emergency purpose in which Natural gas (200 SCM/hr) or (HSD 80 Kg/hr) will be used as fuel. Natural Gas 8700 m³/day (5100 m³/day Existing + 3600 m³/day Additional Proposed), Diesel 3360 Kg/Day (1920 Kg/Day Existing + 1440 Kg/Day Additional Proposed) will be used as a fuel. PP presented that both boilers and DG sets will be operated on natural gas. In case of non availability of natural gas, boiler and DG set will be operated on HSD. Existing APCM for process vents: Unit has provided Water scrubber with Vent of PPG plant to control SPM, Sodium hypochlorite scrubber followed by carbon Adsorber with PPG plant to adsorb Mercaptan, Water Scrubber followed by carbon Adsorber with vent of OFC plant to control Solvent Heptanes and Water scrubber with the vent of Paper Chemicals plant to control SPM (fumes). Bag filter is provided with the blender vent of PPG fireside chemicals for the control of particulate emission. The vent lines of the receiver as well as the reactor of Formulation section are connected to two stage scrubbing system with sodium hypochlorite as the scrubbing medium to control odorous chemicals like Mercaptan. Finally the vent is connected to a carbon adsorber.

PP presented that there is no evolution of any process gas from formulation section of PPG or paper chemicals; however, all the reactors are connected to a water scrubber as a measure of safety. Proposed APCM for process vents: water scrubbers as APCM with vents of Formulation plants to control solvent vapour & SPM, Ventury Water scrubber followed by carbon absorber as APCM with process vent of Storage plant to control solvent vapor, Water scrubber as APCM with process vent of Formulation plant to control fumes & SPM and Bag filter as APCM with process vent of Construction chemical plant to control SPM. ETP waste (4 MT/Month) will be disposed off at TSDF site of BEIL, Ankleshwar. Discarded barrels / containers / bags / liners will be either reused or returned back to

suppliers or sold only to the authorized vendors after decontamination. Used oil (0.08 MT/Month) will be sold only to the registered recyclers. Incinerable waste (2 MT/Month) will be sent to CHWIF of BEIL at Ankleshwar.

Observations/Discussions:

Technical presentation during the meeting included the Point wise compliance including technical details. PP submitted that they have limited open land for land irrigation and they not able to recycle treated effluent for any industrial use. Unit has submitted certificate from NCT regarding status of the pipeline and booked quantity for discharge into Jhaghadia Pipeline. Details regarding the segregation of the wastewater streams and product wise information is submitted. However, stage wise qualitative analysis of waste water and stage wise reduction details are not adequate. PP stated that they have adopted recycle methods to reduce effluent generation and they will implement the rain water harvesting system. Details of hazardous waste management are submitted with commitment to explore the possibilities for co-processing of the HW prior to disposal into TSDF/CHWIF. Undertakings by the Project Proponent on the ownership of the EIA report and by the Consultant regarding the compliance of the prescribed TORs are submitted. Monitoring report by RO-Bhopal, MoEF&CC and its compliance status is submitted by the PP. However, it was observed that the Plant lay out submitted are not readable and committee was not convinced with the compliance status submitted for point no. 2 of general conditions in EC. After deliberation, It was unanimously decided to consider the project for further consideration only after submission of (1) the factual supportive documents for non-complied & partly complied points mentioned in the certified compliance report of the Regional Office of the MoEF&CC & (2) Stage wise qualitative and quantitative analysis of waste water (stage wise % reduction of main parameters of effluent).

02	Neelkanth Intermediates	Plot no:802/18315/1, GIDC-Sachin, Dist.: Surat	Appraisal
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Project / Activity No.: 5 (f)

Project status: Expansion

Chronology of EC Process:

- This project proposed by M/s: Neelkanth Intermediates (herein after Project Proponent – PP) has submitted Application vide their letter dated 17/10/2014.
- The project was considered for TOR finalization in the meeting of the SEAC held on 23/12/2014.
- The project was considered in the SEAC meeting held on 23/12/2014 and additional TORs were prescribed in addition to proposed Terms of Reference (TOR) to include them in the EIA study to be done covering 5 km radius from the boundary of the project site.
- Final EIA Report prepared by M/s: Aqua-Air Environmental Engineers Pvt. Ltd., Surat was submitted project proponent vide their no. NIL dated 05/10/2015. (Online Proposal no. SIA/GJ/IND2/474/2014)

Project / Activity Details:

This unit is engaged in manufacturing of Synthetic Organic Chemicals and now applied for expansion by addition of new products as tabulated below:

Sr. no.	Name of Products	Quantity MT/Month		
		Existing	Proposed	Total
1	1 : 4 Sulpho Phenyl 3 Methyl 5 Pyrazolone (Pyrazolone Derivatives)	10	--	10
2	2:5 Dichloro 4 Sulpho Phenyl 3 Methyl 5 Pyrazolone	--	45	45
3	2:5 Dichloro Aniline 4 Sulphonic Acid			

4	2 Chloro 5 Sulpho Phenyl 3 Methyl 5 Pyrazolone			
5	1,3 Sulpho Phenyl 3 Methyl 5 Pyrazolone	--	44	44
6	1:3 Phenyl Methyl 5 Pyrazolone			
7	1,3 Chloro Phenyl Methyl 5 Pyrazolone			
8	2 Chloro Phenyl Methyl 5 Pyrazolone			
9	P.T. Phenyl Methyl 5 Pyrazolone			
Total		10	89	99

The proposed activity falls in the Category B of the project activity 5(f) as per the schedule of EIA Notification 2006.

Total existing plot area is 1976 sq. m. including 376 sq. m. area for tree plantation. No additional land will be acquired for the proposed expansion. The total cost of the proposed expansion will be Rs. 1.50 Crores. Total water consumption after proposed expansion will be 27.1 KL/day. Fresh water will be sourced from GIDC water supply. Total industrial effluent generation will be increased from 7.5 KL/day to 29.7 KL/day (Additional 23.2 KL/day). Industrial waste water will be segregated. 14.89 KL/day of dilute stream will be treated in existing Primary ETP and then sent to CETP of GECL-Sachin. Remaining concentrated effluent stream (14.79 KL/day) will be sent to common MEE of MEPPL. Domestic waste water (1 KL/day) will be disposed off into soak pit system. At present unit has provided one Boiler (0.3 TPH). LDO (100 Liter/day) or Bio-Fuel (250 Kg/day) is used as fuel. Unit has also provided one DG set (50 KVA). It is proposed to remove existing steam Boiler (0.3 TPH) and to install new steam Boiler (0.5 TPH) and Bio Coal / Agro mass briquettes (0.5 MT/Day) will be used as fuel. Unit has proposed MDC followed by Bag filter as APCM. Existing DG set (50 KVA) will be used as a stand-by facility. HSD (10 Lit./hr) will be used as fuel. One alkali scrubber is provided as APCM with drowning vessel to control SO₂. Unit has also proposed one alkali scrubber as APCM with drowning vessel to control SO₂. Hazardous wastes to be generated are ETP sludge (36.5MT/Year), MEE salt (58 MT/Year), Used Oil (0.002 MT/Year) and Discarded containers (4.8 MT/Year). ETP waste & MEE Salt will be disposed off at the nearby common TSDF. Discarded barrels / containers / bags / liners will be either reused or returned back to suppliers or sold only to the authorized recyclers after decontamination. Used oil will be sold only to the registered recyclers.

Observations & Discussions:

Technical presentation made during the meeting by project proponent. The baseline environmental quality has been assessed in the Summer season (March 2014 to May 2014) in a study area covering 5 km radius around the plant site. The wind direction is predominantly from SSW to NNE direction. Ambient Air Quality Monitoring (AAQM) was carried out at 8 locations during the study period for PM₁₀, PM_{2.5}, SO₂, and NO_x, Ammonia (NH₃), Ozone (O₃), Hydrochloric Acid (HCl), Carbon Monoxide (CO), and Hydrogen Bromide (HBr). The baseline ambient air quality study reveals that the concentrations of all the measured parameters are well within the prescribed limits as per the National Ambient Air Quality Standards for industrial & residential. The Industrial Source Complex – Short Term (ISCST3) dispersion model was used for the prediction of maximum ground level concentration (GLC). The maximum ground level concentration due to the proposed project will be within the ambient air quality standards. While discussing about treatability of dilute and concentrated waste water streams, Committee noted that PP has not given product wise effluent generation with qualitative analysis. Committee also asked to give worst case scenario for waste water generation. During presentation PP has presented that they will provide on-line detectors for toxic chemicals like Chlorine and Bromine. On asking for clarification about the source of Chlorine and Bromine, PP and Consultant confessed that there is no use of chlorine and bromine in their proposed products. Considering this, Committee asked that there is a need of precise presentation for the projects and no irrelevant details shall be mentioned during presentation which entails cut/paste of some other project details. Issues related to waste water treatment, Occupational

health, Risk assessment etc. have been discussed in detail. It was observed that TOR related to occupational health, risk assessment have not been addressed properly. After deliberation, It was unanimously decided to consider the project for further consideration only after submission of the following:

1. Stage wise qualitative and quantitative analysis of waste water to be generated from the manufacturing process of each product to be manufactured along with mass balance.
2. Complete and specific details of TOR no. 26, 27, 32.
3. Give specific option with specific details for concentrated effluent stream to be generated from the proposed project.
4. An undertaking by the Project Proponent on the ownership of the EIA report as per the MoEF&CC OM dated 05/10/2011 and an undertaking by the Consultant regarding the prescribed TORs have been complied with and the data submitted is factually correct as per the MoEF&CC OM dated 04/08/2009.
5. Summary & Conclusion as per the generic structure given in Appendix III A of the EIA Notification 2006.

03	Aether Industries Ltd.	Plot No:8203, GIDC Estate-Sachin, Choryasi, Surat	Appraisal
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Project / Activity No.: 5(f)

Project status: Existing

Chronology of EC Process:

- This project proposed by M/s: Aether Industries Ltd. (herein after Project Proponent – PP) has submitted Application vide their letter dated 02/01/2015.
- The project was considered for TOR finalization in the meeting of the SEAC held on 23/12/2014.
- Final EIA Report prepared by M/s: Aqua-Air Environmental Engineers Pvt. Ltd. was submitted project proponent on dated 05/10/2015. (Online Proposal no. SIA/GJ/IND2/1672/2015)

Project / Activity Details:

This unit has proposed for setting up of Bulk drug, Bulk drug intermediates and specialty chemicals manufacturing plants with R&D Centre Including Pilot Plant & CRAM Product manufacturing facility as tabulated below:

Sr. no.	Name of products	Production Capacity (MT/Month)	
		Existing	Total After Proposed Expansion
(A)	Research & Development (R & D) centre along with Pilot Plant and Crams Products	1.0	10.0
(B)	Active Pharmaceuticals Intermediates (APIs)	-	25.0
	MEP Derivatives		
1	1-(4-(2-methoxyethyl)phenoxy)propan-2-ol		
2	(RS)-1-(Isopropylamino)-3-[4-(methoxyethyl)phenoxy]propan-2-ol		
3	(±)-1-(Isopropylamino)-3-[p-(2-methoxyethyl)phenoxy]-2-propanol succinate		
4	(±)-1-(Isopropylamino)-3-[p-(2-methoxyethyl)phenoxy]-2-propanol L-(+)-tartrate		

5	(S)-1-(isopropylamino)-3-(4-(2-methoxyethyl)phenoxy)propan-2-ol			
	Citalopram Series			
6	S-(+)-4-(4-(dimethylamino)-1-(4-fluorophenyl)-1-hydroxybutyl)-3-(hydroxymethyl)benzotrile			
7	1-[3-Dimethylamino)propyl]-1-(4-fluorophenyl)-1,3-dihydro-5-isobenzofurancarbonitrile hydrobromide			
8	S-(+)-1-[3-dimethylamino)propyl]-1-(4-fluorophenyl)-1,3-dihydro-5-isobenzofurancarbonitrile oxalate			
	Metoprolol Derivatives			
9	1-(4-((2-isopropoxyethoxy)methyl)phenoxy)-3-(isopropylamino)propan-2-ol			
	Etodolac Derivatives			
10	Etodolac			
	Atovaquone Derivatives			
11	2-(4-(4-chlorophenyl)cyclohexyl)-3-hydroxynaphthalene-1,4-dione			
	Mesalamine Derivatives			
12	5-Aminosalicylic acid			
(C)	Hydrogenation Derivatives	-	70.0	
	Secondary amine Derivatives			
1	(2R, 3R, 4R, 5S)-6-(octylamino)hexane-1,2,3,4,5-pentaol			
2	(2R, 3R, 4R, 5S)-6-(Methylamino)hexane-1,2,3,4,5-pentaol			
3	(2R, 3R, 4R, 5S)-6-(ethylamino)hexane-1,2,3,4,5-pentaol			
	Piperidine Derivatives			
4	4-Piperidine Carboxylic Acid			
5	4-Piperidine Carboxamide			
6	2-aminomethylpiperidine			
7	2-Piperidineethanol			
	Benzhydrol Derivatives			
8	a,a-Diphenyl-4-piperidinemethanol			
9	Diphenylmethanol			
10	4-Chlorobenzhydrol			
	Cyclohexyl Derivatives			
11	1,3-Cyclohexanedione			
12	Trans-4-Isopropylcyclohexanecarboxylic acid			
13	Trans-4-Amino cyclohexanol			
14	Ethyl 4-oxocyclohexanecarboxylate			
	Benzylamine Derivatives			
15	3-Amino Benzylamine			
16	2-Chloro Benzylamine			
	Chiral Amine Derivatives			
17	(S)-2-chloro-N-(2-ethyl-6-methylphenyl)-N-(1-methoxypropan-2-yl)acetamide			
18	Benzenebutanoic acid, β -[[[(1,1-dimethylethoxy)Carbonyl]amino]-2,4,5-trifluoro-,ethyl			

	ester,(βR)		
19	(R)-1-(naphthalen-1-yl)ethanamine		
	Chiral Alcohol Derivatives		
20	(R)-1-(3,5-bis(trifluoromethyl)phenyl)ethanol		
21	3-(dimethylamino)-1-(thiophen-2-yl)propane-1-one		
	Benzyl Alcohol Derivatives		
22	4-(2-amino-1hydroxyethyl)phenol		
23	3-(hydroxymethyl)phenol		
24	3-Phenoxy Benzyl Alcohol		
	Amine Arene Derivatives		
25	2-Ethyl aniline		
26	5-Aminosalicylic acid		
27	3-Aminosalicylic Acid		
28	Methyl-2-aminobenzoate		
29	Methyl-4-aminobenzoate		
30	N-(4-Amino-2,5-dimethylphenyl)acetamide		
31	N-(4-Amino-5-chloro-2-methylphenyl)acetamide		
32	4'-chloro-[1,1'-biphenyl]-2-amine		
33	3- Amino-4-toluic acid		
34	2,5-Dimethyl-1,4-phenylenediamine		
35	2-Chloro-5-methyl-1,4-phenylenediamine		
36	3,3'-Diamino-4,4'-dihydroxydiphenyl sulfone		
	Alkyl Derivatives		
37	N',N'-di-tert-butylethane-1,2-diamine		
38	N',N'-dimethylethane-1,2-diamine		
(D)	Halogenation Derivatives	-	20.0
	Benzylbromide Derivatives		
1	1-(bromomethyl)-4-(trifluoromethoxy)benzene		
2	4'-(bromomethyl)-[1,1'-biphenyl]-2-carbonitrile		
	(S)-2-Chloropropionic Acid / Esters Derivatives		
3	2-Chloropropionic acid, ethyl ester		
4	2-Chloropropionic acid, methyl ester		
	Halogenated Aryl Derivatives		
5	3-(bromomethyl)pyridine		
6	4-(chloromethyl)pyridine		
7	4-Bromo-2,6-diisopropylaniline		
8	2-bromophenol		
9	3-chloro-2,6-diethylaniline		
	Naphthoquinone Derivatives		
10	2-chloronaphthalene-1,4-dione		
11	2,3-Dichloro-1,4-Naphthoquinone		
(E)	Eatherification	-	75.0
	(S)-2-Chloropropionic Acid / Esters Derivatives		
1	(R)-2-(4-Hydroxyphenoxy) propionic acid		
	(R)-2-(Aryloxy)propionic Acid, Esters derivatives		

2	(R)-2-(4-Hydroxyphenoxy)propionic acid, methyl ester			
3	(R)-2-(4-Hydroxyphenoxy)propionic acid, ethyl ester			
4	Methyl-(R)-2-{4(2,4-dichlorophenoxy)phenoxy}propanoate			
5	Propynyl-(R)-2-[4-[(5-chloro-3-fluoro-2-pyridinyl)oxy] phenoxy] propanoate			
6	Butyl-(R)-2-(4-((5-(Trifluoromethyl)Pyridin-2-YL)Oxy)Phenoxy) Propanoate			
7	Methyl-(R)-2-[4-[3-chloro-5-(trifluoromethyl)-2-pyridyloxy]propanoate			
8	Ethyl (R)-2-[4-(6-chloroquinoxalin-2-yl)oxy]phenoxy]propanoate			
9	Ethyl-(R)-2-[4-{6-chloro-2-benzoxazolyloxy}phenoxy]propanoate			
10	Butyl-(R)-2-[4-(4-Cyano-2-Fluorophenoxy)Phenoxy]Propanoate			
	Aryl ether Derivatives			
11	2-(3-Phenoxyphenyl)propionic acid			
12	2-(2-Methoxyphenoxy)ethylamine			
13	4-Phenoxy-2, 6-diisopropyl aniline			
14	4-Methoxy-3-[3-(4-morpholinyl)propoxy]benzotrile			
15	4-Fluoro-3-phenoxybenzaldehyde			
16	2,6-Diisopropyl-4-phenoxyphenylthiourea			
17	1-Tert-butyl-3-(2,6-Diisopropyl-4-phenoxyphenyl)thiourea			
18	2,6-Diisopropyl-4-phenoxy phenyl isothiocyanate			
(F)	Specialty Chemicals (Electronic Chemicals, Fragrance & Flavors and Specialty Monomers and Polymers)	-	40.0	
	Cyclohexanone Derivatives			
1	4-Propyl Cyclohexanone			
2	4-(4'-propylcyclohexyl)phenol			
	(Cyclohexyl)Phenyl Derivatives			
3	Trans-(4'-propylcyclohexyl) cyclohexanone			
4	4-(Trans-4-propylcyclohexyl) benzoic acid			
5	(4-Trans-4-propylcyclohexyl) phenyl boronic acid			
	Cyclohexyl aryl Derivatives			
6	4-(4-chlorophenyl) cyclohexanecarboxylic acid			
	OLED Derivatives			
7	4 - Vinylphenylboronic Acid			
8	B-[10-(2-naphthalenyl)-9-anthracenyl] boronic acid			
9	4-(naphthalene-2-yl) boronic acid			
	Fragrance & Flavors			
10	1-methoxy-4-(prop-1-en-1-yl) benzene			
11	3-(4-Methoxyphenyl)-2-Methylpropanal			
12	3-(4-(Tert-butyl)phenyl)-2-methylpropanal			
	Specialty Monomers and Polymers			

13	Tetrahydro-2H-pyran-2-one		
14	5-(1H-benzo[d]imidazol-2-yl)pentan-1-amine		
15	2-methyl-1,2-oxaphospholan-5-one 2-oxide		
16	Boron trichloride-N,N-dimethyloctylamine		
(G)	Heterocyclic Derivatives / Polycyclic Derivatives	-	40.0
	Anthraquinone Derivatives		
1	1,4-Dihydroxyanthraquinone		
2	2,3-dihydro-9,10-dihydroxy-1,4-anthracenedione		
	Indole Derivatives		
3	7-Ethyl Tryptophol		
4	Methyl indol-6-carboxylate		
5	Indoline		
	Phthalic acid Derivatives		
6	5-nitro isophthalic acid		
7	5 carboxyphthalide		
	Furan Derivatives		
8	2,3-dihydro furan		
9	2,5-Dihydrofuran		
	Imidazole Derivatives		
10	1- methyl-1H-imidazole		
11	2-Butyl-4-Chloro-5-Formylimidazole		
	Thiophene Derivatives		
12	2-(thiophen-2-yl)ethanamine		
13	2-(thiophen-2-yl)ethanol		
	Quinazoline Derivatives		
14	4-(4-(tert-butyl)phenethoxy)quinazoline		
	Tetrahydrofuran Derivatives		
15	1[(2S)-tetrahydro-2-furanyl]-ethanone		
	Pyridine Derivatives		
16	4-pyridinecarboxylic acid		
17	4-pyridinecarboxamide		
18	4-pyridinemethylamine		
19	2-(Pyridin-2-yl)ethanol		
	Pyran Derivatives		
20	3,4-Dihydro-2H-pyran		
	Carbonate Derivatives		
21	Bis (2,5-dioxopyrrolidin-1-yl)carbonate,[N,N-discuccinimidyl carbonate]		
	Piperazine Derivatives		
22	1-(2,3-dichlorophenyl)piperazine hydrochloride		
	Thiazole Derivatives		
23	Thiazol-5-ylmethanol		
	Diphenyl Methane Derivatives		
24	1,1'-(methylenebis(4,1-phenylene))bis(1H-pyrrole-2,5-dione)		
	Pyrimidine Derivatives		
25	2-(2,2-Difluoroethoxy)-N-(5,8-		

	dimethoxy[1,2,4]triazol[1,5,7] pyrimidine-2-yl)-6-(trifluoromethyl)benzenesulfonamide		
	Sulfamide Derivatives		
26	Sulfamide		
(H)	Oxidation Derivatives	-	40.0
	Aryl Aldehyde Derivatives		
1	4-hydroxy benzaldehyde (PHB)		
2	4-methoxy benzaldehyde / p-anesaldehyde (PAA)		
3	4-pyridinecarboxaldehyde		
4	2,6-dichlorobenzaldehyde		
5	3-pyridinecarboxaldehyde		
6	4-(diethylamino)-2-hydroxy benzaldehyde		
7	2-amino-3,5-dibromobenzaldehyde		
	Aryl Carboxylic Acid Derivatives		
8	4-(tert-butyl)benzoic acid		
9	2-Nitro Benzoic acid		
10	2,4-Dichlorobenzoic acid		
11	3,5-di-t-butyl-4-hydroxy benzoic acid		
12	3-methoxy-2-methylbenzoic acid		
13	2-ethoxy benzoic acid		
14	3-amino-4-methylbenzoic acid		
15	Mafenamic acid		
16	4-aminobenzoic acid		
	Keto Aryl Derivatives		
17	Naphthalene-1,4-dione		
18	Pyromellitic Anhydride (benzo(1,2-c;4,5-c')difuran-1,3,5,7-tetraone		
(I)	Carboxylic Acid Derivatives	-	30.0
	Benzonitrile Derivatives		
1	2-Hydroxy benzonitrile		
2	4-Hydroxy benzonitrile		
3	5-Cyano-3H-isobenzofuranone		
4	4-chlorobenzonitrile		
5	2-amino-4-chloro benzonitrile		
6	2,6-dichlorobenzonitrile		
7	4 - chlorophenyl benzene butane nitrile		
	Aryl Carboxylic Acid Ester Derivatives		
8	Methyl 2-nitro Benzoate		
9	Methyl 4-nitro Benzoate		
10	Methyl 4-amino Benzoate		
11	tert-Butyl 4-(chloromethyl)benzoate		
12	Dimethyl-5-aminoisophthalate		
13	Methyl-3-amino-4-toluate		
14	Ethyl paraben		
15	Propyl paraben		
16	Ethyl-4 amino benzoate		

17	4'-methyl-2-biphenyl carboxylic acid methyl ester		
18	Hexyl-3,5-di-tert-butyl-4-hydroxybenzoate		
	Aryl Acetyl Derivatives		
19	N-(2,5-Dimethylphenyl)acetamide		
20	N-(5-Chloro-2-methylphenyl)acetamide		
21	3-Nitrophenyl acetate		
22	2-Acetylthiophene		
	Aryl Acid chloride Derivatives		
23	3-methoxy-2methyl benzoyl chloride		
	Benzamide Derivatives		
24	2-Chloro-n-(4'-chloro-[1,1'-biphenyl]-2-yl)nicotinamide		
25	4-chloro-2nitro benzamide		
(J)	Basic Aromatic Intermediates	-	20.0
	Aryl Hydrazine Derivatives		
1	2 - Ethyl Phenyl Hydrazine Hydrochloride		
2	p-Sulphonamide phenyl hydrazine hydrochloride		
	Nitroarene Derivatives		
3	2-Chloro - 5-nitro benzoic acid		
4	3-Nitro 2-Chloro benzoic acid		
5	N - (2,5- Dimethyl-4-nitophenyl) acetamide		
6	N - (5-Chloro-4-nitro-2-methylphenyl) acetamide		
7	3-Nitro -4-toluic acid		
8	2-Nitro-3-chlorobanzoic acid		
9	2-Nitro-5-chlorobanzoic acid		
10	5 - Nitovanillin		
11	3,3'-Diamino-4, 4' - dihydroxydiphenylsulfone		
	Hydroxyarene Derivatives		
12	5 - Nitosalicylic acid		
13	3 - Nitosalicylic acid		
14	2- Nitro-3-hydroxybenzoic acid		
15	2 - Nitro-5-hydroxybenzoic acid		
16	3,4 - Dihydroxy-5-nitrobenzaldehyde		
	(Alkylamino)arene Derivatives		
17	3 - (Dimethylamino) phenol		
18	3 - (Diethylamino) phenol		
19	3 - Amino phenol		
20	4 - Diethylaminosalicyladehyde		
21	4 - (Aminomethyl) aniline		
22	N - benzyl-2-(2-methoxyphenoxy) ethylamine		
23	Methyl-4-(butylamino) benzoate		
24	2-(2-chlorophenyl) ethanamine		
	Anisole Derivatives		
25	1-chloro-3-mrthoxy-2-methylbenzene		
(K)	Chiral Resolution Derivatives	-	10.0
1	(R)-(+)-1 Phenylethylamine		

2	(S)-(+)-1 Phenylethylamine		
3	D - 2 - hydroxy-2-phenylacetic acid		
4	L-(+)-Mendelic acid		
5	(S)-(-)-Indoline-2-carboxylic acid		
6	(S)-(-)-tetrahydro-2-furoic acid		
(L)	Ethylene Oxide an Isobutylene Intermediates	-	75.0
	Aryl Ethylene Oxide Derivatives		
1	4 - (2 - methoxyethyl)phenol		
2	4 - (2 - hydroxyethyl)phenol		
3	2 - (4 - (tert - butyl)phenyl)ethanol		
	Aliphatic ethylene oxide derivatives		
4	2 - (2 - chloroethoxy)ethanol		
5	2 - (diisopropylamino)ethanol		
6	2 - (tert - butylamino)ethanol		
7	2 - (ethyl(phenyl)amino)ethanol		
8	2- Chloro Ethanol		
	Butylates Aryl Derivatives		
9	2,6 - di - tert-butyl-4-(2-hydroxyethyl)phenol		
10	2,6 - di - tert-butyl phenol		
11	1-(tert-butyl)-4-methylbenzene		
12	1,3,5-tri-tert-butylbenzene		
13	2-bromo-4-(tert-butyl)phenol		
	Butylated Alkyl Derivatives		
14	1,1-dimethylethyl chloride		
(M)	Organometallic Chemistry Derivatives (Grignard, Lithiation, Coupling)	-	20.0
	Citalopram Series		
1	4-(4-(dimethylamino)-1-(4-fluorophenyl)-1-hydroxybutyl)-3-(hydroxymethyl)benzotrile		
	Phosphine Derivatives		
2	Triphenyl phosphine		
	Alkyl Benzene Derivatives		
3	1-(tert-butoxy)-4-pentylbenzene		
4	4-tert.butoxy alkyl benzene/4-Hydroxy alkyl benzene		
	Biaryl Derivatives		
5	4'-methyl-2-cyanobiphenyl		
6	4'-chloro-2-nitro-1,1'-biphenyl		
7	Methyl 4-acetamino-3-chloro-5-(4-chloro-2-fluoro-3-methoxyphenyl)picolinate		
8	4-Cyanobiphenyl		
9	4-(2-Pyridinyl)Benzaldehyde		
10	2,4-Difluorobiphenyl		
	Dialkyl Derivatives		
11	2,2-dimethyl pentane		
12	7-Bromo-1-heptene		
13	8-chloro-1-octene		

	Boronic Acid Derivatives		
14	4-Chlorophenyl boronic acid		
15	2-(1,3,2-dioxaborinan-2-yl)pyridine		
16	2-(4-chloro-2-fluoro-3-methoxyphenyl)-1,3,2-dioxaborinane		
17	(4-chloro-2-fluoro-3-methoxyphenyl)boronic acid		
18	3-Furanboronic acid		
19	Dimethyl thiophen-2-ylboronate		
20	Phenylboronic acid		
	Styrene Derivatives		
21	1-propyl-4-vinylbenzene		
22	4-vinylphenyl acetate		
23	1-chloro-4-vinylbenzene		
	Aliphatic Hydroxy derivatives		
24	oct-1-en-3-ol		
25	4-methyl-3-decen-5-ol		
26	3-methyl-1-phenylpentan-3-ol		
27	2-methyl-1-phenylpropan-2-ol/dimethyl phenyl ethyl carbinol		
	Total	1.0	465
	By-Products		
1	Sodium Sulphate	-	150
2	KCl Solution & Solution (15 – 20 %)	-	225
3	Acetic Acid	-	75
4	Sodium Sulfitte	-	150
5	Sodium Bisulfite	-	35
6	HBr Solution (25 – 30 %)	-	114
7	NaBr Solution (15 – 20 %)	-	125
8	KBr Solution (20 – 25 %)	-	100
9	Sodium Acetate	-	17
10	Alum Solution	-	95
11	Ammonium Sulphate	-	80

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Total plot area is 10500 sq.m. PP has proposed 1388 sq. m green belt and tree plantation area. Unit has obtained NOC of GPCB for R&D Centre Including Pilot Plant & CRAM Product manufacturing facility. However, no activity has been started yet. Manufacturing activities proposed in the project include various processes as a part of manufacturing Specialty Chemicals, Bulk Drug & Bulk Drug Intermediates. Fresh water requirement will be 364 KL/day which will be sourced from Sachin Notified Are Authority. Industrial waste water generation will be 145 KL/day. Unit has proposed segregate system of industrial effluent at source into different streams. Stream I: 15 KL/day:- Dilute Stream (COD – 4,000 to 6000 mg/lit). This dilute stream will be generated from manufacturing of Group D, G, I & K and R & D process will be given phanton treatment followed by primary treatment and then effluent will be send to CETP of M/s. Globe Enviro Care Ltd. (GECL) for further treatment and final disposal. Stream II: 90 KL/Day: - Low TDS (< 15,000 mg/lit) & low COD (15,000 to 20,000 mg/lit). This stream will be generated from the manufacturing of Group C, E, F & J, from pilot plan, washing and scrubber. This effluent will be given Primary and Secondary treatment (SBT-Soil Bio-Technology) and passed though Common R.O. Plant. From R. O. Plant. RO Permeate (70 KL/day) water will be recycle in to utilities. RO Reject Water

(20 KL/day) will be sent to Common MEE of MEPPL (M/s: Mahavir Eco Projects Pvt. Ltd.) Stream III: 40 KL/Day: - Concentrated Stream – High TDS (> 15,000 mg/lit) & High COD (> 20,000 mg/lit. This stream will be generated from the manufacturing of B, H, L & M group products. This stream will be sent to Common MEE of MEPPL. In case of non-operation of common MEE of MEPPL, PP has proposed to install their own Multi Effect Evaporator (MEE) system after passed through pH Correction & Solvent Stripper Column. The condensate water shall be passed through Common R O Plant. From R. O. Plant. In this situation, RO Permeate (35 KL/day) will be recycle in to utilities and RO Reject (5 KL/day) will be sent to in-house MEE. Domestic waste water (20 KL/day) will be discharge in to the septic tank / soak pit system. Unit has proposed to install Primary treatment plant, Phanton treatment, Soil Biotechnology (SBT) treatment plant, RO plant (6 m³/hr), Solvent stripper (Cap. 50 KL/day), MEE-Multi Effect Evaporator (Cap. 3000 Kg/hr) plant and ATFD (Agitated Thin Film Dryer) having feed rate 3000 Kg/hr. Sludge/Solid waste to be generated in MEE will be collected and sent to integrated common hazardous waste management facility of M/s. Saurashtra Enviro Projects Pvt. Ltd. (SEPPL), Kutch for disposal. Unit has proposed to install one Boiler and two TFH. Natural Gas (3180 SCM/day) will be used as a fuel for steam boiler (4 TPH). Natural Gas – 48 SCM/hr or LDO – 80 Liters/hr will be used as a fuel for two TFH (400 U each). Diesel (100 Liters/Hr) will be used as a fuel for proposed two DG sets having capacity 750 KVA each.

