

**Minutes of the 282<sup>nd</sup> meeting of the State Level Expert Appraisal Committee held on 25/02/2016 at Committee Room, Gujarat Pollution Control Board, Gandhinagar.**

The 282<sup>nd</sup> meeting of the State Level Expert Appraisal Committee (SEAC) was held on 25<sup>th</sup> February, 2016 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 V.N. Patel, Member, SEAC.*

The agenda of TOR/Scoping/Category 8 (a) cases, Appraisal & EC amendment cases was taken up. Seven (7) cases of TOR/Scoping/Category 8 (a), two (2) cases of EC amendment and twelve cases of Appraisal was 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.

1	Anupam Rasayan India Ltd. (Unit-IV)	Plot No:907/3, 907/4 Jhagadia Industrial Estate, Jhagadia-393110, dist.: Bharuch	Appraisal
<p><b>Project / Activity No.:</b> 5(f)</p> <p><b>Project status:</b> Expansion</p> <p><b>Chronology of EC Process:</b></p> <ul style="list-style-type: none"> <li>• M/s: Anupam Rasayan India Ltd. (Unit-IV) (herein after Project Proponent – PP) has submitted Application vide their letter dated 03/09/2014.</li> <li>• The project was considered for TOR finalization in the meeting of the SEAC held on 23/12/2014.</li> <li>• EIA Report prepared by M/s: Aqua-Air Environmental Engineers Pvt. Ltd., Surat was submitted by project proponent on 18/04/2015.</li> <li>• PP did not remained present in the SEAC meeting dated 30/06/2015.</li> <li>• The project proponent was called for appraisal of the project in the meeting held on 16/09/2015.</li> <li>• During the meeting dated 16/09/2015, technical presentation made by the project proponent during the meeting. The baseline environmental quality has been assessed for a period from March, 2014 to May, 2014 in a study area of 10 km radial distance from the project site. The wind direction is predominantly from NW to SE. Ambient Air Quality Monitoring (AAQM) was carried out at 8 locations during the study period for PM10, PM2.5, Sulphur Dioxide, Oxides of Nitrogen, Ozone (as O3), Lead (as Pb), Carbon Monoxide (as CO), Ammonia (as NH3), Benzene (as C6H6), Benzo (a), Pyrene (BaP) particulate phase only, Arsenic (as As), Nickel (as Ni), HCl, CL2 and Volatile Organic Compounds (VOCs). Results shows that gaseous pollutants and Particulate matter remain well within the prescribed norms.</li> <li>• While discussing the proposed waste water treatment scheme, committee not convinced about the Soil Bio-Technology (SBT) and its performance and asked to submit the complete details</li> </ul>			

about the SBT including performance assurance from the supplier of the SBT. During the meeting representative from the supplier i.e. IIT, Mumbai was remain present and informed that they have obtained patent from the concern authority, however he could not furnish the complete details about SBT. Committee asked to submit complete details about SBT. Committee asked to submit complete management plan of spent HCl and Spent sulphuric acid to convert them in to valuable products within premises only. While reviewing the ToRs, Committee observed that many ToR are not addressed properly. Risk assessment report and safety details are found incomplete. 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.8, 11,12,16,20,21,22,24 & 35. (2) Complete details of Soil Bio Technology. Working principle, Process features and Chemistry of SBT. Stage wise removal of COD and other parameters for waste water to be treated for proposed project considering worst case scenario. (3) Agreement and assurance from the technology supplier to ensure that the technology is suitable for waste water to be generated from the proposed expansion. (4) Complete Management plan for spent sulphuric acid and spent HCl to convert them into valuable products instead of sent outside the premises to actual users. (5) Summary & Conclusion as per the generic structure given in Appendix III A of the EIA Notification 2006. (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.

- The project proponent submitted the additional information vide their letter dated 22/01/2016.

#### Project / Activity Details:

This unit is engaged in manufacturing of Speciality Chemicals and now applied for expansion. List of Products & By-Products is as below:

Sr. no.	Name of Product	Existing (MT/Month)	Additional (MT/Month)	Total (MT/Month)
1	1,4 Dioxane	300	700	1000
2	Butyl Acrylate	45	45	0
3	Chloro Benzene Compounds			
3.1	Chloro Benzene ( MCB)	00	2500	2500
3.2	Para Di Chloro Benzene (PDCB)			
3.3	Ortho Di Chloro Benzene ( ODCB)			
4	Chloro Phenol compounds			
4.1	Para Chloro Phenol ( PCP)	00	500	500
4.2	Ortho Chloro Phenol ( OCP)			
4.3	2,4 Di Chloro Phenol			
4.4	2,6 Di Chloro Phenol			
5	Meta Di Chloro Benzene ( MDCB)	00	400	400

6	Nitro Compounds			
6.1	Nitro Benzene			
6.2	Meta Di Nitro Benzene ( MDNB)	00	800	800
7	Calcium Chloride	00	1800	1800
8	Amino Benzoic Esters			
8.1	3-Amino-4-Chloro Benzoic Acid Methyl Ester			
8.2	3-Amino 4-Methyl Benzoic Acid Isopropyl Ester (AMBI)			
8.3	3-Amino 4-Methyl Benzoic Acid(2'-Chloro Ethyl Ester) (AMBC)			
8.4	5-Amino-2-Methyl Benzene Sulphonic Acid Phenyl Ester			
8.5	Benzene Sulphonic Acid 3-Amino Phenyl Ester	00	500	500
8.6	2-Cyano-3,4,5,6-Tetrachloro Benzoic Acid Methyl Ester			
8.7	Benzene Sulphonic Acid 2-Methyl-5-Nitrophenyl Ester			
8.8	4- Methyl Benzoic Acid Methyl Ester			
8.9	3,5 Di Amino 4- Chloro Benzoic Acid Iso Butyl Ester			
Total		345	7155	7500
By-Products				
3.	Ammonium Chloride	--	55	55
4.	30% HCl	--	3375	3375
5.	POCl3	--	239	239
7.	Spent Sulphuric Acid	--	753.3	753.3
8.	Sodium Nitrate / Nitrosyl sulfuric acid	--	986	986
9.	Caustic (30% to 40%)	--	470	470

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Total existing plot area is 27179 sq. m. PP has acquired one additional plot no. 907/4 having plot area 26817. Hence, total plot area after proposed expansion will be will be 53996 sq. m.. Unit has proposed 16195 sq. m. area for green belt development. The total cost of the proposed expansion will be Rs. 65 Crores. Capital cost for EMP has been estimated around Rs. 8 Crores and recurring cost provision for EPM has been estimated to be around Rs. 3.75 Lacs /Month.

Total water consumption after proposed expansion will be 310 KL/day (Existing 70 KL/day + Additional 240 KL/day). Fresh water will be sourced from GIDC water supply. Total industrial effluent generation will be increased from 25.1 KL/day to 74 KL/day including process effluent 56 KL/day. At present unit achieves zero discharge by reusing treated waste water. Unit has proposed to segregate waste water streams into dilute stream (18 KL/day) and concentrated stream (56 KL/day). Dilute stream will be treated in Primary treatment and sent to SBT (Soil Bio Technology) for further treatment. Concentrated stream will be sent to MEE (Multiple Effect Evaporator) after Fenton treatment and condensate (55 KL will be sent to SBT. Unit has proposed Primary treatment followed by Secondary treatment with SBT (Soil Bio Technology- Capacity 75 KL/Day) & MEE (Capacity 3 MT/Hr) with ATFD (Agitated Thin Film Dryer). Finally treated waste water (72 KL/day) will be discharged into pipeline of NCTL. Domestic

waste water (4 KL/day) will be disposed off into soak pit system.

Imported coal- 1.5 MT /day or Lignite - 3.0 MT/day is used as a fuel in existing 2.5 TPH Boiler. Imported coal- 2.0 MT /day or Lignite 3.5 MT/day is used as a fuel in existing TFH (6 Lac Kcal/hr). Unit has provided 1050 KVA DG set as standby facility for emergency. Diesel (5 KL/Month) is used as a fuel for DG set. Unit has proposed two boilers with capacity 12 TPH steam & 2.5 TPH, two HAG-Hot Air Generators (10 MT/hr each) and three TFH (Two of 6 Lac K cal/hr one of 8 Lac Kcal/hr). Imported Coal/Lignite/Briquette (130 MT/day) will be used as a fuel for proposed two Boilers and two HAGs. Multi Cyclone separator, Bag filter and Scrubber will be provided as APCM with Boiler (2.5 TPH) & HAGs. ESP, Water scrubber will be provided as APCM with 12 MT/Hr steam Boiler. Imported Coal/Briquettes of Bio-Coal (20 MT/Day) will be used as a fuel for three TFHs. Multi Cyclone separator, Bag filter and Scrubber will be provided as APCM with TFHs. Two DG sets (600 KVA & 800 KVA) are proposed in which HSD (90 Lit./hr & 120 Lit./hr respectively) will be used as a fuel. There is no process vent in existing unit. Unit has proposed to install scrubbing system after proposed expansion for control of gaseous emission. Water scrubber will be provided with reaction vessel to control HCl. Two stage Alkali scrubber will be provided with reaction vessel to control SO<sub>2</sub>. Two stage Alkali scrubber will be provided with reaction vessel to control Cl<sub>2</sub>. Hazardous waste to be generated are ETP Sludge (0.83 MT/Month + 15 MT/Month = 15.83 MT/Month), Process Waste Sludge, Iron Sludge & Process Salts (00 MT/Month + 1000 MT/Month = 1000 MT/Month), Used Oil (24 ltrs/Month + 26 ltrs/Month = 50 ltrs/Month), Discarded Containers 3no.s/Month + 1000 nos /Month = 1003 nos/Month), MEE Evaporation Salt( 0.0 MT + 60 MT / Month= 60 MT/ Month ), Spent Carbon ( 0.0 MT/ Month + 5.0 Mt / Month = 5 MT / Month ), Distillation Residue (11.66 MT/Month + 74 MT/Month = 85.66 MT/Month) and Sodium Chloride (131.5 MT/Month), Generation of Fly Ash will be 80 MT/ Month. ETP waste, MEE Salt & Sodium Chloride 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. Process Waste Sludge, Iron Sludge & Process Salts will be sent to Cement industries for co-processing or disposed off at TSDF site. Distillation residue will be sent to Cement industries for co-processing or sent to CHWIF.

Phosphorus Tri Chloride 265 MT/Month) will be selling out to authorized end users. Caustic (30 – 40 %) [470 MT/Month] will be partly reused within premises and remaining will be sold out to authorized end users. Spent solvents (Benzene, Chloro Benzene, Phenol, Para Chloro Phenol, Ortho Chloro Phenol, Di Nitro Benzene, EDC & ODBC) [8139.5MT/Month] will be recovered within their own premises and recycle back in to the process. Spent HCl (3375 MT/Month) will be utilized as captive consumption for the manufacturing of Calcium Chloride and spent Sulphuric Acid (753.3) will be sold to the authorized end users. Ammonium Chloride (55 MT/Month) will be selling out to authorized end users. Ammonium Sulphate (150 MT/Month) will be selling out to authorized end users.

#### **Observations & Discussions:**

Technical presentation made during the meeting by project proponent. PP has submitted revised form-1 and revised EIA report covering all the queries raised during SEAC meeting dated 16/09/2015. While discussing regarding the SBT system, PP informed that the proposed SBT system is supplied by M/s Sugam Paryavaran Vikalp Pvt Ltd – Mumbai. The Supplier of this system explained certain characteristics, features & salient features of Soil Bio Technology System (SBT). During the meeting, Characteristic of Filter Media , life cycle of this system and mode of disposal of Murram (filter media),

Inlet & Outlet Effluent Quality, SBT system performance results of their existing own unit namely M/s: Anupam Rasayan India Ltd. Unit- II Sachin etc. have been discussed at length. Safety aspects of various hazardous chemicals and LDAR system also have been discussed. On asking about spent acid management, PP informed that entire quantity of spent HCl will be utilized as captive consumption for the manufacturing of Calcium Chloride. Concentration of spent Sulphuric Acid will be minimum 60 % w/w and that will be sold to authorized end users. PP has submitted letter of intent received from actual users with copy of CC&A. After deliberations on various aspects, the committee decided to recommend the project to SEIAA, Gujarat for the grant of Environmental Clearance.

2	M/s: Anupam Rasayan India Ltd. (Unit-V)	Plot No:827, GIDC-Jhagadia, Jhagadia-393110, Bharuch	Appraisal
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**Project / Activity No.:** 5(f)

**Project status:** New

**Chronology of EC Process:**

- M/s: Anupam Rasayan India Ltd. (Unit-V) (herein after Project Proponent – PP) has submitted Application vide their letter dated 03/09/2014.
- PP has submitted revised Form-1
- The project was considered for TOR finalization in the meeting of the SEAC held on 23/12/2014.
- EIA Report prepared by M/s: Aqua-Air Environmental Engineers Pvt. Ltd., Surat was submitted by project proponent on 18/04/2015.
- The project proponent was called for appraisal of the project in the meeting held on 16/09/2015.
- During the meeting dated 16/09/2015, technical presentation made by the project proponent during the meeting. The baseline environmental quality has been assessed for a period from March, 2014 to May, 2014 in a study area of 10 km radial distance from the project site. The wind direction is predominantly from NW to SE. Ambient Air Quality Monitoring (AAQM) was carried out at 8 locations during the study period for PM10, PM2.5, Sulphur Dioxide, Oxides of Nitrogen, Ozone (as O<sub>3</sub>), Lead (as Pb), Carbon Monoxide (as CO), Ammonia (as NH<sub>3</sub>), Benzene (as C<sub>6</sub>H<sub>6</sub>), Benzo (a), Pyrene (BaP) particulate phase only, Arsenic (as As), Nickel (as Ni), HCl, CL<sub>2</sub> and Volatile Organic Compounds (VOCs). Results shows that gaseous pollutants and Particulate matter remain well within the prescribed norms. While discussing the proposed waste water treatment scheme, committee not convinced about the Soil Bio-Technology (SBT) and its performance and asked to submit the complete details about the SBT including performance assurance from the supplier of the SBT. During the meeting representative from the supplier i.e. IIT, Mumbai was remain present and informed that they have obtained patent from the concern authority, however he could not furnish the complete details about SBT. Committee asked to submit complete details about SBT. Committee felt that spent sulphuric acid shall not be allowed to send outside as the disposal of spent acid is a serious concern in present scenario. At this committee asked to submit complete management plan of Spent sulphuric acid to convert them in

to valuable product within premises only. While reviewing the ToRs, Committee observed that many ToR are not addressed properly. Risk assessment report and safety details are found not incomplete. 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. 8, 10, 11,12, 14, 16, 19, 30 & 36. (2) Complete details of Soil Bio Technology. Working principle, Process features and Chemistry of SBT. Stage wise removal of COD and other parameters for waste water to be treated for proposed project considering worst case scenario. (3) Complete Management plan for spent sulphuric acid and spent HCl to convert them into valuable products instead of sent outside the premises to actual users. (4) Summary & Conclusion as per the generic structure given in Appendix III A of the EIA Notification 2006. (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..

- The project proponent submitted the additional information vide their letter dated 22/01/2016.

#### Project / Activity Details:

This unit has proposed to manufacture Speciality Chemicals. List of Products & By-Products is as below:

Sr. No.	Name of Product	Proposed Capacity (MT/Month)
1.0	NITRO COMPOUNDS	
1.1	2, 5 Di Chloro Nitro Benzene ( 2,5 DCNB)	1250
1.2	2, 3 Di Chloro Nitro Benzene ( 2,3 DCNB)	
1.3	3, 4 Di Chloro Nitro Benzene ( 3,4 DCNB)	
1.4	Ortho Nitro Chloro Benzene (ONCB)	
1.5	Para Nitro Chloro Benzene (PNCB)	
1.6	Meta Nitro Chloro Benzene (MNCB)	
2.0	AMINO COMPOUNDS / HYDROGINATION COMPOUND	
2.1	2, 5 Di Chloro Aniline	1000
2.2	2, 3 Di Chloro Aniline	
2.3	3, 4 Di Chloro Aniline	
2.4	3- Chloro Aniline	
2.5	4- Chloro Aniline	
2.6	2- Di Chloro Aniline	
2.7	3, 5 Di Chloro Aniline	
2.8	Ortho Toluedine	
2.9	Para Toluedine	
2.10	Meta Toluedine	

2.11	Aniline	
3.0	Meta Di Nitro Benzene ( MDNB)	600
	<b>Total Production</b>	2850
<b>By-Products</b>		
1.	Spent Sulphuric Acid (70%)	790
2.	Sodium Bi-carbonate	24

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

Total plot area is 11200 sq. m. Unit has taken this plot on rental basis from old unit namely M/s. Dhruv Intermediates Pvt. Ltd. Unit has proposed 3584 sq. m. are for green belt development. The total cost of the proposed expansion will be Rs. 30 Crores.

Capital cost for EMP has been estimated around Rs.4.47 Crores and recurring cost provision for EPM has been estimated to be around Rs. 2.25 Lacs/Month. Total water consumption will be 157 KL/day (Industrial 147 KL + Gardening 5 KL/day + Domestic 5 KL/day). Fresh water will be sourced from GIDC water supply. Total industrial effluent generation will be 80KL/day. Unit has proposed to segregate waste water streams into dilute stream (26 KL/day) and concentrated stream (54 KL/day). Dilute stream will be treated in Primary treatment and sent to SBT (Soil Bio Technology) for further treatment. Concentrated stream will be sent to MEE (Multiple Effect Evaporator) after Fenton treatment and condensate (50 KL will be sent to SBT. Unit has proposed Primary treatment followed by Secondary treatment with SBT (Soil Bio Technology- Capacity 75 KL/Day) & MEE (Cap. 50 KL/day) with ATFD (Agitated Thin Film Dryer). Finally treated waste water (73 KL/day) will be discharged into pipeline of NCTL. Unit has obtained membership certificate from NCTL for effluent discharge. Domestic waste water (3 KL/day) will be disposed off into soak pit system. Unit has proposed 8 TPH steam boiler. Imported coal/ Briquettes of Bio-Coal (35 MT/day) will be used as a fuel. Unit has proposed ESP as APCM with online monitoring system. Unit has proposed 500 KVA DG set as stand-by facility during power failure. HSD (800 Lit./day) will be used as a fuel for DG set. Two stage alkali scrubbers will be provided with reactors to control process gaseous emissions HCl. Two stage alkali scrubbers will be provided with Nitro Plants to control process gaseous emissions HCl& SO<sub>2</sub>. Spent solvents (EDC & Methanol - 4877 MT/Month) will be recovered within premises and completely reused in process. Spent Sulphuric acid (70 %) [790 MT/Month] and Sodium Bi-carbonate [24 MT/Month] will be sold out to actual users. Hazardous waste to be generated are ETP Sludge (30 MT/Month), Used Oil (50 Litre/Month), Discarded liners Bags/Drums / Carboys etc (2000 Nos/Month), Salt from MEE (60 MT/Month), Distillation Residue (90 MT/Month) and Spent Catalyst (10 MT/Month).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. Distillation residue and spent catalyst will be sent to Cement industries for co-processing or sent to CHWIF.

#### **Observations & Discussions:**

Technical presentation made during the meeting by project proponent. PP has submitted revised form-1 and revised EIA report covering all the queries raised during SEAC meeting dated 16/09/2015. While discussing regarding the SBT system, PP informed that the proposed SBT system is supplied by M/s Sugam Paryavaran Vikalp Pvt Ltd – Mumbai. The Supplier of this system explained certain

characteristics, features & salient features of Soil Bio Technology System (SBT). During the meeting, Characteristic of Filter Media , life cycle of this system and mode of disposal of Murram (filter media), Inlet & Outlet Effluent Quality, SBT system performance results of their existing own unit namely M/s: Anupam Rasayan India Ltd. Unit- II Sachin etc. have been discussed at length. Safety aspects of various hazardous chemicals and LDAR system also have been discussed. On asking about spent sulphuric acid management, PP informed that concentration of spent Sulphuric Acid will be @ 70 % w/w and that will be sold to authorized end users. PP has submitted letter of intent received from actual users with copy of CC&A. After deliberations on various aspects, the committee decided to recommend the project to SEIAA, Gujarat for the grant of Environmental Clearance.