Unit has proposed separate set of Water scrubber followed by Alkali scrubber (three sets) as APCM with different reactors to control emissions of HCl, SO₂ and HBr. Unit has proposed all the safety measures like Breather Valve, Flame arrester, Dyke, Magnetic/Ultrasound / Radar level Indicators and Sensors for leakage in ppm level for all the storage tanks. Spent Solvents to be generated are Toluene, Acetone, Methanol, IPA, MIBK, BCP, THF, Acetonitrile, MDC, 2-IPE, Ethanol, Ethyl Acetate, Pyrolidine, Di Chloro Methane, Oxo Carboxylic Acid, EDC, Propanol, Methyl Cellosolve, Acetic Acid, TMFB, Xylene, Hydroquinone, MEG, Phenol, DMF, Di Ethyl Ether, Ether, n-Hexane, Cyclo Hexane, ETOAc, 2 – Ethyl Amine, Ethyl Glycol, Terephthalic Acid, 2 – butane 1, 4 – Diol, Tert – Butanol, tetra hydro furfuryl alcohol, tri chloro acetaldehyde, Sulfuryl dichloride, (2-(2-chlorophenyl)acetonitrile, 2,6-dichloro toluene , 2,6-dichloro benzoyl chloride , Diethyl amine, 2, 4 DHB , Organic layer DTBP , 2,3-dimethylaniline, Dimethyl Sulfoxide , Chloro Benzene , Resorcinol, Dichloro benzene, Di methyl amine, Amine, 1-(2-chloroethoxy)-2-methoxy benzene, 2-(2-chlorophenyl) acetonitrile, 1,3-dichloro-2-methyl benzene, Isobutylene, MCB, PCB, 4-chlorobenzoic acid, 4-chloro-2-nitrobenzonitrile, 4-hydroxybenzoic acid, Triethyl amine, 4-chloro-2-nitro benzoic acid, SOCl₂, Dimethoxy ethane, 1, 4 - dichloro benzene, NMP, 1,2,4,5-tetramethylbenzene, Petroleum Ether, 1-chloro-3-fluoro-2-methoxybenzene, tert-butyl methyl ether. Solvent recovery will be more than 95 %.

Hazardous wastes to be generated are Process Waste, Used Oil, Spent Solvent, Discarded Containers/Bags/Barrels, Distillation Residue, ETP Sludge, MEE salt, Acetic Acid, Sodium Sulphite, Sodium Bisulfite etc. By-products to be generated are Sodium Sulphate, HCl Solution (20-25%), KCl Solution (15-20%), H₂SO₄ Solution (40-70%), KCl Salt, Acetic Acid Sodium Sulphite, Sodium Bisulfite, HBr Solution (25-30%) NaBr Solution (15-20%), KBr Solution (20-25%), Liq. NH₃ soln. (20%), Sodium Acetate, Alum Solution, Ammonium Sulphate, etc. Quantification and management of hazardous waste is tabulated as below:

Sr. no.	Type of waste	Source of the waste	Total quantity	Final disposal
1	ETP Waste	From ETP	250 MT/Year	TSDf site
2	Evaporated Salt	From MEE	50 MT/Month	TSDf site
3	Process Waste	From Process	176 MT/Month	TSDf site
4	Spent Catalyst	From Process	25.6 MT/Month	Reuse in to process /

				send to regeneration unit / TSDF site
5	Carbon Waste	From Process manufacturing of Group C, J	19 MT / Month	Reuse in to process / send to regeneration unit / TSDF site
6	Raney Nickel	From Process manufacturing of Group F	3 MT / Month	Reuse in to process / send to regeneration unit / TSDF site
7	Distillation residue	From Distillation	77MT/Month	TSDF site / sell to cement industries for co processing
8	Spent Solvents	From Process	90 MT/Month	In-House distillation or sent to authorized distillation unit.
9	Used Oil	From plant & machineries	100 Liters/Month i. e. 0.085 MT/Month	Used oil shall be sold only to the registered recyclers.
10	Discarded Barrels/Liners/Bags	From raw material packaging	150 Nos/Month i. e. 1.2 MT/Month	Either reused or returned back to suppliers or sold only to the authorized vendors after decontamination.
11	NaCl	From manufacturing of Group C, F	102 MT/Month	Sold as a by Product / send to TSDF Site
12	Spent HCl – 20 to 32 %	From manufacturing of Group D, G, J	70 MT / Month	reuse in to process / Sold as a By Product
13	Sodium sulphite	From manufacturing of Group D, E, I, J	105 MT / Month	sold as a by product
14	15 - 30 % sodium bromide	From manufacturing of Group D, E	125 MT / Month	sold as a by product
15	Kbr solution	From manufacturing of Group E	100 MT / Month	sold as a by product
16	Liq. Nh3 sol.	From manufacturing of Group E	27 MT / Month	sold as a by product
17	Alum	From manufacturing of Group G, J	95 MT/Month	sold as a by product
18	Sodium acetate	From manufacturing of Group G	17 MT/Month	sold as a by product
19	Ammonium	From manufacturing of	80 MT / Month	sold as a by product

	sulphate	Group I, J		
20	Na ₂ SO ₄	From manufacturing of Group I, J, K	150 MT / Month	Sold as a By Product
21	30 % hydrogen bromide	From manufacturing of Group D	114 MT/Month	sold as a by product
22	Spent H ₂ SO ₄ Solution (40-70%)	From Manufacturing of B,C,D,E,G,J,L,M	140 MT/Month	Either reused or sold only to actual end -users.

By-products generated from the proposed manufacturing activities will be sell out to actual end users as tabulated below:

Sr. no.	Name of By-Products	Remarks - Quantity	Source	Management
1	Sodium sulphate	150 MT/Month	From manufacturing of Group I, J, K	Sell to actual end users
2	KCl salt & solution	225 MT/Month	From manufacturing of Group E & H	Sell to Dyes & Dyes Intermediates Industries
3	Acetic acid	75 MT/Month	From manufacturing of Group No. C, E, F, H, I	Sell to Textile Industries
4	Sodium sulfitte	150 MT/Month	From manufacturing of Group D, E, I, J	Sell to Manufacturer of Dispersing Agent
5	Sodium bisulfite	35 MT/Month	From manufacturing of Group D, E, I, J	Sell to Dyes Intermediates Industries
6	HBr solution (25 – 30 %)	114 MT/Month	From manufacturing of Group D, E, J	Sell to Anjaniya Chemicals, Nandesari
7	Nabr solution (15 – 20 %)	125 MT/Month	From manufacturing of Group D	
8	Kbr solution (20 – 25 %)	100 MT/Month	From manufacturing of Group E	
9	Sodium acetate	17 MT/Month	From manufacturing of Group G	Sell to Swaraj Life Science
10	Alum solution	95 MT/Month	From manufacturing of Group G, J	Sell to Paper Industries
11	Ammonium sulphate	80 MT/Month	From manufacturing of Group I, J	Sell to Agro Industries / Dyes Intermediates

The baseline environmental quality has been assessed in the Summer season (January 2015 to March 2015) in a study area covering 5 km radius around the plant site. The wind direction is predominantly from SSW to NNE direction. Ambient Air Quality Monitoring (AAQM) was carried out at 8 locations during the study period for PM₁₀, PM_{2.5}, SO₂, and NO_x, Ammonia (NH₃), Ozone (O₃), Hydrochloric Acid (HCl), Carbon Monoxide (CO), Hydrogen Bromide (HBr) and VOC. The baseline ambient air quality study reveals that the concentrations of all the measured parameters are well within the prescribed limits as per the National Ambient Air Quality Standards for industrial & residential. The Industrial Source Complex – Short Term (ISCST3) dispersion model was used for the prediction of maximum ground level concentration (GLC). The maximum ground level concentration due to the proposed project will be within the ambient air quality standards.

Observations/Discussions:

Technical presentation made during the meeting by project proponent. The baseline environmental

quality has been assessed in the Summer season (January 2015 to March 2015) in a study area covering 5 km radius around the plant site. The wind direction is predominantly from SSW to NNE direction. Ambient Air Quality Monitoring (AAQM) was carried out at 8 locations during the study period for PM10, PM2.5, SO₂, and NO_x, Ammonia (NH₃), Ozone (O₃), Hydrochloric Acid (HCl), Carbon Monoxide (CO), Hydrogen Bromide (HBr) and VOC. The baseline ambient air quality study reveals that the concentrations of all the measured parameters are well within the prescribed limits as per the National Ambient Air Quality Standards for industrial & residential. The Industrial Source Complex – Short Term (ISCST3) dispersion model was used for the prediction of maximum ground level concentration (GLC). The maximum ground level concentration due to the proposed project will be within the ambient air quality standards. On asking about the waste water treatment of different streams, PP informed that they have proposed different treatment scheme for different effluent stream based on the characteristics and segregation at source. On asking about ZLD, PP informed that they are using Natural gas as a fuel and going for ZLD is not feasible without using cheaper fuel like Coal, Lignite etc. and they don't want to use solid fuel which is having high air pollution potential. PP requested to allow them to send concentrated effluent to MEE of MEPPL as per their proposal which was agreed to by the committee. However, Committee asked to install their own MEE system so that they can use their own system in case of non-operation of Common MEE. Risk assessment study report and Disaster Management plan have also been submitted as a part of EIA study report. Result of Risk Assessment and Gas dispersion modeling are taken in to account for Risk Management Plan (RMP) and Emergency Response Plan (ERP). Unit has applied for permission from PESO for storage of Solvents. After detailed discussion, it was decided to recommend the project to SEIAA, Gujarat for grant of Environmental Clearance.

04	Colosperse Dyes & Intermediates	Plot No:508/1, GIDC Estse, Sachin, Choryasi, Surat	Appraisal
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Project / Activity No.: 5 (f)

Project status: Expansion

Chronology of EC Process:

- This project proposed by M/s: Colosperse Dyes & Intermediates (herein after Project Proponent – PP) has submitted Application vide their letter dated 20/10/2014.
- The project was considered for TOR finalization in the meeting of the SEAC held on 23/12/2014.
- The project was considered in the SEAC meeting held on 23/12/2014 and additional TORs were prescribed in addition to proposed Terms of Reference (TOR) to include them in the EIA study to be done covering 5 km radius from the boundary of the project site.
- Final EIA Report prepared by M/s: Aqua-Air Environmental Engineers Pvt. Ltd., Surat was submitted project proponent vide their no. NIL dated 02/10/2015.(Online Proposal no.SIA/GJ/IND2/2738/2014)

Project / Activity Details:

This unit is engaged in manufacturing of dyestuffs and now applied for expansion by addition of new products as tabulated below:

Sr. No.	Name of Product	Existing Capacity (MT/Month)	Proposed Capacity (MT/Month)	Total After Proposed Expansion (MT/Month)
1	Reactive Black B	4	-	4
2	Reactive 141	3	-	3

3	Reactive Yellow 84	2	-	2
4	Reactive Orange HER	2	-	2
5	Reactive N Blue 171	2	-	2
6	Reactive Red 195	1	-	1
7	Direct Orange 26	1	-	1
8	Direct Red 31	1	-	1
9	Direct Black 22	1	-	1
10	Acids Black 10 BX	1	-	1
11	Acid Yellow 17	1	-	1
Group -1				
12	Acid Violet 17	--	100	100
13	Acid Blue 15	--		
14	Acid Violet 49	--		
15	Acid Black 194	--		
16	Acid Brown 75	--		
17	Direct Red 239	--		
18	Acid Black 52	--		
19	Acid Blue 193	--		
20	Direct Black 170	--		
21	Direct Orange 39	--		
22	Reactive Black 5	--		
23	Reactive Black CNN	--		
Group -2				
25	Acid Blue 1	--	37	37
26	Acid Blue 7	--		
27	Acid Green 9	--		
28	Acid Blue 9	--		
29	Direct Blue 281	--		
30	Direct Blue 218	--		
31	Direct Blue 80	--		
32	Direct Black 168	--		
33	Direct Black 179	--		
34	Direct Black 80	--		
35	Direct Black 22	--		
Group -3				
36	Acid Red 52	--	2.5	2.5
37	Direct Blue 71	--		
Group-4				
38	Ethyl Benzyl Aniline Meta Sulfonic Acid	--	40	40
Group-5				
39	Benzaldehyde Disulfonic Acid	--	10	10
Group-6				
40	Ortho Benzaldehyde Sulphonic Acid	--	10	10
Total		19	189.5	208.5

The proposed activity falls in the Category B of the project activity 5(f) as per the schedule of EIA Notification 2006.

Total existing plot area is 1278.67 m² including 383.60 m² area for tree plantation. No additional land will be acquired for the proposed expansion. The total cost of the proposed expansion will be Rs. 1 Crores. Total water consumption after proposed expansion will be 61 KL/day (Existing 7.5 KL/day +

Additional 53.5 KL/day). Fresh water will be sourced from GIDC water supply. Total industrial effluent generation will be increased up to 23.1 KL/day (Existing 2.65 KL/day + Additional 20.45 KL/day). Total industrial waste water (22.6 KL/day) will be segregated. 3 KL/day of dilute stream will be treated in existing Primary ETP and then sent to CETP of GECL-Sachin. Remaining concentrated steam effluent will be sent to common MEE of MEPPL. Domestic waste water (0.5 KL/day) will be disposed off into soak pit system. At present unit has provided one Boiler (0.4 TPH), two HAG (1 Lac Kcal/hr each) and one spray dryer. Natural gas is used as fuel in Boiler and HAG. Ventury scrubber is provided as APCM in spray dryer. No process gas emission is envisaged. Unit has proposed one Boiler (0.6 TPH), one Spray dryer and one DG set (125 KVA). Natural gas or Bio fuel will be used as fuel in Boiler. Ventury scrubber will be provided as APCM in proposed spray dryer. Hazardous waste to be generated are ETP sludge (15 Kg/day), MEE salt (200 Kg/day), Used Oil (100 ltr./year) and Discarded containers 300 no.s/Month.

Observations & Discussions:

Technical presentation made during the meeting by project proponent. The baseline environmental quality has been assessed in the Summer season (March 2014 to May 2014) in a study area covering 5 km radius around the plant site. The wind direction is predominantly from SSW to NNE direction. Ambient Air Quality Monitoring (AAQM) was carried out at 8 locations during the study period for PM10, PM2.5, SO₂, and NO_x, Ammonia (NH₃), Ozone (O₃), Hydrochloric Acid (HCl), Carbon Monoxide (CO), and Hydrogen Bromide (HBr). The baseline ambient air quality study reveals that the concentrations of all the measured parameters are well within the prescribed limits as per the National Ambient Air Quality Standards for industrial & residential. The Industrial Source Complex – Short Term (ISCST3) dispersion model was used for the prediction of maximum ground level concentration (GLC). The maximum ground level concentration due to the proposed project will be within the ambient air quality standards. While discussing about treatability of dilute and concentrated waste water streams, Committee noted that PP has not given product wise effluent generation with qualitative analysis. Committee also asked to give worst case scenario for waste water generation. Committee suggested to stop two options for effluent disposal i.e. giving small quantity of effluent to CETP of GECL and to send entire quantity of effluent to Common facility. During presentation committee found discrepancy in storage details of Formaldehyde i.e. storage of formaldehyde is in drums as per slide no. 87 and in the tank as per slide no. 95 of the power point presentation. On asking for clarification, PP informed that they will store formaldehyde in Tanks only. Considering this, Committee asked that there is a need of precise presentation for the projects and proper details shall be mentioned during presentation. It was observed that TOR related to occupational health, risk assessment have not been addressed properly. PP has not considered Oleum for worst case scenario in Risk Assessment report. After deliberation, It was unanimously decided to consider the project for further consideration only after submission of the following:

1. Stage wise qualitative and quantitative analysis of waste water to be generated from the manufacturing process of each product to be manufactured along with mass balance.
2. Complete and specific details of TOR no. 26, 27, 32.
3. CI (Colour Index) number of all the Product Dyes.
4. Give specific option with specific details for concentrated effluent stream to be generated from the proposed project. Explore the possibility to send entire waste water quantity at one Common facility.
5. Give list of Spray Drying products.
6. An undertaking by the Project Proponent on the ownership of the EIA report as per the

MoEF&CC OM dated 05/10/2011 and an undertaking by the Consultant regarding the prescribed TORs have been complied with and the data submitted is factually correct as per the MoEF&CC OM dated 04/08/2009.

7. Summary & Conclusion as per the generic structure given in Appendix III A of the EIA Notification 2006.

5.	Dai-ichi Karkaria Ltd.	Plot no:D-20/2, Dahej Industrial Estate, Ta.: Vagra, Dist.: Bharuch	Appraisal
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Project / Activity No.: 5(f)

Project status: New

Chronology of EC Process:

- This project proposed by M/s: Dai ichi Karkaria Ltd. (herein after Project Proponent – PP) has submitted Application vide their letter dated 05/10/2013.
- PP did not remain present during the SEAC meeting dated 19/07/2014.
- The project was considered for TOR finalization in the meeting of the SEAC held on 26/09/2014.
- Public hearing was carried out by Gujarat Pollution Control Board on 05/08/2015.
- EIA Report prepared by M/s: Aqua-Air Environmental Engineers Pvt. Ltd., Surat was submitted by project proponent vide dated 23/10/2015. .(Online Proposal no.SIA/GJ/IND2/2820/2014)

Project / Activity Details:

This is a new project applied for manufacturing of speciality chemicals as tabulated below:

Sr. no.	Name of the Products	Quantity MT/Annum
1.	Non Ionic Surface active agents	1000
2.	Additives for Oil Field Industries	1000
3.	Anionic & Cationic Surface active agents	1100
4.	Sizing Agents(Construction & misc.)	900
	Total	4000

The proposed project falls under project / activity no. 5(f) in the schedule of the EIA Notification, 2006.

The plot area is 46839 sq. m. Total cost of the project will be 193 Crores. Capital cost for EMP will be 6.81 Crores and recurring cost per annum will be 96 Lacs.

The plot area is 46839 sq. m. Unit has proposed 3144.53 sq. m land for tree plantation & green belt development. Total cost of the project will be 193 Crores. Capital cost for EMP will be 6.81 Crores and recurring cost per annum will be 96 Lacs. Total water consumption will be 220 KL/day. PP has proposed to recycle treated waste water to the tune of 109 KL/day. Hence, fresh water requirement will be 111 KL/day which will be met through GIDC water supply. The wastewater generation will be 135 KL/day. Unit has proposed ETP (Capacity 150 KL/day) comprises of Primary, Secondary & Tertiary treatment units. The treated effluent (KL/day) will be sent to proposed RO unit (Capacity 8 KL/hr). The RO permeate (84 KL/day) will be reused for industrial purpose and RO Reject (36 KL/day) will be sent to MEE (Capacity 36 KL/day). MEE condensate (36 KL/day) will be partly used for gardening plantation and partly used for utilities. Total 15 KL/day of treated waste water (5 KL treated sewage + 10 KL from MEE condensate) will be utilized for gardening plantation within premises. Unit has proposed 3144.53 sq. m area for gardening & plantation. Domestic Waste water will be treated in STP and sewage will be utilized for green belt. Domestic Waste water (6 KL/day) will be treated in STP and treated sewage along with condensate from MEE (10 KL/day) will be utilized for gardening/plantation within premises having area 3144.53 sq. m. Unit has proposed one TFH with cap. 4 lac Kcal/hr and two Boilers with capacity 6 TPH & 4 TPH. Fuel to be used for 6 TPH steam boiler and 4 TPH steam boiler will be 960 Kg/hr & 640 Kg/hr of Biomass Briquettes respectively. HSD (35 Lit./hr) will be used as a fuel for TFH. Unit has proposed two DG sets Capacity 750 KVA & 200 KVA). HSD (130 lit./hr for 750 KVA and 27 Lit./hr for

200 KVA) will be used as fuel for DG sets. Bag filter and water scrubber will be provided with 6 TPH & 4 TPH steam boiler as APCM. Process emission will be from Sulphonation plant, EO plant, PPD plant, EO/PO storage tank and Multiproduct plant. Unit has proposed scrubbing system with all the plants to control gaseous emission. Alkali scrubber will be provided with Sulphonation plant. Alkali scrubber will be provided with Multiproduct plant. Water scrubber will be provided with Ethoxylation plant. Water scrubber will be provided with PPD plant. Water scrubber will be provided with EO/PO plant. Hazardous wastes to be generated are ETP Sludge & MEE salt (200 MT/Year), Filters & Filter materials (150 MT/Year), Used oil (1 KL/Year), Chemical containing residue arising from decontamination (1 MT/Year). ETP waste, MEE salt and Chemical containing residue arising from decontamination will be disposed off at the TSDF site of BEIL. Organic Chemical sludge will be disposed off at the CHWIF of BEIL. Discarded barrels / containers / bags / liners will be either reused or returned back to suppliers or sold only to the authorized recyclers after decontamination. Used oil will be sold only to the registered recyclers.

Observations & Discussions:

Technical presentation during the meeting included the Point wise ToR compliance. Issues raised during the public hearing were discussed in detail. The baseline environmental quality has been assessed for a period from October 2014 to December 2014 in a study area of 10 km radial distance from the project site. The predominant winds are from NE to SW direction. Ambient Air Quality Monitoring (AAQM) was carried out at 7 locations during the study period for PM10, PM2.5, Sulfur Dioxide, Oxides of Nitrogen, Ozone (O3), Lead (Pb), Carbon Monoxide (CO), Ammonia (NH3), Benzene (C6H6), Benzo (a) Pyrene (BaP), Arsenic (AS), Nickel (Ni), Chlorine (Cl2), HCl, Br2 & VOCs. The ambient air quality of the study area is meeting the prescribed National Ambient Air Quality Standard at all locations. Incremental GLCs are calculated by using air modeling and result shows that in the worst case scenario, the maximum ground level concentration due to the proposed project will be within the ambient air quality standards. While discussing about the solvent management, PP informed that they will recover more than 95% of solvent and will be reused. Committee emphasised on VOC control during material handling and within plant the area. After detailed discussion, it was decided to recommend the project to SEIAA, Gujarat for grant of Environmental Clearance.

06	Saras Plywood Products Pvt. Ltd.	Plot No:744,New GIDC, Gundlav, Valsad	Appraisal
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Project / Activity No.: 5(f)

Project status: Existing

Chronology of EC Process:

- This project proposed by M/s.: Saras Plywood Products Pvt. Ltd. (herein after Project Proponent – PP) has submitted Application vide their letter dated 09/03/2015.
- This project was considered in the meeting of the SEAC held on 09/06/2015.
- Committee considered the revised form-1 submitted by PP which included minor changes due to inclusion of existing activity. Looking to the small scale of the project, location of the project and low pollution potential, after detailed deliberation, the project was categorized as B2 and the additional information was sought for appraisal of the project.
- The project proponent submitted the additional information along with revised form-1 & PFR vide their letter dated 07/10/2015.

Project / Activity Details:

This is existing unit engaged in manufacturing of All types of Plywood, Block Board, Flush door & Veneer and now proposes the manufacturing of following Synthetic Organic Chemical:

Sr. no	List of product	Capacity
Existing		

1.	All types of Plywood, Block Board, Flush	300 MT /Month
Proposed		
1.	Urea Formaldehyde Resin	60 MT/Month

The proposed products of UF Resin fall under Category B of project activity 5(f) as per the EIA Notification 2006.

Total plot area is 4914 sq. m. & unit has proposed 620 sq. m area for tree plantation. Existing project cost is Rs. 44.7 Lacs and expected project cost is Rs. 0.30 Lacs. Total water requirement will be 11.9 KL/day (Domestic: 4.5 KL, Industrial: 5.3 KL & Gardening 1.3 KL) and it will be met through GIDC water supply. Industrial waste water generation will be 0.45 KL/day. They have proposed primary treatment plant followed by evaporator for treatment of industrial effluent. Zero discharge will be maintained. Domestic waste water (4.25 KL/day) will be disposed off in to Soak pit system. Unit has provided one TFH (6 Lac Kcal/hr) and one DG set (75 KVA) as stand by facility. Wood/Wood waste (1.75 MT/day) is used as fuel for TFH. HSD (14 ltr./hr) is used as fuel for DG set. Cyclone separator is provided as APCM for TFH. Now unit has proposed to install one TFH (10 Lac K Cal/hr) in place of existing TFH and total fuel consumption will be 2.4 MT/day. Unit has proposed Multi Cyclone separator followed by Bag filter as APCM. ETP sludge & evaporation residue (0.150 MT/Month), Used Oil (0.01 MT/Month), Discarded containers/drum/bags (0.067 MT/Month) and Waste/Residues (0.384 MT/Year) are the hazardous waste to be generated from the proposed production.

Observations & Discussions:

Technical presentation made during the meeting by project proponent. Committee noted that there is no discharge of industrial effluent and entire quantity of waste water generated will be evaporated to achieve Zero discharge. There will be no process gaseous emission from the proposed expansion. Also unit is having valid CC&A of GPCB for existing activity. After detailed discussion, it was decided to recommend the project to SEIAA, Gujarat for grant of Environmental Clearance.

07	Cluster Enviro Pvt. Ltd.	S no. 352,464a,464b,-472,482-486,478-480,489-492,495 Vill. Tranja.s.no.51p,52-55,58-61 of vill. Nagrama matar, Kheda.	Appraisal
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Project / Activity No.: 7 (d)

Project status: New

Chronology of EC Process:

- This project proposed by M/s: Cluster Enviro Pvt. Ltd. (herein after Project Proponent – PP) has submitted Application vide their letter dated 27/05/2014.
- The project was considered for TOR finalization in the meeting of the SEAC held on 28/08/2015.
- Public hearing was carried out by Gujarat Pollution Control Board on 29/05/2015.
- Final EIA Report prepared by San Envirotech Pvt. Ltd. in Association with EQMS India Pvt. Ltd. was submitted project proponent vide their no. NIL dated 22/06/2015.
- During the meeting held on 30/07/2015, the project was appraised based on the information furnished in the EIA Report and the details presented before the committee.
- Technical presentation during the meeting included the Point wise ToR compliance including technical details. Issues raised during the public hearing were discussed in detail. The Committee deliberated upon the issues raised during the Public hearing meeting conducted by the Gujarat Pollution Control Board. The issues were raised regarding benefits to the local villagers due to this project, impact to the ground water, long term effects of the project, affect to the nearby land, water level increase in the area, infrastructure for transportation etc.
- While discussing about the buffer zone of 500 meter from the periphery of the proposed site, PP informed that they will submit the No objection certificates from the surrounding land owners within 500 m adjacent to the boundary of the site. Committee asked to give complete details of

land covered within 500 m buffer area with survey no.s, ownership of the land along with lay out plan. Committee noted that Pariej lake which is located within the 10 KM radius from the proposed site is not covered in EIA study. Committee also took note of a letter received from District Collector & District Magistrate, Kheda vide letter no. GPCB/RO-NAD/PH-15/229/2015 dated 01/06/2015 regarding Wetlands of National Conservation significance of Pariej lake. Committee also noted that the detail of Sarus Cranes – an endangered species in this area is not covered in the EIA report. On asking, PP could not reply satisfactorily. While discussing about the site evaluation criteria, Committee asked to submit flood plain report of this area for 100 years. On asking about accreditation of the consultant, representative of San Envirotech Pvt. Ltd. has informed that San Envirotech Pvt. Ltd. in association with EQMS India Pvt. Ltd. has prepared this EIA report and EQMS India Pvt. Ltd. has obtained accreditation from QCI/NABET for category 7(d). At this, Committee noted that representative from the EQMS India Pvt. Ltd. remain not present during meeting. Also name of the experts involved in preparation of EIA report are not declared in the EIA report and there is no documents regarding the association of two consultants. Committee asked to submit all the relevant details regarding accreditation of the Consultant and undertaking as per the MoEF&CC OM dated 04/08/2009. During presentation representative of EQMS India Pvt. Ltd. During reviewing the EIA report, it was observed that there are so many contradictions in the EIA report. The Committee noted that approach of PP and the Environmental Consultant was casual in preparation of EIA report. After detailed deliberations the Committee sought following additional information for further consideration of the proposal:

1. Submit the EIA report with complete details for following TORs which were found not addressed properly in the EIA report.

TOR no.	Details to be covered in EIA report.
1	Study area shall be 10 KM from the boundary of the proposed project.
2	Page 2-3 & 2-4 of EIA report does not cover the all details as asked in ToR. Give satellite image with exact distance.
3	Method of data preparation is not given. Forest land is not shown in Table no. 3.24. Figure 3.11 is related to Soil sampling. Satellite image is not given.
4	Rejection or Knock out criteria shall be completely covered. Site Investigation and Evaluation, Assigning weightages and scaling, Impact prediction, Impact analysis, Mitigation measures shall be covered as per the CPCB Guidelines (DOCUMENT SERIES HAZWAMS/25/2002-2003)
6	Point wise compliance of all the Guidelines given in the "TGM FOR COMMON HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITIES" published by MoEF&CC shall be submitted.
8	Readable lay out plan with proper demarcation shall be submitted. Also cover 500 m buffer area outside the boundary of the proposed site.
10	Details regarding concept of waste-minimization, recycle/reuse/recover techniques, energy conservation, natural resource conservation, Co-processing etc. Shall be submitted.
12	Details related to transportation of the Hazardous waste shall be covered as per the prevailing environmental laws and guidelines.
13	Detailed manifest system, typical analysis protocol for hazardous waste

	treatment/stabilization, frequency of calibration of weighing machine, system for sampling, testing parameters, analysis methods, time lags, criteria for identifying the wastes which require stabilization prior to the landfill, no. of people, qualifications, manifestation systems, etc shall be covered properly.
14	Statement on adequacy including proposals for accreditation etc. shall be given.
15	Protocol for storing the segregated hazardous waste, compliance to the statutory requirements and proposed safety precautions shall be covered. Point wise compliance of guidelines published by Ministry of Environment Forest (MoEF&CC and CPCB) for designing of the TSDF site shall be submitted.
16 & 17	Detailed information and proposal regarding hazardous waste treatment & Stabilization process along with typical analysis protocol for waste treatment/ stabilization shall be submitted.
18 to 22	Ensure that these points are fully covered as per the prevailing guidelines by MoEF&CC and CPCB.
24	Give complete details with the lay out plan as well as site plan with surrounding roads/walkways.
25	Base line status of the existing traffic, impact on it due to the project activities (prior to construction, during construction and at full site operation), carrying capacity of the existing roads and details of traffic management in and outside the project during construction and operation phase of the project.
26	Give relevant details regarding proposed financial model.
27	Air Pollution Control Measures proposed along with its adequacy, List the sources of fugitive emission from the unit along with its quantification and proposed measures to control it.
28	Details regarding fugitive emissions and VOC shall be covered properly.
29	Handling method and storage area details shall be submitted with period of Storage.
30 & 31	Submit the details as per ToRs.
33 & 37	Justification for (1) Baseline study carried out for 5 KM instead of 10 KM (2) Pariyej Lake is not considered within study area.(3) Information/details of Sarus Cranes is not covered within study area. <ul style="list-style-type: none"> • Floral & Faunal diversity shall be covered properly. • Distances from project site with direction, type of area of sampling locations not shown. • Conclusion for ambient air quality survey is not given.
38	The input parameters used for modeling shall be provided. The air quality contours may be plotted on a location map showing the location of project site, habitation, sensitive receptors, if any. The wind roses should also be shown on this map.
40,41, 43	Ensure that all the Valued Environmental Components (VECs) within 10 KM study area are properly covered. Give specific details for all VECs.
46	Give specific details regarding existing trees and its Planning.
47	Detailed quantification and completed management plan of top soil shall be

	submitted.
48 & 49	Ensure that Table no. 6.1 & 6.2 covering all the parameters/points are as per prevailing guidelines.
50	Cover all the parameters of leachate quality as per prevailing guidelines.
51, 52	Give exact location of the sampling points on satellite image.
59, 60 & 61	Natural hazards and its control measures shall be covered.
69	Documents regarding association of San Envirotech Pvt. Ltd. & EQMS India Pvt. Ltd. to prepare this EIA report. Give documents from concern authority regarding any provision for such type of association is valid.
65	Give specific information for future planning for reuse / recycling of hazardous waste.

2. Clarification regarding discrepancy in survey no.s of proposed site mentioned in Form-1 & EIA report. (As per Form-1 : S. no. 352, 464a, 464b, 465-472, 482-486, 478-480, 489-492, 495 of Village – Tranja & S. No. 52 – 55, 58 – 61 of Village – Nagrama and as per final EIA Report S. No. 466, 467, 468, 469, 470, 471, 472, 474, 475, 476, 481, 482, 484, 485, 486, 489 of Village: Tranja and S. No. 58, 59 of Village Nagrama, Ta.: Matar, Dist.: Kheda. Give land possession documents and NA permission letter from concern authority.
3. Clarification about the survey no. 495 of vill. Tranja, for which owner Shri Rameshbhai Solanki has raised the question, Show the exact location of this survey no. on layout plan.
4. Revised Form-1 & PFR covering all the discrepancies between Form- 1 and EIA report.
5. Technical justification for leachate generation rate. Quantity of leachate generation per day and the characteristic on which leachate generation is based shall also be stated.
6. Stream wise qualitative and quantitative assessment of the wastewater. A detailed treatability study vis-à-vis the adequacy and efficacy of the treatment facilities proposed for the wastewater to be generated.
7. Plan for management and disposal of waste streams to be generated from spillage, leakages etc. Measures proposed for preventing effluent discharge during unforeseen circumstances.
8. Details of the ETP including size of each unit, retention time, other technical parameters etc. and its adequacy and efficacy report.
9. Technical details of MEE including evaporation capacity, steam required for evaporation, adequacy of the proposed boiler to supply steam for evaporation in addition to the steam required for the process etc. Techno-economical viability of the evaporation system. Control measures proposed for the evaporation system in order to avoid/reduce gaseous emission/VOC from evaporation of industrial effluent containing solvents & other chemicals.
10. Undertaking stating that a separate electric meter will be provided for the ETP & MEE.
11. Treated effluent management plan during monsoon season when utilization of treated effluent for gardening & plantation purpose is not feasible. Detailed study report considering Percolation rate of the land available for gardening & plantation. Ensure that land is suitable for plantation & gardening.
12. Installation of weather station to determine wind direction & to maintain wind rose.
13. Soil analysis report of proposed project location at different places covering response level of contaminants including heavy metals. Ensure that there is no threat to ground water quality by leaching of heavy metals and other toxic contaminants.
14. Monitoring program during Post-monsoon season after TSDF becomes operational especially fluctuation of u/g water table with reference to leachate well/wells, air vent

monitoring after closure of the cell, details of deposition of Escrow fund.

15. An undertaking by the Project Proponent on the ownership of the EIA report as per the MoEF&CC OM dated 05/10/2011 and an undertaking by the Consultant regarding the prescribed TORs have been complied with and the data submitted is factually correct as per the MoEF&CC OM dated 04/08/2009. The name of the Consultants / Consultancy firm along with their complete details shall be incorporated in EIA report.
16. Summary & Conclusion as per the generic structure given in Appendix III A of the EIA Notification 2006.
 - PP has submitted point wise reply of above mentioned details vide their letter dated 23/10/2015.

Project / Activity Details:

Cluster Enviro Pvt. Ltd. has proposed to establish a common TSDF (Treatment Storage and Disposal Facility) site in two phases. They will develop site for 6 ha. (Cap.: 540000 MT) in each phases. Total capacity of the site will be 1080000 MT. Life of each cell of landfill will be approximately 5 years to accommodate 540000 Tons of waste. The proposed site is located at S. No. 466, 467, 468, 469, 470, 471, 472, 474, 475, 476, 481, 482, 484, 485, 486, 489 of Village: Tranja and S. no. 58, 59 of Village Nagrama, Ta.: Matar, Dist.: Kheda. The total land area of the proposed site is 12.30 ha (122952 Sq. meter). Total greenbelt proposed is 37500 Sq. meter. Expected project cost is Rs. 23.50 Cr. Out of this total investment @ Rs. 2.5 Crores will be invested for Environmental Management System. Nearest residential area is @ 800 meter from the site. Total water requirement will be 253 KL/day (5 KL for Domestic, 150 KL for Green belt, 3 KL for Laboratory, 5 KL for Water treatment DM, 40 KL for Boiler, 50 KL for Cooling). It will be met through fresh water (53 KL/day) from bore well and condensate water (200 KL/day) from MEE. Total water requirement for construction phase will be 30 KL/day. Waste water generated from the proposed activities will be 241.5 KL/day (4 KL from Domestic, 2.5 KL from Laboratory, 5 KL from Water treatment DM, 5 KL from Boiler, 25 KL from Cooling bleed off & 200 KL from Leachate). Unit has proposed primary treatment plant followed by Multiple Effect Evaporator (MEE) for treatment of effluent generated from leachate and other utilities. Domestic waste water will be disposed off into soak pit system. Treated waste water will be reused for plantation and gardening within premises to develop green belt. There will be no discharge of waste water outside premises. Land fillable Hazardous waste to be accepted by TSDF site will be from the member industries include Chemical, Pharmaceutical, Dyes and Dyes intermediates, Agrochemicals and other allied industries etc. Waste Acceptance Criteria, Manifest System, Transportation of Hazardous Solid Waste from Generation Site to TSDF, Weighing and Sampling of Waste, operational methodology of the proposed TSDF, Leachate Management System, Gaseous Emission Management, Closure and post closure maintenance details for closed cells including vegetative stabilization, Surface Water Drainage System and design of the land fill site will be as per the criteria of prevailing guidelines of MoEF&CC/CPCB. Unit has proposed one 2 TPH steam Boiler and one MEE for evaporation of waste water. Imported coal (15 MT/day) will be used as fuel for Boiler. They have proposed Multi Cyclone and Bag filter as APCM for steam Boiler. Two D. G. Sets (150 KVA & 200 KVA) are proposed to be installed. Hazardous wastes to be generated from their own activities are ETP sludge & MEE salt (75 MT/Month) and used oil (0.5 KL/Year).

Observations/Discussions:

Technical presentation included the point wise compliance. During meeting, Project proponent presented that there is no National park or Wild life sanctuary within the 10 km radius from the proposed project site. Committee noted that there are reported literatures of breeding of Sarus bird and Pariage lake, which is Wetland of National Conservation significance. After elaborate discussion, it was decided to seek the opinion / NOC from the Forests Department with respect to impacts of the proposed Common TSDF site on ecological sensitive areas. After deliberation, It was unanimously decided to consider the project for appraisal only after getting Opinion / NOC for proposed project from the concern

authority.			
08	Nira Life Sciences Pvt. Ltd.	Plot no:6-9,Bamanbore GIDC-Bamanbore, Chotila, Dist.: Surendranagar	Appraisal
<p>Project / Activity No.: 5(f)</p> <p>Project status: Expansion</p> <p>Chronology of EC Process:</p> <ul style="list-style-type: none"> • This project proposed by <u>M/s: Nira Life Sciences Pvt. Ltd.</u> (herein after Project Proponent – PP) has submitted Application vide their letter dated 29/10/2013. • The project was considered for TOR finalization in the meeting of the SEAC held on 28/07/2014. • EIA report prepared by M/s: Bhagwati Enviro Care Pvt. Ltd., Ahmedabad was submitted by project proponent vide letter no. NIL dated 21/03/2015. • The project proponent was called for appraisal of the project in the meeting held on 09/06/2015. During the meeting, the project was appraised as per the prescribed TOR and the information furnished in the EIA/EMP report. • The study period considered for EIA was October 2014 to December 2014. Air quality monitoring was carried out at seven locations. Parameters namely PM10, PM2.5, Sulphur Dioxide (SO₂), Oxides of Nitrogen (NO_x) including HC, CO and VOCs were monitored. The average concentration of all the parameters are within prescribed limit at all locations. ISC-3 (Industrial Source Complex) model has been used to assess the air impacts and it was concluded that the maximum predicted 24 hours GLC(s) of all the pollutants its incremental Concentrations on baseline value are below the NAAQS. Committee noted that PP has not covered baseline study of HCL and HF which are the project specific parameters. Committee asked to submit compliance of relevant TOR regarding baseline study. While discussion about the Public Consultation for the proposed project, Committee informed that project may be exempted from public hearing as per Ministry's O.M. dated 10/12/2014 subject to submission of authenticated documents showing industrial estate has been established by the state prior to 14/09/2006. Average concentration of ambient air quality parameters such as PM10, PM 2.5, SO₂ and NO_x in the surrounding study area are well within the permissible limits as prescribed in the National Ambient Air Quality (NAAQ) Standards. Unit has also included Risk Assessment, Disaster Management Plan, Occupational Health and Safety management in EIA report. Scenarios identified for consequence analysis are release of Thionyl Chloride and release of Toluene. Committee asked to provide Bag filter in addition to multi cyclone separator as air pollution control measures. After detailed deliberations the Committee decided to appraise the project on satisfactory submission of the following: (1) Baseline study for HCL and HF in the study area, Modelling indicating the likely impact on ambient air quality due to proposed activities and likely impacts will have to be assessed for their magnitude in order to identify mitigation measures (2) An authenticated documents showing industrial estate has been Established/Notified by the state prior to 14/09/2006 (3) Detail management plan for Briquettes of Bio-Coal in monsoon season. (4) An undertaking by the Project Proponent on the ownership of the EIA report as per the MoEF&CC OM dated 05/10/2011 and an undertaking by the Consultant regarding the prescribed TORs have been complied with and the data submitted is factually correct as per the MoEF&CC OM dated 04/08/2009. (5) Summary & Conclusion as per the generic structure given in Appendix III A of the EIA Notification 2006. 			

- Additional details was submitted by project proponent vide letter no. NIL dated 15/10/2015.
- The project proponent was called for further appraisal of the project in the meeting held on 27/11/2015.

Project / Activity Details:

This is a existing unit involved in the manufacturing of Magnesium Hydroxide – 10 MT/Month, Potassium Chloride – 10 MT/Month, Potassium Iodide – 10 MT/Month, Potassium Nitrate – 10 MT/Month, Potassium Sulphate – 10 MT/Month and Sodium Sulphate – 24.355 MT as by product. Now they have proposed for expansion by manufacturing following additional products listed with its capacity:

Sr. no.	Name of the Products	Capacity (MT/Month)
1	Closantel	5
2	Gabapentinn	
3	Itopride Hydrochloride	
4	Nitazoxanide	
5	Pregabalin	
6	Rafoxanide	
7	Valproic acid	25
8	Niclosamide	
9	Mefenamic acid	
10	Tinidazole	
11	Ofloxamine	
12	Oxyclozanide	

The proposed activity falls in the project activity 5(f) as per the schedule of the EIA Notification-2006. The proposed project is having land area of @ 4979.78 m². Cost of the proposed expansion will be Rs. 1.93 crores. Total fresh Water requirement will be 18.35 KL/day which will be sourced from supply of GIDC. Industrial effluent @ 6.5 KL/day will be treated in primary ETP followed by MEE (Multi Effect Evaporator) having capacity 500 Liters/hr and domestic effluent @ 1 KL/day will be disposed to soak pit or septic tank. They proposed to install IBR Boiler having capacity of 1 TPH. Bio-coal 1 MT/day will be used as fuel. Unit has proposed MDC as APCM with Boiler. They have also proposed one stand-by D.G. set having capacity 62.5 KVA. Diesel (10 ltr./hr) will be used as fuel in DG set. Process emission will be envisaged from Reaction Vessel with 11 meter stack height. Unit has proposed water scrubber followed by alkali scrubber as APCM for control of HCl, SO₂ and HF. ETP sludge & Evaporation residue (1 MT/Month), Process waste (0.4 MT/Month), Distillation Residue (2.5 MT/Month), Discarded containers (5 MT/Annum), Spent Carbon (13.4 MT/Month) and used oil (15 ltr./Annum) are the hazardous waste to be generated from the project.

Observations/Discussions:

Technical presentation included the point wise compliance of queries raised during SEAC meeting dated 09/06/2015. Unit has carried out baseline study for HCL & HF. Sampling for the month of October 2015 for all the 6 stations for HCL and HF. At all the station it was below detectable level for both the parameters and total process gas emission of HCL & HF will be within the permissible limit. As per the letter from GIDC, Bamanbore GIDC has been Established prior to 14/09/2006. Separate storage facility covering with plastic tarpaulin will be provided for storage of briquetted fuel. PP has submitted an undertaking for the ownership of the EIA report and Consultant has also submitted an undertaking regarding the compliance of prescribed TORs & factually correctness of the data are submitted. Revised summary & conclusion is submitted. Committee noted that project proponent has not shown complete management of By-products. After deliberation, It was unanimously decided to consider the project for further consideration only after submission of the following:

1. Complete Management plan for By-products/Spent acids to be generated from the project including their quantity, quality, characteristics, end use etc. along with the name and address of end consumers to whom the by-product will be sold. Copies of agreement / MoU / letter of intent from them, showing their willingness to purchase said by-product from the proposed project. Also give characteristics of the by products and feasibility of their actual use in respective products as a raw material.

09	Birla Cellulosic	S.No.155-181, 183, 184,202,205,219, Birladham, Kharach, Kosamba (R.S.), Dist:Bharuch	Appraisal
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Project / Activity No.: 5(d) & 1(d)

Project status: Expansion

Chronology of EC Process:

- This project proposed by M/s: Birla Cellulosic (A Unit of Grasim Industries) (herein after Project Proponent – PP) has submitted Application vide their letter dated 13/06/2012.
- Initially PP had proposed to set up a new Birla Excel Plant having capacity to produce 36500 tons per annum of Solvent Spun Cellulosic Fibre. Birla Cellulosic is an existing unit engaged in manufacturing of Viscose Staple Fibre and located at Kharach, Kosamba (R.S.), Dist. Bharuch. No additional land acquisition is required as proposed Birla Excel Plant will be set up in the existing premises of Birla Cellulosic.
- The project was taken up in the SEAC meeting held on 24/07/2012. During the meeting held on 24/07/2012, the committee found that Rayon Grade Pulp is used as a raw material to produce Solvent Spun Cellulosic Fibre and the difference in conventional process to produce Viscose Staple Fibre and proposed Solvent Spinning Technology to produce Solvent Spun Cellulosic Fibre is in terms of use of NMMO / IL instead of CS₂ & H₂SO₄. At this, the project proponent quoted that the final product Solvent Spun Cellulosic Fibre has different characteristics than the Viscose Staple Fibre. However, considering that the main raw material used to produce Solvent Spun Cellulosic Fibre is Rayon Grade Pulp, the committee felt that though the proposed Solvent Spinning Technology is cleaner technology to produce Cellulosic Fibre, it should be considered as Rayon manufacturing activity which falls under Category A of the project / activity no. 5(d) in the schedule of the EIA Notification, 2006 and hence prior environmental clearance is required to be obtained from the EIAA at the Ministry of Environment and Forests (MoEF). After detailed discussion, the project proponent was asked to approach EIAA / EAC at the MoEF for getting the prior environmental clearance for the project in question. The project proponent was asked not to start any project activities until prior environmental clearance is obtained from the concerned authority. After detailed discussion, it was decided to close the file of this unit and to drop the project from the list of pending applications seeking prior environmental clearance.
- The project proponent again approached SEAC with a proposal of setting up of solvent spun cellulosic fibre plant with a production capacity of – 1,09,500 TPA and coal based Captive Power Plant of 71 MW capacity within the existing premises of Birla Cellulosic plant at Kharach. The proposed activities fall in the project/activities 5(d) and 1(d) respectively.
- The project was considered for TOR finalization in the meeting of the SEAC held on 11/06/2013 based on the fact that their another solvent spun cellulosic fiber plant at Village Mehatwas, Tehsil Nagda, Dist: Ujjain, Madhya Pradesh was appraised by EAC at MoEF in its meeting held on 29th July, 2011 considering that all the solvent spun cellulosic fibre plants listed at S.No. 5(d) under Category 'B' but due to non-existence of SEIAA/SEAC in Madhya Pradesh the project was categorized as 'A' and appraised at Central level.
- Clearance as per the provisions of the CRZ Notification-2011 is not required as per the opinion obtained from Gujarat Coastal Zone Management Authority by SEAC in case of Reliance Hazira Manufacturing Division which stated that in case of effluent discharge quantity is not exceeding

the designed capacity of the pipeline, which is already laid, permission under the CRZ Notification, 2011 is not required.

- TOR was prescribed for the EIA study to be done covering 10 Km radius from the project boundary.
- Public hearing was carried out by Gujarat Pollution Control Board on 15/05/2015.
- EIA Report prepared by NEERI was submitted by project proponent vide letter dated 29/05/2015.
- During the meeting held on 28/07/2015, the project was appraised based on the information furnished in the EIA Report and the details presented before the committee.
- Technical presentation during the meeting included the Point wise ToR compliance including technical details. Issues raised during the public hearing were discussed in detail.
- The baseline water and soil quality has been assessed in the post-monsoon season (October – November, 2013) and the baseline air quality and noise has been assessed in the winter season (December 2013, January – February, 2014) in a study area covering 10 km radius around the plant site. The micro-meteorological data during the winter season (December 2013, January – February, 2014) were collected. During the study period, pre dominant wind speed is from NW and NNW directions with speed ranging between 0.5 and 2.5 m/s. Six AQM locations were selected for baseline study of the area. The 24 Hourly average background concentration of PM₁₀, PM_{2.5}, Oxides of Nitrogen (NO_x), Sulphur dioxide (SO₂), Ammonia (NH₃), Carbon Monoxide (CO), VOCs (mainly hydrocarbons), Ozone, and industrial specified parameter such as H₂S and CS₂ were monitored at all the locations.
- The average PM₁₀ concentrations at all the locations varied in the range of 63-143 µg/m³. All the levels were observed within the stipulated CPCB standards except at coal handling area due to Crushing of coal and at Kosamba because of road construction activity. Baseline ambient air quality in terms of all other parameters was found within the limits specified by National Ambient Air Quality standards. The Industrial Source Complex – Short Term Version 3 (ISCST-3) model has been developed to simulate the effect of emissions from point sources on air quality. The cumulative levels of the pollutants (Baseline air quality + the maximum incremental GLCs) indicate that the ambient air quality shall be well below the NAAQS given by CPCB with respect to SO₂, NO_x and PM₁₀ except for particulate matter at few locations in the study area. Issues related to public hearing, CSR activities, E-waste management, CS₂ recovery in existing plant, CEMS, complaint redressal system, SO₂ control from the Boiler stack, fly ash management etc. During the reviewing of the EIA report, it was observed that details related raw materials and chemical reactions of unit processes, permission for supply of increased quantity of raw water, mass balance along with qualitative and quantitative analysis of each waste stream, effluent treatability & adequacy report for ETP, technical details of MEE & RO system, Micro meteorological data (Relative humidity), Input parameters used for the modeling, air quality contours, details of steam boilers with stack for each power plants, source of the fuel, confirmed fuel linkage, Transportation, storage & handling of fuel, fugitive emission details, Provision of online monitoring for waste water, impact of the project expansion on local infrastructure of the area, Hazardous waste management, details regarding fly ash management, Occupational health, CREP compliance, Copies of notices served by GPCB and its compliance report, copy of EC and its certified compliance report by RO of the MoEF, system of reporting of non-compliances/violation of environmental norms (Reporting mechanism), tabular chart regarding public hearing issues and action plan to address the issues etc. were not covered properly in the EIA report. It was also observed that data regarding Relative humidity is not shown in the EIA report. After detailed deliberations the Committee sought following additional information for further consideration of the proposal: (1) Submit the complete details for following TORs which were found properly not attended in the EIA report.

TOR no.	Details to be submitted
3	Readable copy of Plant lay out.
5 & 6	The source of the basic raw material rayon grade pulp, manufacturing process including chemical reactions of unit processes and complete mass balance.
7	Permission obtained for supply of increased quantity of raw water. Undertaking stating that no bore well shall be dug within the premises.
8	Detailed mass balance and water balance (including reuse-recycle) along with qualitative and quantitative analysis of the each waste stream to be generated from all the sources like process, boiler, cooling tower etc. and disposal plan for each waste stream to be generated.
10	A detailed effluent treat ability study vis-à-vis the adequacy and efficacy of the treatment facilities proposed for the wastewater to be generated from the proposed activities along with adequacy and efficacy report. The characteristic on which treatability is based shall also be stated.
15	Technical details of the proposed R.O. and MEE to be installed as a part of the effluent treatment scheme.
16	One season site-specific meteorological data - Relative humidity
17	Justification regarding AAQ stations within 5 KM only though the study area is 10 KM.
18	Input parameters used for modelling should be provided. The air quality contours may be plotted on a location map showing the location of project site, habitation, sensitive receptors, if any. The wind roses should also be shown on this map.
19	Quantity of the fuel requirement, its source and transportation, storage, handling and management along with the environmental management to be adopted for this. Fuel analysis to be provided (sulphur, ash content and heavy metals including Pb, Cr, As and Hg).
20	A confirmed fuel linkage along with the supportive documents of long term supply of coal for the project requirements should be provided.
21 & 22	Details of steam boilers with stack for each power plants (for 56 MW and 15 MW CPP), APCM details with its adequacy Transportation, storage & handling management of fuel, fugitive emissions and its mitigation measures.
23	Online monitoring system for stacks as well as waste water discharge system. Time bound programme for installation of the same.
24	Complete details of impact of the project on local infrastructure of the area.
25 & 26	Complete details of hazardous waste generation along with its source, quantity, storage and disposal.

28	Complete details regarding fly ash management.
42	Complete details of rain water harvesting.
43	Plan for compliance of the EP Rules and CREP guidelines for the proposed power plant.
44	Copy of valid CC&A and its Point wise compliance report.
45	Copies of notices served to your existing unit and its compliance report.
46	Copy of EC for existing unit and Certified copy of EC compliance report from Regional office of MoEF&CC.
48 & 49	Details of the hierarchical system or administrative order of the company, System of reporting of non-compliances/violation of environmental norms (Reporting mechanism), tabular chart regarding public hearing issues and action plan to address the issues
50	Tabular chart regarding public hearing issues and action plan to address the issues

(2) Details of management of the hazardous wastes to be generated from the project stating detail of Source of generation, storage area for each type of waste, its handling and its disposal. Methodology of de-contamination and disposal of discarded containers and its record keeping. Explore the possibilities for Co-Processing of the Hazardous waste as well as non-hazardous wastes prior to disposal into TSDF/CHWIF. (3) Give clarification regarding Disposal method of tow waste is Burning in the Boilers (Page no. -188). (4) An undertaking by the Project Proponent on the ownership of the EIA report as per the MoEF&CC OM dated 05/10/2011 and an undertaking by the Consultant regarding the prescribed TORs have been complied with and the data submitted is factually correct as per the MoEF&CC OM dated 04/08/2009. (5) Summary & Conclusion as per the generic structure given in Appendix III A of the EIA Notification 2006.

- PP has submitted point wise reply of above mentioned details vide their letter dated 23/10/2015.