3	Pharma Inter Chemie unit II	Plot no:139 & 140, GIDC Estate, Nandesari, Vadodara	Appraisal
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**Project / Activity No.:** 5(f)

**Project status:** New

**Chronology of EC Process:**

- This project proposed by M/s: Pharma inter chemie unit II (herein after Project Proponent – PP) has submitted an application vide their letter dated 30/07/2013.
- The project proponent was called for brief presentation and discussion in the meeting of SEAC held on 19/07/2015. During the meeting held on 19/07/2015, the project proponent requested for categorizing the project as B2 and to exempt them from carrying out detailed EIA study which was not considered by the committee and certain additional TOR was prescribed for the EIA study to be done covering 10 Km of study area.
- EIA Report prepared by M/s: Pavan Envitech Consultant Pvt. Ltd., Ahmedabad was submitted by project proponent vide online proposal no. SIA/GJ/IND2/9051/2014 dated 16/01/2016.

**Project / Activity Details:**

This is a proposed unit applied for manufacturing of the following bulk drug & intermediate products.

Sr. No.	Product	Quantity MT/Month
1.	p-Toluene Sodium Sulfinat	30
2.	Oxfenbendazole	40
3.	Halquinol	30
4.	Chloro Salicylic Acid	50
5.	Albendazole	50
6.	Closantal	30
7.	Ketoprofennitrile	30
8.	Thio Di phenol	50
9.	Hydrochloro Thiazide	40
10.	Mebendazole	50
11.	Meta Hydroxy Propiophenone	40
12.	Di-thio Di-Salicylic Acid	20
13.	Oxyclozanide	30
Total		490



Different By-products	1,389.7
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The proposed production activity falls in the project activity 5(f) as per the schedule of EIA Notification 2006. Capital investment for the proposed project is Rs. 2 Crores. Capital cost for EMP has been estimated around Rs. 65 lakhs and recurring cost for EPM has been estimated to be around Rs. 51.14 Lakhs /Year. Total plot area of the proposed project is 2.360.14 sq. m. Water requirement of 161.5 KL/day [2 KL/day-domestic, 159 KL/day-Industrial and 0.5 KL/day-gardening] will be met through GIDC water supply system. The quantity of total industrial waste water generated will be 139 KL/day, including process waste water, boiler blow down, cooling bleed off, wash water, etc. Out of 139 KL/day, 16 KL/day High COD (concentrated) effluent will be segregated and stored separately and evaporated within the plant premises through Single Effect Evaporator and remaining 123 KL/day of dilute stream, will be treated in Effluent Treatment Plant having primary and tertiary treatment units within the plant premises. The treated effluent will then be sent to the CETP, Nandesari for further treatment. Domestic waste water (2 KL/day) will be disposed through Soak pit - septic tank system. Unit has proposed one Steam Boiler (2 T) and one Thermic Fluid Heater (2 Lac Kcal/hr). Imported Coal/ Agro Briquettes to the tune of 5 MT/day & 1 MT/day will be used for Steam Boiler & TFH respectively. Bag filter will be provided as APCM for Boiler & TFH. HSD (15 Lit./hr) will be used fuel in the proposed D.G.Set (200 KVA). Separate Water Scrubber [for each Reactor] followed by Common Alkali Scrubber will be provided with 4 no.s of Glass lined reactors to control process gas emission of HCl. Separate Alkali Scrubber [for each Reactor] followed by Common Alkali Scrubber will be provided with 2 no. s of Glass lined reactors to control process gas emission of SO<sub>2</sub>.

Hazardous wastes to be generated from the proposed project are tabulated as below:

Sr. No.	Type of Hazardous Waste	Category	Quantity MT/Annum	Disposal Methods
1.	Used Oil	5.1	0.050	Registered recyclers.
2.	ETP Sludge including Evaporator Residue	34.3	600	TSDf or Cement industries / co-processing.
3.	Process waste [ Iron Sludge ]	28.1	1884	TSDf or Cement industries / co-processing.
4.	Discarded Containers	33.3	10	Registered recyclers or send back to raw-material supplier.
5.	Inorganic Acid	D2	9407	Registered recyclers.
6.	Distillation Residue	20.3	350	CHWIF or Co-processing
7.	NH <sub>4</sub> Cl	28.1	720	TSDf or Actual users.
8.	SBS (Sodium Bisulfite Solution)	28.1	540	Actual users
9.	Spent Carbon	28.2	12	CHWIF or Co-processing

By-product Details

Sr. no.	Name of By-products	Source (Name of process & Product item) of By-product generation	Quantity MT/Month
1	HCl (30% w/w)	Halquinol, Chloro Salicylic Acid, Closantal, Ketoprofenitrile, Thio Di phenol, Mebendazole, Oxytocanide.	201.91

2	Dilute Sulphuric Acid (25%)	Chloro Salicylic Acid, Hydrochloro Thiazide, Meta Hydroxy Propiophenone.	582.00
3	Sodium Bisulfite solution	Oxyclozanide	45.00
4	Aluminium Chloride soln [40%]	Ketoprofennitrile, Mebendazole	262.00
5	Sodium Bromide	Oxfenbendazole	12.95

### Observations/Discussions:

Technical presentation during the meeting included the Point wise ToR compliance. The baseline environmental quality has been assessed for various components of the environment viz. air, noise, water, biological and socioeconomic. The baseline environmental study has been conducted for the study area of 5 km radial distance from project site for the period November 2014 to January 2015. Ambient Air Quality monitoring was carried out for PM10, PM2.5, SO2, NOx, HCl, VOC and CL2 at five locations, including the project site. Values conform to the prescribed standards for Ambient Air Quality. The incremental Ground Level Concentration (GLC) has been computed using ISCST – 3 model. The resultant concentrations are within the NAAQS. During the meeting Committee asked to put MDC as APCM in addition to proposed bag filter which was agreed to by PP. Spent solvent recovery will be carried out within premises and recovered solvent will be reused again. On asking about spent solvent management, PP informed that they have proposed to recover pent solvent within premises and recovered solvent will be completely reused in process. While reviewing the EIA report, Committee observed that the ToR related to evaporator details, Characteristics of effluent before and after evaporation, VOC emission from the evaporator system, Solvent recovery system & Mass balance, adequacy of waste water treatment system, Management of By-products etc. were not addressed properly. Committee also asked to submit chapter wise EIA report as per EIA notification 2006 with index of TOR compliance. After detailed deliberations the Committee sought following additional information for further consideration of the proposal:

1. Compliance of ToR no. 10,11,15,27 & 28.
2. Complete design of evaporator with condenser and vent. 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.
3. Details of emissions from the stack attached to the evaporator and mitigation plan to ensure control of any of the pollutants (substances) within the prescribed limits
4. Product wise waste water generation in KL/day (Dilute stream, concentrated stream, By-products, spent acid generation etc.), its Characteristics and its disposal method.
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.

4	Kosha chemtech Pvt Ltd.	Plot no.7119,7120,7121,7122, GIDC 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: Kosha Chemtech Pvt. Ltd. (herein after Project Proponent – PP)

has submitted an application vide their letter dated 14/09/2014.

- The project proponent was called for brief presentation and discussion in the meeting of SEAC held on 08/12/2014. During the meeting held on 08/12/2014, certain additional TOR was prescribed for the EIA study to be done covering 10 Km of study area.
- EIA Report prepared by M/s: En-Vision Enviro Technologies Pvt. Ltd., Surat was submitted by project proponent vide online proposal no. SIA/GJ/IND2/8630/2014 dated 19/01/2016.

**Project status:** Expansion

**Project / Activity Details:**

This is an existing unit engaged in manufacturing of Dyes Intermediates and now unit has applied for addition of some new products as tabulated below:

Sr. No.	Name of Products	Existing MT/Month	Proposed MT/Month	Total MT/Month
1	G Salt	83		
2	Schaeffer's Acid			
3	R Salt (By Product)			
4	Aniline 2, 4 Di Sulfonic Acid	00		
5	Aniline 2, 5 Di Sulfonic Acid			
6	PNCBOSA		200	200
7	Sulfo Tobias Acid			
8	Sulfanilic Acid			
9	Para Sulfo Vs			
10	Para Cresidine Ortho Sulfonic Acid			
11	Sulfo C Acid			
12	EBAMSA			
13	BON Acid			
14	Amido G Acid	00	50	50
15	K Acid			
16	Gamma Acid			
17	Sulfo Gamma Acid	00	50	50
18	Bronners Acid			
19	Amido Epsilon Acid			
20	Epsilon Acid			
21	C Acid			
22	KOCH Acid	00	40	40
23	Violet Acid			
24	1, 6 Cleave Acid			
25	1, 7 Cleave Acid			
26	Mix Cleave Acid			
27	Peri Acid	00	10	10
28	Phenyl Peri Acid			
29	4 sulfo Anthralinic Acid	00	00	10
30	4 sulfo Hydrazone			
31	6 Acetyl OAPSA	00	10	10
32	Benzidine 2, 2 Di Sulfonic Acid	00	10	10
33	NAS 5	00	10	10
34	Aryl Sulfonic Acid	30	00	30
35	DMAB Sulfethanolamine	12	00	12

36	APS Sulfonamide	12	00	12
37	Meta Ureido Aniline	9	00	9
38	Aryl Sulfonyl Chloride	5	00	5
39	Phosphoric acid	00	75	75
40	Di-Calcium Phosphate	00	150	150
41	Gypsum(By Product)	00	250	250

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Total plot area is 4078 m<sup>2</sup>. The total cost of the proposed expansion is Rs. 3.0 Crores. Total water consumption after proposed expansion will be 36.2 KL/day (Existing 12 KL/day + Additional 24.2 KL/day). Fresh water will be sourced from GIDC water supply. Entire Industrial effluent i.e. 28.6 KLD will be treated in primary treatment and then sent to CETP for further treatment. Effluent generation from the industrial activity will be segregated into two streams: Dilute stream and Concentrated stream. Treated effluent from dilute stream will be sent to Globe Enviro Care Ltd. (CETP) and concentrated stream will be subjected to in-house MEE or sent to Mahavir Eco Projects Pvt. Ltd. (CETP). Domestic waste water will be disposed off into soak pit system. Unit has proposed one gas fired Boiler (cap. 0.5 TPH) in which Natural will be used as fuel. At present unit is having one NG fired TFH and one DG set as stand by facility. At present two stage alkali scrubber is provided as APCM for control of process gas generated from the reactor vessel / drawing vessel. Air vent of existing Oleum tank is dipped into H<sub>2</sub>SO<sub>4</sub> tank. Project proponent has presented that there will be no additional process gas emission from the proposed expansion. Hazardous waste to be generated are ETP sludge (2.5 MT/Yr), Used Oil (10 Lit./Yr), Discarded containers (400 nos./year), MEE Salt (75 MT/Year) and Process waste (6 MT/Month).

#### **Observations/Discussions:**

Technical presentation during the meeting included the Point wise ToR compliance. The baseline environmental quality has been assessed for various components of the environment viz. air, noise, water, biological and socioeconomic. The baseline environmental study has been conducted for the study area of 5 km radial distance from project site for the period March 2015 to May 2015. Ambient Air Quality monitoring was carried out for PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, VOC, Cl<sub>2</sub>, HCl and NH<sub>3</sub> at eight locations, including the project site. Values conform to the prescribed standards for Ambient Air Quality. The incremental Ground Level Concentration (GLC) has been computed using ISCST – 3 model. The resultant concentrations are within the NAAQS. During the meeting, Committee was not convinced about the waste water & spent acid management. On asking about spent acid management, PP could not reply satisfactorily. As per EIA report diluted Sulphuric Acid generated from the manufacturing process will be reused in process again. Committee noted that the exact quantity of spent acid generation and its management is not properly addressed. Project proponent was asked to remove some products having high pollution potential and submit the revised proposal with sound environment management plan (EMP). After detailed deliberations the Committee sought following additional information for further consideration of the proposal:

1. Revised proposal with sound environment management plan.
2. Product wise waste water generation in KL/day (Dilute stream, concentrated stream, spent acid generation etc.), its Characteristics and its disposal method.
3. Compliance of ToR no. 20
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	KLJ organic limited unit ii	Plot no.760 GIDC industrial, Estate, jhagadia,Bharuch.	Appraisal
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**Project / Activity No.:** 5(f)

**Project status:** Expansion

**Chronology of EC Process:**

- This project proposed by M/s: KLJ Organics Ltd. (herein after Project Proponent – PP) has submitted Application vide their letter dated 19/05/2014.
- The project was considered for TOR finalization in the meeting of the SEAC held on 27/08/2014.
- EIA Report prepared by M/s: Envisage Environment Consultants, Ahmedabad was submitted by project proponent on 04/07/2015.
- The project proponent was called for appraisal of the project in the meeting held on 09/09/2015.
- The baseline environmental quality has been assessed for a period from December 2014 to February 2015 in a study area of 10 km radial distance from the project site. Ambient Air Quality Monitoring (AAQM) was carried out at 5 locations during the study period for PM10, PM2.5, Sulphur Dioxide (SO<sub>2</sub>) and Oxides of Nitrogen (NO<sub>x</sub>), CL<sub>2</sub>, HCl and VOC. All the parameters are well within the NAAQS except PM10 and PM2.5 at project site, which might be due to existence of various industries in nearby area and also due to ground dust blowing away by wind from the uncovered fallow land and waste land. The maximum 24-hourly average ground level concentration for pollutants due to proposed expansion calculated using mathematical model (ISCST3) for PM10, SO<sub>2</sub>, NO<sub>x</sub>, HCl and Cl<sub>2</sub> is 3.0770 µg/m<sup>3</sup>, 7.8254 µg/m<sup>3</sup>, 0.7693 µg/m<sup>3</sup>, 0.0379 µg/m<sup>3</sup> and 0.01263 µg/m<sup>3</sup> respectively. The incremental ground level concentration of various pollutants at all the ambient air monitoring locations is very negligible.
- During the meeting dated 09/09/2016, issues related to generation and management of Hydrochloric acid was discussed in detail. On asking about existing management for spent Hydrochloric acid, PP could not reply satisfactorily. Committee asked to submit all the details of sale of spent Hydrochloric acid along with name and address of actual users for last two years. Further committee also emphasized on management of all by-products and asked to ensure proper handling of these by-products. Committee noted that unit has not submitted the complete details as asked in TOR. Occupational health impacts, Risk assessment & prediction of worst case scenario, green belt area, environmental compliances of existing activities etc have been discussed in detail. After detailed deliberations the Committee sought following additional information for further consideration of the proposal: (1) Submit all the details of sale of spent Hydrochloric acid along with name and address of actual users for last two years. Give complete details regarding registration of vehicles used for transportation of Spent HCL, Gate pass, copies of Manifests etc. (2) 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. (3) Compliance of TOR no. 47 regarding certified copy of compliance report from the Regional Office of the MoEF. (4) Compliance of TOR no. 5 regarding management plan for By-Products. (5) Status of submission of half-yearly compliance report in respect of the stipulated prior environmental clearance terms and conditions of existing Environmental clearance. (6) Give Hazardous waste generation in MT/Month.

### Project / Activity Details:

This is an existing unit involved in manufacturing of synthetic organic chemical – Chlorinated Paraffin Wax (CPW) with production capacity of 4000 MT/Month. Now the unit proposes to manufacture various synthetic organic chemicals with the total production capacity of 7670 MT/Month as below.

Sr.no.	Name of the product	Production Capacity in MT/Month		
		Existing (MT/Month)	Proposed (MT/Month)	Total (MT/Month)
1.	Chlorinated Paraffin Wax (CPW)	4,000	--	4,000
2	Benzyl Chloride (BCL)	--	2500	2500
3	Benzaldehyde (BCHO)	--	1500	1500
4	Sodium Benzoate (SB)	--	180	180
5	Benzyle Benzoate (BB)	--	140	140
6	Benzyle Alcohol (BOH)	--	1500	1500
7	Dibenzylether (DBE)	--	150	150
8	Benzyle Acetate (BAC)	--	500	500
9	Cinnamicaldehyde (CNMD)	--	200	200
Inorganic Chemical				
10	Calcium Chloride (CCI) – Dry Base	--	3750	3750
By-Products				
1	Benzyle Acetate High Boilers	--	10	10
2	Cinnamic Aldehyde High Boilers	--	4	4
3	Hydrochloric Acid (30%)	7210	14000	21210
4	Sodium Hypo Solution (8-10%)	50	260	310
	Total	7260	14274	21534

The proposed expansion falls in the project activity 5(f) as per the schedule of EIA Notification, 2006. The proposed products will be manufactured within the existing premises. Manufacturing process will be continuous type, which involves various unit processes like Chlorination, Hydrolysis, Neutralization etc. and various operations like Drying, Distillation, Separation and Evaporation etc. No additional land is required. Total plot area of the project site is 29900 sq.m. Green belt will be expanded up to 10013 sq.m. from the existing 3000 sq.m. This unit has made capital investment of Rs. 10.86 Crores in the existing plant and the proposed cost of project will be Rs. 51.30 Crores. Total water requirement after

the proposed expansion will be increased from 178 KL/day to 1713 KL/day which includes industrial - 1678 KL (Process, APCM & cooling make up, Boiler, Washing), Domestic-10 KL/day & Gardening requirement-25 KL/day. Existing as well as additional fresh water requirement will be met through GIDC water supply. At present unit maintains Zero effluent discharge as there is no generation of waste water from the process as well as any ancillary operations of existing activities. There will be no generation of waste water from the manufacturing process of proposed products. Waste water generated from Boiler, Cooling and floor washing will be 40 KL/day, which will be treated in ETP comprise of P+S+T treatment facilities followed by RO plant and MEE to achieve zero discharge. MEE condensate and RO permeate (total 39 KL/day) will be reused in process. Total domestic waste water- 8 KL/day will be discharged into septic tank/soak pit system. Hence there will not be any kind of waste water discharge outside the premises. In addition to existing 0.8 TPH Boiler, unit will install AFBC type coal fired Boilers (16 TPH each) having fully automatic PLC control based firing system for the proposed expansion. Multi Cyclone separator is provided with existing 0.8 TPH Boiler and unit has proposed three field ESP for proposed each steam Boilers. Coal consumption in Boilers after proposed expansion will be increased from 50 MT/Month to 3500 MT/Month. Unit has proposed bag filter as APCM with Coal handling plant. The unit has installed two DG sets of 250 KVA & 500 KVA which are kept as a stand-by and used in case of main power failure from DGVCL. The unit uses diesel as a fuel in the DG sets. The unit will also install DG set (1000 KVA) during proposed expansion for the same purpose. Water scrubbers followed by common alkali scrubber has been proposed to control the process emission of HCl & Cl<sub>2</sub>. There will be generation of by products 30% HCl and 11% Sodium Hypochlorite from the scrubbing system. Contaminated oily cotton waste (0.033 MT/Month), Distillation residue (2.833 MT/Month), ETP sludge (4.167 MT/Month), Activated carbon (0.167 MT/Month), Inorganic process waste (200 MT/Month), Discarded bags & containers (0.550 MT/Month), Used/spent oil (6.25 ltr./Month) are the expected hazardous waste to be generated from the proposed project expansion. ETP waste will be disposed off at the common TSDF. Contaminated oily cotton waste will be disposed off at the CHWIF. Distillation residue and Activated carbon will be disposed off at the CHWIF or sent for co-processing at Cement manufacturing unit. Unit has obtained membership certificate from M/S. Bharuch Enviro Infrastructure Limited (BEIL) for TSDF site and 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. Committee noted that PP has submitted point wise reply of additional information sought during SEAC meeting dated 09/09/2015. During the meeting issues related to HCl generation from existing and proposed plant and its captive use in calcium chloride production as well as its sell as by product to end users were discussed in detail. Committee asked PP that entire quantity of HCL generated shall be either consumed within premises or sent to the actual users and in no case it shall be sent to traders. PP agreed upon this and committed that they will not send spent HCl to traders in any case. Further PP informed that they will earlier they proposed the production of Benzyl Chloride ( BCL ), Benzaldehyde ( BCHO ) and Benzyl Alcohol ( BOH ) with production capacity of 3000 TPM, 2000 TPM and 1500 TPM respectively. Generation of HCl (gas/liquid) from these products was 15549 MT/Month. PP presented that they will reduced the production of Benzyl Chloride (BCL) and Benzaldehyde (BCHO). HCl generation will be reduced due to increase in yield by improved process efficiency/Process modification and improved

scrubber efficiency which will generate 34% HCl instead of 30% HCl.