Project / Activity Details:

Project proponent has proposed for setting up of solvent spun cellulosic fibre plant with a production capacity of 1,09,500 TPA and coal based Captive Power Plant of 71 MW capacity within the existing premises of Birla Cellulosic at Kharach, Tal – Hansot, Dist Bharuch. The proposed activity falls in the project/activities 5(d) and 1(d). Project proponent has developed a new Solvent Spinning Process for production of Cellulosic Fibre after extensive research. The proposed “Solvent Spinning Technology” for production of cellulosic fibres employs N-Methyl Morpholine N-Oxide (NMMO)/ Ionic Liquid (IL) as a direct solvent for cellulose. There are three processing stages in this process viz. (i) Producing a homogeneous solution from pulp, NMMO/ Ionic Liquid and water, (ii) Fibre forming/spinning process and (iii) Recovery of NMMO/ Ionic Liquid from the regenerating and washing baths. It was presented that the proposed technology for production of Cellulosic Fibre is environment friendly than the conventional process in terms of (i) No use of Hazardous Chemicals in the process i.e. CS₂, H₂SO₄, (ii) Solvent used for dissolving pulp and regeneration of fibre is environmental friendly and around 99.5% of this solvent is recovered and reused in the process, (iii) No point source of gaseous emission and (iv) Product is easily biodegradable. The water consumption for the cellulosic fibre plant and new CPP will be about 12,069 KL/day. Water requirement of 8,750 KL/day will be obtained from Kim River and balance water requirement will be met through recycled water from RO. Out of the total effluent generation of 7,149 KL/day, 4,149 KL/day will be fed to R.O. and balance 3000 KL/day will be treated in the ETP comprising

of primary and secondary treatment facility. R.O permeate - 3,319 KL/day will be reused back in the process and R.O reject (830 KL/day) will be subjected to MEE (Cap. 28 m³/day). MEE salt will be disposed to the TSDF BEIL-Ankleshwar. The treated water from ETP will be discharged into the Kim estuary through 24 km long existing pipeline. The anticipated treated effluent quantity will not exceed 14500 KL/day (existing 11500 KL/day and proposed 3000 KL/day). The industry has an existing effluent treatment facility comprising primary settling followed by extended aeration activated sludge process designed for treatment of 24000 KL/day of wastewater generated from the existing process operations. Unit has proposed one Steam Boiler (100 TPH capacity) for 15 MW CPP and 4 Steam Boilers (Capacity 12 TPH each) for 56 MW CPP. The total coal requirement will be about 2130 MT/day (Mixed fuel - 50% imported and 50% indigenous) for CPP. The ash content of the imported coal will be about 10-15% and that of indigenous coal is 35-40%. Or weighted average of ash content would be 25%. The fly ash generation is envisaged to be about 533 TPD. The sulphur content of the imported coal will be 1.2% and indigenous 0.5% by weight, thus the weighted average of sulphur shall be 0.85%. Currently Birla Cellulosic has online continuous monitoring system for monitoring SO₂ and NO_x. Similar online continuous monitoring system will be installed in the proposed plant. Hazardous waste to be generated from the proposed activity will be ETP sludge, spent oil, Used resin, Tow waste (Cellulose) & MEE salt.

Observations/Discussions:

Technical presentation made during the meeting by project proponent. Unit has submitted copy of Plant lay out, Raw material details, copy of request letter to irrigation department for additional water requirement, Technical details of the proposed R.O. and MEE, details of steam boilers for each power plant, EMS adequacy certificate from DDU, Nadiad for existing as well as for proposed project, Detailed mass balance and water balance, Copy of agreement for fuel linkage, details of online monitoring system, details of impact of the project on local infrastructure of the area, details regarding hazardous waste management, Fly ash management and rain water harvesting, compliance of CREP, CC&A, EC and Certified copy of EC compliance report from Regional office of MoEF&CC, Tabular chart regarding public hearing issues and action plan to address the issues. During the meeting Committee emphasized on CSR, drip irrigation system for green belt development. Committee noted that the proposed new process is environmental friendly with no air emissions & without use of any hazardous chemicals in main process and water consumption is very low as against conventional technology. Also, ESP is proposed as APCM for Boilers of CPP. After detailed discussion, it was decided to recommend the project to SEIAA, Gujarat for grant of Environmental Clearance.

10	Ahir Salt & Allied Products Pvt. Ltd (Amendment)	Survery No .573 Paiki on K.K Road, Mithirohar, Gandhidham ,Kutch, Gujarat	TOR amendment
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Project / Activity No.: 7 (e) and 6 (b)

Project status: New

Chronology of EC Process:

- M/s: Ahir Salt & Allied Products Pvt. Ltd (herein after Project Proponent – PP) has submitted application vide their online proposal no.SIA/GJ/MIS2/2313/2015 for amendment in ToR
- Earlier project proponent was issued TOR during the screening & scoping of the project for revival of existing Jetty at Mithirohar near Kandla, Gandhidham, Kutch in the SEAC meeting held on 19/05/2015.

Project / Activity Details:

In consequence to the application made for obtaining Environmental Clearance by Ahir Salt & Allied Products Pvt. Ltd. (ASAPPL) for revival of existing Jetty with back up storage area at Mithirohar near Kandla, Gandhidham, Kutch, the project was taken up in the meeting of SEAC held on 19/05/2015 and Terms of Reference were issued for carrying out EIA study.

The project proponent vide proposal no. SIA/GJ/MIS/2313/2015 dated 19/09/2015 submitted revised

Form I & Prefeasibility report for amendment in TOR issued to them for revival of existing jetty falling under the project activity 7(e) as per the schedule annexed with the EIA Notification – 2006.

The project proponent along with their expert / consultants remained present during the meeting.

During the meeting, it was presented that they are now planning to establish 24579 KL of liquid storage terminal with 14 nos. of tanks for chemicals such as Class A or Class B or Class C or Unclassified chemicals, Crude oil, Fuel oil, LPG, Motor spirit, Kerosene, Aviation fuel, HSD, Lubricating oil, Butane, Propane, Compressed Natural Gas, Naphtha, Furnace oil, Low Sulphur Heavy Stock etc. Proposed activity of storage terminal falls in the project activity 6(b) as per the schedule annexed with the EIA Notification 2006.

During the meeting, after deliberation on various aspects, the committee asked the project proponent to consider model TORs mentioned in the MoEF&CC's Technical Guidance Manual (TGM) for Isolated storage and handling of hazardous chemicals as well as the following additional TOR in the EIA for the proposed storage terminal in addition to the TOR prescribed for revival of existing jetty during the earlier meeting held on 19/05/2015:

1. Need for the proposed expansion shall be justified in detail.
2. Layout plan of the factory premises showing location of the proposed storage tanks. Provision of separate entry & exit and adequate margin all round the periphery for unobstructed easy movement of the emergency vehicle / fire tenders without reversing back. Mark the same in the plant layout.
3. Exact details on the name and quantity of chemicals to be stored in the proposed tanks.
4. License from Petroleum & Explosive Safety Organization (PESO) for tanks / products.
5. Clear distance around the proposed storage tanks and various other safety features inbuilt in the design. Design / construction aspects of the storage tanks and its compliance with Oil Industry Safety Directorate standards.
6. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the project as well as likely impact on ground water in the area.
7. Plans for management and disposal of waste streams to be generated from spillage or leakage of tanks, occasional tank washing etc.
8. Characteristics of untreated and treated wastewater. A detailed effluent treat ability study vis-à-vis the adequacy and efficacy of the treatment facilities.
9. Details of the ETP units including its capacity, size of each unit, retention time, other technical parameters and its adequacy to carry additional effluent load due to proposed expansion. Mode of disposal of treated wastewater.
10. Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes. Specific measures proposed to conserve water.
11. Specific details of (i) Process emission from the storage tanks with its quantification, (ii) Air pollution Control Measures proposed with technical specifications (iii) Adequacy of the air pollution control measures to achieve the GPCB Norms (iv) Air pollution due to the sand /grit blasting operation (if any).
12. Action plan to eliminate the vapour emission to atmosphere & vapour recovery during tanks filling as well as truck loading operation through scrubber units.
13. Specific safety details / precautionary measures proposed for VOC's in the plant / storage yard / warehouse/ including ventilation aligned in the natural wind direction.
14. Details of the D.G. sets with location, fuel consumption & storage and details of the acoustic measures to abate noise pollution.
15. Impact of the proposed storage facility on local infrastructure of the area such as on road network due to transportation of chemicals. Whether any additional infrastructure is required to be constructed and the agency responsible for the same with time frame.
16. Membership of Common Environmental Infrastructure like TSDF / CHWI along with an assessment to accommodate the additional quantity of wastes to be generated due to proposed augmentation.

17. Occupational health impacts on the workers and mitigation measures proposed to avoid the human health hazards along with the personal protective equipment to be provided to the workers. Provision of industrial hygienist and monitoring of the occupational injury to workers as well as impact on the workers. Plan for periodic medical check up of the workers exposed. Details of work zone ambient air quality monitoring plan as per Gujarat Factories Rules.
18. Details of breather valves to be provided to the proposed storage tanks. Is Nitrogen blanketing necessary? If not, why?
19. Details of engineering / management controls, if any proposed, such as: (1) Leak detection and repair (LDAR) system (2) A dedicated Fire Department with fire tenders, specialized fire fighting equipment and experienced manpower (3) Entire operation of the storage installation through Central Control System (4) Adoption of best practices for movement and decanting of tankers in co-ordination with suppliers. (5) Dyke wall provision (6) Safe / Clear distance around the tanks (7) flame proof fitting as per Indian Standards (8) Zero Tolerance policy adoption (9) Provision of On Site Emergency Control Plan with regular mock drills (10) Provision of fencing, sensors, alarms, remotely operated valves etc.
20. Elaborate safety measures for chemical handling and transfer between the storage tanks and the port terminal as well as for chemical transfer from storage terminal to clients.
21. Plan for evacuating material and people through trained personnel during the emergency situations like ship collision / grounding.
22. Details of hazardous characteristics of materials to be handled and the control measures proposed to ensure safety and avoid the human health impact.
23. Details on quantity of each hazardous chemical to be stored, material of construction of storage tanks, threshold storage quantity as per schedules of Manufacture, Storage & Import of Hazardous Chemicals Rules.
24. Details of hazardous processes and their engineering controls.
25. Details of the Hazop study which should include the worst-case scenario of pressure explosion.
26. Detailed risk assessment report including identification of the most hazardous activity, its sub activity, prediction of the worst-case scenario and maximum credible accident scenario related to the proposed storage tanks should be carried out along with damage distances and preparedness plan to combat such situation and risk mitigation measures. The worst-case scenario should take into account the maximum inventory of storage at site at any point in time. The risk contours should be plotted on the plant layout map clearly showing which of the activities would be affected in case of an accident taking place. Based on the same, proposed safeguard measures including On-Site / Off-Site Emergency Plan, updated in respect of proposed augmentation, should be provided.
27. Details of fire fighting system at the jetty as well as storage unit including provision for flame detectors, temperature actuated heat detectors, location of fire water tanks & capacity, separate power system for fire fighting, automatic sprinkler system, fire detection system with alarms & automatic fire extinguishers, toxic gas detectors, fire / foam tenders, location of fire lift and fire retardant staircases, details of qualified and trained fire personnel & their job specifications, nearest fire station & time required to reach the proposed site, etc. Submit line diagram of the fire hydrant line passing through the plant premises.
28. Proposal for socio-economic development activities including community welfare program most useful in the project area for the overall improvement of the environment. Submit a detailed plan for social corporate responsibilities, with appropriate budgetary provisions for the next five years and activities proposed to be carried out; specific to the current demographic status of the area.

The draft EIA report shall be submitted to the Gujarat Pollution Control Board for conducting the public consultation process as per the provisions of the EIA Notification, 2006. The project shall be appraised on receipt of the final EIA report.

11	Aries Colorchem Pvt. Ltd	P.No.Z-29 &30 Dahej SEZ, Dahej, Vagra, Dist.: Bharuch	Screening & Scoping
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Project / Activity No.: 5 (f)

Project status: Expansion

Chronology of EC Process:

- This project proposed by M/s: Aries Colorchem Pvt. Ltd. (herein after Project Proponent – PP) has submitted Application vide their letter dated 17/04/2014.
- The project was considered in the SEAC meeting held on 28/07/2015.
- During the meeting, On asking about the compliance of existing activities and violation of environmental laws, PP informed that GPCB has served two closure notices and they have taken actions to mitigate the same. Issues related to existing green belt development, Occupational health check up, safety precautions for Oleum, Ammonia and other toxic chemicals etc. have been discussed. Committee noted that, PP has not shown the proper management of spent acids which is the major concern in products like Dyes Intermediates.
- It was also observed that PP has not workout complete segregation scheme based on characteristics of the waste water generated from different products/plants. Committee took this seriously as PP has not presented actual scenario for such products like H-acid & other Dyes intermediates having high pollution potential. Committee asked to submit revised Form-1 with all such details considering manufacturing of products having high pollution potential at maximum possible production capacity along with its EMS. After detailed deliberations, It was unanimously decided to consider the project for TOR/Scoping only after submission of the following:
 1. Revised Form-1 with all relevant details/corrected data and PFR.
- PP has submitted revised Form-1 and PFR dated 13/10/2015.

Project status: Expansion

Project / Activity Details:

This is existing unit engaged in manufacturing of Synthetic Organic Chemicals i.e. Dyes and dyes intermediates and now proposes for expansion as tabulated below:

Sr. No.	Name of Product	Quantity (MT/Month)		
		Existing	Proposed	Total
Dyes Production:		1800	0	1800
Dye Intermediates Production				
1	FC Acid	100	0	100
2	DASA	100	0	100
3	4-NADPSA	25	0	25
4	Gamma Acid	0	25	25
5	4-NAP	0	5	5
6	4-NAPSA	0	5	5
7	H Acid	0	150	150
Total:		225	185	410

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Plot area is approx. 34899 sq.m. At present green belt/tree plantation area is 2360 sq. m and now unit has proposed additional 8200 sq. m area for tree plantation and green belt area development. Estimated

cost of proposed expansion is Rs. 30.10 Crores. Fresh water requirement after proposed expansion will be increased from 237 KL/day to 374 KL/day (5 KL Domestic, 367 KL Industrial & 2 KL Gardening) which will be supplied by the GIDC. At present w/w generation from Dyes manufacturing and Dyes intermediate plant is 108 KL/day and 109 KL/day (High COD-40 KL & Low COD 69 KL) resp. Wastewater generation after the expansion will be increased from 221 KL/day [217 KL/day industrial + 4 KL/day domestic] to 331.5 KL/day [327.5 KL/day industrial + 4 KL/day domestic]. W/w generation from proposed Dyes intermediate plant will be 110.5 KL/day (Low Conce. 20 KL & High Conc. 90.5 KL). Domestic waste water (4 KL/day) will be disposed off into septic tank/soak pit system. At present unit has provided Primary, Secondary and Tertiary treatment plant and MEE plant for treatment of effluent generated from the dyes and dye intermediate products. Treated effluent goes to GIDC drainage line for Sea disposal. Unit has proposed ETP followed by MEE and Spray dryer for effluent to be generated from the proposed expansion. At present Natural gas (16000 SCM/Hr) is used in three Boilers. One DG set (250 KVA) is installed for emergency purpose in which HSD (30 ltrs/hr) is used. Unit has proposed one steam boiler (8 TPH) and one TFH (4 Lac Kcal/hr). Coal (7 MT/day) or LDO (2.6 MT/dy) or FO (2.7 MT/Day) will be used as fuel for proposed Boiler and natural gas (400 SCM/day) will be used as fuel for proposed TFH. Bag filter & wet scrubber is proposed as APCM for proposed Boiler. At present cyclone separators are provided with 4 no.s of Spray Dryers. Water scrubber followed by Caustic scrubber is provided with existing Sulphonation reaction vessel to control process emissions like HCl, SO₂ & Cl₂. Unit has proposed Cyclone separator with Spin Flash Dryer (SFD) and Water scrubber followed by Caustic scrubber with proposed reaction vessel as APCM. Hazardous waste to be generated are ETP waste (1440 MT + 590 MT = 2030 MT/Year), MEE salt (3 MT + 7 MT = 10 MT/Year), Gypsum sludge (0 + 13230 MT = 13230 MT/Year), Iron sludge (2820 MT + 2454 MT = 5274 MT/Year), Discarded containers (6 MT + 12 MT = 18 MT/Year) and Used Oil (0.5 KL + 0.5 KI = 1 KL/Year). ETP waste, MEE salt, Iron sludge and Process waste will be disposed off at the common TSDF site of BEIL, Ankleshwar. Discarded barrels / containers / bags / liners will be either reused or returned back to suppliers or sold only to the authorized vendors after decontamination. Used oil will be sold only to the registered recyclers.

Observations/Discussions:

Technical presentation made during the meeting by project proponent. While discussing about the treatability of the concentrated effluent after MEE, PP replied that it will be evaporated through Spray dryer. Committee noted that the content of H-Acid effluent comprises of high COD having refractive COD which shall be disposed through thermal decomposition at high temperature. Spray drying includes temperature profile of 250 deg. C to 400 deg. C and under prevailing temperature profile the thermal decomposition does not take place instead transformation of the phase occurs resulting evaporation of vapour of high COD effluent into the ambient air polluting ambient air quality. Committee also discussed about the handling of spent acid and deliberated that there is no infrastructure available to handle spent sulphuric acid generated from such products. After deliberation, committee asked PP to come with the proposal with sound environment management plan. Considering the above facts, it was unanimously decided to consider the project for TOR/Scoping only after submission of the following:

- Revised proposal with Revised Form-1 & relevant details.

12	Friends Concast Limited	Plot no- 135,133, Kerala, Ta.: Bavla, Dist.: Ahmedabad	Screening & Scoping
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Project / Activity No.: 3(a)

- M/s: Friends Concast Limited (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND/1913/2015 dated 08/09/2015.

Project status: Expansion

Project / Activity Details:

This is an existing unit engaged in the manufacturing of MS, SS Ingot/ Billets / Slab/Bloom. The unit now proposing the expansion with increase in production capacity from existing 2350 MTPM to 10,000 MTPM i.e effective increase of 7650 MTPM.

The project falls under Category B of project activity 3(a) as per the schedule of EIA Notification 2006. Total plot area is 22,764 sq. m (8,094.0 sq m existing + 14,670.0 sq m proposed) & unit has proposed 7,500 sq m area for the green belt development/Tree plantation. Expected project cost is Rs.14.4 Crores (Rs. 4.8 Crores existing + Rs. 9.8 Crores proposed). Basic raw materials are MS scrap and Sponge iron. However, they will use metal like zinc, copper, nickel, chromium etc. in pure form. Fresh water requirement after proposed expansion will be increased from 27 KL/day to 92.5 KL/day (12.5 KL Domestic, 58 KL Industrial & 22 KL Gardening). Source of water will be bore well water. There is no industrial waste water generation in case of the existing as well as after proposed expansion of the unit. Domestic wastewater generation after the expansion will be increased from 1.6 KL/day to 10.0 KL/day. Domestic waste water will be disposed off into septic tank/soak pit system. At present unit has provided one Induction furnace with Suction hood, Cyclone separator followed by Bag filter as APCM. Now unit has proposed to install one Induction furnace, one Ladle Refining furnace and one AOD. All the furnaces i.e existing Induction furnace & proposed Induction furnace, Ladle Refining furnace and AOD run on electricity. Unit has proposed Suction hood, Cyclone separator followed by Bag filter as APCM for proposed furnaces. Existing D.G.set of 100 KVA using HSD at the rate of 30 lit/hr will be used even after the proposed expansion. Hazardous waste to be generated are Used oil (0.1 MTPA) and process slag 120 MTPA (40 MTPA existing & 80 MTPA proposed) will be generated after the proposed expansion. Used oil will be used as lubricant in plant machinery or will be sold to registered recycler. Process slag will be used in road making.

Observations/Discussions:

The presentation by the project proponent included general information about the project, satellite image of project site, plant layout, key plan, product & Raw materials, Water requirement, APCM, manufacturing process proposed Terms of Reference (TOR), etc. During the meeting, while asking by the committee about ground water abstraction, PP informed that they will take permission from CGWA. Committee concern about fugitive dust emission from the proposed activity and asked to provide adequate APCM and to develop green belt along the periphery of the boundary. After deliberations on various aspects of the proposed expansion, the TOR proposed by the project proponent were accepted and the project proponent was asked to include the following additional TOR for the EIA study to be done covering 5 km radius from the project boundary of the proposed site :

1. Need for the proposed expansion should be justified in detail.
2. Demarcation of proposed expansion activities in lay out of the existing premises.
3. Exact details about additional infrastructural facilities, plant machineries etc. required for the proposed expansion.
4. Project site specific details such as distance of the project site from the nearest (1) Village (2) lake / pond / reservoir / canal (3) National Highway (4) State Highway (5) Railway line (6) Heritage site (7) National Park/Sanctuary/Reserve Forests shall be included in the rapid EIA report to be prepared covering one season (other than monsoon) data.
5. Present land use pattern within 5 km radius from the project boundary based on satellite imagery.
6. Provision of separate entry & exit and undertaking for the same. Provision of adequate margin all round the periphery for easy unobstructed movement of fire tender without reversing.

7. Technical details of Induction Furnaces including its cooling and interlocking systems alongwith drawing of the induction furnace. Details of Air Pollution Control Measures proposed for Induction Furnace along with its adequacy. Details of specific measures to ensure that emission from the Induction Furnace will not escape from the furnace in form of fugitive emission bypassing the air pollution control system.
8. Characteristics of MS scrap to be purchased as a raw material in terms of presence of foreign material like plastic, rubber, dirt, oily residues, paint etc. Details of scrap cleaning / sorting process, if any to be carried out, for removal of foreign materials.
9. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the project expansion. Permission from concern Authority.
10. Detailed water balance (including reuse-recycle, evaporation if any).
11. Specific measures proposed to conserve water and plans for the future in this regard.
12. Detailed cleaner production measures like energy efficiency in the furnaces to reduce emissions if possible in the proposed project & commitment of the management on futuristic development / implementation for the same.
13. Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes.
14. Generation, characteristics and mode of disposal of wastewater in existing and proposed scenarios. Details of the wastewater treatment facilities, if any proposed, including its capacity, size of each unit, retention time and other technical parameters along with adequacy and efficacy report.
15. One season Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be incorporated.
16. Anticipated environmental impacts due to the proposed project/production may be evaluated for significance and based on corresponding likely impacts VECs (Valued Environmental Components) may be identified. Baseline studies may be conducted within the study area of 5 km for all the concerned/identified VECs and likely impacts will have to be assessed for their magnitude in order to identify mitigation measures.
17. One complete season base line ambient air quality data (except monsoon) to be given along with the dates of monitoring. The parameters to be covered shall be in accordance with the revised National Ambient Air Quality Standards as well as project specific parameters. Locations of the monitoring stations should be so decided so as to take into consideration the pre-dominant downwind direction, population zone and sensitive receptors. There should be at least one monitoring station in the upwind direction. There should be at least one monitoring station in the pre dominant downwind direction at a location where maximum ground level concentration is likely to occur.
18. Modeling indicating the likely impact on ambient air quality due to proposed activities. The details of model used and input parameters used for modeling should be provided. The air quality contours may be shown on location map clearly indicating the location of sensitive receptors, if any, and the habitation. The wind rose showing pre-dominant wind direction should also be indicated on the map. Impact due to vehicular movement shall also be included into the prediction using suitable model. Results of Air dispersion modeling should be superimposed on google map / geographical area map.
19. Specific details of (i) Details of the furnaces & utilities required, including Coal Gasifier (ii) Type and quantity of fuel to be used in each furnace and utility (iii) Gaseous emission from each furnace and utility (iv) Air pollution Control Measures alongwith its adequacy to achieve the GPCB Norms (v) Flue gas emission rate from each utility (vi) List the sources of fugitive emission from the unit along with its quantification and proposed measures to control it.
20. Design of the Air Pollution Control Measures to be provided shall be evaluated through the institutes like NPC/LDCE or institutes of such repute.

21. Explore feasibilities to obtain supply of natural gas for switching over to natural gas from coal in existing Furnace and to adopt natural gas as a fuel in proposed new furnaces.
22. Details regarding D.G. sets including its capacities, location, fuel consumption & storage and acoustic measures to abate noise pollution.
23. Base line status of the noise environment, impact of noise on present environment due to the project and proposed measures for noise reduction including engineering controls.
24. Details of generation and management of the hazardous wastes to be generated from the project stating detail of storage area for each type of waste, its handling and its disposal. Details of slag generation, its quality and method of disposal / reuse in various applications. How spillages / leakages of used oil shall be managed.
25. A detailed EMP including the protection and mitigation measures for the impacts on human health and environment as well as detailed monitoring plan. The EMP should also include the concept of waste-minimisation, recycle/reuse/recover techniques, energy conservation, and natural resource conservation. Total capital cost and recurring cost/annum earmarked for environment pollution control measures. Environmental management cell proposed for implementation and monitoring of EMP.
26. Environment Management Cell equipped with air laboratory and qualified environment engineer shall be established.
27. Occupational health impacts on the workers and mitigation measures proposed to avoid the human health hazards along with the personal protective equipment to be provided to the workers. Detailed work area monitoring plan. Plan for periodic medical examinations of the workers exposed.
28. Detailed work area monitoring plan. Details of activity wise hazards, likely heat stress to the workers, radiation heat level in and around the furnaces, measures proposed for reduction of heat stress around furnaces and for safe handling of the molten metal considering the provision of the Gujarat Factories Rules. Details of automated systems to be provided to avoid manual handling / conveyance of materials.
29. Detailed risk assessment report including identification of the most hazardous activity, its sub activity, prediction of the worst-case scenario and maximum credible accident scenario along with damage distances and preparedness plan to combat such situation and risk mitigation measures.
30. Details of fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, location of fire water tanks & capacity, separate power system for fire fighting, details of qualified and trained fire personnel & their job specifications, nearest fire station & time required to reach the proposed site. Submit line diagram of the fire hydrant network.
31. Provision of qualified industrial hygienist, safety officer, factory medical officer employed for hazardous processes and monitoring of the occupational injury to workers as well as impact on the workers.
32. Impact of the transportation of raw materials and finished product on the transport system should be assessed and provided.
33. Details of possibility of occupational health hazards from the manufacturing activities and proposed measures to prevent it.
34. Ambient temperature in the work zone and distance of the workers from the furnaces. Details of likely heat stress to the workers involved in the manufacturing process. Radiation heat level in & around the furnace, monitoring and mitigation measures for the same including barricading, if any to be provided.
35. Details of personal protective equipments to be provided to the workers. Plan for periodic medical examinations of the workers.
36. Details of first-aid / occupational health centre and arrangement of ambulance van provided for injured workers.

37. Detailed work zone environment monitoring plan. Details of equipment/instrument to measure, record and analyze workplace exposure including air quality, noise, vibration, heat stress, ventilation, illumination etc.
38. Provision of qualified industrial hygienist, safety officer, factory medical officer employed for hazardous operations and monitoring of the occupational injury to workers as well as impact on the workers.
39. Details of five year greenbelt development program including annual budget, types & number of trees to be planted, area under green belt development [with map], budgetary outlay; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in the GIDC estate and elsewhere.
40. Undertaking from the management regarding maximum employment to the local people.
41. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, mfg utility staff for safety related measures.
42. Proposal for socio economic upliftment activities alongwith time bound action plan and cost should be included.
43. Details of any fatal and non-fatal accidents and dangerous occurrences under the Gujarat Factories Rules 1963 (GFR) for factories for the last three years.
44. Copy and condition wise compliance report of the CC&A obtained from the GPCB for the existing plant.
45. Details of any show-cause notice, closure etc received for the last three years for any legal breach of Environmental and Safety laws etc.
46. Whether any litigation pending and / or any direction / order passed by any Court of Law against the company, if so, details thereof.
47. A tabular chart for the issues raised and addressed during public hearing/consultation should be provided.
48. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.
49. An undertaking by the Project Proponent on the ownership of the EIA report as per the MoEF&CC OM dated 05/10/2011 and an undertaking by the Consultant regarding the prescribed TORs have been complied with and the data submitted is factually correct as per the MoEF&CC OM dated 04/08/2009. (Compliance of OM dated 05/10/2011 & 04/08/2009).
50. A tabular chart with index for point-wise compliance of above TORs.

The above mentioned project specific TORs/additional TORs and the model TORs available in the MoEF's sector specific EIA Manual for "Metallurgical 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. The draft EIA report shall be submitted to the Gujarat Pollution Control Board for conducting the public consultation process as per the provisions of the EIA Notification, 2006. The project shall be appraised on receipt of the final EIA report.

13	Gujarat Industrial Development Corporation (GIDC)	D-2/14 A, Dahej Industrial Estate, PCPIR, Ta.: Vagra, Dist. Bharuch.	Screening & Scoping
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Project / Activity No.: 7(h)

- M/s: Gujarat Industrial Development Corporation (GIDC) (herein after Project Proponent – PP) has submitted application vide their letter dated 15/09/2015..(Online Proposal no.SIA/GJ/MIS/2032/2015)

Project status: New

Project / Activity Details:

M/s: Gujarat Industrial Development Corporation (GIDC) has proposed to establish Common Effluent

Treatment Plant (CETP) with 40 MLD capacity (2 Batteries of 20 MLD each) at Dahej Industrial estate, PCPIR including design, construction, erection, testing and commissioning as well as operation and maintenance. Total plot area for the proposed CETP is 549730 sq m. Total project cost will be Rs 256 Crores. Proposed project will be designed for effluent generated from the industries located in GIDC. Total water consumption for the proposed project will be 142 KL/day. Effluent generation from the proposed CETP will be 7.5 KL/day. Common Effluent Treatment will consist of Primary treatment, Biological Treatment and Tertiary Treatment Facility. Unit has proposed treatment system for removal of Ammonical Nitrogen and Fenton's Reagent for removal of refractory COD. Treated effluent from the CETP will be pumped to existing Dahej final pumping station where the effluent from Vilayat, SEZ-I, SEZ-II, BASF, Dipak Nitrite, NOCIL, GFL etc. are mixed and finally pumped into Arabian Sea through 90 MLD capacity submarine pipeline with diffuser approx. 5 km in Sea. CETP will be designed to meet the outlet norms for discharge in Marine/Coastal area. Unit has proposed safety hood with alkali scrubber as APCM to control Chlorine gas emission likely to be emitted from Chlorine tonner in case of leakages. Unit has proposed 5 no.s of D.G. sets (capacity: 2500 KVA each) will be installed to curb with emergency situation. Diesel @ 2.5 KL/hr shall be required as a fuel for DG set. Hazardous wastes to be generated are ETP sludge (3600 MT/Month), Used Oil (1000 ltrs/Month) and Discarded containers (8 MT/Month).