As a result, HCl generation from three products will be reduced from 15,549 TPM to 10,925 TPM.

Generation of HCl solution from existing product viz. Chlorinated Paraffin wax (CPW) will also be reduced due to increased HCl concentration from 30% to 34% as a result of increased scrubber efficiency. Thus, total 17,286 TPM 34% HCl (10,925TPM + 6,361 TPM) will be generated after the proposed expansion project. PP informed that HCl generated from these products will be utilized in production of CaCl<sub>2</sub> as per the market demand and remaining HCl will be sold to end – users as a by - product. On asking about use of HCL in Calcium Chloride Production, PP informed that 5.2% HCl generated from Benzyl Alcohol (BOH) will be used in scrubbing system directly for scrubbing of HCl gas generated from the process plant along with additional fresh water. This will result in ultimate 34% HCl solution and that will be utilized in manufacturing of Calcium Chloride.

Maximum captive requirement of HCl in Calcium Chloride manufacturing will be 7,310 TPM. Remaining HCl will be sold to end users only. However, Committee felt that it is required to know the technical details about the improved process efficiency/Process modification and improved scrubber efficiency and required to submit revised proposal with relevant details. After detailed deliberations the Committee sought following additional information for further consideration of the proposal:

1. Revised proposal with change in production details, HCL generation its management and relevant changes in proposed scenario.
2. Technical details about the improved process efficiency/Process modification and improved scrubber efficiency which results in reduction of HCL generation with improved quality.
3. Action plan for complete management of HCL especially in case of HCl will not be utilized in production of CaCl<sub>2</sub> due to market demand.

6	BMS Chemie	Plot No:47/1/16 & 17, GIDC Nandesari, Dist.: Vadodara	Appraisal
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**Project / Activity No.:** 5(f)

**Project status:** Expansion

**Chronology of EC Process:**

- This project proposed by M/s: BMS Chemie (herein after Project Proponent – PP) has submitted an application vide their letter dated 21/08/2013.
- The project proponent was called for brief presentation and discussion in the meeting of SEAC held on 31/07/2014. During the meeting held on 31/07/2014, certain additional TOR was prescribed for the EIA study to be done covering 5 Km of study area.
- EIA Report prepared by M/s: Prakruti Environmental Engineers, Vadodara was submitted by project proponent vide online proposal no. SIA/GJ/IND2/6544/2013 dated 07/01/2016.

**Project / Activity Details:**

It is an existing unit proposing the expansion by augmentation in production capacity of four of the existing products as well as by manufacturing of four new products. Two of the existing products will not be manufactured after the proposed expansion. This is an existing unit established since 1990 intending to expand the production capacities of its existing product viz. Oxyclozanide, Benz Bromarone and Para Ditoluoyl Tartaric Acid and to manufacture new products viz. Oxalamine Citrate, Dibenzoyl Tartaric Acid, 2-Acetylamino-5- mercapto-1,2,4thiadiazole, Water Based Polymethane



Resins (D Pure 163, D Pure 170) & R Modi 2015) and Solvent Based Resin (1K PU & RSC -2012). The industry proposes to discontinue production of Trichloro Salicylic Acid and N-Pentyl Trichlorosalicylate and further proposes to stop synthesis of Oxyclozanide and manufacture the same by purification only. Details of production capacity after the proposed expansion is tabulated as below.

Sr. no.	Name of Products	Production (MT/Month)		
		Existing	Proposed	Total
1.	Trichloro Salicylic Acid	1.5	-1.5	00
2.	N-Pentyl Trichlorosalicylate	0.1	-0.1	00
3.	Organic Compounds			
	Oxyclozanide (by purification)*	1.0	0.25	1.5
	Benz – Bromarone ((3, 5 Dibromo-4-Hydroxyphenyl) (2-Ethyl-3-Benzofuranyl)	0.25		
	Oxalamine Citrate	0.00		
4.	Tartaric Acid Derivatives			
	Para Ditoluoyl Tartaric Acid	1.0	13	14
	Dibenzoyl Tartaric Acid	0.0		
5.	2-Acetylamino-5- mercapto-1,3,4-thiadiazole	0.0	1.5	
6.	Water Based Polymethane Resins (D Pure 163, D Pure 170, R Modi 2015, others)	0.0	20	20
7.	Solvent Based Resins (1K PU, RSC - 2012, others)	0.0	16	16
* The existing process for manufacturing Oxyclozanide is changed from synthesis to Purification				

The production activity falls in the project activity 5(f) as per the schedule of EIA Notification, 2006.

This is an expansion project and will take place within the existing premises. The industry has valid consents from the Gujarat Pollution Control Board (AWH- 47511 valid upto 25/03/2017).

No additional land is required for the proposed expansion. Plot area is approx.1,318 sq.m. Estimated cost of proposed expansion is Rs. 19.1 Lacs. Wastewater generation after the expansion will be increase from 11.5 KLD to 20 KLD i.e additional 8.5 KLD. Fresh water requirement will be increased from 32.2 KLD to 48 KLD. (Additional 24.8 KLD). Additional water requirement will be supplied by the GIDC. Industrial wastewater generation will be increased from 11.5 KLD to 20 KLD (Additional 8.5 KLD). Unit has proposed primary ETP with fenton treatment process followed by tertiary treatment units. Industry proposes to discharge total effluent load of 20 KLD to CETP after treatment in proposed ETP within premises. Industry has obtained additional load acceptance letter from CETP. Domestic waste water (1 KL/day) will be disposed off into Soak pit –Septic tank system.

Consumption of natural gas 5 SCM/hr in existing steam boiler (cap. 0.8 TPH) will remain same. Unit is having one DG set with capacity 50 KVA as standby facility to be used in case of power failure. Emission of CL<sub>2</sub>, HCl & SO<sub>2</sub> is envisaged from the manufacturing process and 2 nos. of primary water scrubbers followed by one secondary caustic scrubber are proposed as Air Pollution Control Measures. The industry has installed scrubbing system consisting of 2 series of primary and secondary alkali scrubbers. Alkali scrubbers are installed with graohite condensers to cool circulating alkali solution. The existing scrubbers will be used for the proposed expansion. ETP Sludge (45 MT/Year), Distillation residue (5 MT/Year), Spent Carbon (0.5 MT/Year), Discarded

bags/containers/barrels/liners (300 no.s/Year), Spent solvent (65 MT/Year) and used oil (0.2 MT/Year) will be generated as hazardous wastes. ETP waste will be disposed off at the nearby common TSDF. Distillation residue and spent carbon will be disposed off at the CHWIF. Discarded barrels / containers / bags / liners will be either reused or returned back to suppliers or sold only to the authorized recyclers. Used oil will be sold only to the registered recyclers. Spent solvent will be sold to the authorized solvent re-refiners.

**Observations/Discussions:**

Technical presentation during the meeting included the Point wise ToR compliance. The baseline environmental quality has been assessed for various components of the environment viz. air, noise, water, biological and socioeconomic. The baseline environmental study has been conducted for the study area of 5 km radial distance from project site for the period November 2014 to January 2015. Ambient Air Quality monitoring was carried out for PM10, PM2.5, SO2 and NOx at seven locations, including the project site. Committee noted that PP has not covered project specific parameters like HCl, HBr, CL2 etc. for baseline study of AAQ. While reviewing the EIA report, Committee observed that the ToR related to Solvent recovery. Committee observed discrepancy in solvent management details. After deliberation on various aspects, the Committee sought following additional information for further consideration of the proposal:

1. Compliance of TOR no. 13, 14, 20.
2. Full Chemical Names of RM & Products (D Pure 163, D Pure 170, R Modi 2015, D Pure 163, D Pure 170, R Modi 2015 etc.).
3. Mitigation measures proposed for HBR generated from the manufacturing process of BENZBROMARONE: (3, 5 Dibromo-4-Hydroxyphenyl) (2-Ethyl-3-Benzofuranyl) Methanone
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. Current status of stay order from Hon'ble Gujarat High Court against the implementation of the NABET accreditation or copy of Certificate of accreditation issued by the NABET, QCI to the environmental consultant.

7	Usha Breco Limited (Maa Kalidevi Additional Passenger Ropeway Project)	Survey no.121-18-84 of 1/1A/PAIKI1, Village.: Champaner-Pavagadh, Ta.: Halol, Dist.: Panchmahal	Appraisal
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Project / Activity No.: 7(g)

**Project status:** New

**Chronology of EC Process:**

- This project proposed by M/s: Usha Breco Limited (Maa Kalidevi Additional Passenger Ropeway Project) (herein after Project Proponent – PP) has submitted an application vide their letter dated 11/06/2015.
- This project was considered in the meeting of the SEAC held on 19/08/2015.
- While discussing about the altitude of the proposed project site, PP informed that the proposed project site is located at altitude of 795 meters above Mean Sea Level (MSL).
- During the meeting dated 19/08/2015, on asking about notified ecologically sensitive areas, PP

informed that the proposed site is not covered under the list of Eco-Sensitive areas and they will submit the list of eco-sensitive zone by Chief Conservator of Forest, Vadodara. Committee asked to submit latest certificate from the concerned authority regarding the not covered within the notified ecologically sensitive areas. On asking about the accident happened in year 2003, PP informed that the unfortunate incident happened was due to shaft failure. Committee asked to submit all the details regarding any litigation pending against the existing project and/or any direction/order passed by any court of law against the project. Committee emphasized on Safety of the passengers and insurance of the ropeway passengers. PP informed that the ropeway system will be designed, manufactured and installed in accordance with the latest standards of ropeway technology, will feature state of the art equipment and operate automatically.

- Further PP informed that It will fully comply with the Indian Standard (IS) recommendations and safety requirements for Aerial Passenger Ropeway. PP also assured that they will insure all the ropeway passengers with an insurance policy. Committee asked to submit details on arrangement to be done for ensuring that people throw empty plastic carry bags or wrappers of ready to eat food packs in dust bins only and they do not throw it elsewhere or from the ropeway trolleys while travelling. The project proponent requested to categorize the project as B2 as per the O.M. No. J-13012/12/2013-IA-II (I) dt. 24/12/2013 of MoEF, New Delhi. Committee noted that as per the said OM dated 24/12/2013, all Aerial Ropeway projects, listed in the Schedule as Category 'B', should be categorized as Category B2. In view of this, the request for categorizing the project as B2 was considered by the committee and the additional information was sought for appraisal of the project.
- The project proponent submitted the additional information vide their online proposal no. SIA/GJ/MIS/41798/2016 dated 22/01/2016.

**Project status:** Expansion

**Project / Activity Details:**

This Aerial Ropeway project named "Pavagadh Udankhatola" is proposed by M/s: Usha Breco Ltd. This site is located at Pavagadh, Ta.: Halol, Dist.: Panchmahal. Height from MSL (Mean Sea Level) is 795 meters. The project falls under Category B of project activity 7(g) as per the schedule of EIA Notification 2006.

This is an expansion project of existing ropeway from Machi to Pavagadh. The proposed additional ropeway from presently installed ropeway's upper station to carry passengers to the Temple. The additional ropeway will link the Pavagadh village to the hilltop near the Kalidevi Temple. At present existing ropeway is run by M/s: Usha Breco Limited from Machi village to Pavagadh. Usha Breco Ltd. proposes to install a Fixed Grip Circulating Group Gondola Ropeway with latest technology and conforming to relevant Canadian regulations CSA Z98-14, Indian and Bombay Aerial Ropeway Act. Lower terminal of proposed Rope way is located in the land adjacent to upper station of existing Ropeway. The land of lower terminal of proposed ropeway is possessed by Usha Breco Limited. However, land of hilltop near Kalidevi is Government land. Proposed 234 meters long ropeway with a

lift of about 85 meter will have a carrying capacity of 800 passengers per hour per direction and will transport the pilgrims to the hilltop in about 2 minutes against a steep climb of over 45 minutes. PP presented that solid waste generated will be negligible in the construction phase. All waste materials generated during operation phase will be recycled or artistically moulded into attractive exhibits. The non-biodegradable waste and other packing materials will be sold to recycling agents/vendors. Bio-degradable waste will be treated in organic composter. Hazardous waste to be generated from the DG set operation will be used oil ( max. 50 lit./year), which will be sent to authorize re-processors. During construction phase 100 no.s of local labors and during operation phase 50 personnel will be employed. For hauling raw materials to the project site, material transportation ropeway will be used. Daily tourists inflow will vary from 500/day during lean season to 2000/day on peak days. Water requirement will be @ 1 KL/day which will be sourced from GWSSP. Permission letter from GWSSP is submitted. Septic tank will be provided for treatment of toilet sewage. Total power requirement will be sourced from GSEB. DG set (30 KVA & 200 KVA for construction & Operation phase respectively) will be installed as stand by facilities in case of power failure.

#### **Observations & Discussions :**

Technical presentation made during the meeting by project proponent. While discussing about the accident happened in year 2003, Committee observed that PP has not submitted the details regarding litigation pending against the existing project and direction/orders passed by any court of law against the project. Committee also asked regarding report of expert team after accident happened and compliance of its recommendations/Suggestions. Committee suggested to prepare SOP for safe operation Rope way system and to provide their own instruments instead of third party inspection for safety checks which was agreed by PP. Committee felt that the proposed project is a part of the Heritage site and permission from the Archaeological Survey of India is required. Committee asked to submit details regarding the said permission. While reviewing the point wise submission of additional details sought, Committee observed that some points regarding map showing surrounding area, copy of certificate for safety of rope way and its compliance, pending litigation, compliance of permissions obtained for existing rope way etc. were not covered adequately. After detailed deliberations the Committee sought following additional information for further consideration of the proposal:

1. Compliance of Point no. 8, 24, 42 & 44.
2. Report of the expert team visited after accident happened and compliance of its recommendations/Suggestions.
3. SOP for safe operation of Rope way system and ensure that you will provide your own instruments for safety checks.
4. Copy of Permission letter from the Archaeological Survey of India.

8	Piramal Glass Limited	O.N.G.C. Road, Village: Tarsadi, Po: Kosamba (R. S.), Dist: Surat	Appraisal
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**Project / Activity No.:** 1 (d)

**Project status:** Expansion

#### **Chronology of EC Process:**

- M/s: Piramal Glass Limited (herein after Project Proponent – PP) has submitted application vide their letter dated 22/02/2013.
- The project proponent was called for brief presentation and discussion in the meeting of the

SEAC held on 29/04/2013.

- Looking to the low pollution potential and the details presented during the meeting, after detailed elaboration the project was categorized as B2 category project and the additional information was sought for appraisal of the project.
- The project proponent submitted the EIA-EMP report prepared by M/s: Aqua-Air Environmental Engineers Pvt. Ltd., Surat and additional information sought by the committee, vide their letter no. Nil dated 28/07/2014.
- PP did not remained present in the SEAC meeting dated 20/09/2014.
- PP has requested for exemption from taking prior EC as per amendment in EIA Notification dated 25/06/2014 vide their letter no. NIL dated 19/09/2014.
- PP has requested for prior Environmental clearance as per amendment in EIA Notification dated 06/07/2015 vide their letter no. NIL dated 22/12/2015.
- The project proponent was called for appraisal of the project in the meeting held on 25/02/2016.

**Project status:** Expansion

**Project / Activity Details:**

This is an existing unit engaged in manufacturing of Glass Bottles – 11670 MT/Month. Unit has proposed for expansion in gas based CPP as tabulated below:

Sr. no.	Product Name	Production Capacity		
		Existing	Proposed	After Expansion
1.	Glass Bottle	11670 MT/Month	--	11670 MT/Month
2.	Captive Power plant (CPP)	9 MW	3.4 MW	12.4 MW

The project falls under the category 'B' of project / activity no. 1(d) in the Schedule of the EIA Notification, 2006. Unit is having valid CC&A for the existing activities. Plot area is approx. 100479 sq.m. Unit has proposed 20150 sq. m area for green belt development. Proposed expansion will be taken place within existing premises. No additional land will be acquired. Estimated cost of proposed expansion is Rs. 8.93 Crores. Total water requirement after proposed expansion will be 312 KL/day which will be met through bore well. Fresh water will be passed through the RO Plant – 1 & 2. Treated RO water is used in Process, washing, boiler, cooling tower, domestic and gardening purpose. RO Reject (105 KL/Day) is sent to the CETP of M/s. EICL, Umaraya. Industrial waste water generation will be 59 KL/day, which will be treated in ETP (P + S +T) and treated w/w will be reused for Washing, Domestic, Gardening and Plantation. PP presented that during the monsoon period, treated effluent will be utilized for washing (18 KL/day) and domestic purpose (42 KL/day). At present Natural gas consumption for 6 no.s of furnaces and 4 no.s of Gas engines is 450 SCM/day. Total natural gas consumption after proposed expansion will be 600 SCM/day. There is no process gaseous emission from the existing as well as proposed expansion. Hazardous waste generated from the manufacturing activity will be ETP sludge (64 MT/Month), Discarded containers/Bags/Liners (500 No.s/Year) and used oil (50000 Lit./Year). 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 recyclers/vendors. Used oil will be sold only to the registered recyclers.

**Observations & Discussions:**

Technical presentation made during the meeting by project proponent. Unit has submitted EMP report and RA report. Committee noted that unit is using NG as a fuel for existing CPP and they will use NG for proposed expansion of CPP. Unit is a member of CETP of EICL, Umaraya, Vadodara and RO reject stream will be sent to CETP of EICL as per existing CC&A. Unit is having valid CC&A of the Board. Committee noted that there is a discrepancy in water balance for rainy days and non-rainy days with respect to reuse of treated waste water. Committee also note that compliance of point no. 13 regarding flue gas emission details is not adequate.

After detailed deliberations the Committee sought following additional information for further consideration of the proposal:

1. Compliance of Point no. 13.
2. Complete water balance diagram for rainy days and non-rainy days considering reuse of the treated effluent.
3. 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 utilization of treated sewage for plantation & gardening.

9	Ravi Industries	Plot No:1-20/B, Nr. Steel Art, GIDC Kalol, Dist.: Gandhinagar	Appraisal
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**Project / Activity No.:** 5(f)

**Project status:** New

**Chronology of EC Process:**

- This project proposed by M/s: Ravi Industries (herein after Project Proponent – PP) has submitted an application vide their letter dated 03/12/2014.
- M/s: Ravi Industries. (herein after Project Proponent – PP) submitted Application vide their letter dated 03/12/2014.
- The project was taken up in the SEAC meeting held on 24/02/2015.
- During presentation, on asking about generation of spent sulfuric acid, PP informed that they will treat acidic effluent in their ETP within premises and send it to CETP Kalol for further treatment. Committee was of the view that performance of the CETP Kalol is to be verified. Looking to the Product profile, it was unanimously decided to consider the project for TOR/scoping only after submission of the following: (1) CETP performance data for the last three years including analysis reports of the GPCB. Also invite technical representative from CETP-Kalol in next meeting. (2) Spent acid generation quantity per MT of product manufacturing. Characteristic of spent acid and its management & disposal details. (3) Explore the possibility for conversion of spent acid into valuable product within premises instead of sending it to CETP. (4) Justification regarding no process gaseous emission from the proposed production.
- PP has submitted Revised Form-1 & PFR with additional details on dated 15/07/2015.
- The project was again taken up in the SEAC meeting held on 16/09/2015.