Discussions/Observations:

Technical presentation made during the meeting by project proponent. During the meeting, issues related to piping network, nature of effluent, treatment technology, final disposal etc. have been discussed in detail. On asking about the final disposal pipeline and its permission, PP informed that they have obtained CRZ clearance from MoEF&CC for the existing effluent disposal pipeline from final pumping station to Arabian Sea having capacity 90 MLD. Further they informed that only 22 MLD effluent is generated in PCPIR by Industries. PP requested to exempt public hearing since the PCPIR has already conducted the public hearing and the proposed CETP is located within the premises of PCPIR. At this, Committee noted that the decision regarding Environmental Clearance is pending at MoEF&CC and the exemption from Public hearing can be decided only after grant of EC. After deliberation on various aspects, the terms of reference proposed by the project proponent were accepted and the project proponent was asked to include following additional TOR for the EIA study to be done covering 5 Km radial distance from the boundary of the project site:

1. The study area shall be up to a distance of 5 km from the boundary of the proposed site and all along the collection & distribution network/route map of effluent carrying pipe-line/s.
2. Land requirement for the project including its break up for various purposes, its availability and optimization.
3. Project site specific details such as distance of the project site from the nearest (1) Village (2) Water Body : Creek / Nallah / Lake / Pond / Reservoir / Canal (3) National Highway (4) State Highway (5) Railway line (6) Heritage site (7) National Park / Wild Life Sanctuary / Reserve Forest shall be included in the EIA report to be prepared covering one season (other than monsoon) data.
4. Existing natural drainage pattern of the project site and likely impact on it due to project. Measures to prevent flooding of the CETP in the rainy season.
5. Present land use pattern of the study area as well as the project area shall be given based on satellite imagery.
6. Layout plan of the proposed CETP. Provision of separate entry, exit and continuous unobstructed open path within the project area for unobstructed easy movement of the emergency vehicle / fire tenders without reversing back. Mark the same in the layout.
7. Exact scope of the project should be given in detail. Need for the proposed CETP shall be justified in detail.
8. Technical details of the ETP along with details on best available technologies (BAT), proposed technology and reasons for selecting the same.

9. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the CETP. Permission obtained from the concerned authority for supply of water. Undertaking stating that no bore well shall be dug within the premises.
10. Characteristics of untreated and treated wastewater. A detailed effluent treatability study vis-à-vis the adequacy and efficacy of the treatment facilities proposed for the wastewater to be generated alongwith adequacy and efficacy report. The characteristic on which treatability is based shall also be stated.
11. Details on physical, chemical and biological characteristics of the combined effluent and its concentrations and the basis for the same.
12. Expected quantity of wastewater from each industry and justification for selecting the proposed capacity of the treatment plant/modules.
13. Details of the industries for which CETP facility is proposed including raw materials used and products manufactured.
14. Characteristics of effluent and proposed segregation of streams, if any, from individual member industries.
15. Details about the types of the industries that would be covered under the CETP and the quality and quantity of the untreated and treated effluent with a firm commitment to achieve the norms to be prescribed by the GPCB. Name and address of the member units along with waste water characteristic of each of them.
16. Details of the scheme for recycle-reuse of the treated effluent (If any). Details regarding the quantity & percentage wise waste water to be reused / recycled by member units.
17. List of the CETP members, their production capacity including raw materials used and products manufactured, effluent reuse / recycle capacity, effluent generation capacity, effluent characteristics and effluent quantity. Whether any future projections are envisaged for finalization of the CETP capacity and conveyance pipeline.
18. Details about the proposed inlet norms of the CETP. Give details of the mandatory treatment, if any, required by the member units to achieve the inlet norms by the each unit.
19. Specific monitoring plan to ascertain that all the CETP member units send their effluent (contracted quantity) to the CETP and the effluent does not in any way find its way to other sources i.e. measures to eliminate by passing of the effluent.
20. Specific monitoring plan for effluent collection & conveyance system to ensure that individual units do not discharge effluent elsewhere / on road side / as well as checks & balances for ensuring that effluent reaches to the CETP without fail. Provision of flow meter at outlet of each member units.
21. Details of the monitoring plan of the member units to ensure compliance with the inlet norms of the CETP as well as to avoid shock loading in the system.
22. Justification / capacity of the project keeping in view the future effluent load from the additional member units.
23. Details of emergency storage of effluent in the CETP in circumstances like maintenance / repairing of Effluent conveying pipeline or CETP it self, individual member unit unable to reuse the treated effluent, in the monsoon season, disruption of power supply, etc. Built-in flexibility provisions to deal with quantitative and qualitative fluctuations.
24. Details about the treatment proposed along with the state-of-the-art technology to be developed / adopted for the treatment of the effluent.
25. Complete process flow diagram describing each unit, its processes and operations, along with material and energy inputs and outputs (material and energy balance).
26. Organizational setup for collection of pretreated effluents, treatment and conveyance of the treated effluents, reuse/recycle of treated effluent etc. and deployment of qualified/skilled man power.
27. Details of the CETP units including its capacity, size of each unit, retention time and other technical parameters.

28. Built-in flexibility provisions to deal with quantitative and qualitative fluctuations.
29. Explore the possibility of complete reuse/recycle of treated effluent.
30. Detailed layout of effluent conveyance pipeline with distances and all technical specifications, line diagram and total capacity of the pipeline to convey effluent. Details of pumping stations, pumping capacity in each pumping station etc if any shall also be furnished.
31. Details of CETP management and maintenance of the CETP during operation phase including infrastructure, model of management, role of each stake holder, CETP effluent quality monitoring scheme etc.
32. Details of laboratory, workshop, database, library, waste exchange centers, etc. In CETP.
33. Impact of the CETP installation and treated effluent conveyance & disposal system on the environment including the local hydrology, soil condition, floral and faunal bio-diversity of the region and the mitigation measures proposed.
34. Details of R&D to be initiated by the CETP management for effective and viable treatment of the effluent received.
35. Details of total power load required for the CETP as well as details of dedicated power back up / D.G.Sets to be provided to take care of power requirements during power supply failure, to ensure that treatment units operate uninterrupted.
36. CETP management manual covering various management aspects during the effluent collection, transportation, treatment and disposal aspects for best management practices. The member units shall abide by various clauses in this regard to check problems during the collection, transportation, treatment and reuse / recycle / disposal of the effluent.
37. One season Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be incorporated.
38. Anticipated environmental impacts due to the proposed project/production may be evaluated for significance and based on corresponding likely impacts VECs (Valued Environmental Components) may be identified. Baseline studies may be conducted within the study area of 5 km for all the concerned/identified VECs and likely impacts will have to be assessed for their magnitude in order to identify mitigation measures.
39. One complete season base line ambient air quality data (except monsoon) to be given along with the dates of monitoring. The parameters to be covered shall be in accordance with the revised National Ambient Air Quality Standards as well as project specific parameters. Locations of the monitoring stations should be so decided so as to take into consideration the pre-dominant downwind direction, population zone and sensitive receptors. There should be at least one monitoring station in the upwind direction. There should be at least one monitoring station in the pre dominant downwind direction at a location where maximum ground level concentration is likely to occur.
40. Modeling indicating the likely impact on ambient air quality due to proposed activities. The details of model used and input parameters used for modeling should be provided. The air quality contours may be shown on location map clearly indicating the location of sensitive receptors, if any, and the habitation. The wind rose showing pre-dominant wind direction should also be indicated on the map. Impact due to vehicular movement shall also be included into the prediction using suitable model. Results of Air dispersion modeling should be superimposed on satellite Image / geographical area map.
41. Base line status of the noise environment, impact of noise on present environment due to the project and proposed measures for noise reduction including engineering controls.
42. Specific details of (i) Process gas emission from each unit process with its quantification, (ii) Air pollution Control Measures proposed for process gas emission, (iii) Adequacy of the air pollution control measures for process gas emission measures to achieve the GPCB norms (iv) Details of the utilities required (v) Type and quantity of fuel to be used for each utility (vi) Flue gas emission rate

- emission from each utility (vii) Air Pollution Control Measures proposed to each of the utility along with its adequacy (viii) List the sources of fugitive emission along with its quantification and proposed measures to control it.
43. Specific details of fugitive emission from the unit along with measures proposed to monitor VOC within CETP area. Details of ventilation system proposed in the work area. Measures proposed to keep the work area environment as per the norms of GFR.
 44. Surface water quality and ground water quality in the study area.
 45. Geological features and geo-hydrological status of the study area.
 46. Impact of the project on local infrastructure of the area such as on road network due to transportation of fuel, ash etc. Whether any additional infrastructure would need to be constructed and the agency responsible for the same with time frame.
 47. Details of management of the hazardous wastes to be generated from the project stating detail of storage area for each type of waste, its handling, its utilization and disposal etc. How the manual handling of the hazardous wastes will be minimized.
 48. Copy of membership certificate of Common Environmental Infrastructure like TSDF, if any taken, should be incorporated.
 49. Proposed odour control measures.
 50. A detailed EMP including the protection and mitigation measures for impact on human health and environment as well as detailed monitoring plan and environmental management cell proposed for implementation and monitoring of EMP. The EMP should also include the concept of waste-minimisation, recycle/reuse/recover techniques, energy conservation, and natural resource conservation. Total capital cost and recurring cost/annum earmarked for environment pollution control measures. Appropriate monitoring network has to be designed and proposed, to assess the possible residual impacts on VECs
 51. Occupational health impacts on the workers and mitigation measures proposed to avoid the human health hazards along with the personal protective equipment to be provided to the workers. Provision of industrial hygienist and monitoring of the occupational injury to workers as well as impact on the workers. Plan for periodic medical check up of the workers exposed. Details of work zone ambient air quality monitoring plan as per Gujarat Factories Rules.
 52. Risk assessment including prediction of the worst-case scenario and maximum credible accident scenario should be carried out. The risk contours should be plotted on the plant layout map clearly showing which of the activities would be affected in case of an accident taking place. Based on the same, proposed safeguard measures including On-Site / Off-Site emergency plan should be provided.
 53. Details on risk assessment and damage control during different phases of the project and proposed safeguard measures.
 54. Measures to guard against fire hazards including details of automatic fire detection and control system & detailed fire control plan showing hydrant pipeline network, provision of DG Sets, fire pumps, jockey pump, toxic gas detectors etc. should also be provided.
 55. Provision to ensure sufficient water storage all the time for use during emergency situation.
 56. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, manufacturing utility staff for safety related measures.
 57. Detailed five year greenbelt development program including annual budget, types & number of trees to be planted, area under green belt development [with map], budgetary outlay; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in the nearby areas and elsewhere.
 58. Proposal for socio-economic development activities including community welfare program most useful in the project area for the overall improvement of the environment. Submit a detailed plan for social corporate responsibilities, with appropriate budgetary provisions for the next five years and

activities proposed to be carried out; specific to the current demographic status of the area.

59. Details of scheme for surface as well as roof top rain water harvesting and ground water recharge with proper scientific calculations considering rainfall in the region, catchment area, land / soil characteristics, ground water recharge rate, duration of rain water harvesting etc. Details of provisions of pre-treatment of the rainwater in the case of surface run off is to be harvested. Location of recharge percolation wells on the layout plan.
60. Plan for compliance of CETP guidelines issued by the CPCB.
61. A tabular chart for the issues raised and addressed during public hearing/consultation and commitment of the project proponent on the same should be provided. An action plan to address the issues raised during public hearing and the necessary allocation of funds for the same should be provided.
62. (a) Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report. (b). Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions ? If so, it may be detailed in the EIA.
63. What is the hierarchical system or administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
64. Does the company have a system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA Report.
65. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.
66. An undertaking by the Project Proponent on the ownership of the EIA report as per the MoEF&CC OM dated 05/10/2011 and an undertaking by the Consultant regarding the prescribed TORs have been complied with and the data submitted is factually correct as per the MoEF&CC OM dated 04/08/2009. (Compliance of OM dated 05/10/2011 & 04/08/2009).
67. A tabular chart with index for point-wise compliance of above TORs.

The above mentioned project specific TORs/additional TORs and the model TORs available in the MoEF's sector specific EIA Manual for CETP 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. The draft EIA report shall be submitted to the Gujarat Pollution Control Board for conducting the public consultation process as per the provisions of the EIA Notification, 2006. The project shall be appraised on receipt of the final EIA report.

14	Inol Industry LLP	C1-475, Road no.4/82-c, Sachin GIDC, Dist. Surat	Screening & Scoping
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Project / Activity No.: 5(f)

- M/s: Inol Industry LIP (herein after Project Proponent – PP) has submitted application vide their letter dated 15/09/2015.

Project status: New

Project / Activity Details:

This is a new unit proposes the manufacturing of Synthetic organic chemicals as tabulated below:

Sr. no.	Name of Products	Quantity MT/Month
1	Acrylic resin 1	250
2	Acrylic resin 2	150

3	Ploy acrylic ether	19.5
4	Polyamide	104
5	Synplast	430
6	Melamine formaldehyde	13
7	Urea formaldehyde	5
8	Ploy Urethane	5
9	PU-Acrylate	5
10	Epoxy 1	5
11	Epoxy 2	10
12	Epoxy 3	10

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Total plot area is 70. sq. m & unit has proposed 200 sq mtr area for the green belt development/Tree plantation. Expected project cost is Rs.2 Crores. Total water consumption for proposed project will be 21 KL/day (1 KL for Domestic, 0.5 KL for Gardening, 19.5 KL for Process) which will be sourced from GIDC water supply. Industrial waste water generation will be NIL. Domestic waste water (0.6 KL/day) will be disposed off into soak pit system. It is proposed to install one TFH. LDO (4.5 MT/day) will be used as fuel for TFH.No process gas emission is envisaged. Hazardous waste generated from the manufacturing activity will Discarded containers/Bags/Liners (20 MT/Year) and used oil (0.05 MT /Year). Discarded barrels / containers / bags / liners will be either reused or returned back to suppliers or sold only to the authorized vendors after decontamination. Used oil will be sold only to the registered recyclers.

Observations/Discussions:

Technical presentation made during the meeting by project proponent. During the meeting, PP was asked to ensure that there shall not be any kind of effluent generation from the manufacturing activities as well as any ancillary operations. Committee noted that there is no process gas emission and use of fuel will be Bio-coal. Project proponent has requested to consider the project as B2 category project. The request was considered by the committee looking to the low pollution potential in terms of air & water and location of the project in GIDC Sachin and the following additional information was sought for appraisal of the project.

1. Copy of plot holding certificate obtained from GIDC Sachin.
2. Layout plan of the factory premises showing the proposed expansion activities on the same. Provision of separate entry & exit and adequate margin all round the periphery for unobstructed easy movement of the emergency vehicle / fire tenders without reversing back. Mark the same in the plant layout.
3. Monthly consumption of each raw material.
4. Detailed manufacturing process along with chemical reactions and mass balance (including reuse-recycle, if any) for each product to be manufactured. Details on end use of each product.
5. Give full name and chemical formula of all the raw materials and products.
6. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the proposed expansion. Copy of permission letter obtained from the GIDC for supply of raw water as per the requirement of the proposed expansion.
7. Water balance (including reuse-recycle, evaporation if any)
8. Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes and to conserve fresh water.
9. Undertaking to install separate reaction vessels for each of the product and not to carry out any washing activity.
10. Detailed technical justification regarding no generation from the manufacturing process and ancillary operations (Boiler, Cooling etc.) and undertaking in this regard.

11. Plan for management and disposal of waste streams to be generated from spillage, leakages etc. Measures proposed for preventing effluent discharge during unforeseen circumstances.
12. Action plan for 'Zero' discharge of effluent shall be included.
13. Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes and to conserve fresh water.
14. Details of possibility of chemical seepage & consequent soil contamination & mitigation measure proposed for the same.
15. Specific details of (i) Details of the utilities required, (v) Types of fuel to be used and quantity of the each fuel, (vi) Flue gas emission rate from each utility along with stack height, (vii) Air Pollution Control Measures proposed along with its adequacy, (viii) List the sources of fugitive emission from the unit along with its quantification and proposed measures to control it. (All these details should be in tabular format with comparative data of existing and proposed data).
16. Specific details of fugitive emission from the unit along with measures proposed to monitor VOC within work area. Details of ventilation system proposed in the work area. Measures proposed to keep the work area environment as per the norms of GFR.
17. Details of measures proposed for noise pollution abatement & its monitoring.
18. Details of management of the hazardous wastes to be generated from the project stating detail of storage area for each type of waste, its handling and its disposal. How the manual handling of the hazardous wastes will be minimized? (All these details should be in tabular format with comparative data for existing and proposed activity).
19. Methodology of de-contamination and disposal of discarded containers and its record keeping.
20. Complete Management plan for By-products/Spent acids to be generated from the project including their quantity, quality, characteristics, end use etc. along with the name and address of end consumers to whom the by-product will be sold. Copies of agreement / MoU / letter of intent from them, showing their willingness to purchase said by-product from the proposed project. Also give characteristics of the by products and feasibility of their actual use in respective products as a raw material.
21. Name and quantity of each type of solvents to be used for proposed production. Details of solvent recovery system including mass balance, solvent loss, recovery efficiency feasibility of reusing the recovered solvents etc. for each type of solvent.
22. Measures proposed to be taken for the work area ambient air quality monitoring as per Gujarat Factories Rules.
23. Copy of membership certificate from Common Environmental Infrastructure including the TSDF / Common Hazardous Waste Incineration facility for disposal of hazardous wastes to be generated from the proposed project.
24. A detailed EMP including the protection and mitigation measures for preventing impacts on human health and environment as well as detailed monitoring plan with respect to various parameters and responsible head for the environmental management cell and environmental management cell proposed for implementation and monitoring of EMP.
25. A detailed Green Belt Development Program including annual budget, types & number of trees to be planted, area under green belt development [with map]; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in the GIDC area and elsewhere.
26. Details of hazardous characteristics and toxicity of raw materials and products to be handled and the control measures proposed to ensure safety and avoid the human health impacts. This shall include the details of Antidotes also.
27. Details of quantity of each hazardous chemical to be stored, Material of Construction of major hazardous chemical storage tanks, threshold storage quantity as per schedules of the Manufacture, Storage & Import of Hazardous Chemicals Rules of major hazardous chemicals. How the manual

handling of the hazardous chemicals will be minimized?

28. Details of the separate isolated storage area for flammable chemicals. Details of flame proof electrical fittings, DCP extinguishers and other safety measures proposed.
 29. Specific safety details / provisions for various hazardous chemicals including solvents to be used in the process along with onsite emergency plan.
 30. Details of possibilities of occupational health hazards from the proposed manufacturing activities and proposed measures to prevent them.
 31. Risk assessment including prediction of the worst-case scenario and maximum credible accident scenarios should be carried out. The worst-case scenario should take into account the maximum inventory of storage at site at any point of time. The risk contours should be plotted on the map clearly showing which of the facilities and surrounding units would be affected in case of an accident taking place. Based on the same, proposed safeguard measures including On-Site / Off-Site Emergency Plan should be provided.
 32. Details of fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, location of fire water tanks & capacity, separate power system for fire fighting, details of qualified and trained fire personnel & their job specifications, nearest fire station & time required to reach the proposed site. Submit line diagram of the fire hydrant network.
 33. Detailed fire control plan for flammable substances and processes showing hydrant pipeline network, provision of DG Sets, fire pumps, jockey pump, toxic gas detectors etc.
 34. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, mfg utility staff for safety related measures.
 35. A tabular chart with index for point-wise compliance of above details.
- The project shall be appraised on satisfactory submission of the above.

15	Archean Chemical Industries Private Limited	Survey no. 16 of Kaiyari Village, Lakhpat, Dist: Kutch	Screening & Scoping
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Project / Activity No.: 7 (e)

- M/s. Archean Chemical Industries Private Limited (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/MIS/2137/2015 dated 16/09/2015.

Project status: New

Project / Activity Details:

The proposal is for development of salt jetty and associated infrastructure to export salt approx. 4.0 Million Tones of Salt as a by-product by year 2016 and it is expected to export of around 4.5 million Tones by the year 2021. The project falls in the project activity 7(e) and category B as per the schedule of EIA Notificaiton-2006.

M/s Archean Chemical Industries Pvt. Ltd. is plans to develop 301.5 m jettu and supporting mechanized handling facilities on the bank of the Kori creek near Budh Bandar (Kaiyari village) dist: Kutch to handle high grade washed salt in bulk. The site is situated on seaward side of S.No. 16 of Kaiyari village along the bank of an island in Kori creek near Budha Bandar. Narayan Sarovar sanctuary is @ 7.5 km from the proposed site. Border Security Force (BSF) battalion, Budh bundar and Koteswar temple are within 10 km distance from the site. Total cost of the project will be Rs. 158.28 Crores. Water front area requirement for the proposed project will be 163.5 m in phase I & 301.5 m in phase II. Back up land requirement for the proposed project will be 16.94 ha, which will be Government waste land in an Island in Kori creek provided by GMB on lease. Total water consumption during the construction phase and operation phase will be 20 KL/day and 4 KL/day respectively. Source of the water will be road tankers. Two DG sets (600 KVA each) will be provided as stand-by facility. HSD will be used as a fuel. Hazardous wastes to be generated are used oil and discarded containers.

Observations/Discussions:

Technical presentation by the project proponent also covered details like back ground details & need of the proposed project, layout plan of jetty, proposed structures, land area requirement, cargo handling details, general information, proposed Terms of Reference etc. After detailed discussion on each and every aspect of the project, following TOR were prescribed to include them in the EIA report to be prepared for the study area covering 10 km radius from the boundary of the project site.

1. Present land use pattern within 10 km radius from the project boundary based on satellite imagery.
2. Copy of permission obtained from Revenue Department for construction of proposed jetty.
3. Land ownership documents and copy of approval obtained from Gujarat Maritime Board for for the proposed Jetty development.
4. Permission from the concern authority as the Border Security Force (BSF) battalion, Budh bundar is located near the proposed site.
5. A map showing distance of the nearest fishing port, fishermen hutments, village, salt pans, mangrove patch, migratory corridors of birds, National Parks/Sanctuaries/Bio sphere Reserves, sand dune areas etc. from the project boundary. Give tabular chart with exact aerial distance with specific remarks (If any).
6. Distance of the jetty from the Low Tide Line. Authenticated details on High Tide height, time duration of high tide availability etc.
7. Phase wise project implementation details in terms of site development, infrastructure provision, EMS implementation etc. Phase wise project implementation schedule with bar chart including resources, manpower and time frame etc.
8. Details of the activities to be undertaken in the CRZ area and their impact on marine ecosystems and mitigation measures proposed in this regard.
9. Copy of CRZ map or map prepared by one of the authorized agencies authorized by the MoEF for carrying out the CRZ demarcation, on which the project boundary / facilities are superimposed and clearly indicating the proposed project location.
10. Status of application for CRZ clearance. Recommendation from the Gujarat Coastal Zone Management Authority under the CRZ Notification.
11. Analysis of Alternatives (Technology & Sites). Technologies involved for design, construction, equipment and operation.
12. Project coverage, master plan, phasing and scope. Capacity of the port, types of cargo proposed for handling, cargo handling equipments, ancillary operations, housing, truck parking details etc
13. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the project. Copy of permission obtained from the concerned authority for water supply.
14. Detailed mass balance and water balance (including reuse-recycle, if any).
15. Details of the proposed ETP and stream wise analysis of the waste water likely to be generated as well as the stream wise treatment proposed with ETP adequacy and efficacy report. Details of segregation of the wastewater stream to be carried out and plans for management and disposal of concentrated streams to be generated from spillage, leakages etc. A detailed treatability study for untreated effluent & treated effluent vis-à-vis adequacy of the treatment facilities proposed for the wastewater likely to be generated. The characteristic on which treatability is based shall also be stated.
16. Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes. Details of water conservation measures including reuse, recycle, use of low water consuming devices. Explore reuse of total treated waste water if possible.
17. Specific measures proposed to conserve water and plans for the future in this regard.
18. Exact cargo handling capacity for the proposed project. Scope of the project in terms of types of equipment to be fabricated along with bifurcation of tonnage of each category based on maximum/ peak rated capacity of the project in terms of cargo handling, technology, equipment, manpower,

resource use, etc.

19. Finalization of the exact scope of the off shore / waterfront facilities out of various options i.e. access bund / RO-RO ramp / Jetty / Basin and technical details of the same.
20. Details of the berthing facility if any to be provided along with class of vessels envisaged. Ship simulation to be done in respect of stability. Details of handling of each cargo, its impact and management plan.
21. Detailed study for shore protection works. Details of proposed reclamation and / or dredging for protection of the water front and/or maintaining the channel depth. Details regarding dredging depth, dredge material characteristics as well as the dredged quantity, its disposal & and reclamation. The chances of erosion / accretion due to proposed dredging and/or reclamation and mitigation measures should be incorporated.
22. Measures to prevent further deterioration of the estuarine river water quality and coastal ecology due to the proposed project. Cumulative impact taking into consideration other project activities in the vicinity.
23. Number of creeks and creeklets fall in the area of project site as well as approach road. Impacts on hydrology pattern due to the proposed project and mitigation measures thereof.
24. Whether any blockage of creek is envisaged due to the proposed project and if so, remedial measures. Impact on the natural drainage system if any. It shall be ensured that free flow of water from the catchment area is not hampered due to the proposed project.
25. Hydro-dynamics of estuary / creek from shoreline erosion perspective. The hydro-dynamic studies shall be undertaken for assessing whether the proposed activities shall have any significant impact to the shoreline abutting the project as well as significant impact on the ecologically sensitive areas along the stretch or not.
26. Whether project activities will lead to any shoreline changes. Hydrodynamics of the coast abutting the project site from shoreline erosion perspective. The hydrodynamic studies for assessing whether the proposed activities shall have any significant impact on the shoreline abutting the project along the stretch or not. Details of precautions to be taken to ensure that there will be no adverse impact on the drainage of the area.
27. Comprehensive modeling study of accretion, erosion / deterioration on nearby coastline & elsewhere due to the proposed project and its mitigation measures. Submit details of stability analysis of coast. The study shall be got vetted by CWPRS.
28. Details of the sand dune areas and ecologically sensitive areas in the vicinity.
29. Anticipated environmental impacts and mitigation measures due to the ship traffic including discharges from vessels and cargo operations.
30. Details of existing sea vessel traffic management and predicted increase in vessel traffic due to the proposed project along with its impacts.
31. Details of vessel traffic management system framed for the proposed project considering the guidelines and provisions of Vessel Traffic Management System devised for Gulf of Kutch. Measures proposed to ensure that there will be no any hindrance to the movement of fishing vessels or fishermen.
32. Impact of project construction/operation on the noise and vibration due to construction equipment, cargo handling equipment and road traffic. Mitigation measures for the same.
33. Impact on marine life and fishing activities in the surrounding region.
34. Impacts of the proposed activities on fishing in the surrounding region as well as on livelihood of fishermen, saltpan workers, farmers, villagers etc. How it would be ensured that fishing area will not be affected due to the project activities.
35. Commitment from the management for extensive mangrove plantation as well as mangrove associated species in the area with year wise plan. Explore co-ordination with ecology commission / social forestry division for the same.

36. Details of hazardous characteristics of raw materials and products to be handled and the control measures proposed to ensure safety and avoid the human health impact.
37. Details on quantity of each hazardous chemical to be stored, material of construction of storage tanks, threshold storage quantity as per schedules of Manufacture, Storage & Import of Hazardous Chemicals Rules.
38. Details of hazardous processes and their engineering controls.
39. Details of possibility of occupational health hazard from the proposed manufacturing activities and proposed measures to prevent it.
40. Measures proposed to arrest the micronized fine particles generated during the painting process. Disposal of waste paint / paint residue.
41. Details for the use of lead free paints in the proposed project. Undertaking for use of only lead free paints in the project.
42. Submit the details of storage yard and dust suppression measures.
43. The details with respect to number of fishermen (including the pagarias) living and / or fishing within the study area along with the exact distance of their habitation from the proposed facilities. Details of fish production in the region in last five years as per the records of fisheries department. Impacts of the proposed activities on the fishery in the region. How, it would be ensured that fishing area will not be affected due to the project activities.
44. Anticipated environmental impacts due to the proposed project/production may be evaluated for significance and based on corresponding likely impacts VECs (Valued Environmental Components) may be identified. Baseline studies may be conducted within the study area of 10 km for all the concerned/identified VECs and likely impacts will have to be assessed for their magnitude in order to identify mitigation measures.
45. Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be incorporated.
46. Base line ambient air quality data (except monsoon) to be given along with the dates of monitoring. The parameters to be covered shall be in accordance with the revised National Ambient Air Quality Standards as well as project specific parameters. Locations of the monitoring stations should be so decided so as to take into consideration the pre-dominant downwind direction, population zone and sensitive receptors. There should be at least one monitoring station in the upwind direction. There should be at least one monitoring station in the pre dominant downwind direction at a location where maximum ground level concentration is likely to occur.
47. Modelling indicating the likely impact on ambient air quality due to proposed activities. The details of model used and input parameters used for modelling should be provided. The air quality contours may be shown on location map clearly indicating the location of sensitive receptors, if any, and the habitation. The wind rose showing pre-dominant wind direction should also be indicated on the map. Impact due to vehicular movement shall also be included into the prediction using suitable model. Results of Air dispersion modelling should be superimposed on google map / geographical area map.
48. Apart from terrestrial EIA study, marine EIA study should be conducted through reputed institute in order to assess impacts of the proposed activities on the marine environment as well as fishery and according to the same, mitigation measures shall be planned.
49. Baseline status of flora, fauna and marine biodiversity including that of phytoplankton and zooplankton in the study area shall be elaborated. Impact of the proposed activities on the marine biodiversity shall be elaborated. In case of any scheduled fauna, conservation plan should be provided.
50. Actual field survey shall be carried out for ascertaining base line status of coastal and marine flora, fauna, including that of phytoplankton and zooplankton. Impacts of the proposed activities on the marine flora, fauna; especially on endangered and rare species shall be elaborated.