- During the meeting, Committee considered the Revised Form-1. As per the revised proposal, PP has removed one product EBAMSA and reduced the quantity of MUA. PP informed that the raw effluent having COD-2200 mg/l will be treated in primary treatment plant and will be sent to CETP Kalol for further treatment.
- The project proponent requested to categorize the project as B2 looking to the low pollution potential of the project and its location in GIDC- Kalol. 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.
- The project proponent submitted the additional information vide their letter no. NIL dated 13/01/2016.

**Project Status:** Existing

**Project / Activity Details:**

This unit has obtained CTE for Inorganic Chemical - Ferrous Sulphate and applied for manufacturing of Dyes Intermediates as tabulated below:

Sr. no.	Name of Product	Quantity MT/Month
	Existing Product	
1.	Ferrous Sulphate	100
	<b>Proposed Product</b>	
1.	Meta Uriedo aniline (MUA)	12

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

Total plot area is 451.98 sq.m. Unit has proposed 70 sq.m area for green belt development. Total cost of the project is Rs. 97.97 Lacs. Total water consumption for proposed project will be 2.375 KL/day (0.5 KL for gardening, 0.7 KL/day for Domestic, 1.225 KL/day for Industrial) which will be sourced from GIDC water supply. Industrial waste water generation will be 4.8 KL/day, which will be treated in proposed Primary treatment plant and treated waste water will be sent to CETP of Kalol for further treatment. Domestic waste water (0.35 KL/day) will be disposed off into soak pit system. No flue gas will be generated as there is no Boiler/TFH. No process gaseous emission is envisaged. Hazardous waste generated from the manufacturing activity will be ETP sludge (2.5 MT/Year), Process waste (Iron sludge- 60 MT/Year & Spent Carbon 8 MT/Year), Discarded containers/Bags/Liners (3 MT/Year) and Used oil (5 litres/Year).

**Observations/Discussions:**

Technical presentation made by the project proponent during the meeting. While discussing about the treatability of the waste water, PP informed that the quality of combined waste water having COD @ 2500 mg/l will be come down to @ 1800 mg/l after primary treatment within premises and finally treated w/w will be sent to CETP Kalol for further treatment. Committee noted that there will be no flue gas/process gas generation from the proposed project. Unit has obtained CTE for the manufacturing of Ferrous Sulphate, however production yet not started. After deliberations on various aspects, the

committee decided to recommend the project to SEIAA, Gujarat for the grant of Environmental Clearance.

10	Mansukhbhai Jethabhai Chauhan & Others	S.No.171/1, B.No.166, Kamrej-Digas Road, Kamrej, Surat	Appraisal
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The project was earlier taken up in the meeting of SEAC held on 30/07/2015. During the meeting held on 30/07/2015, the committee was of the view that any kind of sewage discharge into the khadi cannot be allowed as proposed by the project proponent and looking to the fact that the ground water table is at a shallow depth in the region, disposal of sewage through septic tank / soak pit system may contaminate the ground water. The project proponent was asked to submit exact details on mode of sewage disposal along with the permission of concerned authority in this regard. Further they were suggested to make provision of composting facility within premises for biodegradable waste to be generated during the operation phase instead of simply disposing it off through Kamrej Gram Panchayat. After detailed discussion it was decided to further appraise the project only after submission of the following:

1. Exact source of availability of water supply, drainage connection and municipal solid waste collection facility for the project & permission from concerned authority in this regard should also be submitted. Status of water supply line, drainage line, common STP & pumping station etc. in the area with supporting documents.
2. As per the copy of 7/12 & N.A order submitted by the project proponent, the land of the project site is in the name of Mr. Mansukhbhai Jethabhai & others. Copy of agreement made by the applicant with other land owners for development of the proposed project or copy of partnership deed showing that the other land owners & the applicant are the partners.
3. Management of municipal solid waste (biodegradable & non-biodegradable) to be generated during the operation phase of the project. Complete details on composting facility to be provided, capacity of the composting facility against the quantity of biodegradable waste to be generated, its location on layout plan, operation & maintenance of composting facility, quantity of manure to be generated & its management etc.

Project proponent vide their letter dated 28/12/2015 submitted the above mentioned details.

The project proponent along with their expert / consultant attended the meeting. The project was appraised based on the details submitted as well as facts presented before the committee.

It was presented that the project will be covered under the limits of SUDA and hence water supply from SUDA will be available to the project in near future, till then the water requirement for the project will be met through water supply from Kamrej Grampanchayat. They have submitted a copy of work order dated 03/07/2013 given by Office of Executive Engineer, Panchayat (Road & Building) Department Surat for development of drainage network along with STP & pumping station in the Kamrej area. Photographs showing the work for drainage network in progress in the area have also been submitted. It was presented that the municipal solid waste to be generated will be segregated into the non recyclable waste & recyclable waste. Non recyclable waste will be disposed off at the municipal solid waste dumping / collection site of Kamrej Grampanchayat & recyclable waste will be sold to vendors. Copy of 7/12 & N.A order submitted by the project proponent, shows that the land of the project site for residential use is in the name of Mr. Mansukhbhai Jethabhai & others.

During the meeting, based on the facts presented, the committee observed that the water supply & drainage connection facility of Kamrej Grampanchayat will be used during the operation phase and



non recyclable waste will be finally disposed at collection / dumping site of Kamrej Gram Panchayat. After discussing the project in detail, it was decided to recommend the project to SEIAA Gujarat for grant of Environmental Clearance.

11	Super LIFE Care Pvt. Ltd	Plot No: 140, Phase-II, GIDC, Naroda, Dist.: Ahmedabad,	Appraisal
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**Project / Activity No.:** 5(f)

**Project status:** New

**Chronology of EC Process:**

- This project proposed by M/s: Super Life Care Pvt Ltd. (herein after Project Proponent – PP) has submitted Application vide their letter dated 31/07/2014.
- This project was considered in the meeting of the SEAC held on 16/12/2014.
- Looking to the low pollution potential of the unit and location within the GIDC Naroda, after deliberation on various aspects, the project was categorized as B2 category project and the additional information was sought for appraisal of the project.
- The project proponent submitted the additional information vide their letter dated 09/03/2015.
- The project proponent was called for appraisal of the project in the meeting held on 19/05/2015.
- During the meeting, Committee noted that PP has not submitted plot holding certificate for the proposed GIDC plot. Committee also noted that PP has not furnished chemical reactions of all the products and details on cleaner production activities. Submitted details was also found incomplete with respect to Solvent recovery system, generation of solvent residue and its management, details of occupational health hazards & Risk assessment report etc. After detailed deliberations the Committee sought following additional information for further consideration of the proposal: Additional details asked vide sr. no. 1, 2, 3, 21, 24, 25, 26 i.e. (1) Copy of plot holding certificate obtained from GIDC Naroda. (2) 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. (3) Details of manufacturing process / operations of each product along with chemical reactions, mass balance, consumption of raw materials etc. Details on strategy for the implementation of cleaner production activities. (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. (24) Details of possibilities of occupational health hazards from the proposed manufacturing activities and proposed measures to prevent them. (25) 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. (26) MSDS of all the products and raw materials.

- The project proponent submitted the additional information vide their letter dated 31/08/2015.
- PP did not remain present during SEAC meeting dated 03/02/2016.

**Project status:** New

**Project / Activity Details:**

This is a new project and PP has applied for manufacturing of the following synthetic organic chemicals (bulk drugs):

Sr. no.	Name of Products	Quantity (MT/month)
1.	Hydroxyprogesterone Caproate	0.5
2.	Artemether	0.5
3.	Methylcobalamine	0.5
4.	Deflazacort	0.5
Total		2 MT/Month

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Cost of the project is Rs.70 lakhs and total plot area of the proposed project is 2806 m<sup>2</sup>. Water requirement of 1.35 KL/day will be met through GIDC water supply system. Industrial effluent generation will be 0.4 KL/day which will be treated in the proposed onsite ETP having primary treatment facilities and treated water will be evaporated to achieve zero discharge. Electric evaporator ( Cap. 50 Lit./hr) will be used for evaporation of the industrial effluent. Domestic waste water 0.4 KL/day will be disposed off into soak pit system. It was presented that there will not be any process gas emission from the proposed production. LDO (7 Ltr/hr) will be used as fuel in Boiler. Unit has proposed to install one D.G.set of 65 KVA. ETP sludge, used oil, discarded containers/bags/ liners and evaporation residue are the hazardous waste to be generated from the proposed production.

**Observations & Discussions:**

Technical presentation made during the meeting also covered the point wise reply of additional information sought. Committee noted that the waste water generation quantity is only 400 lit./day, which will be evaporated after primary treatment and there is no use of solid fuel & no process gaseous emission from the proposed project. After deliberations on various aspects, the committee decided to recommend the project to SEIAA, Gujarat for the grant of Environmental Clearance.

12	Madhav Ply Industries	PLOT NO. 375/2,3,4, N.H. No.-8, Village: Raurapura, Post: Samarkha, Tal & Dist: ANAND	Appraisal
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**Project / Activity No.: 5(f)**

- M/s: MADHAV PLY INDUSTRIES (herein after Project Proponent – PP) has submitted application vide their letter dated 15/05/2015.
- 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 M<sup>3</sup>/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.
- This project was considered in the meeting of the SEAC held on 30/07/2015.

- During presentation, PP informed that water requirement is 10 KL/day. Fuel requirement is 2.5 MT/day (<25 MT/day) and Chemicals to be used are not covered in MAH category. Hence, the proposed project falls under Category B of project activity 5(f) as per the EIA Notification 2006.
- The project proponent submitted the additional information vide their letter no. NIL dated 09/11/2015.

**Project status:** Existing Unit.

**Project / Activity Details:**

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

Sr. No.	Products Name	Production Capacity (MT/Month)		
		Existing	Proposed	Total
1.	Block Board	25000	-	25000
2.	Flush Door	10000	-	10000
3.	Ply Wood	25000	-	25000
4.	Phenol Formaldehyde Resin	-	20	20
5.	Urea Formaldehyde	-	20	20
6.	Melamine Formaldehyde Resin	-	50	50

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Total plot area is 10320 sq. m. Unit has proposed 4705 sq m area for the green belt development/ Tree plantation. Expected project cost is Rs. 0.40 Crores. Total water consumption for proposed project will be 10 KL/day (0.6 KL/Day for Domestic, 2.9 KL/Day for Gardening, 6 KL/Day for Boiler and 0.5 KL/Day for Cooling) which will be sourced from Bore Well. Total waste water generation will be 0.30 KL/Day (0.1 KL/Day will be condensate water and 0.2 KL/Day from boiler and cooling), which will be treated in the ETP plant and will be partially used in cooling tower and partially evaporated into evaporator. Domestic waste water generation will be 0.5 KL/Day which will be discharged through septic tank via soak pit. Unit is proposed to install one Steam Boiler and Briquettes of Bio-Coal or Agro waste (2.5 MT/Day) will be used as fuel for Boiler. Cyclone dust collector is proposed as APCM for flue gas emission control. The Hazardous waste to be generated from the manufacturing activity will be ETP sludge (100 Kg/Month), Evaporation Residue (30 Kg/Month), Used oil/spent oil (25 Lit/Year) and Discarded containers/Drums will be (100 Nos./Month), Bags (800 Nos./Month).

**Observations & Discussions:**

Technical presentation made during the meeting by project proponent. During the meeting. Committee asked to not use wood waste as a fuel and to use Briquettes of Bio-Coal or Agro waste only for Boiler which was agreed to by the project proponent. After deliberations on various aspects, the committee decided to recommend the project to SEIAA, Gujarat for the grant of Environmental Clearance.

13	Reliance Industries Ltd. (RIL-HMD)	Hazira Manufacturing Division, GIDC Mora Plot, Choryasi Dist.: Surat.	EC Amendment
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**Project / Activity No.:** 1 (d)

- M/s: Reliance Industries Ltd. (herein after Project Proponent – PP) has submitted application vide

their online proposal no. SIA/GJ/THE/983/2015 dated 02/02/2016 for EC amendment.

**Project status:** Existing

**Project / Activity Details:**

Hazira Manufacturing Division (HMD) of RIL is located in Hazira Notified Industrial Area. Presently, the power & steam requirement for the process plants is met by gas-based captive power plant. A Coal based CCPP (360 MW) is being installed to supplement this need and RIL was accorded Environmental Clearance vide letter no. SEIAA/GUJ/ EC/1(d) & 7(e) /3/2015 dated 28/01/2015. Environmental Clearance was granted with a specific condition as below:

*“In terms of captive power generation within the RIL-HMD complex, at any given point of time, the total installed capacity of the complex shall not exceed 499 MW and operating power generation capacity of the complex shall not exceed 360 MW”.*

The project proponent vide their online proposal dated 02/02/2016 requested for amendment in Environmental Clearance order dated 28/01/2015 with respect to allow them to operate 470 MW i.e. 110 MW gas based CCPP along with 360 MW coal based CCPP. PP has submitted Form-1 along with Justification for this proposal.

The request was considered during the meeting. Project proponent informed that the EC was granted with a specific condition that – “In terms of captive power generation within the RIL-HMD complex, at any given point of time, the total installed capacity of the complex shall not exceed 499 MW and operating power generation capacity of the complex shall not exceed 360 MW”. Further PP presented that this condition brings in utilities operational inefficiency, there by pushing for operation of Gas based CCPP also in parallel to meet increased in power & steam demands. This will be achieved without taxing environment as Gas based CCPP uses Natural gas fuel for its continuous operation. This leaves the site with a total installed as well as operating capacity of 470 MW with both Coal and Gas as fuel i.e. < 499 MW capacity. 110 MW based on Gas + 360 MW based on Coal.

Salient features of this proposal are as under:

- No new construction or facilities are required as this proposal is only seeking EC amendment & operation of 470 MW i.e 360 MW coal and 110 Gas
- No additional investment.
- The proposal involves (1) No change in technology (2) No change in Project location (3) No change in fuel quality & quantity(4) No change in Water requirement, Source & Wastewater generation (5) No Construction involved (6) No change in Hazardous/Non-hazardous waste generation (7) Use of existing gas based CCPP: Natural Gas as fuel, a clean & lean fuel
- No additional load on environment in the region & will make the operations cost effective

Unit has carried out Air Quality Impact Assessment for winter season (Nov'15 to Jan'16) using AeroMod Model. Results indicate that Max GLC is likely to occur within boundary of HMD facility and the post project air quality after operation of 470 MW CCPP is found to be within NAAQS.

**Discussions & Observations:**

During the meeting, on asking about the new facilities to be required for proposed amendment, PP informed that no new construction or facilities are required for proposed amendment & operation of 470 MW i.e. 360 MW Coal and 110 Gas based CCPP. Further PP informed that there will be no change in technology, no change in project location, no change in water requirement, source & waste water generation, no construction involved and no change in Hazardous / Non-Hazardous waste

generation. Committee asked to submit justification for the no change in said features due to proposed Amendment. After detailed deliberations the Committee sought following additional information for further consideration of the proposal:

1. Details on impact on environment due to proposed amendment keeping EIA report (submitted earlier) in view, its associated mitigation measures and recommendations.
2. Detailed technical justification regarding no change in water requirement, source & waste water generation and no change in Hazardous / Non-Hazardous waste waste generation due to proposed amendment.
3. Compliance of the Notification of MoEF&CC vide S.O. 3305 (E) dated 07/12/2015 regarding amendment to EP Rules for Thermal Power Plant Norms for the existing as well as proposed amendment.
4. Notarized undertaking stating that at any given point of time, the total installed capacity of the complex shall not exceed 499 MW and operating power generation capacity of the complex shall not exceed 470 MW”

14	Reliance Industries Ltd. (RIL-DMD)	Dahej Manufacturing Division, GIDC PlotNo.1, Dahej Vagra Dist.: Bharuch.	EC Amendment
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**Project / Activity No.:** 1(d)

- M/s: Reliance Industries Ltd. (herein after Project Proponent – PP) has submitted application vide their online proposal no. SIA/GJ/THE/9836/2015 dated 02/02/216 for EC amendment.

**Project status:** Existing

**Project / Activity Details:**

Dahej Manufacturing Division (DMD) of RIL is located in GIDC declared Dahej Notified Industrial Area. Presently, the power & steam requirement for the process plants is met by gas-based captive power plant. A Coal based CCPP (270 MW) is being installed to supplement this need and RIL was accorded Environmental Clearance vide letter no. SEIAA/GUJ/ EC/1(d) & 7(e) /96/2015 dated 02/03/2015. Environmental Clearance was granted with a specific condition as below:

*“In terms of captive power generation within the RIL-HMD complex, at any given point of time, the total installed capacity of the complex shall not exceed 499 MW and operating power generation capacity of the complex shall not exceed 465 MW”.*

The project proponent vide their online proposal dated 02/02/2016 requested for amendment in Environmental Clearance order dated 02/03/2015 with respect to allow them to operate 465 MW i.e. 195 MW gas based CCPP along with 270 MW coal based CCPP. PP has submitted Form-1 along with Justification for this proposal.

The request was considered during the meeting. Project proponent informed that the EC was granted with a specific condition that – “In terms of captive power generation within the RIL-DMD complex, at any given point of time, the total installed capacity of the complex shall not exceed 499 MW and operating power generation capacity of the complex shall not exceed 465 MW”. Further PP presented that this condition brings in utilities operational inefficiency, there by pushing for operation of Gas based CCPP also in parallel to meet increased in power & steam demands. This will be achieved without taxing environment as Gas based CCPP uses Natural gas fuel for its continuous operation. This leaves the site with a total installed as well as operating capacity of 465 MW with both Coal and Gas as fuel i.e. < 499 MW capacity. 195 MW based on Gas + 270 MW based on Coal.

Salient features of this proposal are as under:

- No new construction or facilities are required as this proposal is only seeking EC amendment & operation of 465 MW i.e 195 MW coal and 270 Gas.
- No additional investment.
- The proposal involves (1) No change in technology (2) No change in Project location (3) No change in fuel quality & quantity(4) No change in Water requirement, Source & Wastewater generation (5) No Construction involved (6) No change in Hazardous/Non-hazardous waste generation (7) Use of existing gas based CCPP: Natural Gas as fuel, a clean & lean fuel
- No additional load on environment the region & will make the operations cost effective

Unit has carried out Air Quality Impact Assessment for winter season (Nov'15 to Jan'16) using AeroMod Model. Results indicate that Max GLC is likely to occur within boundary of DMD facility and the post project air quality after operation of 465 MW CCPP is found to be within NAAQS.

#### **Discussions & Observations:**

During the meeting, on asking about the new facilities to be required for proposed amendment, PP informed that no new construction or facilities are required for proposed amendment & operation of 465 MW i.e. 270 MW Coal and 195 Gas based CCPP. Further PP informed that there will be no change in technology, no change in project location, no change in water requirement, source & waste water generation, no construction involved and no change in Hazardous / Non-Hazardous waste generation. Committee asked to submit justification for the no change in said features due to proposed Amendment. After detailed deliberations the Committee sought following additional information for further consideration of the proposal:

1. Details on impact on environment due to proposed amendment keeping EIA report (submitted earlier) in view, its associated mitigation measures and recommendations.
2. Detailed technical justification regarding no change in water requirement, source & waste water generation and no change in Hazardous / Non-Hazardous waste waste generation due to proposed amendment.
3. Compliance of the Notification of MoEF&CC vide S.O. 3305 (E) dated 07/12/2015 regarding amendment to EP Rules for Thermal Power Plant Norms for the existing as well as proposed amendment.
4. Notarized undertaking stating that at any given point of time, the total installed capacity of the complex shall not exceed 499 MW and operating power generation capacity of the complex shall not exceed 465 MW”

15	Camphor allied products Ltd. (Fine Chemical Division),	Plot no. 03, Nandesari GIDC, Nandesari Dist.: Vadodara.	Screening & Scoping
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#### **Project / Activity No.:** 5(f)

- M/s: Camphor allied products Ltd. (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/5824/2015 dated 29/12/2015.

**Project status:** Expansion

#### **Project / Activity Details:**

This is an existing unit engaged in manufacturing of Synthetic organic chemicals and now proposes for expansion as tabulated below:

Sr. No.	Name of Product	Existing Quantity MT/Month	Proposed Quantity MT/Month	Total Quantity After Expansion MT/Month
1	DHMOH	10	--	10
2	Alpha Pinene Epoxide	100	--	100
3	Camphotenic Aldehyde	50	--	50
4	NOPOL	01	--	01
5	Sandalica	30	--	30
6	Capsol	10	--	10
7	ASTROLIDE	350	--	350
8	Distilled Turpentine (By Product)	160	50	210
9	Sodium Acetate Solution (By Product)	427.12	57.853	484.97
10	Astrone	10	--	10
11	Astromeran	2	--	2
12	H.B. Oil	10	--	10
13	AlCl3 Solution (By Product)	1691	--	1691
14	Potassium Dichromate Solution	58.32	--	58.32
15	HYDROCARBONS (Paracymene / Paramenthane)	50	--	50
16	ALCOHOLS (Sandal Alcohols)	50	20	70
17	OTHER ALCOHOLS (Terpineol)	70	--	70
18	KETONES (Ketone / Amberone)	5	--	5
19	ACETYLATION PRODUCTS (Capinone / Terpinyl Acetate)	30	--	30
20	Capolene (By Product)	25	--	25
21	Pine oil comm. (By Product)	5	--	5
22	Isolongifolene (By Product)	10	--	10
23	Hydro peroxides	10	--	10
24	Macrocyclic Musk	1	--	1
25	Aldehyde Group			
25.1	Aldehyde C -7 DMA	--	0.12	0.12
25.2	Aldehyde C -10 Nitrile	--	0.1	0.1
25.3	Aldehyde C -11 Nitrile	--	0.1	0.1
25.4	Aldehyde C -12 Nitrile	--	0.1	0.1
25.5	Aldehyde C-11 ( Undecylenic )	--	0.12	0.12
25.6	Aldehyde C-7 Heptanal & Undecylenic acid	--	1.0	1.0
26	Allyl Group			
26.1	Allyl Amyl Glycolate	--	0.24	0.24
26.2	Allyl Caproate	--	12.0	12.0
26.3	Allyl 3-Cyclohexyl propionate	--	0.48	0.48
26.4	Allyl Heptoate	--	7.2	7.2
26.5	Allyl Phenoxy Acetate	--	1.2	1.2
27	Amyl Group			
27.1	Alpha Amyl Cinnamic Aldehyde	--	2.4	2.4
27.2	Amyl Acetate	--	2.4	2.4
27.3	Amyl Butyrate	--	1.44	1.44
27.4	Amyl Cinnamate	--	0.24	0.24
27.5	Amyl Isovalerate	--	0.24	0.24
27.6	Amyl Phenyl Acetate	--	0.24	0.24

	27.7	Amyl Salicylate	--	0.12	0.12
	27.8	Amyl Valerate	--	0.24	0.24
28	Benzyl Group				
	28.1	Benzyl Benzoate	--	5.0	5.0
	28.2	Benzyl Butyl Ether	--	0.24	0.24
	28.3	Benzyl Butyrate	--	2.4	2.4
	28.4	Benzyl Caproate	--	0.1	0.1
	28.5	Benzyl Cinnamate	--	1.2	1.2
	28.6	Benzyl Ethyl Ether	--	0.24	0.24
	28.7	Benzyl Formate	--	0.24	0.24
	28.9	Benzyl Hexyl Ether	--	0.24	0.24
	28.10	Benzyl Isoamyl Ether	--	0.48	0.48
	28.11	Benzyl Isobutyrate	--	0.24	0.24
	28.12	Benzyl Isovalerate	--	0.24	0.24
	28.13	Benzyl Laurinate	--	0.12	0.12
	28.14	Benzyl Methyl Ether	--	0.24	0.24
	28.15	Benzyl Phenyl Acetate	--	1.2	1.2
	28.16	Benzyl Propionate	--	0.48	0.48
	28.17	Benzyl Valerate	--	0.24	0.24
29	Butyl Group				
	29.1	Butyl Acetate	--	0.12	0.12
	29.2	Butyl Butyrate	--	0.24	0.24
	29.3	Butyl Phenyl Acetate	--	0.48	0.48
	29.4	Butyl Salicylate	--	0.12	0.12
30	Cinnamyl Group				
	30.1	Cinnamyl Acetate	--	2.4	2.4
	30.2	Cinnamyl Benzoate	--	0.24	0.24
	30.3	Cinnamyl Butyrate	--	0.48	0.48
	30.4	Cinnamyl Iso Butyrate	--	0.48	0.48
	30.5	Cinnamyl Isovalerate	--	0.48	0.48
	30.6	Cinnamyl Nitrile	--	1.2	1.2
	30.7	Cinnamyl Propionate	--	1.2	1.2
31	Cis 3 Group				
	31.1	Cis 3 Hexenyl Acetate	--	0.24	0.24
	31.2	Cis 3 Hexenyl Benzoate	--	0.12	0.12
	31.3	Cis 3 Hexenyl Butyrate	--	0.12	0.12
	31.4	Cis 3 Hexenyl Caproate	--	0.12	0.12
	31.5	Cis 3 Hexenyl Formate	--	0.1	0.1
	31.6	Cis 3 Hexenyl IsoButyrate	--	0.12	0.12
	31.7	Cis 3 Hexenyl Propionate	--	0.12	0.12
32	Citronellyl Group				
	32.1	Citronellyl Isobutyrate	--	1.2	1.2
	32.2	Citronellyl Propionate	--	1.2	1.2
	32.3	Citronellyl Acetate	--	4.8	4.8
	32.4	Citronellyl Benzoate	--	0.24	0.24
	32.5	Citronellyl Butyrate	--	1.2	1.2
	32.6	Citronellyl Caproate	--	2.4	2.4
	32.7	Citronellyl Caprylate	--	0.12	0.12
	32.8	Citronellyl Formate	--	1.2	1.2
	32.9	Citronellyl Iso Valerate	--	0.24	0.24
	32.10	Citronellyl Phenyl Acetate	--	0.48	0.48
	32.11	Citronellyl Valerate	--	0.24	0.24
33	Cyclohexyl Group				



	33.1	Cyclohexyl Acetate	--	0.24	0.24
	33.2	Cyclohexyl Butyrate	--	0.24	0.24
	33.3	Cyclohexyl Salicylate	--	2.4	2.4
34	Ethyl Group				
	34.1	Ethyl Benzoate	--	0.48	0.48
	34.2	Ethyl Butyrate	--	0.24	0.24
	34.3	Ethyl Caprylate	--	0.48	0.48
	34.4	Ethyl Caproate	--	0.48	0.48
	34.5	Ethyl Caprylate	--	0.48	0.48
	34.6	Ethyl Cinnamate	--	0.6	0.6
	34.7	Ethyl Heptoate	--	0.48	0.48
	34.8	Ethyl Iso Valerinate	--	0.12	0.12
	34.9	Ethyl IsoButyrate	--	0.24	0.24
	34.10	Ethyl Laurinate	--	0.48	0.48
	34.11	Ethyl Phenyl Acetate	--	0.48	0.48
	34.12	Ethyl Propionate	--	0.24	0.24
	34.13	Ethyl Salicylate	--	0.48	0.48
35	Geranyl Group				
	35.1	Geranyl Butyrate	--	1.25	1.25
	35.2	Geranyl IsoButyrate	--	1.25	1.25
	35.3	Geranyl Acetate	--	7.2	7.2
	35.4	Geranyl Benzoate	--	0.24	0.24
	35.5	Geranyl Formate	--	2.4	2.4
	35.6	Geranyl Iso Valerinate	--	0.24	0.24
	35.7	Geranyl Nitrile	--	1.2	1.2
	35.8	Geranyl Phenyl Acetate	--	0.48	0.48
	35.9	Geranyl Propionate	--	1.2	1.2
	35.10	Geranyl Valerinate	--	0.24	0.24
36	Hexyl Group				
	36.1	Hexyl Acetate	--	0.12	0.12
	36.2	Hexyl Benzoate	--	0.12	0.12
	36.3	Hexyl Butyrate	--	0.12	0.12
	36.4	Hexyl Caproate	--	0.12	0.12
	36.5	Hexyl Formate	--	0.24	0.24
	36.6	Hexyl IsoButyrate	--	0.12	0.12
	36.7	Hexyl propionate	--	0.12	0.12
	36.8	Hexyl Salicylate	--	0.48	0.48
37	Isoamyl Group				
	37.1	Isoamyl Acetate	--	2.4	2.4
	37.2	Isoamyl Benzoate	--	0.24	0.24
	37.3	Isoamyl Butyrate	--	1.44	1.44
	37.4	Isoamyl Caproate	--	0.24	0.24
	37.5	Isoamyl Caprylate	--	0.24	0.24
	37.6	Isoamyl Isovalerinate	--	0.24	0.24
	37.7	Isoamyl IsoButyrate	--	1.44	1.44
	37.8	Isoamyl Phenyl Acetate	--	0.24	0.24
	37.9	Isoamyl Propionate	--	0.12	0.12
	37.10	Isoamyl Valerinate	--	0.24	0.24
38	Isobutyl Group				
	38.1	Isobutyl Butyrate	--	0.24	0.24
	38.2	Isobutyl Benzoat	--	0.24	0.24
	38.3	Iso Butyl Cinnamate	--	0.12	0.12
	38.4	Isobutyl Isobutyrate	--	0.24	0.24

	38.5	Iso Butyl Phenyl Acetate	--	0.48	0.48
	38.6	Iso Butyl Propionate	--	0.12	0.12
39	Methyl Group				
	39.1	Methyl Abietate	--	4.8	4.8
	39.2	Methyl Anisate	--	0.24	0.24
	39.3	Methyl Benzoate	--	4.8	4.8
	39.4	Methyl Beta Naphthyl Ketone	--	0.5	0.5
	39.5	Methyl Butyrate	--	0.24	0.24
	39.6	Methyl Caproate	--	0.12	0.12
	39.7	Methyl Caprylate	--	0.12	0.12
	39.8	Methyl Cinnamate	--	1.2	1.2
	39.9	Methyl Cinnamic Aldehyde	--	0.24	0.24
	39.10	Methyl Iso Valerinate	--	0.12	0.12
	39.11	Methyl IsoButyrate	--	0.24	0.24
	39.12	Methyl Laurinate	--	0.12	0.12
	39.13	Methyl Phenoxy Acetate	--	0.48	0.48
	39.14	Methyl Phenyl Acetate	--	2.4	2.4
40	Neryl Group				
	40.1	Neryl Acetate	--	2.4	2.4
	40.2	Neryl Butyrate	--	0.12	0.12
	40.3	Neryl Formate	--	0.2	0.2
	40.4	Neryl Iso Butyrate	--	0.12	0.12
	40.5	Neryl Phenyl Acetate	--	0.12	0.12
	40.6	Neryl Propionate	--	0.12	0.12
41	Para Cresol Group				
	41.1	Para Cresol Methyl Ether	--	0.24	0.24
	41.2	Para Cresol	--	0.6	0.6
	41.3	Para Cresyl Acetate	--	2.4	2.4
42	Phenoxy Ethyl Group				
	42.1	Phenoxy Ethyl Butyrate	--	0.12	0.12
	42.1	Phenoxy Ethyl Isobutyrate	--	0.12	0.12
43	Phenyl Ethyl Group				
	43.1	Phenyl Ethyl Heptoate	--	0.24	0.24
	43.2	Phenyl Ethyl Acetate	--	12.0	12.0
	43.3	Phenyl Ethyl Benzoate	--	0.48	0.48
	43.4	Phenyl Ethyl Butyrate	--	0.48	0.48
	43.5	Phenyl Ethyl Caproate	--	0.24	0.24
	43.6	Phenyl Ethyl Caprylate	--	0.24	0.24
	43.7	Phenyl Ethyl Cinnamate	--	1.2	1.2
	43.8	Phenyl Ethyl Formate	--	0.48	0.48
	43.9	Phenyl Ethyl Isovalerinate	--	0.24	0.24
	43.10	Phenyl Ethyl IsoButyrate	--	0.48	0.48
	43.11	Phenyl Ethyl Laurinate	--	0.24	0.24
	43.12	Phenyl Ethyl Methyl Ether	--	0.24	0.24
	43.13	Phenyl Ethyl Phenyl Acetate	--	2.4	2.4
	43.14	Phenyl Ethyl Propionate	--	0.48	0.48
	43.15	Phenyl Ethyl Salicylate	--	0.48	0.48
	43.16	Phenyl Ethyl Valerinate	--	0.24	0.24
44		Amber Capcore	--	1.0	1.0
45		Anisic Aldehyde	--	1.2	1.2
46		Anisyl Acetate	--	0.24	0.24
47		Anisyl Formate	--	0.24	0.24
48		Arbanol	--	0.12	0.12

49	Aro C - 11 Inter	--	1.44	1.44	
50	Benzelidene Acetone	--	0.24	0.24	
51	Bromostyrol	--	0.12	0.12	
52	Cambrettolide	--	1.2	1.2	
53	Captaite	--	1.0	1.0	
54	Cyclocitral	--	1.2	1.2	
55	Dihydroambrettolide	--	0.050	0.050	
56	Ethyl Amyl Ketone Oxime	--	0.12	0.12	
57	Eugenol	--	0.12	0.12	
58	Eugenyl Acetate	--	0.1	0.1	
59	Iso Eugenol	--	0.4	0.4	
60	Iso Eugenol Acetate	--	0.1	0.1	
61	Iso Propyl Cinnamate	--	0.6	0.6	
62	Limofine	--	1.44	1.44	
63	Nerolin Bromilia	--	4.8	4.8	
64	Phenoxy Ethanol	--	1.2	1.2	
65	Rosanile	--	0.515	0.515	
66	Safranal	--	1.5	1.5	
67	Meracene	--	0.01	0.01	
68	Sodium Formate (by Product)	--	6.1	6.1	
Total			3165.44	293.408	3458.845

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Plot area is approx. 160000 sq. m. Unit has proposed 50000 sq. m area for green belt/tree plantation. Estimated cost of proposed expansion is Rs. 20 Crores.

S.No	Application	Quantity KL/DAY					
		Water Consumption			Waste Water Generation		
		Existing	Proposed	Total after Expansion	Existing	Proposed	Total after Expansion
1	Domestic	35	--	35	35	--	35
2	Gardening	54	--	54	Nil	--	Nil
3	Industrial						
3	Process	116	18	134	54	21	75
	Boiler	151	48	199	34	24	58
	Cooling	270	40	310	82	20	102
	Washing	75	4	79	75	4	79
Total		701	110	811	280	69	349

Fresh water requirement after proposed expansion will be supplied by the GIDC.

Industrial effluent will be treated in proposed ETP followed by RO and RO treated (permeate – 132 KL/day) will be reuse in gardening and process. RO Reject (182 KL/day) will be sent to CETP Nandesari. Domestic waste water (35 KL/day) will be disposed off into septic tank/soak pit system.

Segregation of streams and treatment methods:

- ✓ Fresh water to be used: 679 KL /Day
- ✓ Treated Water to be used: 132 KL /Day.
- ✓ Total water to be used: 811 KL /Day

- ✓Domestic Effluent: 35 KL /Day
- ✓Industrial effluent: 314 KL /Day.
- ✓Treated effluent Reused: 132 KL /Day
- ✓RO Rejected discharged to NECL: 182 KL /Day
- ✓RO rejected effluent will be discharged to CETP, Nandesari (Qty. ~ 182 KL /Day).
- ✓RO Treated effluent (132 KL /Day) will be used for gardening and plantation purpose as well as reuse in process.

Flue gas stack details is as tabulated below:

Flue gas emission details						
No.	Stack attached to (Mention Existing or Proposed)	APCM	Fuel Type	Fuel consumption MT/day		
				Existing	Proposed	Total
1	Boiler (4 TPH) Stand By Existing	---	NG	4000 SCM/Day	Nil	4000 SCM/Day
2	Thermic Fluid Heater I (6 Lacs kcal/hr) Existing	---	NG	4000 SCM/Day	Nil	4000 SCM/Day
3	Thermic Fluid Heater II (6 Lacs kcal/hr) Existing	---	HSD+NG	100 L/Hr.+100 SCM/h	Nil	100 L/Hr.+100 SCM/h
4	Boiler (10 TPH) Existing	Cyclone separator and Bag Filter	HSD+NG	100 L/Hr.+100 SCM/h	Nil	100 L/Hr.+100 SCM/h
5	DG Set I,II Existing	---	HSD	400 L /Hr	Nil	400 L /Hr
6	DG Set III Existing	---	Imported Coal/ Briquettes of Agro Waste	1.8 MT /Hr	Nil	1.8 MT /Hr
7	Thermic Fluid Heater III (15 Lacs kcal/hr) Proposed	Cyclone Separator and Bag Filter	Imported Coal/ Briquettes of Agro Waste	Nil	0.40 T/Hr	0.40 T/Hr

Process gas emission details is tabulated as below:

Process gas emission details			
No.	Vent attached to (Mention Existing or Proposed)	APCM	Type of gaseous emission
1	Reaction vessel – Existing	Vent Scrubber (2 Nos.) Cap: 416 & 150 kg/hr	SO <sub>2</sub>
2	Reaction vessel – Proposed	Caustic Scrubber	SO <sub>2</sub>

Hazardous waste details

No.	Type of hazardous	Quantity (MT/Annum)			Mode of Disposal
		E	P	T	

	waste				
1	Pitch Distillation Residue	1680 MT/Year	270 MT/Year	1950 MT/Year	Collection, Storage, Transportation and Disposal by Incineration / Consent Holder
2	Acid sludge	Whatever Generated	--	Whatever Generated	Collection, storage, Transportation, and Disposal at TSDF
3	Discarded container	19300 No/Year	--	19300 No/Year	Collection, Storage and Decontamination , used for packing of waste or sell to authorized vendors
4	Used oil	5.65 KL/Year	--	5.65 KL/Year	Collection, storage, Transportation and disposal by sale to registered refiners
5	ETP sludge	245.0 MT/Year	68.5 MT/Year	313.5 MT/Year	Collection, Storage, Transportation and Disposal at TSDF
6	Evaporator residue	1353.6 MT /Yr	0	1353.6 MT /Yr	Collection, Storage, Transportation and Disposal at TSDF
7	Spent catalyst	5.0 MT/Year	0.057MT/Year	5.057 MT/Year	Collection, Storage, Transportation and Disposal by Consent Holder. Return to supplier for regeneration & reused
8	Spent solvent	480 MT/Year	0	480 MT/Year	Distilled Recovery & reused in Process.
9	Spent Sulphuric Acid	840 MT/Year	100 MT/Year	940 MT/Year	Collection, Storage, Transportation and disposal by sale to approved Parties. Also used in ETP for neutralization.
10	Spent phosphoric acid	496 MT/Year	0	496 MT/Year	Collection, Storage, Transportation and disposal by sale to approved Parties. Partly to be reused in new processes.
11	Carbon Waste	1.8 MT/Year	Nil	1.8 MT/Year	Collection, Storage, Transportation and Disposal at TSDF.