51. Include coastal geo-morphology in the EIA study report.
52. Base line status of the noise environment, impact of noise on present environment due to the project and proposed measures for noise reduction including engineering controls.
53. Specific details of (i) Process gas emission from each unit process with its quantification, (ii) Air pollution Control Measures proposed for process gas emission, (iii) Adequacy of the air pollution control measures for process gas emission measures to achieve the GPCB norms (iv) Details of the utilities required (v) Type and quantity of fuel to be used for each utility (vi) Flue gas emission rate emission from each utility (vii) Air Pollution Control Measures proposed to each of the utility along with its adequacy (viii) List the sources of fugitive emission along with its quantification and proposed measures to control it. (iv) Air pollution due to the sand /grit blasting operation.
54. Details of mangrove along with its species in the jetty area & fabrication plant area.
55. Measures proposed to be taken for the work area ambient air quality monitoring as per Gujarat Factories Rules.
56. Detailed greenbelt development program including annual budget, types & number of trees to be planted, area under green belt development [with map]; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in the nearby area and elsewhere.
57. Copy of membership certificate of Common Environmental Infrastructure like TSDF, if any taken, should be incorporated. Copies of MOU / agreements done with actual consumers regarding utilization of fly ash, bottom ash etc. should also be incorporated.
58. A detailed EMP including the protection and mitigation measures for the impacts on human health and environment as well as detailed environmental monitoring plan with respect to various parameters, environmental management cell proposed for implementation & monitoring of EMP as well as person responsible for the same. The EMP should also include the concept of waste-minimisation, energy conservation, and natural resource conservation. Plan to ensure that the existing environmental condition is not deteriorated due to discharges from the vessels / boats, disposal of sewage, etc.
59. Factory lay out showing open unobstructed peripheral margin, green belt, separate gates for entry and exit, parking area for tankers / trucks / visitors etc.
60. Detail risk assessment report including prediction of the worst-case scenario and maximum credible accident scenario, catastrophic failure along with damage distances and preparedness plan to combat such situation and risk mitigation measures. This shall also include hazardous area classification & vulnerable zone demarcation. Detailed fire control plan for flammable substances and processes. Environment Management Plan and On-Site / Off-Site emergency plan for proposed plant.
61. Details of management of the solid waste and hazardous wastes to be generated from the project stating detail of storage area for each type of waste, its handling and its disposal. How the manual handling of the hazardous wastes shall be minimized.
62. Methodology of de-contamination and disposal of discarded containers and its record keeping.
63. Specific safety details /provisions for various solvents to be used in the process including onsite / offsite emergency plan.
64. Detailed odor management plan.
65. To explore the use of renewable energy to the maximum extent possible.
66. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, mfg utility staff for safety related measures.
67. Details of likely heat stress to the workers. Radiation heat level in & around the furnace, monitoring and mitigation measures for the same.
68. Specific safety details / precautionary measures proposed for VOC's in the plant / storage yard / warehouse/ including ventilation aligned in the natural wind direction.

69. Provision of industrial hygienist and monitoring of the occupational injury to workers as well as impact on the workers.
70. Details of existing traffic density on main road as well as secondary road in the vicinity, prediction of impact of additional traffic from the project on those roads along with carrying capacity of the said roads.
71. Details of flood data considered to avoid flooding at the proposed site & preventive measures envisaged for the same.
72. Details of monitoring / supervision cell to monitor environmental aspects during construction and operational phases. Appointment of Construction Safety Officer during the construction phase as well as a detailed environment management plan.
73. Details of provisions to make the project energy-efficient through of energy efficient devices and adoption of modes of alternative eco friendly sources of energy, solar water heater, solar lighting etc. Measures proposed to comply with the ECBC norms and other measures proposed for energy conservation.
74. Details of dust suppression measures proposed during the construction period. Noise mitigation measures during construction activity from the proposed activity.
75. Details of the seismic design aspects to be adhered to in the project.
76. Details on use of eco-friendly building materials including fly ash bricks, fly ash paving blocks, RMC etc.
77. Details of disaster management plan / emergency management systems during operational phase of the project should also include scenario of natural catastrophe like earth quake, floods and tsunami in addition to other disasters. The plan should include the details of (i) Emergency evacuation (ii) Emergency lighting system (iii) Details of power back up system in the case of emergency (iv) Fire fighting arrangements (v) First aid arrangement (vi) Training and Mock drill (vii) Emergency announcement or public address system (viii) Signage's including fluorescent pathways/ exit marker signs (ix) Location of emergency pathways and glow light signs. (x) Emergency response procedures.
78. Details of fire fighting system at the jetty as well as fabrication unit including provision for flame detectors, temperature actuated heat detectors, location of fire water tanks & capacity, separate power system for fire fighting, automatic sprinkler system, fire detection system with alarms & automatic fire extinguishers, location of fire lift and fire retardant staircases, details of qualified and trained fire personnel & their job specifications, nearest fire station & time required to reach the proposed site, etc. Submit line diagram of the fire hydrant line passing through the plant premises. Fire control plan for flammable substances and processes based on the flammable area classification.
79. Details of first aid, fire fighting system and other emergency services to be provided during operation phase including the training to be provided to the staff of the project as first aid facility providers, fire fighters etc. Tie up with emergency services like local fire station, provision of emergency van etc. to be made during the operational phase.
80. Details of the D.G. sets with location, fuel consumption & storage and details of the acoustic measures to abate noise pollution.
81. Details of the debris management plan along with the use/disposal of excavated soil during construction phase and top soil conservation plan.
82. The details of the basic amenities and welfare facilities to be provided to the construction workers to ensure that they do not ruin the existing environment.
83. Undertaking from the management regarding maximum employment to the local people.
84. Details of Project benefits accruing to the locality, neighbourhood, region and nation as a whole.
85. Submit a detailed plan for social corporate responsibilities, with appropriate budgetary provisions.
86. Distance of the nearest mangrove patches from the project site. Details of mangrove along with its

species in the jetty area & approach road area.

87. Details of five year greenbelt development program. Commitment from the management for extensive mangrove plantation as well as mangrove associated species in the area with year wise plan.
88. Details of use of eco-friendly building material including fly ash bricks, fly ash paving blocks. Use of RMC in the project.
89. The details of the basic amenities and welfare facilities to be provided to the construction workers to ensure that they do not ruin the existing environment.
90. Details of registration and provisions to be made by the project proponent to follow Building and other Construction Workers Acts and Rules and undertaking for the same.
91. An action plan showing list of socio-economic upliftment activities based on socio-economic profile of the surrounding villages and need base field assessment along with the fund allocation for the five years, shall be incorporated in the EMP.
92. A tabular chart for the issues raised and addressed during public hearing/consultation and commitment of the project proponent on the same should be provided. An action plan to address the issues raised during public hearing and the necessary allocation of funds for the same should be provided.
93. (a) Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report. (b) Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions ? If so, it may be detailed in the EIA.
94. What is the hierarchical system or administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
95. Does the company have a system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA Report.
96. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.
97. An undertaking by the Project Proponent on the ownership of the EIA report as per the MoEF&CC OM dated 05/10/2011 and an undertaking by the Consultant regarding the prescribed TORs have been complied with and the data submitted is factually correct as per the MoEF&CC OM dated 04/08/2009. (Compliance of OM dated 05/10/2011 & 04/08/2009).
98. A tabular chart with index for point-wise compliance of above TORs.

The above mentioned project specific TORs/additional TORs and the model TORs available in the MoEF's sector specific EIA Manual for "Ports, Harbours" 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. The draft EIA report shall be submitted to the Gujarat Pollution Control Board for conducting the public consultation process as per the provisions of the EIA Notification, 2006. The project shall be appraised on receipt of the final EIA report.

16	Megafine Specialty Chemicals Pvt Ltd	Plot No.SPS 13/1, Sarod, Jambusar, Dist.: Bharuch	Screening & Scoping
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Project / Activity No.: 5(f)

- M/s: Megafine Specialty Chemicals Pvt Ltd (herein after Project Proponent – **PP**) has submitted application vide their letter dated 16/09/2015.

Project status: New

Project / Activity Details:

This is a new unit proposes the manufacturing of following items.

Sr. No.	Product	GOT CTE	TOTAL PROPOSED
		Quantity (MT/Month)	
1	Pigment Beta Blue 15.3	200	200
2	Pigment Beta Blue 15.4	220	220
3	Pigment Beta Blue 15.6	-	12
4	CPC Derivatives (Amine Based)	-	50
5	CPC Derivatives (Phthalimide Based)	-	2
Total			484

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Total plot area is 6020 sq m & unit has proposed 1560 sq m area for the green belt development/Tree plantation. Expected project cost is Rs.8.25 Crores. Total water requirement for proposed project will be 208 KL/Day (Industrial – 193 KL/Day + Gardening – 10 KL/Day + Domestic 5 KL/day). Fresh water will be sourced from SEZ Water supply authority. Industrial waste water generation will be 144 KL/day, which will be treated in ETP having Primary, Secondary & Tertiary Treatment Facilities followed by further treatment (RO & MEE). RO permeate water @ 130 KL/day will be reused within the premises and RO reject 14 KLD will be evaporated in proposed MEE. Domestic waste water (4 KL/day) will be disposed off into soak pit system. 28 KL/Day effluent from beta blue product will be recycled/reused in boiler as a boiler water make up. It is proposed to install one Boiler (7 TPH) and one TFH (10 Lac Kcal/hr). Coal (30 MT/day for Boiler and 4 MT/day for TFH) will be used as fuel. Separate set of MDC followed by Bag filter is proposed as APCM. Unit has proposed one DG set (250 KVA) in which HSD (44 ltrs/hr) will be used as fuel. Bag filters are proposed for control of SPM to be emitted from Spin Flash Dryers (SFD-2 no.s). Two stage scrubbing system will be provided to control process gaseous emission. Hazardous waste generated from the manufacturing activity will be ETP sludge (6 MT/Month), MEE salt (6 MT/Month), Distillation residue (10 MT/Month), Discarded containers/Bags/Liners and used oil (50 lit./Month). Generation of spent sulphuric acid (32%) will be 705 MT/Month.

Observations/Discussion:

Technical presentation made during the meeting by project proponent. During the meeting, on asking about the management of spent sulphuric acid, PP informed that they will sold out to actual users. Committee not convinced with the mode of management of Spent acid as there are major issues regarding disposal of spent acid in present scenario. Further PP informed that they will use spent acid to convert into valuable products like MgSO₄ and CaSO₄. However, PP could not reply about the viability and market scenario of the proposed by-products. Committee also noted that PP has proposed multi options for management of waste water to be generated. Looking to the product profile, while concerning about the problems of treatability of concentrated effluent/spent acid & its disposal issues being faced in present scenario as well as in absence of any common infrastructure facility in SEZ, the committee was of the view that manufacturing of such proposals should be considered with complete management plan for spent sulphuric acid and with Zero Liquid Discharge (ZLD) only. After deliberation on various aspects, the committee unanimously decided to consider the case for TOR/Scoping only after submission of revised proposal with complete Zero Liquid Discharge and management of spent sulphuric acid.

17	Atlas Life Sciences	Plot No.C-1, 360-361, GIDC Estate, Odhav, Ahmedavad	Screening & Scoping
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Project / Activity No.: 5(f)

- M/s: Atlas Life Science (herein after Project Proponent – PP) has submitted application vide their letter dated 17/09/2015.

Project status: New**Project / Activity Details:**

This is a new unit proposes for manufacturing of Synthetic Organic Chemicals as tabulated below:

Sr. No.	Name of Products	Qty. (MT/month)
1.	Phenylephrine HCl	4.0
2.	Pregabalin	6.0
3.	Levosulpiride	1.0
4.	Linezolid	2.0
5.	Olmesartan Medoxomil	1.0
6.	Gabapentin	5.0
7.	Levetirecetam	2.0
8.	Pantoprazole Sodium Monohydrate	3.0
9.	Sucralfate	10.0
10.	Montelukast sodium	2.0
11.	Telmisartan	2.0
12.	Amlodipine Besylate	3.0
13.	Silodosin	0.1
14.	Olenzapine	1.0
15.	Glimepride	2.0
16.	Chlorthalidone	2.0
17.	Tapentadol HCl	0.5
18.	Voriconazole	0.25
Total		46.85

The proposed products fall under Category B of project activity 5(f) as per the EIA Notification 2006. Total plot area is 1321 sq. m & unit has proposed 200 sq mtr area for the green belt development/Tree plantation. Expected project cost is Rs. 4.5 Crores. Total water consumption for proposed project will be 15 KL/day (13 KL Fresh water + 2 KL recycle water). Fresh water will be sourced from Bore well. Industrial waste water generation will be 2.2 KL/day, which will be treated in proposed Primary treatment with followed by Evaporator. Condensate from evaporator will be utilized for greenbelt development. Domestic waste water (5 KL/day) will be disposed off into soak pit system. It is proposed to install one Boiler (1.5 TPH) and one TFH (1 Lac Kcal/hr). Natural gas (3000 SCM/day) will be used as fuel for Boiler and TFH. No process gas emission is envisaged. One DG set (25 KVA) will be provided as standby facility for emergency purpose. Hazardous waste generated from the manufacturing activity will be ETP sludge (0.025 MT/Month), Evaporation residue (0.25 MT/Month), Distillation residue (0.15

MT/Month), Spent Carbon (0.1 MT/Month), Discarded containers/Bags/Liners and used oil. ETP waste & Evaporation residue will be disposed off at the nearby common TSDF. Distillation residue & Spent carbon will be disposed off at the nearby CHWIF. Discarded barrels / containers / bags / liners will be either reused or returned back to suppliers or sold only to the authorized vendors. Used oil will be sold only to the registered recyclers.

Observations & Discussions:

Technical presentation made during the meeting by project proponent. On asking about the exact distance of the CEPI area of Vatva from proposed site, PP informed that the said distance is @ 6 km. However Committee asked to submit exact aerial distance on satellite image. The request for categorizing the project as B2 was considered by the committee and the following additional information was sought for appraisal of the project.

1. Copy of plot holding certificate obtained from GIDC Odhav.
2. Exact aerial distance from the CEPI area of Vatva from the project premises.
3. Present land use pattern of the study area shall be given based on satellite imagery.
4. Layout plan of the factory premises. Provision of separate entry & exit and adequate margin all round the periphery for unobstructed easy movement of the emergency vehicle / fire tenders without reversing back. Mark the same in the plant layout.
5. Proposed monthly production of each product and product wise monthly consumption of each raw material.
6. Manufacturing process along with chemical reactions, mass balance for each product.
7. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the project. Copy of permission letter obtained from the CGWA or concern authority for drawl of raw water.
8. Water balance diagram (including reuse-recycle, if any) along with qualitative and quantitative analysis of each waste stream to be generated.
9. Plans for management and disposal of waste streams to be generated from spillage, leakages, vessel washing, used container washing etc. Measures proposed for preventing effluent discharge during unforeseen circumstances.
10. Details of the ETP including size of each unit, retention time, other technical parameters etc. and its adequacy and efficacy report. Treatment of phenol in the effluent, if any. Action plan for 'Zero' discharge of effluent shall be included.
11. Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes and to conserve fresh water.
12. Details of provisions to be made for evaporation of industrial effluent. Technical details of effluent evaporation system including evaporation capacity, steam required for evaporation, adequacy of the boilers to supply steam for evaporation in addition to the steam required for the process etc. Techno-economical viability of the evaporation system. Effective evaporation system shall be designed in such a way to strip or absorb the VOCs and effective stack height shall be provided to the evaporation system.
13. Details of possibility of chemical seepage & consequent soil contamination & mitigation measure proposed for the same for the proposed project.
14. Specific details of (i) Details of the utilities required (ii) Type and quantity of fuel to be used for each utility (iii) Flue gas emission rate from each utility (iv) Air Pollution Control Measures proposed to each of the utility along with its adequacy (v) List the sources of fugitive emission along with its quantification and proposed measures to control it.
15. Specific details of fugitive emission from the unit along with its quantification and proposed measures to control it along with measures proposed to monitor VOC within work area. Details of ventilation system proposed in the work area. Measures proposed to keep the work area environment as per the norms of GFR.

16. Details of measures proposed for noise pollution abatement & its monitoring.
17. Details of management of the hazardous wastes to be generated from the project stating detail of storage area for each type of waste, its handling and its disposal. How the manual handling of the hazardous wastes will be minimized?
18. Methodology of de-contamination and disposal of discarded containers and its record keeping.
19. Measures proposed to be taken for the work area ambient air quality monitoring as per Gujarat Factories Rules.
20. A detailed EMP including the protection and mitigation measures for preventing impacts on human health and environment as well as detailed monitoring plan with respect to various parameters and responsible head for the environmental management cell and environmental management cell proposed for implementation and monitoring of EMP.
21. Detailed socio-economic development measures including community welfare program most useful in the project area for the overall improvement of the environment.
22. A detailed Green Belt Development Program including annual budget, types & number of trees to be planted, area under green belt development [with map]; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in the GIDC area and elsewhere.
23. Details of hazardous characteristics and toxicity of raw materials and products to be handled and the control measures proposed to ensure safety and avoid the human health impacts. This shall include the details of Antidotes also.
24. Details of quantity of each hazardous chemical to be stored, Material of Construction of major hazardous chemical storage tanks, threshold storage quantity as per schedules of the Manufacture, Storage & Import of Hazardous Chemicals Rules of major hazardous chemicals. How the manual handling of the hazardous chemicals will be minimized?
25. Details of the separate isolated storage area for chemicals. Details of fire extinguishers, flame proof electrical fittings, DCP extinguishers and other safety measures proposed.
26. Specific safety details / provisions for various hazardous chemicals and detailed fire control plan for flammable substances.
27. Details of possibilities of occupational health hazards from the proposed manufacturing activities and proposed measures to prevent them.
28. Detailed risk assessment report including prediction of the worst-case scenario and maximum credible accident scenario along with damage distances and preparedness plan to combat such situation and risk mitigation measures. Vulnerable zone demarcation.
29. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, mfg utility staff for safety related measures.
30. A tabular chart with index for point-wise compliance of above details.

The project shall be appraised on satisfactory submission of the above.

18.	Maruti Chemicals	Survey no.795/A, Vill. Rakanpur, Ta,; Kalol, Dist. Gandhinagar.	Screening & Scoping
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Project / Activity No.: 5(f)

- M/s: Maruti Chemicals (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJIND2/2213/2015 dated 22/09/2015.

Project status: Expansion

Project / Activity Details:

This is an existing unit and unit proposes expansion in manufacturing of Synthetic Organic Chemicals – In-active Pharmaceutical & Cosmetic Ingredients Manufacturing Plant as tabulated below:

Sr. no	Name of Products	Quantity MT/Month		
		Existing	Proposed	Total after Expansion
1	Methacrylic Acid Copolymers			
i	Methacrylic Acid Copolymers Type-A	0.5	19.5	5.0
ii	Methacrylic Acid Copolymers Type-B			2.5
iii	Methacrylic Acid Copolymers Type-C			2.5
iv	Methacrylic Acid Copolymers Aqueous Dispersion			10.0
2	Acrylic Acid Polymers			
i	Acrylic Acid Homopolymers	0.5	30.0	30.5
ii	Acrylic Acid Copolymers	Nil	5.3	5.3
iii	Acrylic Acid Interpolymers	Nil	3.0	3.0
3	Sodium Starch Glycolate			
i	Sodium Starch Glycolate (Maize)	5.0	53.7	47.1
ii	Sodium Starch Glycolate (Potato)			11.6
4	Croscarmellose Sodium	1.0	45.6	46.6
5	Methyl Paraben	1.0	21.8	4.4
6	Propyl Paraben			1.3
7	Sodium Methyl Paraben			11.5
8	Sodium Propyl Paraben			5.6
9	Sodium Stearyl Fumarate	Nil	3.9	3.9
10	Polacrillin Potassium	Nil	8.9	8.9
11	Polyoxyl Hydrogenated Castor Oil	Nil	5.8	5.8
	Total	8.0	197.5	205.5

The location of the unit is outside the notified area. As per amendment to EIA Notification, 2006 vide SO 1599 (E) dated 25.06.2014, small units are categorized as Category "B" projects. Small units are defined as with water consumption less than 25 M3/day; Fuel consumption less than 25 TPD; and not covered in the category of MAH units as per the Management, Storage, Import of Hazardous Chemical Rules (MSIHC Rules), 1989. During presentation, PP informed that water requirement is 20.4 KL/day. Fuel requirement is 22 MT/day (<25 MT/day) and Chemicals to be used are not covered in MAH category. Hence, the proposed products of Resins fall under Category B of project activity 5(f) as per the EIA Notification 2006.

Total plot area is 3177 sq. m & unit has proposed 1047 sq m area for the green belt development/Tree plantation. Expected project cost is Rs. 1.1 Crores. This site is located at a distance @ 6.50 km from the

boundary of Throl Sanctuary. PP has obtained NOC from the CCF, Forest department, GoG. Fresh water requirement after proposed expansion will be increased from 3.3 KL/day to 22.6 KL/day (1.25 KL Domestic, 15.9 KL Industrial & 5.4 KL Gardening) which will be supplied by the GIDC. Wastewater generation after the expansion will be increased from 1.06 KL/day to 3.4 KL/day [2.4 KL/day industrial + 1 KL/day domestic]. Unit has proposed to reuse waste water after treatment. Domestic waste water will be disposed off into septic tank/soak pit system. Unit has proposed one steam boiler (1 TPH) and one HAG (10 Lac Kcal/Hr). White coal/Saw mill wooden chips (22 MT/day) will be used as fuel for Boiler and HAG. Multi Cyclone separator will be provided as APCM for Boiler and HAG. Hazardous waste to be generated are ETP waste (3.6 MT + 5.4 MT = 9 MT/ Year), Discarded containers (6 MT + 64 MT = 74 MT/Year), Used Oil (NIL + 0.12 MT = 0.12 MT/Year), Process waste (0.3 MT+ 140.7 MT = 141 MT/Year). ETP waste & Process waste will be disposed off at the nearby common TSDF. Discarded barrels / containers / bags / liners will be either reused or returned back to suppliers or sold only to the authorized vendors after decontamination. Used oil will be sold only to the registered recyclers.

Observations & Discussions:

Technical presentation made during the meeting by project proponent. On asking about raw materials to be used in context of MAH unit, PP informed that they will not store any of the raw materials/Products which attracts MAH unit as per the MSIHC Rules and they will submit legal undertaking in this regard. Committee noted that solvents will be used in the proposed production and asked PP to provide atomization for solvent handling and LDAR. Project proponent has requested to consider the project as B2 category project. The request was considered by the committee looking to the low pollution potential in terms of air & water and the following additional information was sought for appraisal of the project.

1. Land Possession Documents of the proposed site. NA permission letter from concern authority.
2. Details of surrounding industrial units within 5 KM radius with details like Name and address of the unit, type and nature of industrial activity etc.
3. Project site specific details such as aerial distance of the project site from the nearest (1) Village-Nearest residential area N(2) Water Body: Creek / Nallah / Lake / Pond / Reservoir / Canal (3) National Highway (4) State Highway (5) Railway line (6) Heritage site (7) National Park / Wild Life Sanctuary (8) Anganwadi/School/College/Institute etc. and likely impact on them due to the proposed project along with the mitigation measures proposed to minimize the likely impact. Give satellite image of 5 KM radius.
4. Legal Undertaking stating that unit is complying the three conditions [i.e. water consumption less than 25 M3/day; Fuel consumption less than 25 TPD; and not covered in the category of MAH units as per the Management, Storage, Import of Hazardous Chemical Rules (MSIHC Rules), 1989] as per the amendment to EIA Notification, 2006 vide SO 1599 (E) dated 25.06.2014.
5. Need for the proposed expansion should be justified in detail.
6. Demarcation of proposed expansion activities in lay out of the existing premises.
7. Exact details about additional infrastructural facilities, plant machineries etc. required for the proposed expansion.
8. Detailed manufacturing process along with chemical reactions and mass balance (including reuse-recycle, if any) for each product to be manufactured. Details on end use of each product.
9. Give full name and chemical formula of all the raw materials and products.
10. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the proposed expansion. Copy of permission obtained from concern authority for additional water supply.
11. Water consumption and consumption of each raw material per MT of each product.
12. Water balance diagram (including reuse-recycle, if any) along with qualitative and quantitative analysis of the each waste stream to be generated. A detailed treatability study vis-à-vis the adequacy and efficacy of the treatment facilities proposed for the wastewater to be generated.
13. Complete waste water management plan for existing as well as proposed production. Detailed

effluent treatment scheme and disposal method.

14. Technical details of the ETP including size of each unit, retention time etc. including modifications / up gradation to be done in existing ETP to take care of increased effluent quantity along with its adequacy report. Provision of online continuous pH meter, TOC analyser and flow meter at the final outlet of the ETP with an arrangement to reflect the results on company's server, which can be accessed by the GPCB on real time basis along with the time bound program for installation of the same.
15. Plan for management and disposal of waste streams to be generated from spillage, leakages, occasional reactor washing and exhausted media from Scrubber etc.
16. Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes. Details of methods to be adopted for the water conservation.
17. Details of availability of Bio-Coal and management of Bio-Coal availability during monsoon season.
18. Specific details of (i) Process gas emission from each unit process with its quantification, (ii) Air pollution Control Measures proposed for process gas emission, (iii) Adequacy of the air pollution control measures for process gas emission measures to achieve the GPCB norms (iv) Details of the utilities required (v) Type and quantity of fuel to be used for each utility (vi) Flue gas emission rate emission from each utility (vii) Air Pollution Control Measures proposed to each of the utility along with its adequacy (viii) List the sources of fugitive emission along with its quantification and proposed measures to control it.
19. Details on management of the hazardous wastes to be generated from the project stating detail of storage area for each type of waste, its handling, its utilization and disposal etc. How the manual handling of the hazardous wastes will be minimized.
20. Explore the possibilities for co-processing of the Hazardous waste/Solid waste prior to disposal into TSDF/CHWIF.
21. Methodology of de-contamination and disposal of discarded containers and its record keeping.
22. Membership of Common Environmental Infrastructure including TSDF, Common Hazardous Waste Incineration Facility (CHWIF) along with an assessment to accommodate the additional quantity of wastes to be generated.
23. Complete Management plan for By-products/spent acid to be generated, (if any) from the project including their quantity, quality, characteristics, end use etc. along with the name and address of end consumers to whom the by-product will be sold. Copies of agreement / MoU / letter of intent from them, showing their willingness to purchase said by-products/spent acids from the proposed project.
24. Name and quantity of each type of solvents to be used for proposed production. Details of solvent recovery system including mass balance, solvent loss, recovery efficiency feasibility of reusing the recovered solvents etc. for each type of solvent.
25. Data on air emissions, wastewater generation and solid / hazardous waste generation and management for the existing plant should also be incorporated. (Comparative data in tabular format).
26. Details of measures proposed for the noise pollution abatement and its monitoring.
27. A detailed EMP including the protection and mitigation measures for impact on human health and environment as well as detailed monitoring plan and environmental management cell proposed for implementation and monitoring of EMP. The EMP should also include the concept of waste-minimization, recycle/reuse/recover techniques, energy conservation, and natural resource conservation. Total capital cost and recurring cost/annum earmarked for environment pollution control measures.
28. Permission from PESO, Nagpur for storage of solvents, other toxic chemicals, if any.
29. Occupational health impacts on the workers and mitigation measures proposed to avoid the human health hazards along with the personal protective equipment (PPE) to be provided to the workers.

Provision of industrial hygienist and monitoring of the occupational injury to workers as well as impact on the workers. Plan for periodic medical check up of the workers exposed. Details of work place ambient air quality monitoring plan as per Gujarat Factories Rules.

30. MSDS of all the products and raw materials to be used.
 31. Details of hazardous characteristics and toxicity of raw materials and products to be handled and the control measures proposed to ensure safety and avoid the human health impact.
 32. Details of quantity of each hazardous chemical to be stored, material of construction of major hazardous chemical storage tanks, threshold storage quantity as per schedules of Manufacture, Storage & Import of Hazardous Chemicals (MSIHC) Rules of major hazardous chemicals.
 33. Details of the separate isolated storage area for flammable chemicals. Details of flame proof electrical fittings, DCP extinguishers and other safety measures proposed. Detailed fire control plan for flammable substances and processes showing hydrant pipeline network, provision of DG Sets, fire pumps, jockey pump, toxic gas detectors etc.
 34. Risk assessment including prediction of the worst-case scenario and maximum credible accident scenarios should be carried out. The worst-case scenario should take into account the maximum inventory of storage at site at any point of time. The risk contours should be plotted on the map clearly showing which of the facilities and surrounding units would be affected in case of an accident taking place. Based on the same, proposed safeguard measures including On-Site / Off-Site Emergency Plan should be provided.
 35. Details of fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, location of fire water tanks & capacity, separate power system for fire fighting, details of qualified and trained fire personnel & their job specifications, nearest fire station & time required to reach the proposed site. Submit line diagram of the fire hydrant network.
 36. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, manufacturing utility staff for safety related measures.
 37. Detailed five year greenbelt development program including annual budget, types & number of trees to be planted, area under green belt development [with map], budgetary outlay; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in the nearby areas and elsewhere.
 38. Consent to Establish, Consent to Operate orders obtained in past along with point wise compliance status of all the conditions stipulated therein.
 39. Records of any legal breach of Environmental laws i.e. details of show- cause notices, closure notices etc. served by the GPCB to the existing unit in last five years and actions taken then after for prevention of pollution.
 40. Details of fatal / non-fatal accidents, loss of life or man hours, if any, occurred in the existing unit in last three years and measures proposed to be taken for avoiding reoccurrence of such accidents in future.
 41. What is the hierarchical system or administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions? Details of this system may be given.
 42. A tabular chart with index for point-wise compliance of above
- The project shall be appraised on satisfactory submission of the above.

19	Shri Krishna Mines & Minerals	Survey No. 15/1/1 & 14, Kojachora-Darsadi Road, Kojachora, Tal: Mandvi, Dist : Kutch	Screening & Scoping
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Project / Activity No.: 2(b)

- M/s: Shri Krishna Mines & Minerals (herein after Project Proponent – PP) has submitted

application vide their proposal no. SIA/GJ/IND2/2271/2015 dated 18/09/2015.