Management of hazardous waste will be carried out as per the HW Rules 2008.

**Observations / Discussion:**

Technical presentation by the PP included general information, details of products and raw materials, Waste generation, hazards & control, analysis of pollution parameters before and after treatment, resource consumption and conservation, Risk estimation etc. Issues related to spent acid management, segregation of effluent stream, safety and occupational health and infrastructure by GIDC etc. were discussed. While discussing about the spent acid management, Committee asked to curtail generation of spent acid or to submit the action plan for reuse of spent acid within premises by convert it into valuable products. After deliberation on various aspects, following additional TOR was prescribed for the EIA study covering 10 km radius of the project boundary.

1. Copy of plot holding certificate obtained from GIDC Nandesari.
2. Need for the proposed expansion should be justified in detail.

3. Demarcation of proposed expansion activities in lay out of the existing premises.
4. Exact details about additional infrastructural facilities, plant machineries etc. required for the proposed expansion
5. Present land use pattern of the study area shall be given based on satellite imagery.
6. 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.
7. Technical details of the plant/s along with details on best available technologies (BAT), proposed technology and reasons for selecting the same.
8. Details of manufacturing process / operations of each product along with chemical reactions, mass balance, consumption of raw materials etc. Details on strategy for the implementation of cleaner production activities.
9. Chemical name of each proposed product to be manufactured. Details on end use of each product.
10. Detailed mass balance and water balance (including reuse-recycle, if any) along with qualitative and quantitative analysis of the each waste stream from the processes.
11. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the project. Permission obtained from the GIDC for supply of raw water. Undertaking stating that no bore well shall be dug within the premises.
12. 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.
13. Qualitative and quantitative analysis of waste water to be generated from the manufacturing process of each product to be manufactured along with mass balance.
14. Segregation of waste streams and details on specific treatment and disposal of each stream.
15. Explore the possibility for complete "Zero Liquid Discharge" (ZLD) for proposed project.
16. Details of ETP including dimensions of each unit along with schematic flow diagram. Inlet, transitional and treated effluent qualities with specific efficiency of each treatment unit in reduction in respect of all concerned/regulated environmental parameters. Inlet effluent quality should be based on worst case scenario considering production of most polluting products that can be manufactured in the plant concurrently.
17. 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.
18. Technical details of proposed Incinerator/Spray dryer including capacity, fuel to be used, adequacy etc. Techno-economical viability of the proposed Incinerator. Control measures proposed for the Incinerator in order to avoid/reduce gaseous emission/VOC from incineration of industrial effluent containing solvents & other chemicals.
19. Technical details of RO/NF system.
20. Undertaking stating that a separate electric meter will be provided for the ETP, RO system.
21. Proposal to provide and maintain separate electric meter, operational logbook for effluent treatment systems, online meters for monitoring of flow, pH, TOC/COD, etc.
22. Copy of permission letter with quantity from the authority regarding confirmation for spare capacity available to take additional effluent load in CETP-Nandesari.
23. Give details of CETP- Nandesari including (1) Total capacity & Spare capacity of the CETP, (2) Actual load at present (Qualitative and Quantitative) (3) CETP Up gradation scheme, if any. (4) Analysis Reports of GPCB for Inlet and outlet of CETP for last 6 months. Comparative statement with respect to Norms prescribed by the GPCB. Recommendations and suggestions of the last two

Environment Audit reports of CETP-Nandesari and their compliance report.

24. Application wise break-up of effluent quantity to be recycled / reused in various applications like sprinkling for dust control and green belt development etc. In case of land application, details on availability of sufficient open land for utilizing effluent for plantation / gardening. How it will be ensured that treated effluent won't flow outside the premises linked with storm water during high rainy days.
25. Plans for management, collection 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.
26. One season Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be incorporated.
27. 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.
28. 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.
29. 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.
30. 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.
31. 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 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.
32. Action plan for odour control as per prevailing guidelines.
33. 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. Methodology of de-contamination and disposal of discarded containers and its record keeping.
34. Membership of Common Environmental Infrastructure including the TSDF / Common Incineration Facility, if any.
35. Complete management plan for By-products/Spent acids 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-products/Spent acids from the proposed project.
36. 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.
  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. Permission from PESO, Nagpur for storage of solvents, other toxic chemicals, if any.
  39. 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. Provision of industrial hygienist and monitoring of the occupational injury to workers as well as impact on the workers. Plan for periodic medical checkup of the workers exposed. Details of work place ambient air quality monitoring plan as per Gujarat Factories Rules.
  40. Details on volatile organic compounds (VOCs) from the plant operations and occupational safety and health protection measures.
  41. 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 plant layout map clearly showing which of the facilities 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.
  42. MSDS of all the products and raw materials.
  43. 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.
  44. Details of quantity of each hazardous chemical (including solvents) to be stored, Material of Construction of major hazardous chemical storage tanks, dyke details, threshold storage quantity as per schedules of the Manufacture, Storage & Import of Hazardous Chemicals Rules of major hazardous chemicals, size of the biggest storage tank to be provided for each raw material & product etc. How the manual handling of the hazardous chemicals will be minimized?
  45. 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.
  46. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, manufacturing utility staff for safety related measures.
  47. 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.
  48. 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.

49. (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.
50. Copies of Consent to Establish, Consent to Operate orders obtained in past along with point wise compliance status of all the conditions stipulated therein.
51. Copy of Environmental Clearance obtained 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.
52. 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.
53. 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.
54. 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.
55. 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.
56. Phase wise project implementation schedule with bar chart and time frame, in terms of site development, infrastructure provision, EMS implementation etc.
57. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.
58. 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 Chemical industry shall be considered as generic TORs for preparation of the EIA report in addition to all the relevant information as per the generic structure of EIA given in Appendix III in the EIA Notification, 2006. The project shall be appraised on receipt of the final EIA report.

16	Pranshav health care	Plot No. 824/16, Near Metco roof GIDC, Jhagadia, Dist. Bharuch,	Screening & Scoping
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**Project / Activity No.: 5(f)**

- M/s: Pranshav health care (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/6402/2016 dated 04/01/2016.

**Project status:** Expansion

**Project / Activity Details:**

This is an existing unit engaged in manufacturing of in-organic chemicals and now proposes for manufacturing of Pharma Intermediates and Pharmaceutical products as tabulated below:

List of Existing Products (As Per CTE No. 70101)

Sr. No.	Product Name	Quantity (MT/M)
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1.	Potassium Chloride And/or	500 (either individual of total 7 product)
2.	Potassium fluoride And/or	
3.	Potassium Bromide And/or	
4.	Potassium sulphate And/or	
5.	Calcium sulphate And/or	
6.	Magnesium sulphate And/or	
7.	Sodium Bromide And/or	
8.	Manganese Sulphate 27% solution	50
	Total	550

## List of Proposed Products

Sr. No.	Product Name	Quantity (MT/M)
<b>Group A- Individual Product</b>		
1.	Atorvastatin calcium	20.00
2.	CH base (Product)	50.00
3.	Pentaprazol Sodium	30.00
4.	Tertiary Butyl Hydroquinon	40.00
	Total	140
<b>Group B-Pharmaceutical Drug</b>		
PROTON PUMP INHIBITOR (REDUCTION OF GASTRIC ACID/ANTACID)		20
5.	Esomeprazole Magnesium DihydrateAnd/or	
6.	DexlansoprazoleAnd/or	
OCULAR CARBONIC ANHYDRASE INHIBITOR(FOR OPEN ANGLE GLAUCOMA)		
7.	BrinzolamideAnd/or	
8.	Dorzolamide HCl And/or	
ANTI-DIABETIC DRUGS		
9.	CanaglifloginAnd/or	
10.	DapagliflozinAnd/or	
11.	VildagliptinAnd/or	
CHEMOTHERAPEUTIC DRUG		
12.	CapecitabineAnd/or	
ANTIBIOTIC (3 <sup>RD</sup> GENERATION CEPHALOSPORIN)		
13.	Cefsulodine Sodium And/or	
ANTICOAGULANTS		
14.	DabigetrinAnd/or	
15.	RivaroxabanAnd/or	
FOR TREATMENT OF PREMATURE EJACULATION		
16.	Dapoxetine Hydrochloride And/or	
FOR TREATMENT OF HIV INFECTION		
17.	DarunavirAnd/or	
ANTHRAQUINONE (FOR TREATMENT OF OSTEOARTHRITIS)		
18.	DiacereinAnd/or	
ANTI-HYPERTENSIVE DRUGS		
19.	IrbesartanAnd/or	
20.	TelmisartanAnd/or	
21.	CilnipineAnd/or	

22.	NEBIVOLOL HCL And/or LEUKOTRIENE ANTAGONIST (FOR TREATMENT OF BRONCHIAL ASTHMA)	
23.	Montelukast Sodium And/or	
ANTI-FUNGAL DRUGS		
24.	Posaconazole And/or	
ATYPICAL ANTI-PSYCHOTIC (FOR TREATMENT OF SCHIZOPHRENIA)		
25.	Quetiapine Hemifumarate And/or	
PREVENT OSTEOPOROSIS		
26.	Risedronate Sodium And/or	
ANTIDEPRESSANT DRUGS		
27.	Vilazodone HCl And/or	
28.	Agomealtine And/or	
ANTI-PSYCHOTIC DRUG		
29.	Levosulpiride And/or	
FOR TREATMENT OF BENIGN PROSTATIC HYPERPLASIA		
30.	Tamsulosin HCl And/or	
ANTI-EPILEPTIC DRUGS		
31.	Carbamazepine And/or	
32.	Levetiracetam And/or	
ANTIMUSCARINIC DRUG (FOR TREATMENT OF OVERACTIVE BLADDER SYNDROME)		
33.	Fesoterodine And/or	
HYPERTENSION		
34.	Bosentan Monohydrate And/or	
FOR TREATMENT OF GOUT		
35.	Febuxostat And/or	
Group C- Paraben		
36.	Methyl Paraben And/or	50
37.	Ethyl Paraben And/or	
38.	Propyl Paraben And/or	
39.	Butyl Paraben And/or	
40.	Iso Propyl Paraben And/or	
Group d- Intermediate		
41.	4- Amino Pyridine And/or	40
42.	Dimethyl Ameno Propiophenone And/or	
43.	Guaicol And/or	
44.	Lauryl Pyridinium Chloride And/or	
45.	Veratrole And/or	
46.	Diethyl Ethyl Melonate And/or	
47.	3,5 Dinitrobenzoic acid And/or	
48.	P - Hydroxy Aceto Phenone And/or	
49.	2-Mercaptobenzimidazole And/or	
50.	Bronopol (BP) And/or	
51.	2 Mercapto 5 Methoxy Benzimidazole And/or	
52.	3,5 Dibenzoyloxy Acetophenone And/or	
53.	1(2,3 Dichloro Phenyl) Piperazine And/or	
54.	1h,1,2,4 Triazole And/or	

55.	AcebrophyllineAnd/or	
56.	LasamideAnd/or	
57.	Methyl NicotinateAnd/or	
58.	Fingolimod HCL And/or	
59.	CetylPyridinium Chloride And/or	
60.	Ambroxol Hydrochloride And/or	
61.	1 (2,4 DichloroPhynyl) 2 (1- Imidazoleylethanol) And/or	
62.	Furoic Acid And/or	
Group E- Fine Chemicals		
63.	Methyl Acetate And/or	200
64.	Ethyl Acetate And/or	
	Total	450

## List of By Products

Sr. No.	By Product Name	Quantity (MT/M)
1.	Acetic acid	2.56
2.	Sodium L (+) Mandelate	9.429
3.	Propanoic acid	14.76
4.	Trityl chloride	13.014
5.	Methane Sulfonic acid	3.156
6.	Potassium Bromide	8.139
	Total	51.058

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Plot area is approx. 5375 sq.m. Unit has proposed 1360 sq. m area for green belt/tree plantation. Estimated cost of proposed expansion is Rs.5.05 Crores. Total water consumption after proposed expansion will be 285 KL/day (152 KL Fresh + 133 KL Recycle water). Industrial waste water generation at present is NIL. Industrial waste water generation after proposed expansion will be 173 KL/day. Unit has proposed Effluent treatment plant followed by RO system and Evaporator. Domestic waste water (8.5 KL/day) will be disposed off into septic tank/soak pit system.

Details of flue gas emission and process gas emission is as tabulated below:

## Details of fuel gas emissions

Sr. No.	Stack Attached To	Stack Height	Fuel Consumption	Air Pollution Control System
As per CTE-70101				
1.	IBR Boiler ( 2TPH)	11 m	Wood:- 700 Kg/Day Or Baggase:- 700Kg/Day	Multi Cyclone + Bag Filter + Water Scrubber
For Proposed Expansion				
1.	IBR Boiler ( 2TPH)	11 m	Bio Coal:- 1000 Kg/Day	Multi Cyclone + Bag Filter + Water Scrubber

## Details of process emission

Sr. No.	Stack Attached To	Stack Height (m)	Stack Diameter (m)	Air Pollution Control System	Type of Emission	Permissible Limit
Existing						
There is no any process gas emission in due to existing product.						
Proposed						
1.	Reactor Vessels	25	0.5	Water Scrubber + Alkali Scrubber	HBr SO <sub>2</sub> HCl	20 mg/Nm <sup>3</sup> 40 mg/Nm <sup>3</sup> 20 mg/Nm <sup>3</sup>

Details of hazardous waste / solid waste management details is as tabulated below:

Sr. No.	Name of Waste	Category	Quantity as per CTE No. 70101	Proposed Quantity	Total Quantity	Treatment & Disposal
1	Process Organic residue	28.1	0 MT/Month	77.32 MT/Month	77.32 MT/Month	Collection, storage for Onsite Distillation OR by authorized other vendor OR Sale to authorized recycler
2	Solvent Residue	28.1	0 MT/Month	131.17	131.17	Collection, storage, transportation & disposal by incineration at CHWI or send for co-processing in cement industries
3	Process Inorganic Residue	28.1	0 MT/Month	25.85 MT/Month	25.85 MT/Month	Sent to TSDF
4	Spent charcoal and hyflo	28.2	0 MT/Month	38.47 MT/Month	38.47 MT/Month	Collection, storage, transportation & disposal by incineration at CHWI or send for co-processing in cement industries
5	Spent Organic	28.2	0 MT/Month	889.50 MT/Month	889.50 MT/Month	Collection, storage, transportation & disposal by incineration at CHWI or send for co-processing in cement industries
6	Spent Inorganic	28.2	0 MT/Month	145.00 MT/Month	145.00 MT/Month	Sent to TSDF
7	Spent Solvents	20.2	0 MT/Month	114.00 MT/Month	114.00 MT/Month	Collection, storage, transportation & disposal by incineration at CHWI or send for co-processing in cement industries
8	ETP Sludge	34.3	0 MT/Month	5 MT/Month	5 MT/Month	Collection, storage, transportation &

						disposal to TSDF
9	Discarded Container/Bags/liner	33.3	40 Nos. 200Nos.	50 Nos. 300 Nos.	90 Nos. 500 Nos.	After detoxification sent to Authorized agencies
10	Used Oil	5.1	0.012 MT/Month	1KL/Month	0.013 MT/Month	After detoxification sent to Authorized agencies
11	Spent Mother Liquor	28.4	0 MT/Month	1874.63 MT/Month	1874.63 MT/Month	Collection, storage, onsite treatment in MEE Dryer & incineration OR transportation & disposal by incineration at CHWI or send for co-processing in cement industries
12	Process Waste	34.3	8.334 MT/Month	0	8.334 MT/Month	Sent to TSDF site of M/s. BEIL, Ankleshwar
13	Gypsum Sludge	--	10 MT/Month	0	10 MT/Month	Sent to TSDF site of M/s. BEIL, Ankleshwar OR Brick manufacturer
14	Briquette Ash	--	18.334 MT/Month	10 MT/Month	28.334 MT/Month	Sold to Brick Manufactures

#### Observations / Discussion:

Technical presentation by the PP included general information, details of products and raw materials, Waste generation, hazards & control, analysis of pollution parameters before and after treatment, resource consumption and conservation, Risk estimation etc. Issues related to spent acid management, segregation of effluent stream, safety and occupational health and infrastructure by GIDC etc. were discussed. While discussing about the segregation of waste streams, PP informed that they will segregate each waste streams at source and will adopt state of the art technology for EMS. On asking about complete Zero Liquid Discharge instead of discharge into NCTL, PP agreed upon to explore the possibilities for complete ZLD. After deliberation on various aspects, following additional TOR was prescribed for the EIA study covering 5 km radius of the project boundary.

1. Copy of plot holding certificate obtained from GIDC Jhaghadia.
2. Need for the proposed expansion should be justified in detail.
3. Demarcation of proposed expansion activities in lay out of the existing premises.
4. Exact details about additional infrastructural facilities, plant machineries etc. required for the proposed expansion
5. Present land use pattern of the study area shall be given based on satellite imagery.
6. 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.
7. Technical details of the plant/s along with details on best available technologies (BAT), proposed technology and reasons for selecting the same.
8. Details of manufacturing process / operations of each product along with chemical reactions, mass balance, consumption of raw materials etc. Details on strategy for the implementation of cleaner production activities.
9. Chemical name of each proposed product to be manufactured. Details on end use of each product.
10. Detailed mass balance and water balance (including reuse-recycle, if any) along with qualitative and quantitative analysis of the each waste stream from the processes.

11. Assessment of source of the water supply with adequacy of the same to meet with the requirements for the project. Permission obtained from the GIDC for supply of raw water. Undertaking stating that no bore well shall be dug within the premises.
12. 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.
13. Qualitative and quantitative analysis of waste water to be generated from the manufacturing process of each product to be manufactured along with mass balance.
14. Segregation of waste streams and details on specific treatment and disposal of each stream.
15. Explore the possibility for complete "Zero Liquid Discharge" (ZLD) for proposed project.
16. Details of ETP including dimensions of each unit along with schematic flow diagram. Inlet, transitional and treated effluent qualities with specific efficiency of each treatment unit in reduction in respect of all concerned/regulated environmental parameters. Inlet effluent quality should be based on worst case scenario considering production of most polluting products that can be manufactured in the plant concurrently.
17. 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.
18. Technical details of proposed Incinerator/Spray dryer including capacity, fuel to be used, adequacy etc. Techno-economical viability of the proposed Incinerator. Control measures proposed for the Incinerator in order to avoid/reduce gaseous emission/VOC from incineration of industrial effluent containing solvents & other chemicals.
19. Technical details of RO/NF system.
20. Undertaking stating that a separate electric meter will be provided for the ETP, RO, Incinerator/Spray Dryer & MEE.
21. Proposal to provide and maintain separate electric meter, operational logbook for effluent treatment systems, online meters for monitoring of flow, pH, TOC/COD, etc.
22. Copy of permission letter with quantity from the authority regarding confirmation for spare capacity available to take additional effluent load in NCTL pipeline.
23. Application wise break-up of effluent quantity to be recycled / reused in various applications like sprinkling for dust control and green belt development etc. In case of land application, details on availability of sufficient open land for utilizing effluent for plantation / gardening. How it will be ensured that treated effluent won't flow outside the premises linked with storm water during high rainy days.
24. Plans for management, collection 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.
25. One season Site-specific micro-meteorological data using temperature, relative humidity, hourly wind speed and direction and rainfall should be incorporated.
26. 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.
27. 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.
28. 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.
  29. 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.
  30. 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 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.
  31. Action plan for odour control to be submitted.
  32. 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. Methodology of de-contamination and disposal of discarded containers and its record keeping.
  33. Membership of Common Environmental Infrastructure including the TSDF / Common Incineration Facility, if any.
  34. Complete management plan for By-products/Spent acids 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-products/Spent acids from the proposed project.
  35. 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.
  36. 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.
  37. Permission from PESO, Nagpur for storage of solvents, other toxic chemicals, if any.
  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. Provision of industrial hygienist and monitoring of the occupational injury to workers as well as impact on the workers. Plan for periodic medical checkup of the workers exposed. Details of work place ambient air quality monitoring plan as per Gujarat Factories Rules.
  39. Details on volatile organic compounds (VOCs) from the plant operations and occupational safety



- and health protection measures.
40. 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 plant layout map clearly showing which of the facilities 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.
  41. MSDS of all the products and raw materials.
  42. 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.
  43. Details of quantity of each hazardous chemical (including solvents) to be stored, Material of Construction of major hazardous chemical storage tanks, dyke details, threshold storage quantity as per schedules of the Manufacture, Storage & Import of Hazardous Chemicals Rules of major hazardous chemicals, size of the biggest storage tank to be provided for each raw material & product etc. How the manual handling of the hazardous chemicals will be minimized?
  44. 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.
  45. Submit checklist in the form of Do's & Don'ts of preventive maintenance, strengthening of HSE, manufacturing utility staff for safety related measures.
  46. 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.
  47. 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.
  48. (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.
  49. Copies of Consent to Establish, Consent to Operate orders obtained in past along with point wise compliance status of all the conditions stipulated therein.
  50. Copy of Environmental Clearance obtained 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.
  51. 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.
  52. 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.
  53. 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.