Project status: Expansion

Project / Activity Details:

Sr. No.	Product	Existing	Proposed	Total
		Quantity (MT/Month)		
1	Processed Mineral Powder & Roasted Bentonite Granuals	2000	-	2000
2	Bentonite Sulphate (Activated Bleaching Earth)	-	2000	2000
	Total	2000	2000	4000
By-Products				
1	Precipitated Silica	--	4228	4228
2	Gypsum	--	5560	5560

The project falls under Category B of project activity 2(b) as per the schedule of EIA Notification 2006. Plot area is approx. 19602 sq.m. Unit has proposed 6000 sq. m area for green belt/tree plantation. Existing project cost is Rs. 5.5 Crores. Fresh water requirement after proposed expansion will be 615 KL/day which will be sourced from available water from their own mines.(Accumulated rain water). Wastewater generation after the expansion will be 568 KL/day (560 KL Industrial & 8 KL Domestic). Domestic waste water (8 KL/day) will be disposed off into septic tank/soak pit system. Effluent from process (spent acid 35%) 177 KL/Day will be reused in manufacturing process of precipitate silica. Effluent from washing and Boiler (383 KL/Day) will be collected and neutralized in ETP then it will be reused in plant premises for the washing purpose Coal / Wood Brequette :1400 MT/Month will be used as a fuel for proposed steam Boiler. Multi Cyclone Separator With Bag Filter is proposed as APCM. Scrubber is proposed as APCM for control of process gaseous emission (SO₂). Hazardouys waste to be generated are ETP sludge, Used Oil, Discarded Containers, discarded containers, Spent Sulphuric Acid (35%) -6320 MT/Month And Gypsum. ETP waste will be disposed off at the nearby common TSDF. Discarded barrels / containers / bags / liners will be either reused or returned back to suppliers or sold only to the authorized vendors after decontamination. Used oil will be sold only to the registered recyclers. Spent acid will be reused for manufacturing of precipitated silica. Generated gypsum sludge will be sent to cement industries for co-processing.

Observations & Discussions:

Technical presentation made during the meeting by project proponent. Committee observed that the project proponent has applied under the category 5(f) instead of Category 2(b). While discussing about the reuse of spent acid generated, PP could not reply about the reuse of spent acid for manufacturing of precipitated silica and reuse of high TDS effluent. At this, PP confessed about incomplete details in their submission and requested to consider their case after submission of revised Form-I and PFR, which was considered by the Committee. After detailed deliberations, It was unanimously decided to consider the project for TOR/Scoping only after submission of the following:

1. Revised Form-1 with all relevant details/corrected data and PFR.
2. Complete management of Spent sulphuric acid with feasibility report.

20.	Heal Chem Enterprise	Plot no.8/B, Virat Industrial Estate, Chhatral-Kadi Road, Village.: Dhanot, Ta.:Kalol, Dist.: Gandhinagar	Screening & Scoping
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Project / Activity No.: 5(f)

- M/s: Heal Chem Enterprise (herein after Project Proponent – PP) has submitted application vide their letter dated 18/09/2015.(Online Proposal no.SIA/GJ/IND2/2265/2015)

Project status: New**Project / Activity Details:**

This is a new unit proposes for manufacturing of Synthetic Organic Chemicals as tabulated below:

Sr. No.	Name of Products	Quantity (MT/Month)
1.	Sodium Monochloro Acetate (SMCA)	100
2.	Sodium Carboxy Methyl Cellulose (Na CMC)	50
3.	Carboxy Methyl Starch (CMS)	10
4.	EDTA Di Sodium	15
5.	EDTA Tetra Sodium	10
6.	Zinc EDTA	5
Total		190

The location of the unit is outside the notified area. As per amendment to EIA Notification, 2006 vide SO 1599 (E) dated 25.06.2014, small units are categorized as Category “B” projects. Small units are defined as with water consumption less than 25 M³/day; Fuel consumption less than 25 TPD; and not covered in the category of MAH units as per the Management, Storage, Import of Hazardous Chemical Rules (MSIHC Rules), 1989. During presentation, PP informed that water requirement is 2 KL/day. Fuel requirement is 0.4 MT/day (<25 MT/day) and Chemicals to be used are not covered in MAH category. Hence, the proposed products of Resins fall under Category B of project activity 5(f) as per the EIA Notification 2006.

Total plot area is 735.78 sq. m & unit has proposed 220 sq mtr area for the green belt development/Tree plantation. Expected project cost is Rs. 0.15 Crores. Total water consumption for proposed project will be 2 KL/day (1 KL for Domestic, 1 KL for Gardening) which will be sourced from Bore well. Industrial waste water generation will be NIL. Domestic waste water (0.8 KL/day) will be disposed off into soak pit system. It is proposed to install one Hot air generator (1 Lac Kcal/hr). Agro waste/Bio coal (0.4 MT/day) will be used as a fuel. Cyclone separator is proposed as APCM. No process gas emission is envisaged. Hazardous waste generated from the manufacturing activity will be Discarded containers/Bags/Liners (0.4 MT/Month). Discarded barrels / containers / bags / liners will be either reused or returned back to suppliers or sold only to the authorized vendors.

Observations & Discussions:

Technical presentation made during the meeting by project proponent. The request for categorizing the project as B2 was considered by the committee and the following additional information was sought for appraisal of the project.

1. Land Possession Documents of the proposed site. NA permission letter from concern authority.
2. Details of surrounding industrial units within 2 KM radius with details like Name and address of the unit, type and nature of industrial activity etc.
3. Project site specific details such as aerial distance of the project site from the nearest (1) Village-Nearest residential area N(2) Water Body: Creek / Nallah / Lake / Pond / Reservoir / Canal (3) National Highway (4) State Highway (5) Railway line (6) Heritage site (7) National Park / Wild Life Sanctuary (8) Aanganwadi/School/College/Institute etc. and likely impact on them due to the

proposed project along with the mitigation measures proposed to minimize the likely impact. Give satellite image of 2 KM radius.

4. Legal Undertaking stating that unit is complying the three conditions [i.e. water consumption less than 25 M3/day; Fuel consumption less than 25 TPD; and not covered in the category of MAH units as per the Management, Storage, Import of Hazardous Chemical Rules (MSIHC Rules), 1989] as per the amendment to EIA Notification, 2006 vide SO 1599 (E) dated 25.06.2014.
5. Layout plan of the factory premises. Provision of separate entry & exit and adequate margin all round the periphery for unobstructed easy movement of the emergency vehicle / fire tenders without reversing back. Mark the same in the plant layout.
6. Proposed monthly production of each product and product wise monthly consumption of each raw material.
7. Chemical name of each proposed product to be manufactured. Details on end use of each product.
8. Manufacturing process along with chemical reactions, mass balance for each product.
9. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the project. Copy of permission letter obtained from the CGWA or concern authority for drawl of raw water.
10. Water balance diagram (including reuse-recycle, if any) along with qualitative and quantitative analysis of each waste stream to be generated.
11. Plans for management and disposal of waste streams to be generated from spillage, leakages, vessel washing, used container washing etc. Measures proposed for preventing effluent discharge during unforeseen circumstances.
12. Action plan for 'Zero' discharge of effluent shall be included.
13. How it will be ensured that there will not be any waste water generation from the proposed products.
14. Details of possibility of chemical seepage & consequent soil contamination & mitigation measure proposed for the same for the proposed project.
15. Specific details of (i) Details of the utilities required (ii) Type and quantity of fuel to be used for each utility (iii) Flue gas emission rate from each utility (iv) Air Pollution Control Measures proposed to each of the utility along with its adequacy (v) List the sources of fugitive emission along with its quantification and proposed measures to control it.
16. Technical details of Dryers & Pulverizers with APCM. Also include action plan for fugitive emission control.
17. Specific details of fugitive emission from the unit along with its quantification and proposed measures to control it along with measures proposed to monitor VOC within work area. Details of ventilation system proposed in the work area. Measures proposed to keep the work area environment as per the norms of GFR.
18. Details of measures proposed for noise pollution abatement & its monitoring.
19. Details of management of the hazardous wastes to be generated from the project stating detail of storage area for each type of waste, its handling and its disposal. How the manual handling of the hazardous wastes will be minimized?
20. Methodology of de-contamination and disposal of discarded containers and its record keeping.
21. Measures proposed to be taken for the work area ambient air quality monitoring as per Gujarat Factories Rules.
22. A detailed EMP including the protection and mitigation measures for preventing impacts on human health and environment as well as detailed monitoring plan with respect to various parameters and responsible head for the environmental management cell and environmental management cell proposed for implementation and monitoring of EMP.
23. Detailed socio-economic development measures including community welfare program most useful in the project area for the overall improvement of the environment.

24. A detailed Green Belt Development Program including annual budget, types & number of trees to be planted, area under green belt development [with map]; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in the GIDC area and elsewhere.
 25. Details of hazardous characteristics and toxicity of raw materials and products to be handled and the control measures proposed to ensure safety and avoid the human health impacts. This shall include the details of Antidotes also.
 26. Details of quantity of each hazardous chemical to be stored, Material of Construction of major hazardous chemical storage tanks, threshold storage quantity as per schedules of the Manufacture, Storage & Import of Hazardous Chemicals Rules of major hazardous chemicals. How the manual handling of the hazardous chemicals will be minimized?
 27. Details of the separate isolated storage area for chemicals. Details of fire extinguishers, flame proof electrical fittings, DCP extinguishers and other safety measures proposed.
 28. Specific safety details / provisions for various hazardous chemicals and detailed fire control plan for flammable substances.
 29. Details of possibilities of occupational health hazards from the proposed manufacturing activities and proposed measures to prevent them.
 30. Detailed risk assessment report including prediction of the worst-case scenario and maximum credible accident scenario along with damage distances and preparedness plan to combat such situation and risk mitigation measures. Vulnerable zone demarcation.
 31. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, mfg utility staff for safety related measures.
 32. A tabular chart with index for point-wise compliance of above details.
- The project shall be appraised on satisfactory submission of the above.

21	Ravi Veneer Industries	Survey no.252/75/p3 and 252/75/p5, Kalol- Mansa Road, Village, Ta.: Kalol, Gandhinagar	Screening & Scoping
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Project / Activity No.: 5(f)

- M/s. Ravi Veneer Industries (herein after Project Proponent – PP) has submitted application vide their letter dated 19/09/2015..(Online Proposal no.SIA/GJ/IND2/2303/2015)

Project status: New

Project / Activity Details:

This is a new unit proposes for manufacturing of Synthetic Organic Chemicals as tabulated below:

Sr. no.	Name of the Products	Quantity MT/Month
1.	Phenol Formaldehyde Resin	12.5
2.	Urea Formaldehyde Resin	12.5
3.	Melamine Formaldehyde Resin	50

The location of the unit is outside the notified area. As per amendment to EIA Notification, 2006 vide SO 1599 (E) dated 25.06.2014, small units are categorized as Category “B” projects. Small units are defined as with water consumption less than 25 M3/day; Fuel consumption less than 25 TPD; and not covered in the category of MAH units as per the Management, Storage, Import of Hazardous Chemical Rules (MSIHC Rules), 1989. During presentation, PP informed that water requirement is 12 KL/day. Fuel requirement is 1.65 MT/day (<25 MT/day) and Chemicals to be used are not covered in MAH category. Hence, the proposed products of Resins fall under Category B of project activity 5(f) as per the EIA

Notification 2006.

Total plot area is 5866 sq. m & unit has proposed 2173 sq mtr area for the green belt development/Tree plantation. Expected project cost is Rs. 2.5 Crores. Aerial distance of nearest residential area of village Kalol is @ 800 m from the project site. Total water consumption for proposed project will be 12 KL/day (5 KL for Domestic, 4 KL for Gardening, 3 KL for Industrial) which will be sourced from Bore well. Industrial waste water generation will be 0.35 KL/day, which will be treated in proposed Primary treatment with followed by Evaporator. Domestic waste water (0.46 KL/day) will be disposed off into soak pit system. It is proposed to install one small Boiler (1.5 TPH). Bio coal (1.65 MT/day) will be used as fuel for Boiler. Multi Cyclone dust collector followed by Bag filter is proposed as APCM. No process gas emission is envisaged. Hazardous waste generated from the manufacturing activity will be ETP sludge & Evaporation residue (2.64 MT/Year), Discarded containers/Bags/Liners (0.42 MT/Year) and used oil (10 ltrs/Year). ETP waste & Evaporation residue will be disposed off at the nearby common TSDF. Discarded barrels / containers / bags / liners will be either reused or returned back to suppliers or sold only to the authorized vendors. Used oil will be sold only to the registered recyclers.

Observations & Discussions:

Technical presentation made during the meeting by project proponent.

Project proponent has requested to consider the project as B2 category project. The request was considered by the committee looking to the low pollution potential in terms of air & water and the following additional information was sought for appraisal of the project.

1. Land Possession Documents of the proposed site. NA permission letter from concern authority.
2. Details of surrounding industrial units within 5 KM radius with details like Name and address of the unit, type and nature of industrial activity etc.
3. Project site specific details such as aerial distance of the project site from the nearest (1) Village-Nearest residential area N(2) Water Body: Creek / Nallah / Lake / Pond / Reservoir / Canal (3) National Highway (4) State Highway (5) Railway line (6) Heritage site (7) National Park / Wild Life Sanctuary (8) Aanganwadi/School/College/Institute etc. and likely impact on them due to the proposed project along with the mitigation measures proposed to minimize the likely impact. Give satellite image of 5 KM radius.
4. Legal Undertaking stating that unit is complying the three conditions [i.e. water consumption less than 25 M3/day; Fuel consumption less than 25 TPD; and not covered in the category of MAH units as per the Management, Storage, Import of Hazardous Chemical Rules (MSIHC Rules), 1989] as per the amendment to EIA Notification, 2006 vide SO 1599 (E) dated 25.06.2014.
5. Layout plan of the factory premises. Provision of separate entry & exit and adequate margin all round the periphery for unobstructed easy movement of the emergency vehicle / fire tenders without reversing back. Mark the same in the plant layout.
6. Proposed monthly production of each grade of resin and product wise monthly consumption of each raw material.
7. Detailed manufacturing process along with chemical reactions and mass balance (including reuse-recycle, if any) for each product to be manufactured. Details on end use of each product.
8. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the project. Copy of permission letter obtained from the CGWA or concern authority for drawl of raw water.
9. Water balance diagram (including reuse-recycle, if any) along with qualitative and quantitative analysis of each waste stream to be generated.
10. Plans for management and disposal of waste streams to be generated from spillage, leakages, vessel washing, used container washing etc. Measures proposed for preventing effluent discharge during unforeseen circumstances.
11. Details of the ETP including size of each unit, retention time, other technical parameters etc. and its adequacy and efficacy report. Treatment of phenol in the effluent, if any. Action plan for 'Zero'

discharge of effluent shall be included.

12. Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes and to conserve fresh water.
13. Details of provisions to be made for evaporation of industrial effluent. Technical details of effluent evaporation system including evaporation capacity, steam required for evaporation, adequacy of the boilers to supply steam for evaporation in addition to the steam required for the process etc. Techno-economical viability of the evaporation system. Effective evaporation system shall be designed in such a way to strip or absorb the VOCs and effective stack height shall be provided to the evaporation system.
14. Details of possibility of chemical seepage & consequent soil contamination & mitigation measure proposed for the same for the proposed project.
15. Specific details of (i) Details of the utilities required (ii) Type and quantity of fuel to be used for each utility (iii) Flue gas emission rate from each utility (iv) Air Pollution Control Measures proposed to each of the utility along with its adequacy (v) List the sources of fugitive emission along with its quantification and proposed measures to control it.
16. Specific details of fugitive emission from the unit along with its quantification and proposed measures to control it along with measures proposed to monitor VOC within work area. Details of ventilation system proposed in the work area. Measures proposed to keep the work area environment as per the norms of GFR.
17. Details of measures proposed for noise pollution abatement & its monitoring.
18. Details of management of the hazardous wastes to be generated from the project stating detail of storage area for each type of waste, its handling and its disposal. How the manual handling of the hazardous wastes will be minimized?
19. Methodology of de-contamination and disposal of discarded containers and its record keeping.
20. Measures proposed to be taken for the work area ambient air quality monitoring as per Gujarat Factories Rules.
21. A detailed EMP including the protection and mitigation measures for preventing impacts on human health and environment as well as detailed monitoring plan with respect to various parameters and responsible head for the environmental management cell and environmental management cell proposed for implementation and monitoring of EMP.
22. Detailed socio-economic development measures including community welfare program most useful in the project area for the overall improvement of the environment.
23. A detailed Green Belt Development Program including annual budget, types & number of trees to be planted, area under green belt development [with map]; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in the GIDC area and elsewhere.
24. Details of hazardous characteristics and toxicity of raw materials and products to be handled and the control measures proposed to ensure safety and avoid the human health impacts. This shall include the details of Antidotes also.
25. Details of quantity of each hazardous chemical to be stored, Material of Construction of major hazardous chemical storage tanks, threshold storage quantity as per schedules of the Manufacture, Storage & Import of Hazardous Chemicals Rules of major hazardous chemicals. How the manual handling of the hazardous chemicals will be minimized?
26. Details of the separate isolated storage area for chemicals. Details of fire extinguishers, flame proof electrical fittings, DCP extinguishers and other safety measures proposed.
27. Specific safety details / provisions for various hazardous chemicals and detailed fire control plan for flammable substances.
28. Details of possibilities of occupational health hazards from the proposed manufacturing activities and proposed measures to prevent them.

29. Detailed risk assessment report including prediction of the worst-case scenario and maximum credible accident scenario along with damage distances and preparedness plan to combat such situation and risk mitigation measures. Vulnerable zone demarcation.

30. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, mfg utility staff for safety related measures.

31. A tabular chart with index for point-wise compliance of above details.

The project shall be appraised on satisfactory submission of the above.

22	Krishna Processor and Traders	Survey no.206/P4, Plot no:13, 14, Vill.: Ravki, Ta.: Lodhika, Dist.: Rajkot	Screening & Scoping
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Project / Activity No.: 5(f)

- M/s: Krishna Processor And Traders (herein after Project Proponent – PP) has submitted application vide their .(Online Proposal no.SIA/GJ/IND2/2283/2015 dated 19/09/2015.

Project status: New

Project / Activity Details:

This is a new unit proposes for manufacturing of Synthetic Organic Chemicals as tabulated below:

Sr. no.	Name of Products	Quantity (MT/Month)
1	Polyester Resin	100

The location of the unit is outside the notified area. As per amendment to EIA Notification, 2006 vide SO 1599 (E) dated 25.06.2014, small units are categorized as Category "B" projects. Small units are defined as with water consumption less than 25 M3/day; Fuel consumption less than 25 TPD; and not covered in the category of MAH units as per the Management, Storage, Import of Hazardous Chemical Rules (MSIHC Rules), 1989. During presentation, PP informed that water requirement is 0.15 KL/day. Fuel requirement is 0.5 MT/day (<25 MT/day) and Chemicals to be used are not covered in MAH category. Hence, the proposed products of Resins fall under Category B of project activity 5(f) as per the EIA Notification 2006.

Total plot area is 1134.5 sq. m & unit has proposed 185 sq m area for the green belt development/Tree plantation. Expected project cost is Rs. 0.55 Crores. Aerial distance of nearest residential area of village Ravki is @ 1.6 km from the project site. Total water consumption for proposed project will be 0.15 KL/day which will be sourced from Bore well. Industrial waste water generation will be 0.125 KL/day, which will be sent for distillation and waste water will be reused for cooling make-up. Domestic waste water (0.08 KL/day) will be disposed off into soak pit system. It is proposed to install one TFH (2 Lac Kcal/hr). White coal (0.5 MT/day) will be used as fuel for Boiler. Cyclone dust collector is proposed as APCM. No process gas emission is envisaged. Hazardous waste generated from the manufacturing activity will be Discarded containers/Bags/Liners and used oil. Discarded barrels / containers / bags / liners will be either reused or returned back to suppliers or sold only to the authorized vendors. Used oil will be sold only to the registered recyclers.

Observations & Discussions:

Technical presentation made during the meeting by project proponent. While discussing about the use of Monomer and its odour problem, PP informed that they will submit the complete details about odour control plan. The request for categorizing the project as B2 was considered by the committee and the following additional information was sought for appraisal of the project.

1. Land Possession Documents of the proposed site. NA permission letter from concern authority.
2. Details of surrounding industrial units within 2 km radius with details like Name and address of the unit, type and nature of industrial activity etc.

3. Project site specific details such as aerial distance of the project site from the nearest (1) Village-Nearest residential area N(2) Water Body: Creek / Nallah / Lake / Pond / Reservoir / Canal (3) National Highway (4) State Highway (5) Railway line (6) Heritage site (7) National Park / Wild Life Sanctuary (8) Aanganwadi/School/College/Institute etc. and likely impact on them due to the proposed project along with the mitigation measures proposed to minimize the likely impact. Give satellite image of 2 km radius.
4. Legal Undertaking stating that unit is complying the three conditions [i.e. water consumption less than 25 M3/day; Fuel consumption less than 25 TPD; and not covered in the category of MAH units as per the Management, Storage, Import of Hazardous Chemical Rules (MSIHC Rules), 1989] as per the amendment to EIA Notification, 2006 vide SO 1599 (E) dated 25.06.2014.
5. Layout plan of the factory premises. Provision of separate entry & exit and adequate margin all round the periphery for unobstructed easy movement of the emergency vehicle / fire tenders without reversing back. Mark the same in the plant layout.
6. Proposed monthly production of each grade of resin and product wise monthly consumption of each raw material.
7. Chemical name of each proposed product to be manufactured. Details on end use of each product.
8. Manufacturing process along with chemical reactions, mass balance for each product.
9. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the project. Copy of permission letter obtained from the CGWA or concern authority for drawl of raw water.
10. Water balance diagram (including reuse-recycle, if any) along with qualitative and quantitative analysis of each waste stream to be generated.
11. Plans for management and disposal of waste streams to be generated from spillage, leakages, vessel washing, used container washing etc. Measures proposed for preventing effluent discharge during unforeseen circumstances.
12. Action plan for 'Zero' discharge of effluent shall be included.
13. How it will be ensured that there will not be any waste water generation from the proposed products.
14. Details of possibility of chemical seepage & consequent soil contamination & mitigation measure proposed for the same for the proposed project.
15. Specific details of (i) Details of the utilities required (ii) Type and quantity of fuel to be used for each utility (iii) Flue gas emission rate from each utility (iv) Air Pollution Control Measures proposed to each of the utility along with its adequacy (v) List the sources of fugitive emission along with its quantification and proposed measures to control it.
16. Detailed odor management plan.
17. Technical details of Dryers & Pulverizers with APCM. Also include action plan for fugitive emission control.
18. Specific details of fugitive emission from the unit along with its quantification and proposed measures to control it along with measures proposed to monitor VOC within work area. Details of ventilation system proposed in the work area. Measures proposed to keep the work area environment as per the norms of GFR.
19. Details of measures proposed for noise pollution abatement & its monitoring.
20. Details of management of the hazardous wastes to be generated from the project stating detail of storage area for each type of waste, its handling and its disposal. How the manual handling of the hazardous wastes will be minimized?
21. Methodology of de-contamination and disposal of discarded containers and its record keeping.
22. Measures proposed to be taken for the work area ambient air quality monitoring as per Gujarat Factories Rules.
23. A detailed EMP including the protection and mitigation measures for preventing impacts on human

health and environment as well as detailed monitoring plan with respect to various parameters and responsible head for the environmental management cell and environmental management cell proposed for implementation and monitoring of EMP.

24. Detailed socio-economic development measures including community welfare program most useful in the project area for the overall improvement of the environment.
25. A detailed Green Belt Development Program including annual budget, types & number of trees to be planted, area under green belt development [with map]; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in the GIDC area and elsewhere.
26. Details of hazardous characteristics and toxicity of raw materials and products to be handled and the control measures proposed to ensure safety and avoid the human health impacts. This shall include the details of Antidotes also.
27. Details of quantity of each hazardous chemical to be stored, Material of Construction of major hazardous chemical storage tanks, threshold storage quantity as per schedules of the Manufacture, Storage & Import of Hazardous Chemicals Rules of major hazardous chemicals. How the manual handling of the hazardous chemicals will be minimized?
28. Details of the separate isolated storage area for chemicals. Details of fire extinguishers, flame proof electrical fittings, DCP extinguishers and other safety measures proposed.
29. Specific safety details / provisions for various hazardous chemicals and detailed fire control plan for flammable substances.
30. Details of possibilities of occupational health hazards from the proposed manufacturing activities and proposed measures to prevent them.
31. Detailed risk assessment report including prediction of the worst-case scenario and maximum credible accident scenario along with damage distances and preparedness plan to combat such situation and risk mitigation measures. Vulnerable zone demarcation.
32. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, mfg utility staff for safety related measures.
33. A tabular chart with index for point-wise compliance of above details.

The project shall be appraised on satisfactory submission of the above.

23	Grasim Industries Ltd.(Chemical Division)	Plot No-1,GIDC Industrial Estate ,Vilyat,Taluka-Vagra,Bharuch,Gujarat	Screening & Scoping
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Project / Activity No.: 5(f), 4 (d) & 1(d)

- M/s: Grasim Industries Ltd.(Chemical Division) (herein after Project Proponent – PP) has submitted application vide their online Proposal no.SIA/GJ/IND2/2338/2015 dated 19/09/2015.

Project status: Expansion

Project / Activity Details:

This is an existing new unit proposes for expansion as tabulated below:

Sr. No.	Name of Product	Production Capacity (MT/Annum)		
		Existing (a)	Proposed (b)	Total (a+b)
1	Captive Power Plant	96MW (per day)	64 MW (per day)	160MW (per day)
2	Chlorinated Paraffin Wax	36,500	33,500	70,000
3	Caustic Soda Lye	219,000	146,000	365,000
4	Poly Aluminum Chloride	146,000	104,000	250,000
5	Aluminum Chloride	14,600	10,400	25,000

6	Stable Bleaching Powder	36,500	24,500	61,000
7	Hydrogen	61,320,000 (Nm ³)	40,880,000 (Nm ³)	102,200,000 (Nm ³)
8	Liquid Chlorine /Sodium Hypochlorite / Hdrochloric Acid	197,100	131,400	328,500

The project falls under Category B of project activity 5(f), 4 (d) & 1(d) as per the schedule of EIA Notification 2006.

This unit has an existing unit for manufacturing of Viscose Staple Fiber, Chlor-Alkali, Synthetic Organic Chemicals, EPOXY-ECH plant and Captive Power plant. Now unit has proposed to increase the production capacity of Synthetic Organic Chemicals, Captive Power Plant and Chlor -Alkali & associated products. Proposed expansion will be carried out within the existing premises of M/s. Grasim Industries Pvt. Ltd. (Chemical Division) and no land will be procured for the proposed expansion. Total area after proposed expansion would be 469160.70 sq. Meter out of which area for proposed expansion is 80937.12 sq. m. Total green belt area after proposed expansion will be 154823.02 sq. m. Fresh water requirement after proposed expansion will be increased from 15400 KL/day to 22750 KL/day (400 KL Domestic, 22350 KL Industrial) which will be supplied by the GIDC. Wastewater generation after the expansion will be increased from 5350 KL/day to 7960 KL/day [7660 KL/day industrial + 300 KL/day domestic]. Industrial Effluent will be treated in ETP and treated wastewater will be discharged to Dahej –Vilayat pipeline. Domestic wastewater (300 KL/day) will be treated in STP and treated wastewater will be reused for gardening purposes. Treated domestic wastewater will be reused for gardening purposes. At present Coal consumption in four no.s of steam boilers (175 TPH each) is 100 MT/hr. ESP & low NOx burners are provided as APCM. Now unit has proposed two boilers (175 TPH each) with ESP & low NOx Boilers as APCM. Total consumption of Imported Coal after proposed expansion will be 4000 MT/Day. Unit has provided scrubbing system with various existing process plants to control gaseous emissions of CL₂ & HC. Unit has proposed separate scrubbing system with different process plants (8 vents) to control gaseous emissions of CL₂ & HC. Hazardous waste to be generated are ETP waste (10 MT + 7 MT = 17 MT/Year), Discarded containers (1000 no.s + 680 no.s = 1680 no.s/Year), Discarded Bags/Liners (15 MT + 10 MT = 25 MT/Year), Used Oil (60 KL + 40 KI = 100 KL/Year), Brine/Process Sludge (3640 MT+ 2420 MT = 6066 MT/Month), Spent Resin (0.2 MT + 0.13 MT = 0.33 MT/Year), Spent Carbon (0.2 MT + 0.13 MT = 0.33 MT/Year). ETP waste, Brine/ process Sludge, Spent Resin & Spent carbon (from filters) will be disposed off at the nearby common TSDF. Discarded barrels / containers / bags / liners will be either reused or returned back to suppliers or sold only to the authorized vendors after decontamination. Used oil will be sold only to the registered recyclers. Fly ash (144000 MT) will be sold to M/s: Anmol & Co., J.K.Lakshmi Cement and Ambuja Cement. E-waste and Battery waste will be sold to authorised recyclers.

Observations/Discussions:

Technical presentation during the meeting included the Point wise compliance including technical details. During meeting, issues related to accreditation of consultant engaged with this project, green belt development, compliance of existing EC and CCA, CSR etc. have been discussed. After detailed deliberations on various aspects of the project following TORs were prescribed in addition to the draft TOR proposed, to carry out EIA study covering 10 km radius from the project boundary of the proposed site :

1. Need for the proposed expansion should be justified in detail.
2. Demarcation of proposed expansion activities in lay out of the existing premises.
3. Exact details about additional infrastructural facilities, plant machineries etc. required for the proposed expansion.

4. Technical details of the plant/s along with details on best available technologies (BAT), proposed technology and reasons for selecting the same.
5. Detailed manufacturing process along with chemical reactions and mass balance (including reuse-recycle, if any) for each product to be manufactured. Details on end use of each product.
6. Technical details of the proposed power plant along with details of strategy for implementation reuse / recycle and other cleaner production options for reduction of wastes. Generation of waste gases and utilization of waste heat have to be set out.
7. Explore possibilities to go for air cooled condensers instead of water cooled condensers in order to reduce the raw water requirement.
8. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the proposed expansion. Copy of permission obtained from GIDC for additional water supply.
9. Water consumption and consumption of each raw material per MT of each product.
10. Water balance diagram (including reuse-recycle, if any) along with qualitative and quantitative analysis of the each waste stream to be generated. A detailed treatability study vis-à-vis the adequacy and efficacy of the treatment facilities proposed for the wastewater to be generated.
11. Explore the possibility to achieve minimum effluent discharge by reuse / recycle of treated effluent within the premises. Revised water balance diagram showing reduced fresh water requirement in case of reuse / recycle of treated effluent.
12. Complete waste water management plan for existing as well as proposed production. Detailed effluent treatment scheme and disposal method. Technical details of the ETP & STP including size of each unit, retention time etc. including modifications / up gradation to be done in existing ETP to take care of increased effluent quantity along with its adequacy report. Provision of online flow meter at the final outlet of the ETP & STP.
13. Undertaking stating that a separate electric meter will be provided for the ETP.
14. Qualitative and quantitative analysis of each product and stream wise effluent to be generated from the project along with the treatment scheme proposed.
15. Details of segregation of the wastewater streams to be carried out, if any and plans for management and disposal of different waste water streams to be generated.
16. Application wise breakup of treated water utilization.
17. Plan for management and disposal of waste streams to be generated from spillage, leakages, occasional reactor washing and exhausted media from Scrubber etc.
18. Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes. Details of methods to be adopted for the water conservation.
19. One season site-specific meteorological data including temperature, relative humidity, hourly wind speed and direction and rainfall shall be provided.
20. Anticipated environmental impacts due to the proposed project/production may be evaluated for significance and based on corresponding likely impacts VECs (Valued Environmental Components) may be identified. Baseline studies may be conducted within the study area of 5 km for all the concerned/identified VECs and likely impacts will have to be assessed for their magnitude in order to identify mitigation measures.
21. One complete season AAQ data (except monsoon) to be given along with the dates of monitoring. Parameters to be considered shall be in accordance with the revised national ambient air quality standards. Project specific parameters like CS₂, H₂S, SO₂, Cl₂, HCl etc. shall be considered in addition to general parameters. The location of the monitoring stations should be so decided so as to take into consideration the pre-dominant downwind direction, population zone and sensitive receptors. There should be at least one monitoring station in the upwind direction. There should be at least one monitoring station in the pre dominant downwind direction at a location where maximum ground level concentration is likely to occur.
22. Impact of the project on the AAQ of the area. Details of the model used and the input parameters

used for modeling should be provided. The air quality contours may be plotted on a location map showing the location of project site, habitation, sensitive receptors, if any. The wind roses should also be shown on this map.

23. Specific details of (i) Process gas emission from each unit process with its quantification, (ii) Air pollution Control Measures proposed for process gas emission, (iii) Adequacy of the air pollution control measures for process gas emission measures to achieve the GPCB norms (iv) Details of the utilities required (v) Type and quantity of fuel to be used for each utility (vi) Flue gas emission rate emission from each utility (vii) Air Pollution Control Measures proposed to each of the utility along with its adequacy (viii) List the sources of fugitive emission along with its quantification and proposed measures to control it (ix) Details on tail gas treatment.
24. Impact on local transport infrastructure due to the project such as transportation of raw material, finished product, Fuel (Imported Coal) etc. Base line status of the existing traffic, projected increase in truck traffic as a result of the project in the present road network, impact on it due to the project activities, carrying capacity of the existing roads and whether it is capable of handling the increased load. Details regarding arrangement for improving the infrastructure like road etc. if any should be covered. Whether any additional infrastructure would need to be constructed and the agency responsible for the same with time frame.
25. Type of fuel (Quality of Imported Coal) to be used for the project and copies of confirm fuel linkage/agreement.
26. Specific details of fugitive emission from the unit along with measures proposed to monitor VOC within work area. Details of ventilation system proposed in the work area. Measures proposed to keep the work area environment as per the norms of GFR.
27. Details and time bound program for installation of online monitoring system in the existing as well as proposed plants for monitoring of the pollutants from the treated effluent, stacks and process vents with a software and an arrangement to reflect the online monitored data on the company's server, which can be accessed by the GPCB on real time basis.
28. Details of possibility of chemical seepage & consequent soil contamination & mitigation measure proposed for the same for the proposed project.
29. Details on management of the hazardous wastes to be generated from the project stating detail of storage area for each type of waste, its handling, its utilization and disposal etc. How the manual handling of the hazardous wastes will be minimized.
30. Methodology of de-contamination and disposal of discarded containers along with the details on its record keeping, management of effluent to be generated from decontamination of the discarded containers etc.
31. Detailed plan of ash evacuation, handling, storage, capacity of silos for ash storage and utilization should be provided. Undertaking stating that ash pond shall not be constructed and it shall be stored in closed silos only should be incorporated.
32. Membership of Common Environmental Infrastructure including the TSDF / Common Hazardous Waste Incineration facility along with an assessment to accommodate the additional quantity of wastes to be generated. Copies of MOU / agreements done with actual consumers regarding utilization of fly ash, bottom ash etc. should also be incorporated.
33. Management plan for By-products (if any) to be generated, along with the name and address of end consumers to whom the by-product/s will be sold. Copies of agreement / MoU / letter of intent from them, showing their willingness to purchase said by-product/s from the proposed project.
34. Name and quantity of each type of solvents to be used for proposed production. Details of solvent recovery system including mass balance, solvent loss, recovery efficiency feasibility of reusing the recovered solvents etc. for each type of solvent.
35. Data on air emissions, wastewater generation and solid / hazardous waste generation and management for the existing plant should also be incorporated.

36. Details of measures proposed for the noise pollution abatement and its monitoring.
37. A detailed EMP including the protection and mitigation measures for impact on human health and environment as well as detailed monitoring plan and environmental management cell proposed for implementation and monitoring of EMP. The EMP should also include the concept of waste-minimization, recycle/reuse/recover techniques, energy conservation, and natural resource conservation. Total capital cost and recurring cost/annum earmarked for environment pollution control measures.
38. Occupational health impacts on the workers and mitigation measures proposed to avoid the human health hazards along with the personal protective equipment to be provided to the workers. Provision of industrial hygienist and monitoring of the occupational injury to workers as well as impact on the workers. Plan for periodic medical check up of the workers exposed. Details of work place ambient air quality monitoring plan as per Gujarat Factories Rules.
39. MSDS of all raw materials and products.
40. Details of hazardous characteristics and toxicity of raw materials and products to be handled and the control measures proposed to ensure safety and avoid the human health impact.
41. Details of quantity of each hazardous chemical to be stored, material of construction of major hazardous chemical storage tanks, threshold storage quantity as per schedules of Manufacture, Storage & Import of Hazardous Chemicals Rules of major hazardous chemicals.
42. Risk assessment including prediction of the worst-case scenario and maximum credible accident scenarios should be carried out. The worst-case scenario should take into account the maximum inventory of storage at site at any point of time. The risk contours should be plotted on the map clearly showing which of the facilities and surrounding units would be affected in case of an accident taking place. Based on the same, proposed safeguard measures including On-Site / Off-Site Emergency Plan should be provided.
43. Details of fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, location of fire water tanks & capacity, separate power system for fire fighting, details of qualified and trained fire personnel & their job specifications, nearest fire station & time required to reach the proposed site. Submit line diagram of the fire hydrant network.
44. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, manufacturing utility staff for safety related measures.
45. Detailed five year greenbelt development program including annual budget, types & number of trees to be planted, area under green belt development [with map], budgetary outlay; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in the nearby areas and elsewhere.
46. Detailed socio-economic development measures including community welfare program most useful in the project area for the overall improvement of the environment. Submit a detailed plan for social corporate responsibilities, with appropriate budgetary provisions for the next five years and activities proposed to be carried out; specific to the current demographic status of the area.
47. Copies of analysis report of the water samples of final outlet of ETP collected by GPCB.
48. Consent to Establish, Consent to Operate orders obtained in past along with point wise compliance status of all the conditions stipulated therein.
49. Copy of Environmental Clearance obtained, if any, for the existing project and a certified report of the status of compliance of the conditions stipulated in the environmental clearance for the existing operation of the project by the Regional Office of the MoEF.
50. Records of any legal breach of Environmental laws i.e. details of show- cause notices, closure notices etc. served by the GPCB to the existing unit in last five years and actions taken then after for prevention of pollution.
51. Details of fatal / non-fatal accidents, loss of life or man hours, if any, occurred in the existing unit in

last three years and measures proposed to be taken for avoiding reoccurrence of such accidents in future.

52. A tabular chart for the issues raised and addressed during public hearing/consultation and commitment of the project proponent on the same should be provided. An action plan to address the issues raised during public hearing and the necessary allocation of funds for the same should be provided.
53. (a) Does the company have a well laid down Environment Policy approved by its Board of Directors? If so, it may be detailed in the EIA report.
54. (b). Does the Environment Policy prescribe for standard operating process / procedures to bring into focus any infringement / deviation / violation of the environmental or forest norms / conditions ? If so, it may be detailed in the EIA.
55. What is the hierarchical system or administrative order of the company to deal with the environmental issues and for ensuring compliance with the EC conditions. Details of this system may be given.
56. Does the company have a system of reporting of non compliances / violations of environmental norms to the Board of Directors of the company and / or shareholders or stakeholders at large? This reporting mechanism should be detailed in the EIA Report.
57. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.
58. An undertaking by the Project Proponent on the ownership of the EIA report as per the MoEF&CC OM dated 05/10/2011 and an undertaking by the Consultant regarding the prescribed TORs have been complied with and the data submitted is factually correct as per the MoEF&CC OM dated 04/08/2009. (Compliance of OM dated 05/10/2011 & 04/08/2009).
59. A tabular chart with index for point-wise compliance of above TORs.

The above mentioned project specific TORs/additional TORs and the model TORs available in the MoEF's sector specific EIA Manual for "Synthetic Organic Chemicals", "Thermal Power Plants" and "Chlor-Alkali 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. The draft EIA report shall be submitted to the Gujarat Pollution Control Board for conducting the public consultation process as per the provisions of the EIA Notification, 2006. The project shall be appraised on receipt of the final EIA report.

24	Goenka Industries Pvt. Ltd	Block No. 170, Kanav, Te:palsana , Surat, Gujarat	Screening & Scoping
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Project / Activity No.: 5(d)

- M/s: Goenka Industries Pvt. Ltd (herein after Project Proponent – PP) has submitted application vide their .(Online Proposal no.SIA/GJ/IND2/2391/2015) letter dated 23/09/2015.

Project status: New

Project / Activity Details:

This is a new unit proposes the manufacturing of following items

Sr. no.	Name of the Products	Quantity (MT/Month)
1	Nylon Fully drawn Yarn (FDY)	650
2.	Waste Yarn (By Product)	20

The project falls under Category B of project activity 5(d) as per the schedule of EIA Notification 2006.

Basic raw materials for manufacturing of FDY are Poly Amide 6 Chips and Spin Finish Oil. Total plot area is 15884 sq. m & unit has proposed 6804 sq m area for the green belt development/Tree plantation. Expected project cost is Rs. 80.92 Crores.

Total water consumption for proposed project will be 100 KL/day which will be sourced from Canal water. Industrial waste water generation will be 28.8 KL/day. Waste water will be sent to ETP for further treatment and treated waste water will be utilized for green belt development/plantation within premises. Domestic waste water (2.8 KL/day) will be disposed off into soak pit system. There will be no flue gas emission and no process gaseous emission from the proposed project. Unit has proposed one DG set (250 KVA) in which HSD will be used as fuel. Hazardous waste generated from the manufacturing activity will be ETP sludge, discarded containers and used oil.

Observations & Discussions:

Technical presentation made during the meeting by project proponent. During meeting, Committee observed that the surrounding area of the proposed project site is lush green area with farming activity and one irrigation canal is passing adjacent to proposed site. On asking about the justification for the site selection, PP could not reply satisfactorily. PP confessed that the proposed site is surrounded by agriculture land and there is no industrial unit located in the nearby vicinity. At this, Committee asked to identify another suitable location for proposed project which was agreed to by the project proponent.

25.	Active Specialties	Plot No.3536/6, GIDC - Chhatral, Ta.: Kalol, Dist.: Gandhinagar	Screening & Scoping
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Project / Activity No.: 5(f)

- M/s: Active Specialties (herein after Project Proponent – **PP**) has submitted application vide their proposal no. SIA/GJ/IND2/2380/2015 dated 22/09/2015.

Project status: New

Project / Activity Details:

This is a new unit proposes the manufacturing of following items.

Sr. no.	Name of the Products	Proposed Quantity (MT/Month)
1.	Styrene Acrylic Printing Binder <u>Trade Name:</u> ACI EXL 34/ 38/ 45/ 50/ 1025/ 2012/ 2030, ACI FIX F2, etc.	175
2.	Styrene Acrylic Paint Binder <u>Trade Name:</u> ACRYL 560 / 4560, etc.	75
3.	Pure Acrylic Paint Binder <u>Trade Name:</u> ACRY PURE 4750, etc.	50
4.	VAM Acrylic Printing Binder <u>Trade Name:</u> ACRY VAM 4750 / 5055, etc.	25
5.	Ethyl Acrylic Printing binder <u>Trade Name:</u> ACI TH 60, DA 620, ETL 35 / 45, ACI ECO 4000 KB, etc.	25

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Total plot area is 688.80 sq. m & unit has proposed 60.20 sq. m. area for the green belt development/Tree plantation. Expected project cost is Rs. 150 lacs. Total water consumption for proposed project will be 2.6 KL/day (0.8 KL/day for Domestic, 0.1 KL/day for Gardening, 1.5 KL/day for boiler & 0.2 KL/day for cooling tower) which will be sourced from GIDC water supply. Industrial waste water generation of 0.15 KL/day from boiler & cooling tower will be used for gardening & plantation after mixing it with fresh water. Domestic waste water of 0.64 KL/day will be disposed off into soak pit system. It is proposed to install one small Boiler (0.6TPH) with adequate stack height and LDO at the rate of 50

lit/day will be used as fuel. Hazardous waste generated from the manufacturing activity will be discarded drums / containers (965 Nos./month) and bags with liner (180 Nos./month). Discarded drums/containers will be sold to registered recycler or will be reused for finished goods packing. Bags with liner will be sold to recyclers.

Observations/Discussions:

Technical presentation made during the meeting by project proponent.

During the meeting, PP was asked to ensure that there shall not be any kind of effluent generation from the manufacturing activities as well as any ancillary operations. Committee noted that there is no process gas emission and use of fuel will be LDO. Project proponent has requested to consider the project as B2 category project. The request was considered by the committee looking to the low pollution potential in terms of air & water and location of the project in GIDC Chhatral and the following additional information was sought for appraisal of the project.

1. Copy of plot holding certificate obtained from GIDC Chhatral.
2. Layout plan of the factory premises showing the proposed expansion activities on the same. Provision of separate entry & exit and adequate margin all round the periphery for unobstructed easy movement of the emergency vehicle / fire tenders without reversing back. Mark the same in the plant layout.
3. Demarcation of proposed activities in lay out plan. Exact details about infrastructural facilities, plant machineries etc. required for the proposed project.
4. Monthly consumption of each raw material. Detailed manufacturing process along with chemical reactions and mass balance (including reuse-recycle, if any) for each product to be manufactured. Details on end use of each product.
5. Detailed manufacturing process of each product along with chemical reactions, mass balance and schematic diagram.
6. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the proposed project. Copy of permission letter obtained from the GIDC for supply of raw water as per the requirement of the proposed project.
7. Water balance (including reuse-recycle, evaporation if any)
8. Undertaking to install separate reaction vessels for each of the product and not to carry out any washing activity.
9. Detailed technical justification regarding no generation from the manufacturing process and ancillary operations (Boiler, Cooling etc.) and undertaking in this regard.
10. Plan for management and disposal of waste streams to be generated from spillage, leakages etc. Measures proposed for preventing effluent discharge during unforeseen circumstances.
11. Action plan for 'Zero' discharge of effluent shall be included.
12. Explore the possibility of reuse / recycle and other cleaner production options for reduction of wastes and to conserve fresh water.
13. Details of possibility of chemical seepage & consequent soil contamination & mitigation measure proposed for the same.
14. Specific details of (i) Details of the utilities required, (v) Types of fuel to be used and quantity of the each fuel, (vi) Flue gas emission rate from each utility along with stack height, (vii) Air Pollution Control Measures proposed along with its adequacy, (viii) List the sources of fugitive emission from the unit along with its quantification and proposed measures to control it. (All these details should be in tabular format with comparative data of existing and proposed data).
15. Specific details of fugitive emission from the unit along with measures proposed to monitor VOC within work area. Details of ventilation system proposed in the work area. Measures proposed to keep the work area environment as per the norms of GFR.
16. Details of measures proposed for noise pollution abatement & its monitoring.
17. Details of management of the hazardous wastes to be generated from the project stating detail of

storage area for each type of waste, its handling and its disposal. How the manual handling of the hazardous wastes will be minimized? (All these details should be in tabular format with comparative data for existing and proposed activity).

18. Methodology of de-contamination and disposal of discarded containers and its record keeping.
19. Complete Management plan for By-products/Spent acids to be generated from the project including their quantity, quality, characteristics, end use etc. along with the name and address of end consumers to whom the by-product will be sold. Copies of agreement / MoU / letter of intent from them, showing their willingness to purchase said by-product from the proposed project. Also give characteristics of the by products and feasibility of their actual use in respective products as a raw material.
20. Name and quantity of each type of solvents to be used for proposed production. Details of solvent recovery system including mass balance, solvent loss, recovery efficiency feasibility of reusing the recovered solvents etc. for each type of solvent.
21. Measures proposed to be taken for the work area ambient air quality monitoring as per Gujarat Factories Rules.
22. Copy of membership certificate from Common Environmental Infrastructure including the TSDF / Common Hazardous Waste Incineration facility for disposal of hazardous wastes to be generated from the proposed project.
23. A detailed EMP including the protection and mitigation measures for preventing impacts on human health and environment as well as detailed monitoring plan with respect to various parameters and responsible head for the environmental management cell and environmental management cell proposed for implementation and monitoring of EMP.
24. A detailed Green Belt Development Program including annual budget, types & number of trees to be planted, area under green belt development [with map]; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in the GIDC area and elsewhere.
25. Details of hazardous characteristics and toxicity of raw materials and products to be handled and the control measures proposed to ensure safety and avoid the human health impacts. This shall include the details of Antidotes also.
26. Details of quantity of each hazardous chemical to be stored, Material of Construction of major hazardous chemical storage tanks, threshold storage quantity as per schedules of the Manufacture, Storage & Import of Hazardous Chemicals Rules of major hazardous chemicals. How the manual handling of the hazardous chemicals will be minimized?
27. Details of the separate isolated storage area for flammable chemicals. Details of flame proof electrical fittings, DCP extinguishers and other safety measures proposed.
28. Specific safety details / provisions for various hazardous chemicals including solvents to be used in the process along with onsite emergency plan.
29. Details of possibilities of occupational health hazards from the proposed manufacturing activities and proposed measures to prevent them.
30. Risk assessment including prediction of the worst-case scenario and maximum credible accident scenarios should be carried out. The worst-case scenario should take into account the maximum inventory of storage at site at any point of time. The risk contours should be plotted on the map clearly showing which of the facilities and surrounding units would be affected in case of an accident taking place. Based on the same, proposed safeguard measures including On-Site / Off-Site Emergency Plan should be provided.
31. Details of fire fighting system including provision for flame detectors, temperature actuated heat detectors with alarms, automatic sprinkler system, location of fire water tanks & capacity, separate power system for fire fighting, details of qualified and trained fire personnel & their job specifications, nearest fire station & time required to reach the proposed site. Submit line diagram of

the fire hydrant network.

32. Detailed fire control plan for flammable substances and processes showing hydrant pipeline network, provision of DG Sets, fire pumps, jockey pump, toxic gas detectors etc.

33. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, mfg utility staff for safety related measures.

34. A tabular chart with index for point-wise compliance of above details.

The project shall be appraised on satisfactory submission of the above.

26.	CRL Terminals Private Limited (A Royal Vopak Company)	Near Oil Jetty, Opp. IFFCO, Old Kandla, Ta.: Gandhidham, Dist.: Kutch	Screening & Scoping
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Project / Activity No.: 6 (b)

- M/s: CRL Terminals Private Limited (herein after Project Proponent – PP) has submitted application vide their letter dated 01/07/2015.
- PP did not remain present in the SEAC meeting dated 09/09/2015.

Project status: Existing

Project / Activity Details:

This is an existing storage facility for Petroleum Class A & C products and for edible & non-edible oil. The unit is now proposing expansion by addition of 3 storage for Petroleum class A/B/C products including major infrastructure improvement program. The set-up for existing as well as proposed expansion is tabulated as below:

Sr. no.	Product Classification for storage	No. of storage tanks	No. of storage tanks after proposed expansion	Existing storage capacity and no. of storage tanks	Total capacity after Proposed expansion
1	Storage Tanks of Class A / B / C	57	60	140238 KL	133963 KL
2	Edible and Non-Edible Oil	12	11	17328 KL	11037 KL

Proposed installation of isolated chemical storage tank falls under project / activity no. 6(b) in the schedule of the EIA Notification, 2006.

No additional land will be acquired for the proposed expansion. Unit has obtained various permissions/approvals from the concern authorities for storage of Class A, C chemicals and for storage of edible/non-edible oil. All these 69 tanks were installed before 14/09/2005. Total investment for the proposed expansion including major infrastructure improvement program will be 200 Crores. Total plot area is 96375 sq. m. Total green belt/tree plantation area is 1260 sq. m. Total water consumption will be 25 KL/day (13 KL Domestic, 7 KL Washing & 5 KL Gardening), which will be sourced from road tankers. Generated industrial waste water (7 KL per day) will be sent to CHWIF for incineration. Domestic waste water will be disposed of into soak pit/septic tank. At present unit has provided one FO based steam Boiler. Two DG sets (200 KVA and 380 KVA) are provided as stand-by facility. Unit has proposed two additional DG sets (362 KVA & 1250 KVA). Diesel will be used as a fuel for DG sets. Hazardous waste

generated from the manufacturing activity will be Oily waste (720 Lit./Annum), Pigging waste (7 MT/Annum) and used oil (600 Lit./Annum). Disposal of hazardous waste will be as per the HW Rules. This unit is a member of integrated hazardous waste management facility of SEPPL.

Observations/Discussions:

Presentation made by the proponent included the general information about the project, Storage Details, Site Location Map, CRZ Map, Site Layout Map, various permissions/approvals, Water Consumption and Wastewater generation, Fuel consumption, Hazardous waste generation, SHE Improvement Plans etc.

On asking about the discrepancies between the capacity in various Permissions/Approvals and the capacity as per CC&A of the Board, Project proponent admitted that they have checked the previous CC&A of the year 2009 & year 2004 and the same discrepancies are there. Further, PP assured that operational capacity per class of product never exceeded the quantities approved by GPCB in its storage permission of the year 2000. Project proponent provided various documents regarding permissions/approvals of existing storage tanks which are summarised as below:

- GPCB issued NOC (Year 2000) for the storage permission for Petrochemical (Class A & Class C) products with the capacity for the storage of petroleum class A product – 73108 KL in 42 storage tanks and Petroleum class C products – 67130 in 15 tanks i.e. Total 140238 KL in total 57 storage tanks.
- GPCB issued NOC (Year 2005) for an additional 17328 KL storage capacity for edible and non-edible oil vide dated 01/07/2004.
- F&ED, GoG has also granted CRZ clearance for these additional 12 no.s of storage tanks having storage capacity of 17328 KL of edible/non-edible oil.
- PESO license for storage capacity of 1, 40,148 KL valid up to 31/12/2016.
- Explosive license from the District Magistrate, Bhuj for 140148 KL storage capacity, which is valid up to 31/12/2016.
- Approval letter from the office of the Industrial Safety and Health, Ahmedabad vide dated 15/02/2005 for expansion in capacity for 140238 KL to 157566 KL and its validity upto 31/12/2017.

Project proponent presented that all storage tanks were installed before year 14/09/2006 and were operational since year 2005. Looking to the licenses/permissions obtained from concern authorities for existing storage tanks, It is evident that project proponent has not made any physical expansion of their storage terminal after year 2005. Committee observed that one corner of the existing plot is covered under the CRZ area as per the CRZ map prepared by IRS, Anna university. On asking, PP informed that they have obtained CRZ clearance for edible/non edible oil from the F&ED, GoG. Further PP informed that there is no tanks of Solvents/Chemicals exist within the CRZ area and the proposed expansion will not take place within that CRZ area. It was observed that project proponent have obtained PESO permission for Class A & C products and now proposes to include Class B products which is having less risk potential than the Class A products. The storage capacity of Petroleum products and edible/non-

edible oil will be reduced after this proposed expansion. Committee noted that there is no increase in storage capacity and no increase in pollution load. Further project proponent presented that the proposed addition of 3 storage tanks with the infrastructure improvement program will have positive impact on environment. Considering the above, the request for categorizing the project as B2 was considered by the committee. After detailed deliberations the Committee sought following additional information for further consideration of the proposal:

1. Layout plan of the factory premises showing location of the proposed additional storage tanks. Provision of separate entry & exit and adequate margin all round the periphery for unobstructed easy movement of the emergency vehicle / fire tenders without reversing back. Mark the same in the plant layout.
2. An undertaking regarding no installation of Petroleum products Class A/B/C within CRZ area.
3. Complete details of major infrastructure improvement program including complete details of chemicals stored in existing tanks and to be stored in the proposed tanks and its impact on environment.
4. Clear distance around the new proposed storage tanks and various other safety features inbuilt in the design. Design / construction aspects of the new storage tanks.
5. Details of engineering / management controls, if any proposed, such as: (1) Leak detection and repair (LDAR) system (2) A dedicated Fire Department with fire tenders, specialized fire fighting equipment and experienced manpower (3) Entire operation of the storage installation through Central Control System (4) Adoption of best practices for movement and decanting of tankers in co-ordination with suppliers. (5) Dyke wall provision (6) Safe / Clear distance around the tanks (7) flame proof fitting as per Indian Standards (8) Zero Tolerance policy adoption (9) Provision of On Site Emergency Control Plan with regular mock drills (10) Provision of fencing, sensors, alarms, remotely operated valves etc.
6. Fire fighting arrangement at the storage terminal and requirement of its strengthening due to proposed expansion. This should include details of automatic detection and control system & detailed control plan showing hydrant pipeline network, provision of DG Sets, diesel driven fire pumps for operation during power disruption, jockey pump, fire water monitor, toxic gas detectors, fire / foam tenders etc.
7. Elaborate safety measures for chemical handling and transfer between the storage tanks and the port terminal as well as for chemical transfer from storage terminal to clients.
8. Details of hazardous characteristics of materials to be handled and the control measures proposed to ensure safety and avoid the human health impact.
9. Risk assessment including prediction of the worst-case scenario and maximum credible accident scenarios related to the proposed additional storage tanks should be carried out. The worst-case scenario should take into account the maximum inventory of storage at site at any point in time. The risk contours should be plotted on the plant layout map clearly showing which of the activities would be affected in case of an accident taking place. Based on the same, proposed safeguard measures including On-Site / Off-Site Emergency Plan, updated in respect of proposed augmentation, should be provided.
10. Detailed disaster management plan. This should include also scenario of natural catastrophe like earth quake, cyclone and tsunami in addition to other disasters. The plan should include the details of (i) Emergency lighting plan (ii) details of power back up system in the case of emergency (iii) fire fighting arrangements (iv) first aid arrangement (v) Training and Mock drill (vi) Emergency announcement system (vii) Signages (viii) location of emergency stair cases and pathways etc.
11. OHSMS Procedure Manual updated in respect of the proposed expansion.
12. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE,

terminal staff for safety related measures.

13. Detailed greenbelt development program including annual budget, types & number of trees to be planted, area under green belt development [with map], budgetary outlay; along with commitment of the management to carry out the tree plantation activities outside the premises at appropriate places in the nearby areas and elsewhere.
14. Proposal for socio-economic development activities including community welfare program most useful in the project area for the overall improvement of the environment. Submit a detailed plan for social corporate responsibilities, with appropriate budgetary provisions for the next five years and activities proposed to be carried out; specific to the current demographic status of the area.

The additional information received from the project proponent, which was sought during various SEAC meetings for granting Environmental Clearance to the projects. The said submission by the project proponent was considered by the committee during the meeting and as it was found satisfactory, the committee decided to recommend the following projects for grant of environmental clearance.

1. M/s. Toyo Ink India Pvt. Ltd. for setting up of the proposed manufacturing of Synthetic organic chemicals at Plot No.-D-2/23, Vill-Dahej, Ta.: vagra, Dist.: Bharuch.

Meeting ended with thanks to the Chair and the Members.

Minutes approved by:

1.	Shri T. P. Singh, Chairman, SEAC.	
2.	Shri V. C. Soni, Vice Chairman, SEAC.	
3.	Shri R. J. Shah, Member, SEAC.	
4.	Dr. V. K. Jain. Member, SEAC.	
5.	Shri Rajesh Shah, Member, SEAC	
6.	Shri V.N.Patel, Member, SEAC.	
7.	Shri Hardik Shah, Secretary, SEAC.	