54. 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.

55. Phase wise project implementation schedule with bar chart and time frame, in terms of site development, infrastructure provision, EMS implementation etc.

56. Certificate of accreditation issued by the NABET, QCI to the environmental consultant should be incorporated in the EIA Report.

57. 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 Chemical industry shall be considered as generic TORs for preparation of the EIA report in addition to all the relevant information as per the generic structure of EIA given in Appendix III in the EIA Notification, 2006. The project shall be appraised on receipt of the final EIA report.

17	NOCIL Limited	Plot No. 12/A/1 & 13/B/1, Dahej Industrial Estate, Tal. Vagra, Dist. Bharuch, Gujarat	Screening & Scoping
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**Project / Activity No.:** 5(f)

- M/s: NOCIL Limited (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/9547/2016 dated 18/01/2016.

**Project status:** Expansion

**Project / Activity Details:**

This is an existing unit engaged in Synthetic Organic Chemicals and now proposed for expansion as tabulated below:

Sr. No.	Name of Product	Existing Capacity (MT/Month)	Additional Capacity (MT/Month)	Total after Proposed Expansion (MT/Month)
<b>A. Rubber Chemical &amp; Rubber Chemicals Intermediates</b>				
1	4 Amino Diphenyl Amine (4 ADPA)	1700	800	2500
2	Sodium Mercapto Benzothiazole (NaMBT)	350	650	1000
3	2 Mercapto Benzothiazole (MBT)	100	100	200
<b>B. Finished Products</b>				
1	N-1,3 Dimethylbutyl-N-Phenyl-P-Phenylenediamines Pilflex-13 & Similar Derivatives	1000	2000	3000
2	Dibenzothiazyl Disulfide (Pilcure MBTS)	100	100	200
3	N Cyclohexyl -2-Benzothiazyl Sulfonamides (Pilcure CBS/DCBS/NS)	250	550	800
4	Tetra Methyl Ammonium Hydroxide -100%	0	75	75
<b>Total</b>		<b>3500</b>	<b>4275</b>	<b>7775</b>
1	Captive Power Plant	2 MW	2 MW	4 MW

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Plot area is approx. 206910 sq. m. Unit has proposed 62073 sq. m area for green belt/tree plantation. Estimated cost of proposed expansion is Rs. 255 Crores.

Details of water balance is tabulated as below:

Water Consumption				Waste water generation		
	Existing	Additional	Total	Existing	Additional	Total
Industrial	2550 KL/Day (Process & Washing:1400 KL/Day, Boiler:800 KL/Day, Cooling:300 KL/Day, DM Water: NIL & Others:50 KL/Day)	(Process & Washing:350 KL/Day, Boiler:-300 KL/Day, Cooling: NIL)	2550 KL/Day (Process: 1700 KL/Day, Washing: 50 KL/Day, Boiler: 500 KL/Day & Cooling: 300 KL/Day)	1720 KL/Day (Process & Washing: 1550 KL/Day, Boiler: 20 KL/Day, Cooling: 50 KL/Day, DM Water: 50 KL/Day & Others: 50 KL/Day)	(Process & Washing: 100 KL/Day, Boiler: NIL, Cooling: NIL)	1720 KL/Day (Process: 1600 KL/Day, Washing: 50 KL/Day, Boiler: 20 KL/Day & Cooling: 50 KL/Day)
Domestic & Gardening	Domestic: 100 KL/Day & Gardening: 50 KL/Day		Domestic: 100 KL/Day & Gardening: 50 KL/Day	Domestic: 50 KL/Day		Domestic: 80 KL/Day
Total	2700 KL/Day		2700 KL/Day	1770 KL/Day		1800 KL/Day

Fresh water requirement after proposed expansion will be 2700 KL/day which will be supplied by the GIDC. Industrial wastewater generation after the expansion will be 1720 KL/day which will be treated in proposed ETP consisting of primary, secondary and tertiary treatment units. Finally treated will be discharged into GIDC drainage. Unit has proposed ETP having Primary, Secondary & Tertiary Treatment Facility Industrial effluent (1720 KL/Day) will be treated in ETP having Primary, Secondary & Tertiary Treatment and treated effluent will be subjected to GIDC sewer for deep sea disposal. Domestic waste water (80 KL/day) will be treated in STP or added in secondary treatment unit of ETP. Flue gas & process gas emission details for existing as well as proposed expansion will be as under:

Flue gas emission details			
	Stack attached to (Mention Existing or Proposed)	APCM	Fuel consumption
	Existing		
1	Steam Boiler-I	ESP	Coal: 140 TPD/ NG
2	D.G. Set	--	HSD: 250 Liter/Hr
3	Hot Air Generator-I	Multicyclone Separator	FO: 5 TPD
4	CPP	--	Coal: 2 MW
	Total Proposed		
1	Steam Boiler-I & II	ESP with Scrubber	Coal: 140 TPD/ NG
2	D.G. Set	--	HSD: 250 Liter/Hr
3	Hot Air Generator-I, II & III	Multicyclone Separator	HSD: 5 TPD

4	CPP	--	Coal: 2 MW

Process gas emission details			
	Vent attached to (Mention Existing or Proposed)	APCM	Type of gaseous emission
	Existing		
1	Process vent-Thios Reactor	Dust Collector	PM-150 mg/Nm <sup>3</sup>
2	Process vent-NaMBT Plant	Caustic Scrubber	H <sub>2</sub> S-45 mg/Nm <sup>3</sup> Mercaptans-0.5 ppm CS <sub>2</sub> -180 mg/Nm <sup>3</sup>
3	Process vent-Thiazole	Caustic Scrubber	HCl-20 mg/Nm <sup>3</sup> Cl <sub>2</sub> -9 mg/Nm <sup>3</sup>
4	Process vent-(PX 13)	Steam Snuffing	H <sub>2</sub>
5	Process vent-Electrolysis cell	Caustic Scrubber	Cl <sub>2</sub> -9 mg/Nm <sup>3</sup>
	Total Proposed		
1	Process vent-Thios Reactor	Dust Collector	PM-150 mg/Nm <sup>3</sup>
2	Process vent-NaMBT Plant	Caustic Scrubber	H <sub>2</sub> S-45 mg/Nm <sup>3</sup> Mercaptans-0.5 ppm CS <sub>2</sub> -180 mg/Nm <sup>3</sup>
3	Process vent-Thiazole	Caustic Scrubber	HCl-20 mg/Nm <sup>3</sup> Cl <sub>2</sub> -9 mg/Nm <sup>3</sup>
4	Process vent-(PX 13)	Steam Snuffing	Residual H <sub>2</sub>
5	Process vent-Electrolysis cell	Caustic Scrubber	Cl <sub>2</sub> -9 mg/Nm <sup>3</sup>

Hazardous waste to be generated are tabulated as below:

Sr. No.	Waste Details	Waste Category	Quantity MT/Month			Mode of Disposal
			Existing	Proposed	Total After Proposed Expansion	
1.	ETP Sludge	34.3	5	20	25	TSDf
2.	Process waste (Organic Matter)	20.3	34	100	134	CHWIF or sell to Cement Industry
3.	Used Oil	5.1	1.5	--	1.5	Authorized recyclers.
4.	Discarded liners /Drums	33.3	1667 Nos/Month 42 Nos/Month	1733 Nos/Month 60 Nos/Month	3400 Nos/Month 102 Nos/Month	Authorized recyclers after decontamination.
5.	Distillation Residue	36.4	25.0	25.0	50.0	Sell to Cement Industry for Co-processing or CHWIF
6.	Other waste (Aesbestos)	32.1	0.3	0.2	0.5	TSDf

	containing)					
7.	Spent Carbon	--	--	1.5	1.5	Sell to cement industries or TSDF

Fly ash (450 MT/Month) will be sold out to Brick manufacturers.

**Observations/Discussions:**

Technical presentation made during the meeting by project proponent. During the meeting, Committee observed that there is a discrepancy in water balance. Upon asking, PP informed that existing water consumption and waste water generation is less than the consented quantity as the figures in Consent are much higher than the actual scenario. Committee asked to submit actual data of water balance based on mass balance for proposed scenario considering existing actual water consumption and waste water generation. 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. 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.
8. Water consumption and consumption of each raw material per MT of each product.
9. 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.
10. 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.
11. Actual data of water balance based on mass balance for proposed scenario considering existing actual water consumption and waste water generation.
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 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.
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 CS<sub>2</sub>, H<sub>2</sub>S, SO<sub>2</sub>, Cl<sub>2</sub>, 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" 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.

18	Everest Intermediates	Plot No .707, GIDC Estate, Sachin, Surat	Screening & Scoping
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**Project / Activity No.:** 5(f)

- M/s: Everest Intermediates (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/1662/2015 dated 13/08/2015.
- PP did not remain present in the SEAC meeting dated 17/11/2015.

**Project status:** Expansion

**Project / Activity Details:**

This is an existing unit engaged in manufacturing of Synthetic organic chemicals and now proposes for expansion as tabulated below:

Sr.No	Name of the Products	Existing	Proposed Total
		MT/Month	MT/Month
1	Anthranilic Acid	18	45
2	5 – Sulfo Anthranilic Acid	7	15
3	Phthalimide	5	200
4	Schaeffer's Acid	-	1
5	Aniline 2, 5 Disulphonic Acid	-	30
	<b>Total</b>	<b>30</b>	<b>291</b>

The project falls under Category B of project activity 5(f) as per the schedule of EIA Notification 2006. Plot area is approx. 6,030 m<sup>2</sup> sq. m. Unit has proposed 1768 m<sup>2</sup> sq. m area for green belt/tree plantation. Estimated cost of proposed expansion is Rs. 1.5 Crores.

Fresh water requirement after proposed expansion will be 43 KL/day which will be supplied by the GIDC. Industrial Wastewater generation after the expansion will be 48.6 KL/day. Dilute stream w/w will be treated in primary treatment plant within premises and sent to CETP of GECL-Sachin and concentrated stream effluent will be directly sent to common MEE of MEPL. Domestic waste water (5 KL/day) will be disposed off into septic tank/soak pit system. Unit has provided one Steam Boiler. LDO is used as a fuel. One DG set 125 KVA is provided. Additional 100 KG/day of Agro mass Briquettes / Bio Coal will be used as a fuel. Unit has proposed two HAG. Agro mass Briquettes / Bio Coal - 50 Kg/Day will be used as a fuel for each HAG. Alkali scrubber is provided with existing Reaction & Isolation Vessel for control of SO<sub>2</sub>. Now unit has proposed Alkali scrubber with proposed Reaction & Isolation Vessel for control of NH<sub>3</sub>. Hazardous waste to be generated are ETP waste (18 MT/Year), Discarded containers (32 MT/Year), Used Oil (0.298 MT/Year). MEE salt (0.3 MT/day) in case of in-house MEE.

**Observations/Discussions:**

Technical presentation made during the meeting by project proponent. Committee observed that there is a generation of spent sulphuric acid from the proposed products, which is not shown in Form-1 and

PFR. While discussing about the treatability of the existing as well as proposed products, Committee observed that most of the products are having high pollution potential and the details submitted regarding waste water/spent acid management is not adequate. Committee noted that GIDC-Sachin is facing illegal disposal of spent acid and concentrated effluent in present scenario. While discussing about the management of spent acid, Committee noted that the exact quantity of spent acid generation and its management is not properly addressed. After detailed deliberation, Project proponent was asked to submit the revised proposal with sound environment management plan (EMP). After detailed deliberation on various aspects of the project, it was unanimously decided to consider the project for TOR/Scoping only after submission of the following:

1. Revised proposal with Revised Form-1, PFR & relevant details.
2. List of products to be removed from existing list of products with proper justification.
3. Product wise waste water generation in KL/day (Dilute stream, concentrated stream, spent acid generation etc.), its Characteristics and its disposal method.
4. Action plan for complete re-use of spent acid within premises to convert into valuable products.

19	Wood Pulp Panel LLP	Survey No.133/3, Pipaliya-Mahendragadh Road, Village.: Pipaliya, Dist.: Morbi	Screening & Scoping
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**Project / Activity No.:** 5(f)

- M/s: Wood Pulp Panel LLP (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/3068/2015 dated 13/10/2015

**Project status:** New

**Project / Activity Details:**

This is a new project proposes for the manufacturing of Synthetic Organic chemicals as tabulated below:

Sr. no.	Name of Products	Quantity
1	Pre Laminated particle Board/MDF/Plywood/HDF:	60,000 Nos./Month
2	Phenol Formaldehyde Resin	25 MT/Month
3	Melamine Formaldehyde Resin	25 MT/Month
4	Urea Formaldehyde Resin	35 MT/Month
5	Melamine Urea Formaldehyde Resin	35 MT/Month

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 M<sup>3</sup>/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 10 KL/day. Fuel requirement is 1.3 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 9713 sq. m & unit has proposed 3096 sq mtr area for the green belt development/Tree plantation. Expected project cost is Rs.2.71 Crores. Aerial distance of nearest residential area of Mahendragadh is @ 1.43 km from the project site. Total water consumption for

proposed project will be 10 KL/day (1.4 KL for Domestic, 5.4 KL for Gardening, 3.2 KL for Industrial Purpose) which will be sourced from Bore well water supply. Industrial waste water generation will be 0.35 KL/day, which will be treated in proposed effluent treatment plant followed by evaporator to achieve Zero Liquid Discharge. Domestic waste water (1.3 KL/day) will be disposed off into soak pit system. It is proposed to install one TFH (6 Lac Kcal/hr). Bio coal (1.3 MT/day) will be used as fuel for TFH. Bag filter is proposed as APCM. Unit has proposed one DG set (100 KVA) in which HSD (18.6 ltrs/hr) will be used as fuel. Hazardous waste generated from the manufacturing activity will be ETP sludge & evaporation residue (0.175 MT/Month), Discarded containers/Bags/Liners (0.02 MT/Month), used oil (0.004 MT /Month) and wood cutting waste (0.3 MT/Month). 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 recyclers/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 1 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, eco sensitive zone etc. (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.

20	Divine Polymers	Plot no .2, Nilkanth Industrial Eatate, Village - Dhanot, ,Ta -Kalol , Dist - Gandhinagar	Screening & Scoping
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**Project / Activity No.:** 5(f)

- M/s: Divine Polymers (herein after Project Proponent – PP) has submitted application vide their proposal no. SIA/GJ/IND2/3163/2015 dated 15/10/2015.

**Project status:** New

**Project / Activity Details:**

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

No.	Name of Products	Quantity (MT/Month)
01	Epoxy Liquid Resin (DP- 023)	30.0
	Epoxy Liquid Resin (DP- 030)	4.0
	Epoxy Liquid Resin (DP- 047)	3.0
	Epoxy Liquid Resin (DP- 017)	6.0
	Epoxy Liquid Resin (DP- 020) (55% Solid contents)	40.0
	Epoxy Liquid Resin (DP- 014) (Plasticizer)	10.0
02	Epoxy Solid Resin	10.0
03	Epoxy Solid Resin 75 %	10.0
04	Epoxy Paste	5.0
05	Epoxy Resin (Pre Field)	5.0
06	Epoxy Hardener (Pre Field)	5.0
07	Epoxy Liquid Hardener (DP- 295)	6.0
	Epoxy Liquid Hardener (DP- 905)	5.0
	Epoxy Liquid Hardener (DP- 300)	10.0
08	Epoxy Liquid Hardener Reactive Polumide	80.0
09	Epoxy Liquid Hardener Adduct Product	20.0
10	Non Reactive Polyamide	5.0
11	Alklyd Resin	15.0
12	HHPA	10.0
13	Epoxy Diluents	40.0
13	Acrylics Polyols	40.0
15	M.F. Resin (Butylated Amino Resin)	40.0
<b>Total</b>		<b>399.0</b>

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 M<sup>3</sup>/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 7.5 KL/day. Fuel requirement is less than 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 2218 sq. m & unit has proposed 600 sq mtr area for the green belt development/Tree plantation. Expected project cost is Rs.2.40 Crores. Total water consumption for proposed project will be 7.5 KL/day ( 2 KL for Domestic, 5.5 KL for Industrial) which will be sourced through Tankers. Industrial waste water generation will be 1.5 KL/day, which will be treated in proposed ETP followed by Evaporator to achieve zero discharge. Domestic waste water will be disposed off in to soak pit system. It is proposed to install two TFH (2 Lac Kcal/hr each). LDO (40 Lit./hr) will be used as fuel for TFH. Unit has proposed one DG set (250 KVA) in which HSD (10 ltrs/hr) will be used as fuel. No process gas emission is envisaged. Hazardous waste generated from the manufacturing activity will be ETP sludge and evaporation residue (1.5 MT/Year), Discarded containers/Bags/Liners (4 MT/Year) and used oil (10 Lit./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 recyclers. 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 1 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, eco sensitive zone etc. (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 M<sup>3</sup>/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.

21	Harihar Hospital	S.N.68, F.P. No.43/2, O.P.No.43, D.T.P.S. No. 60, Khodiyar, Daskroi, Ahmedabad.	Screening & Scoping
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The project proponent was called for presentation and discussion in the meeting of SEAC held on 28/10/2015.

During the meeting held on 28/10/2015, it was found that the construction activity for the proposed project has already been started by the project proponent. At this the project proponent replied that the project plans for built up area of 19,901.82 m<sup>2</sup> have already been approved and based on that they have started construction activity. Earlier based on the available budgetary provision, they have planned the project with built up area of 19,901.82 m<sup>2</sup> and now due to the availability of augmented budgetary provisions with the project proponent/trust, they are planning to expand the project with total built up area of 40,190.72 m<sup>2</sup>, which attracts the provisions of the EIA Notification, 2006 and hence they have applied for obtaining the Environmental Clearance. The matter was discussed at length and it was decided to consider the project in one of the upcoming SEAC meetings only after submission of the following:

1. Project plans approved by concerned authority for built up area of 19,901.82 m<sup>2</sup> and a copy of Rajachitthi obtained for the same. Date of starting the construction activity at the project site.
2. Details of the construction work completed in terms of the percentage of the total construction area of the project. Justification for initiating the construction activity for the proposed project and as to why the construction activity started by them should not be considered as violation of the EIA Notification-2006.
3. Recent photographs of the project site showing the date and current status of the project site.
4. Detailed justification for increase in built up area of the project from 19,901.82 m<sup>2</sup> to 40,190.82 m<sup>2</sup>.

Project proponent vide their letter dated 24/02/2016, submitted the above mentioned details.

The project proponent along with their expert / consultants attended the meeting and made presentation before the committee. During the meeting, the project was appraised based on the details



submitted in Form-1 & Form-1A as well as the facts presented before the committee.

During the meeting, it was observed that they have submitted a copy of plans passed AUDA on 02/01/2015 for the built up area of 19,901.82 m<sup>2</sup>. They have submitted a copy of certificate obtained from Chartered Accountant showing the availability of budget as on 31/03/2015 and more budget received after 31/03/2015 to 31/01/2016. They have submitted a copy of certificates obtained from Fire & Emergency Services Department of AMC as well as Circle officer Kathwada Division revealing that the construction of the project has been completed up to 3 floors only. Further the photographs showing current status of the project site has also been submitted by them. It was presented that they have carried out construction of the project as per the plans approved by AUDA and will not continue with any kind of construction activity.

Salient features of the project are as under:

Sr. No.	Particulars	Details															
1.	Proposal is for	New project															
2.	Type of Project	Multi Speciality Hospital project by a charitable trust registered under Indian Trusts Act.															
3.	Project / Activity No. [8(a) or 8(b)]	8 (a)															
4.	Name of the project	Harihar Hospital															
5.	Name of Developer	Shri Harihar Maharaj Kamdhenu Gausevashram Dharmik Trust															
6.	Estimated Project Cost (Rs. In Crores)	70 crore															
7.	Whether construction work has been initiated at site? If yes, details thereof	No construction work has been started.															
8.	Project Details	<ul style="list-style-type: none"> <li>Land / Plot Area (m<sup>2</sup>): 23,402.0</li> <li>FSI area (m<sup>2</sup>):25,561.05</li> <li>Total BUA (m<sup>2</sup>):40,190.72</li> </ul> <table border="1"> <thead> <tr> <th></th> <th>Permissible(m<sup>2</sup>)</th> <th>Proposed(m<sup>2</sup>)</th> </tr> </thead> <tbody> <tr> <td>FSI Area</td> <td>42,123.60</td> <td>25,561.05</td> </tr> <tr> <td>Ground Coverage</td> <td>--</td> <td>4,546.91</td> </tr> <tr> <td>Common Plot Area</td> <td>--</td> <td>4,683.34</td> </tr> <tr> <td>Max. building height</td> <td>60.0</td> <td>45.60 m</td> </tr> </tbody> </table>		Permissible(m <sup>2</sup> )	Proposed(m <sup>2</sup> )	FSI Area	42,123.60	25,561.05	Ground Coverage	--	4,546.91	Common Plot Area	--	4,683.34	Max. building height	60.0	45.60 m
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Ground Coverage	--	4,546.91															
Common Plot Area	--	4,683.34															
Max. building height	60.0	45.60 m															
9.	Building Details	<ul style="list-style-type: none"> <li>No. of Buildings:1</li> <li>No. of Blocks:2 blocks</li> <li>Scope of buildings/blocks:2 level basement + ground floor + 8 floors.</li> <li>No.&amp; size of Residential Units:--</li> <li>No. &amp; type of Commercial Units:</li> <li>No. &amp; type of rooms: 395 room including patients rooms, ICU, ICCU, consultation room, lab, blood bank, operation theatre,</li> </ul>															

		<p>waiting rooms etc.</p> <ul style="list-style-type: none"> <li>• Total Beds -300 Beds</li> <li>• Details of amenities if any: <ul style="list-style-type: none"> <li>- Multi specialty tertiary care facilities</li> <li>- Emergency and Trauma department</li> <li>- Operation theater complex and ICUs</li> <li>- Physiotherapy and rehabilitation services</li> <li>- Preventive and primitive health care</li> <li>- Support Services</li> <li>- Ground Level &amp; basement Parking</li> <li>- Separate Parking for Doctors, Staff &amp; Visitors,</li> <li>- Every time open route for causality vehicles</li> <li>- Elevators with Automatic Rescue Device, separate lift provision for patients &amp; relatives/visitors</li> <li>- Well managed security check points, separate entry and exit for emergency cases</li> </ul> </li> </ul>								
10.	No. of expected residents / users	1250 persons including floating population								
11.	Water & waste water details during construction phase	<ul style="list-style-type: none"> <li>• Water requirement (KL/day):30.0</li> <li>• Source of water: Water tankers.</li> <li>• Waste water generation quantity (KL/day):4.5</li> <li>• Mode of disposal: Into septic tank &amp; soak pit.</li> <li>• Details of reuse of water, if any:N.A.</li> </ul>								
12.	Water & waste water details during operation phase	<ul style="list-style-type: none"> <li>• Total water requirement (KL/day):389.0</li> <li>• Fresh water requirement (KL/day): 196.0</li> <li>• Source of water:AUDA water supply</li> <li>• Waste water generation quantity (KL/day):204.0</li> <li>• Mode of disposal: Sewage to be generated will be treated in the proposed onsite STP. Treated sewage will be reused for gardening, flushing &amp; HVAC cooling purposes. Only remaining quantity of treated sewage, if any, will be discharged in to the underground drainage line to be provided by AUDA.</li> <li>• In case of STP provision, capacity of STP:225 KL/day</li> <li>• STP Technology:MBR</li> <li>• Purposes for treated water utilization: Gardening, flushing &amp; HVAC cooling purposes</li> <li>• Quantity of treated water to be reused: <ol style="list-style-type: none"> <li>1.Gardening (KL/day): 5 KLD</li> <li>2. Flushing (KL/day):43 KLD</li> <li>3. HVAC (KL/day):145 KLD</li> </ol> </li> <li>• Provision of dual plumbing system (Yes/No): Yes</li> <li>• Quantity and type (treated/untreated)of sewage to be discharged: Sewage to be generated will be treated in the proposed onsite STP. Treated sewage will be reused for gardening, flushing &amp; HVAC cooling purposes. Only remaining quantity of treated sewage, if any, will be discharged in to the underground drainage line to be provided by AUDA.</li> <li>• Mode of disposal: As above.</li> </ul>								
13.	Status of water supply and drainage line	Watersupply& drainage line will be provided by AUDA.								
14.	Solid waste Management	<p>Construction Phase:</p> <table border="1"> <thead> <tr> <th></th> <th>Generation</th> <th>Quantity to be</th> <th>Mode of</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Generation	Quantity to be	Mode of				
	Generation	Quantity to be	Mode of							

			(m <sup>3</sup> )	reused (m <sup>3</sup> )	Disposal / Reuse
		Top Soil	40,500	40,500	Top soil will be used in developing garden area and excavated earth will be used for land levelling within premises.
		Other excavated earth	--	--	
		Construction debris	Yet not estimated	Yet not estimated	Will be used as road sub base within premises.
		Steel scrap	Yet not estimated	Yet not estimated	Will be sold to vendors.
		Discarded packing materials	Yet not estimated	Yet not estimated	Will be sold to vendors.
Operation Phase:					
		Type of waste	Generation Quantity (Kg/day)	Mode of waste collection	Mode of Disposal / Reuse
		Dry waste	500	Into bins to be provided within premises.	Final disposal through agency authorized by AMC/AUDA.
		Wet waste	325	Into bins to be provided within premises.	As above.
		STP Sludge	50	Will be used as a manure	N.A.
		Biomedical waste	75	Will be collected, handled & disposed as per the Bio Medical Waste (Management & Handling) Rules 1998.	Copy of membership certificate of CBWTF has been submitted.
		<ul style="list-style-type: none"> <li>• Details of segregation if to be done: Not proposed.</li> <li>• Capacity and no. of community bins to be placed within premises: one bin will be provided for each room &amp; common community bins in common areas like waiting lounge, canteen etc.</li> <li>• Landfill site where waste will be ultimately disposed by local authority: Final disposal through agency authorized by</li> </ul>			

		AMC/AUDA.
15.	Parking Details	<ul style="list-style-type: none"> <li>Total parking area requirement for the project as per GDCR:13,584.90 m<sup>2</sup></li> <li>Parking area requirement for hospital project as per GDCR:13,584.90 m<sup>2</sup></li> <li>Total number of CPS requirement for the project as per NBC:150 CPS</li> <li>Number of CPS requirement for hospital project as per NBC: 150 CPS</li> <li>Total Parking area provided (m<sup>2</sup>) &amp; No. of CPS:13,584.90 m<sup>2</sup> &amp; 531CPS</li> <li>Parking area provided in 2<sup>nd</sup> level basement (m<sup>2</sup>) &amp; No. of CPS: 3,150.08 m<sup>2</sup> &amp; 90 CPS</li> <li>Parking area provided in 2<sup>nd</sup> level basement (m<sup>2</sup>) &amp; No. of CPS:1,036.65 m<sup>2</sup> &amp; 32 CPS</li> <li>Parking area provided as open surface (m<sup>2</sup>) &amp; No. of CPS: 9,398.17 m<sup>2</sup> &amp; 409 CPS.</li> </ul>
16.	Traffic Management	<ul style="list-style-type: none"> <li>Width of adjacent public roads:Site is accessible by 12 m wide service road of S.G highway &amp; 60 m wide side S.P. ring road.</li> <li>Number of Entry &amp; Exit provided on approach road/s: Two gates will be provided, one on 60 m wide road &amp; one on 12 m wide service road.</li> <li>Width of Entry &amp; Exit provided on approach road/s:9.0 m &amp; 6 m.</li> <li>Minimum width of open path all around the buildings for easy access of fire tender (excluding the width for the plantation):3.5 m</li> <li>Width of all internal roads:6.0 m &amp; 7.5 m</li> </ul>
17.	Details of Green Building measures proposed.	Fly ash/PPC will be used in concrete, paving blocks and any cement applications. Lead free paint, enamels will be used for painting wooden and metal surfaces. Provision of CFL/LED lights, solar panels on terrace, onsite STP & reuse of treated sewage, ground water recharge through rain water harvesting etc.
18.	Energy Requirement, Source and Conservation	<ul style="list-style-type: none"> <li>Power supply: Maximum demand:3000 KVA Connected load:4000 KVA Source:Uttar Gujarat Vij Company Limited</li> <li>Energy saving measures: Use of energy efficient electrical appliances, maximum use of natural light through proper building orientation, use of CFL/LED lights, solar panels on terrace etc.</li> <li>% of saving with calculations:around 20-30 %</li> <li>DG Sets: No. and capacity of the DG sets:4 x 750 KVA Fuel &amp; its quantity:200 lit/hr for each</li> </ul>
19.	Fire and Life Safety Measures	<ul style="list-style-type: none"> <li>During the operation phase: Dedicated water storage for fire fighting (underground fire water storage tank of 200 KL &amp; terrace fire water tank of 40 KL), fire extinguishers, fire alarm at each floor, hose reels, external yard hydrants (67 nos.), wet risers, automatic sprinkler systems provided in basements &amp; each floor, pumping arrangement system-riser system with pressure pump, auto operation with pressure switch, availability of all necessary information like police control room, fire station, ambulance at security guard room etc..</li> <li>Name of the nearest fire station: Sabarmati &amp; Thlatej Fire Stations Distance from the project site: About 10 Km</li> </ul>

		Time required by the fire tender to reach the project site: 10-20 minutes.			
20.	Details on staircase:				
	Type of block	Distance of stair case from the farthest corner	Number of Stair case & lifts.	Width of Stair case in m	Floor area (m <sup>2</sup> )
	Main hospital building	<30 m	7 & 9	2m	2,427.0
	Service Building	<30 m	1 & 1	2m	287.0
21.	Rain Water Harvesting (RWH)	<ul style="list-style-type: none"> <li>Level of the Ground water table:35-40 m BGL</li> <li>No. &amp; dimensions of RWH tank(s) :nil</li> <li>No. and depth of percolations wells :6 nos. of percolating well</li> <li>Details on Pre-treatment facilities : --</li> </ul>			
22.	Green area details	<ul style="list-style-type: none"> <li>Tree covered area (m<sup>2</sup>):1,550.00</li> <li>Area covered by shrubs and bushes (m<sup>2</sup>):--</li> <li>Lawn covered area (m<sup>2</sup>):3,150.00</li> <li>Total Green Area (m<sup>2</sup>):4,700.0</li> <li>Green Area % of plot area:14%</li> <li>No. of trees and species to be planted:352</li> </ul>			
23.	Budgetary allocation for Environmental Management Plan (Rs. in lacs)	Allocation of Rs. 15.0 lacs has been proposed for water sprinklers, barricades, waste water & waste management, provision of PPEs etc. during the construction phase. Capital cost of Rs. 86.0 lacs and recurring cost of Rs. 13 lacs has been proposed for installation of energy efficient appliances, green belt development, rain water harvesting & ground water recharge, waste water management, solid waste management, solar panels etc. during the operation phase.			
24.	Dust control measures	Water sprinkling, maintaining roads & trees to avoid dust generation etc.			
25.	Eco friendly building material usage details.	Fly ash & pozzolana cement will be used in concrete, paving blocks and any cement applications. Lead free paint, enamels will be used for painting wooden and metal surfaces.			
26.	Details of basic amenities to be provided to construction workers.	Adequate sanitation facilities, drinking water, bins for collection of municipal solid waste.			
27.	Documents related to land possession.	Village form no. 7 submitted by them shows that the N.A land of the project for commercial use in the name of trustees of Shri Harihar Maharaj Kamdhenu Gausevashram Dharmik Trust.			

During the meeting, looking to the merits of the case, it was decided to recommend the project to SEIAA Gujarat for grant of Environmental Clearance.

The following proposal was considered in the SEAC meeting dated 03/02/2016. However, it was mentioned as Absent in the MoM dated 03/02/2016.

Committee noticed that this error has inadvertently been made. After deliberation, committee decided to consider this case as " Present" in the SEAC meeting dated 03/02/2016 and proceedings of the said project is as below:

M/s. A.P. Process	Block No.413 Paiki, Jornang-Jamnapur Road, At.Jornang,Po. Ambaliyasan, Mehsana	Screening & Scoping
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**Project / Activity No.:** 5(f)

- M/s. A P PROCESS (herein after Project Proponent – PP) has submitted application vide their letter dated 30/06/2015.
- The proposal was considered in nthe SEAC meeting dated 09/09/2015.
- During the meeting, while discussing about the MAH unit, committee noted that the total use of Formaldehyde is 270 KL/Month and storage capacity of the Formaldehyde is only 5 KL. On asking, PP informed that they have come with Revised Form-1 with PFR. As per revised data requirement of Formaldehyde will be 42.3 MT/Month and storage of Formaldehyde will be less than 5 KL. However, committee noted that fresh water requirement, waste water generation, hazardous waste generation, fuel consumption data etc. remain same as per the previous data. At this committee decided to not accept the Revised Form-1. After detailed deliberations the Committee sought following additional information for further consideration of the proposal: (1) Land Possession documents and NA permission letter. Copy of rent agreement with owner of the Land. (2) Revised Form-1 and PFR with all relevant details. (3) Legal Undertaking stating that unit is complying the three conditions [i.e. water consumption less than 25 M<sup>3</sup>/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.
- PP has submitted additional details vide their letter dated 11/09/2015

**Project status:** New

## Project / Activity Details:

This is a new project proposes the manufacturing of following Synthetic Organic Chemicals.

Sr. No.	Name of Products	Proposed Quantity MT/Month
1	Phenol Formaldehyde Resin	25
2	Urea Formaldehyde Resin	40
3	Melamine Urea Formaldehyde Resin	15
	Total	80

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 M<sup>3</sup>/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 19.4 KL/day.

Fuel requirement is 4.61 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 10,508 sq. m & unit has proposed 3460 sq. m. area for the green belt development/Tree plantation. Expected project cost is Rs.1.0 Crore. Total water consumption for proposed project will be 15.8 KL/ Day which will be sourced from own Bore Well. Domestic waste water generation will be 0.27 KL/Day and Industrial waste water generation will be 0.8 KL/Day. Industrial waste water will be treated into ETP and finally it will evaporate in Evaporator. Domestic waste water will be disposed off into soak pit system. It is proposed to install one Steam Boiler (4 MT/hr). White Coal / Briquettes (3 MT/Day) will be used as fuel for Boiler. Dust Collector Followed by Bag Filter is proposed as APCM for Boiler. No process emission is envisaged. Hazardous waste generated from the manufacturing activity will be ETP sludge & evaporation residue (7.2 MT/Year), Used Oil /Spent Oil (0.05 MT/Year) and Discarded Plastic Drums (1.2 MT/Year).

### **Observations & Discussions:**

Technical presentation made during the meeting by project proponent. The revised form-1 and details submitted by PP was considered by the Committee. Looking to the small scale of the project and low pollution potential, after detailed deliberation, the project was categorized as B2. After detailed discussion on various aspects, following additional information was sought from the project proponent 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. Manufacturing process along with chemical reactions, mass balance for 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.

The following proponents did not remain present during the meeting:

1. Rushil Décor Ltd S.N.607,608,VILL:Mansa GIDC, Dist.: Gandhinagar
2. New Baroda Prestige(Atyanta Developers)T.P.S NO. -03 (Karanj), R.S. No:-27 (p-1, 2, 3,4), O.P No: -19, F.P No; 72, Vill -Karanj, Tal: Choryasi, Dist Surat.

It was decided to call them in one of the upcoming meetings of SEAC.

The additional information received from the project proponents, which was sought during various SEAC meetings for granting Environmental Clearance to the projects. The said submissions by the project proponents were 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: Torrent Pharma Ltd. , Plot no:- Z 104,Z 105 and Z 106 Special Economic Zone (SEZ-II)- Dahej, Dist: Bharuch.
2. M/s: Eshyasi Pharma Limited, Survey no..590-A and 592-A, Near Shiva Pharma, At & Po.: Luna, Ta.: Padra, Dist.: Vadodara.
3. Aarti Industries Ltd., Plot No:756/ 5A/B & 779, GIDC –Jhagadia, Dist.: Bharuch.
4. M/s. Shahlon Envirocare Pvt. Ltd. Block. no.169, Village : Chammuchal, Ta.: Mangrol, Dist.: Surat.

5. M/s: Cytech Coating Pvt Ltd.

Plot no. C- 1/2807, GIDC Notified Industrial Estate, Sarigam, Ta.: Umergaon, Dist.: Valsad.

EC amendment

- Environmental Clearance for the above proposal was issued on 27/01/2016 vide letter no. SEIAA/GUJ/EC/5(f)/07/2016. Project proponent has submitted an application on 05/02/2016 for correction in Address mentioned in the EC.
- Project proponent has mentioned that in Form-1 and EIA report, they have mentioned plot no. as "Plot no. C-1/2807, GIDC Notified Industrial Estate, Sarigam, Ta.: Umergaon, Dist.: Valsad " whereas in EC it is mentioned as "Shed no. C-1B-3230, New Chemical Zone, GIDC-Sarigam, Ta.: Umbergaon, Dist.: Valsad ".

- During the meeting, referring to the application made in Form I & EIA report, Committee noticed that typographical error has inadvertently been made. After deliberation, committee decided to recommend amendment in Environmental Clearance order issued on 27/01/2016 vide letter no. SEIAA/GUJ/EC/5(f)/07/2016 to SEIAA for correction in the plot no. in address as "**Plot no. C-1/2807, GIDC Notified Industrial Estate, Sarigam, Ta.: Umergaon, Dist.: Valsad**" in place of "Shed no. C-1-B-3230, New Chemical Zone, GIDC-Sarigam, Ta.: Umbergaon, Dist.: Valsad".

In view of above, Committee unanimously decided to recommend amendment to SEIAA in Environmental Clearance vide order no. SEIAA/GUJ/EC/5(f)/07/2016 dated 27/01/2016 as stated above.

*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 V.N. Patel, Member, SEAC.	